ANNUAL REPORT

2015 - 2016

भारतीय प्रौद्योगिकी संस्थान
काशी हिन्दू विश्वविद्यालय

IIT

INDIAN INSTITUTE OF TECHNOLOGY
BANARAS HINDU UNIVERSITY

INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI

भारतीय
प्रौद्योगिकी
संस्थान
काशी हिन्दू विश्वविद्यालय

IIT

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INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

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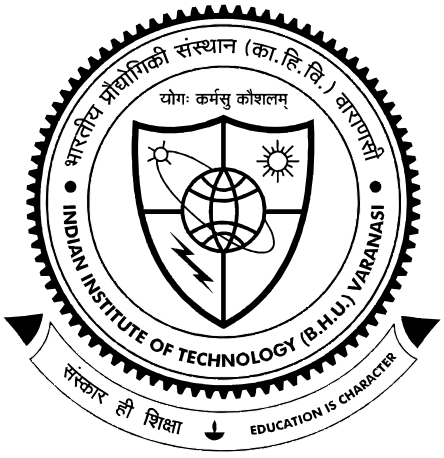

INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI

Contents

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya-the founder of the first residential university of modern India, the Banaras Hindu University, who could foresee the important role of technical education in economically strengthening independent India.

The three of the erstwhile engineering colleges of BHU, namely BENCO, MINMET and TECHNO, were merged to form the Institute of Technology (IT-BHU) in 1968 to provide an integrated educational base. The IT-BHU has been admitting students through the JEE conducted by the IIT's since 1972, and has been consistently ranked amongst the top few engineering institutions of the country. IT-BHU became IIT (BHU) in June 2012 by an Act of Parliament.

Following conversion to IIT, the Institute engaged itself in taking up the mammoth task of putting many of the procedures and practices similar to those of IITs. The system of executive Deans to shoulder various academic and administrative responsibilities along with the Director is firmly in place.

The Institute has maintained high academic standard since its inception. It has turned out luminary engineers and administrators who served the nation with great distinction. The current student strength is 5341 with 4050 UGs, 516 M.Techs and 775 PhD students. The current faculty strength of the Institute is 244, while the number of technical & non-technical staff is 499. At present, the Institute comprises of 14 Departments and 3 interdisciplinary schools. Central facilities in the Institute include a newly established Central Instrumentation Facility, Main Workshop, Institute Library and Industrial Consultancy & Testing Services.

A 2-day Retreat was organized with about 50 faculty members in December 2015 in the serene environment of Krishnamurti Foundation, Rajghat, Varanasi. The ´manthan´ that took place there led to the start of the induction program for students and initiatives for promoting interdisciplinary research.

Academic Activities

The new curriculum for undergraduate programs has entered its 3rd year. It has choice based credit system; it is project oriented and learner centric. The exploratory projects are introduced in the 2nd year to conform to Practice-Theory-Practice Model. The implementation of UG stream projects & courses as part of UG research & innovation are also in place from this year. Humanities courses and open electives across departments are being offered.

A notable achievement of the Institute pertains to a three-week Induction Program. This has been successfully conducted for about 1000 UG students admitted in the current session. A report on the experience of Induction Program was presented before the Council of IITs that received wide appreciation. In addition to credit course like Physical Education, Creative Practice, and Human Values, newly admitted students were made aware of specialties of Campus, City, and intellectual accomplishments of Varanasi-the city of light. They took part in a week long discussion on development of worldview. Students were given exposure to the local, but at the same time great traditions, of Kashi. Works of Raidas, Tulsidas and Kabir were covered by eminent scholars drawn from campus. This is where this IIT is uniquely placed to embark upon newer initiatives in the pursuit of excellence. Coaches walked an extra mile by helping students in visiting various places in the city and university campus in addition to their assigned duties of physical education classes. The students and teachers alike enjoyed and got benefited from the 3-week Induction Program. Mentors of Human Values course along with student guides have played a pivotal role in taking the students into the main ethos of Institute.

Teaching Learning Cell set up in December 2013 continues to cover all aspects of teaching, pedagogy, course delivery, laboratory projects, assessment, and is facilitating online courses.UG laboratories in all the departments have been modernized where most common facilities are located. Tinkering labs have already been established in many Departments and some more are going to be in place shortly.

A major achievement this year has been the complete automation of academic information system from admission to registration to declaration of results.

Our students have been hired by some of the best companies. IIT (BHU) boasts of offers that are one of the best placement packages among the IIT's.

Research & Development activities

Highly qualified faculty and talented research scholars are active in frontier areas of research and their efforts are supported by Govt. research sponsoring agencies and many reputed industries such as TISCO, HINDALCO,

ONGC, SAIL, BHEL, MECON, UPSEB, FCI, Coal India etc. The total financial supports for the ongoing projects around 40 in the Department and Schools is nearly Rs. 11.69 crore including FIST/UGC-SAP funding/ Steel Technology Centre. Madan Mohan Malviya Railway Chair was established in June 2015 to undertake work related to Metallurgy & Materials. Workshop for the Railway Officers and Brain Storming Session on designing light weight smart passenger coaches was arranged. Recently, several research projects have been awarded to us under IMPRINT.

Design and Innovation Hub has been in operation through which teachers and students can initiate project to express their creativity. This program supported around 120 projects involving around 300 students during the summer. Around fifty innovation projects of one year duration are underway through this Hub. Project Varanasi and Unnat Bharat Abhiyan aim at solving technological problems dealing with issues of common man. The design and Innovation Hub (DIH) also sponsored students to participate in Shell Eco Marathon and SAE-BAJA technical competitive events.

Extension of our expertise and laboratory facilities to the industries of this region is an important service activity of the Institute. All the major departments of the Institute have been actively engaged in providing industrial consultancy and testing services to a large number of industries and entrepreneurs of the region and also to large industrial houses. During this year several consultancy and testing projects valued at over approximately Rs.5.56 crores were completed successfully.

The Department and Schools of the Institute have also been active in organizing seminars and symposia, summer/winter schools and co-curricular and extra-curricular activities of the students, etc.

Alumni have also come forward to support scholarships for needy students and supporting projects that have social relevance. We record our gratefulness to them.

Infrastructure Development

Infrastructure development is the need of the hour for us. Renovation of hostels was done this past summer. 36 single bedroom apartments and 6 double bedroom apartments are ready. Work is expected to start on a girls hostel soon. Institute is facing acute shortage of residential quarters for faculty and non-teaching staff. There is also an acute shortage of boys hostel for which funds are needed.

Students' Activities

The Institute nurtures social, cultural and sporting activities pursued by the Students' Gymkhana and other student groups. Besides games and sports, the artistic and creative talents of students are encouraged through various activities like dramatics, debates, music, visual arts etc. and clubs like Radio, Audio, Photography, Automobile, Aero-Modelling, Cine and Computer Club. Students Gymkhana organized its annual techno-management festival Technex, cultural festival Kashi Yatra & games event Spardha. IIT(BHU) regularly participates in IIT meet.

We aim to create future leaders of the profession in our students. The Institute strongly believes that an abiding social and human engagement is the hallmark of its student body. Students are involved in social service with underprivileged sections of society through Kashi Utkarsh and other informal initiatives. A council for social service is being created within Students Gymkhana.

Human Values courses introduced in July 2014 for all 1st year undergraduate students, are moving from strength to strength, and are also running for Ph.D. students. These courses are conducted through discussion in groups rather than lectures. 20 students in a group are guided by a mentor. The results have been even more amazing this year as the course ran in an intense mode as part of the 3-week Induction Program. We have been successful in drawing the attention of students to themselves, recognizing their responsibilities, caring for others, and exposure to larger issues of life – in effect building the character of students as desired by the founder Mahamana Madan Mohan Malviya.

Conclusion

As the new emerges from the old, building on its strengths, but transforming itself to meet challenges of the future, we shall strive for a glorious future for IIT (BHU). Each student of IIT (BHU) in her/his own way has internalized the spirit of IIT(BHU), that emerges out of commitment, excellence, fellowship and service. No matter where they are, they continue to dream and dream big at that! Never forget that "In your dreams begin responsibilities."

i. **IIT Council**
ii. **Board of Governors**
iii. **The Senate**
iv. **Finance Committee**
v. **Building and Works Committee**

IIT Council

Smt. Smriti Zubin Irani
Hon'ble Minister of Human Resource Development

Shri Ninong Ering,
Member of Parliament
(Lok Sabha)
Shri V.S. Oberoi,
Secretary (HE) MHRD
Dr. Pawan Goenka,
Chairperson,
BoG, IIT Madras
Dr. Vijay P. Bhatkar,
Chairperson,
Board of Governors, IIT Delhi
Dr. Srikumar Banerjee,
Chairperson,
BOG IT Kharagpur
Prof. Ashok Misra,
Chairperson, Board of Governors,
IIT Roorkee
Dr. Baldev Raj,
Chairperson, Board of Governors,
IIT Gandhinagar
Shri S.K. Roongta,
Chairperson,
BOG IIT Bhubaneswar
Shri Ajai Chowdhry,
Chairperson,
BOG IIT Patna.
Mrs. Lila Poonawalla,
Chairperson,
Board of Governors, IIT Ropar
Prof. Girish Chandra Tripathi,
Chairperson,
BOG IIT (BHU) Varanasi.
Prof. Devang V. Khakhar,
Director, IIT Bombay
Prof.K. Gupta,
Officiating Director,, IIT Delhi
Prof. Indranil Manna,
Director, IIT Kanpur
Prof. Partha P. Chakrabarti,
Director, IIT Kharagpur
Prof. Bhaskar Ramamurthi,
Director, IIT Madras
Prof. Gautam Biswas,
Director, IIT Guwahati
Prof. Pradipta Banerji,
Director, IIT Roorkee
Prof. Rajeev Sangal,
Director IIT (BHU) Varanasi
Prof. C.V.R. Murty,
Director, IIT Jodhpur
Prof. Sudhir K. Jain,
Director, IIT Gandhinagar
Prof. Pushpak Bhattyacharya,
Director IIT Patna
Prof. U.B. Desai,
Director, IIT Hyderabad
Prof. Sarit Kumar Das,
Director, IIT Ropar
Prof. R.V. Rajakumar,
Director, IIT Bhubaneswar
Prof. Timothy A. Gonsalves,
Director, IIT Mandi
Prof. Pradeep Mathur,
Director, IIT Indore
Prof. Anil D. Shahsrabudhe,
Chairperson, AICTE.
Prof. Ashok Jhunjhunwala,
Deptt. of Elect. Engg., IIT Madras
Dr. (Mrs.) Tessy Thomas,
Outstanding Scientist' & Director,
Advanced Syst ems Laboratory
(ASL), Hyderabad.
Shri R. Subrahmanyam,
AS (TE), MHRD
Ms. Darshana M. Dabral,
JS&FA, MHRD
Mrs. Tripti Gurha,
Director (IITs), MHRD, New Delhi

Members of Board of Governors (2015-16)

1. Chairman

(a) Prof. Girish Chandra Tripathi
Vice-Chancellor (ex-officio)
Banaras Hindu University
Varanasi-221 005.
Period : 01.04.2015 - 28.06.2015

(b) Prof. Rajeev Sangal
Director (ex-officio)
IIT (BHU),Varanasi - 221 005
Period : 29.06.2015 - 26.07.2015

(c) Prof. Girish Chandra Tripathi
Vice-Chancellor
Banaras Hindu University
Varanasi-221 005
Period : 27.07.2015 - continuing

2. Director (ex-officio) Member

(a) Prof. Rajeev Sangal
Director
IIT (BHU), Varanasi - 221 005

3. Council Nominees (Members)

(a) Prof. Narendra Ahuja
Room No.3299, Electronic Niketan
(ITRA, Media Lab Asia),
6-CGO Complex, New Delhi- 110003
Period : 1.4.2015 -continuing

(b) Shri Ganesh Bagaria
Manviya Shiksha Sanskar Sansthan
Opp. Vanakhandeshwar Mandi,
Mandhana, Kanpur-209217
Period : 1.4.2015 -continuing

4. Executive Council, BHU Nominees from amongst its members

(a) Dr. P.M. Bhargava
Anveshna, "Manorama Ghar",
2-16-137/1, Road # 3 Prashanthi Nagar,
Uppal,Hyderabad – 500 039
Period : 1.4.2015 - 20-4.2015

(b) **Dr. T.V. Ramakrishnan**
Fellow of Royal Society, London(FRS),
Distinguished Associate, Centre for
Condensed Matter Theory
Dept. of Physics, Indian Institute of
Science, Bangalore – 560 012
Period : 1.4.2015 - 20-4.2015

(c) **Prof. Jagmohan Singh Rajput**
A-16, Sector P-7 Mitra Enclave
(Opp. Greater Valley School)
Greater Noida-201 310 Uttar Pradesh
Period : 21.04.2015 – continuing

(d) Prof. Dhananjai Pandey
School of Material Sciences &
Technology, Indian Institute of
Technology, BHU, Varanasi-221 005
Period : 21.04.2015 – continuing

5. State Government Nominee (Member) (Uttar Pradesh Government Nominee)

(a) Professor Onkar Singh
Vice Chancellor
Madan Mohan Malaviya University of
Technology, Deoria Road,
Gorakhpur – 273 010 Uttar Pradesh.
Period : 21.04.2015 – continuing

6. Senate Nominees (Members)

(a) Prof. Rajiv Prakash
School of Materials Science &
Technology, IIT (BHU),
Varanasi – 221 005
Period : 1.04.2015 – continuing

(b) Prof. Y.C. Sharma
Dept. of Chemistry, IIT (BHU)
IIT (BHU), Varanasi – 221 005
Period : 1.04.2015 – continuing

7. **Registrar (ex-officio) Secretary**

(a) Dr. S.P. Mathur
Registrar
Indian Institute of Technology (BHU)
Varanasi – 221 005

The Senate

List of Senate Members

1. Dr. R.K. Dube, Former Professor, Dept. of Materials Science & Engg., IIT Kanpur
2. Dr. Harish Karnick, Professor, Dept. of Computer Science & Engg., IIT-Kanpur
3. Dr. P.K. Mukhopadhyay, Former Professor, Dept. of Philosophy, Jadavapur
4. Prof. Madhoolika Agrawal, Dept. of Botany, BHU
5. Prof. Anand Kumar, Department of General Surgery, IMS, BHU
6. Prof. R.R. Jha, Dept. of Political Science, Faculty of Social Sciences, BHU
7. Prof. Rajesh Kumar, Dept. of Mechanical Engg., IIT (BHU)
8. Dr. Brind Kumar, Dept. of Civil Engg., IIT (BHU)
9. Dr. M.K. Meshram, Dept. of Electronics Engg., IIT (BHU)
10. Dr. Amirtanshu Pandey, Dept. of Electronics Engg., IIT (BHU)
11. Dr. Chandan Upadhyay, School of Materials Science & Tech., IIT (BHU)
12. Dr. Neeraj Sharma, School of Biomedical Engg., IIT (BHU)
13. Dr. Rakesh Kumar Gautam, Dept. of Mechanical Engg., IIT (BHU)

DEPARTMENT OF CERAMIC ENGINEERING

14. Prof. Devendra Kumar
15. Prof. S.P. Singh
16. Prof. Ram Pyare
17. Prof. Vinay Kumar Singh

DEPARTMENT OF CHEMICAL ENGINEERING AND TECHNOLOGY

18. Prof. A.K. Verma
19. Prof. A.S.K. Sinha
20. Prof. Ram Prasad
21. Prof. B.N. Rai
22. Prof. Pradeep Kumar Mishra
23. Prof. Pradeep Ahuja
24. Prof. Manoj Kumar Mondal
25. Prof. Ram Saran Singh

DEPARTMENT OF CIVIL ENGINEERING

26. Prof. Veerendra Kumar
27. Prof. Goutam Banerjee
28. Prof. Devendra Mohan
29. Prof. Prabhat Kumar Singh
30. Prof. Prabhat Kumar Singh Dixit
31. Prof. Sasankasekhar Mandal
32. Prof. Rajesh Kumar
33. Prof. Shyam Bihari Dwivedi
34. Prof. K.K. Pathak
35. Prof. Arun Prasad

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

36. Prof. A.K. Tripathi
37. Prof. K.K. Shukla
38. Prof. R.B. Mishra
39. Prof. Rajeev Srivastava

DEPARTMENT OF ELECTRICAL ENGINEERING

40. Prof. Shiva Pujan Singh
41. Prof. S.K. Nagar
42. Prof. Arun Kumar Kapoor
43. Prof. R.K. Pandey
44. Prof. Rakesh Kumar Srivastava
45. Prof. Rakesh Kumar Mishra
46. Prof. Ranjeet Mahanty
47. Prof. Devender Singh
48. Prof. Mitresh Kumar Verma

DEPARTMENT OF ELECTRONICS ENGINEERING

49. Prof. P. Chakrabarti
50. Prof. Anand Mohan
51. Prof. P.K. Jain
52. Prof. V.N. Mishra
53. Prof. Satyabrat Jit

DEPARTMENT OF MECHANICAL ENGINEERING

54. Prof. J.P. Dwivedi
55. Prof. Virendra Pratap Singh
56. Prof. A.K. Agrawal
57. Prof. A.K. Jha
58. Prof. V.K. Srivastava
59. Prof. Santosh Kumar
60. Prof. S.P. Tewari
61. Prof. K.S. Tripathi
62. Prof. A.P. Harsha
63. Prof. Sanjay Kumar Sinha
64. Prof. Sandeep Kumar
65. Prof. Rajesh Kumar
66. Prof. Prashant Shukla
67. Prof. Pradumna Ghosh
68. Prof. Shailendra K. Shukla
69. Prof. Rajnesh Tyagi

DEPARTMENT OF METALLURGICAL ENGINEERING

70. Prof. G.V.S. Sastry
71. Prof. R.K. Mandal
72. Prof. N.K. Mukhopadhyay
73. Prof. Sunil Mohan
74. Prof. (Mrs.) N.C. Shanti Srinivas
75. Prof. B. Nageshwar Sarma

DEPARTMENT OF MINING ENGINEERING

76. Prof. B. K. Shrivastava
77. Prof. Netai Chandra Karmakar
78. Prof. Aarif Jamal
79. Prof. Piyush Rai (On Lien)
80. Prof. Sanjay Kumar Sharma
81. Prof. Suprakash Gupta

DEPARTMENT OF PHARMACEUTICS

82. Prof. B. Mishra
83. Prof. S.K.Singh
84. Prof. Sanjay Singh
85. Prof. S.K. Shrivastava

DEPARTMENT OF CHEMISTRY

86. Prof. (Mrs.) R. B. Rastogi
87. Prof. Prem Chandra Pandey
88. Prof. A.K. Mukherjee
89. Prof. Syed Hadi Hasan
90. Prof. (Mrs.) Vandana Srivastava
91. Prof. Yogesh Chandra Sharma
92. Prof. D. Tiwary
93. Prof. K.D. Mandal

DEPARTMENT OF MATHEMATICAL SCIENCES

94. Prof. Tanmoy Som
95. Prof. (Mrs.) Rekha Srivastava
96. Prof. Lal Pratap Singh
97. Prof. Sanjay Kr. Pandey

DEPARTMENT OF HUMANISTIC STUDIES

98. Prof. Prasant Kumar Panda

DEPARTMENT OF PHYSICS

99. Prof. D. Giri
100. Prof. Prabhakar Singh

101. Prof. Sandeep Chatterjee
102. Prof. Rajendra Prasad

SCHOOL OF BIO-CHEMICAL ENGINEERING

103. Prof. Subir Kundu
104. Prof. S. K. Srivastava
105. Prof. (Mrs.) Mira Debnath (Das)
106. Prof. R.M. Banik
107. Prof. Pradeep Srivastava

SCHOOL OF BIO-MEDICAL ENGINEERING

108. Prof. A. K. Ray
109. Prof. (Mrs.) Ranjana Patnaik
110. Prof.(Miss) Nira Misra
111. Dr. Neeraj Sharma

SCHOOL OF MATERIALS SCIENCE & TECHNOLOGY

112. Prof. Dhananjai Pandey
113. Prof. Rajiv Prakash
114. Prof. Pralay Maiti

In terms of Senate resolution No. 11.2

115. Dr. Akhilesh Kumar Singh, Chairperson, SUGC - Invited member
116. Dr. S.K. Gupta, Chairperson, SPGC - Invited member

Members of Finance Committee (2015 - 2016)

1. Chairman

(a) Prof. Girish Chandra Tripathi
Vice-Chancellor (ex-officio)
Banaras Hindu University
Varanasi-221 005.
Period : 01.04.2015 - 28.06.2015

(b) Prof. Rajeev Sangal
Director (ex-officio)
IIT (BHU),Varanasi - 221 005
Period : 29.06.2015 - 26.07.2015

(c) Prof. Girish Chandra Tripathi
Vice-Chancellor
Banaras Hindu University
Varanasi-221 005
Period : 27.07.2015 - continuing

2. Director (ex-officio) Member

(a) Prof. Rajeev Sangal
Director
IIT (BHU), Varanasi - 221 005

3. **Members nominated by the Central Government**
   (a) Additional Secretary (TE), MHRD
   (b) Joint Secretary & Financial Advisor Integrated Finance Division, MHRD

4. **Board's Nominees (members)**
   (a) Professor Onkar Singh
   Vice Chancellor
   Madan Mohan Malaviya University of Technology
   Deoria Road, Gorakhpur - 273 010, Uttar Pradesh.
   Period : 1.4.2015 - continued

   (b) Prof. Rajiv Prakash
   School of Materials Science & Technology, IIT (BHU), Varanasi - 221 005
   Period : 1.4.2015 - continued

5. **Registrar (ex-officio) Secretary**
   Dr. S.P. Mathur
   Registrar
   Indian Institute of Technology (BHU), Varanasi - 221 005

Building and Works Committee
Members (2015-16)

1. **Prof. Rajeev Sangal** **- Chairman**
   Director, IIT (BHU)
2. **Prof. A. K. Jain** **- Member**
   Prof. & Head, Department of Civil Engg., IIT Delhi, New Delhi- 110016
3. **Prof. Pradeep Bhargawa** **- Member**
   Department of Civil Engg., IIT Roorkee, Roorkee-247667
4. **Prof. Manoj Mathur** **- Member**
   Head Industrial Design SPA and Architect
   (Nominee of Director, School of Planning & Architecture)
   4 - Block - B, Indraprastha Estate, New Delhi - 110002
5. **Sri N. Nanjappa** **- Member**
   (Ex-Senior Superintending Engineer, CCMB, Hyderabad)
   Flat No. 202, "Grand Residency", No. 4-7-102/18
   Lane No. 2, Sai Enclave, Habsiguda, Hyderabad - 500007
6. **Prof. Veerendra Kumar** **- Member**
   Chairman, IWC, IIT (BHU)
7. **Prof.R.Mahanty** **- Member**
   Dept. Electrical Engg., IIT (BHU)
8. **Dr. S. P. Mathur** **- Member Secretary**
   Registrar, IIT (BHU), Varanasi

Faculty Position as on 31.03.2016

Faculty Members	247
Visiting Faculty/Institute Professor/Emeritus Professor	11+11+8 = 30

Faculty Members appointed during 2015-16

Professors	21
Associate Professors	38
Assistant Professors	22
Visiting Faculty/Institute Professor/Emeritus Professor	9+7+8= 24
Contractual Faculty	01

List of Faculty Members appointed during April 2015-March 2016

Sl.No.	ID No.	Name of Faculty/Staff	Designation	Department/Section	Date of Joining
1.	50061	Dr. Om Prakash Singh	Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
2.	50054	Dr. Joysurya Basu	Associate Prof.	Metallurgical Engg.	04.02.2016 (AN)
3.	50037	Dr. Ashutosh Kumar Dubey	Assistant Prof.	Ceramic Engg.	10.12.2015 (AN)
4.	50039	Dr. Akansha Dwivedi	Assistant Prof.	Ceramic Engg.	14.12.2015 (AN)
5.	50042	Dr. Preetam Singh	Assistant Prof.	Ceramic Engg.	31.12.2015 (AN)
6.	50055	Dr. Santanu Das	Assistant Prof.	Ceramic Engg.	02.03.2016
7.	50043	Dr. Mohd. Imteyaz Ahmad	Assistant Prof.	Ceramic Engg.	01.02.2016
8.	50026	Dr. Ankur Verma	Assistant Prof.	Chemical Engg.	01.10.2015
9.	50027	Dr. Manoj Kumar	Assistant Prof.	Chemical Engg.	03.10.2015
10.	50025	Dr. Ravi P. Jaiswal	Assistant Prof.	Chemical Engg.	01.10.2015
11.	19851	Dr. Ankit Gupta	Assistant Prof.	Civil Engg.	17.11.2015
12.	50014	Dr. Anil Kumar Singh	Assistant Prof.	Comp. Sci. & Engg.	07.08.2015
13.	50031	Dr. Hari Prabhat Gupta	Assistant Prof.	Comp. Sci. & Engg.	02.11.2015
14.	50052	Dr. Sukomal Pal	Assistant Prof.	Comp. Sci. & Engg.	24.02.2016
15.	50041	Dr. Nawal Kishore	Assistant Prof.	Mining Engineering	21.12.2015
16.	50034	Dr. M.S. Muthu	Assistant Prof.	Pharmaceutics Engg.	01.12.2015
17.	50038	Dr. Prasanta Kumar Nayak	Assistant Prof.	Pharmaceutics Engg.	14.12.2015
18.	50044	Dr. Gyan Prakash Modi	Assistant Prof.	Pharmaceutics Engg.	04.02.2016
19.	50020	Dr. Sunil Kumar Mishra	Assistant Prof.	Physics	02.09.2015
20.	50021	Dr. Avanish Singh Parmar	Assistant Prof.	Physics	23.09.2015
21.	50028	Dr. Saurabh Tripathi	Assistant Prof.	Physics	06.10.2015
22.	50029	Dr. Swapnil Patil	Assistant Prof.	Physics	26.10.2015
23.	50033	Dr. Shradha Mishra	Assistant Prof.	Physics	27.11.2015
24.	50036	Dr. Prasun Dutta	Assistant Prof.	Physics	11.12.2015

Internal faculty/staff members who joined during the period from April 2015-March 2016

Sl. No.	ID No.	Name of Faculty/Staff	Designation	Department/ Section	Date of Joining with (FN/AN)
1.	18295	Dr. Manas Ranjan Majhi	Assistant Prof. to Associate Prof.	Ceramic Engg.	10.12.2015 (AN)
2.	17500	Dr. Hiralal Pramanik	Assistant Prof. to Associate Prof.	Chemical Engg.	02.09.2015
3.	16816	Dr. Brind Kumar	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
4.	17185	Dr. (Mrs.) Medha Jha	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
5.	17052	Dr. Pabita Ranjan Maiti	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
6.	18329	Dr. Sanjay Kumar Gupta	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
7.	17065	Dr. Anurag Ohri	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
8.	18571	Dr. P. Bala Ramudu	Assistant Prof. to Associate Prof.	Civil Engineering	17.11.2015
9.	17464	Dr. Rajeev Kumar Singh	Assistant Prof. to Associate Prof.	Electrical Engg.	30.03.2016
10.	17446	Dr. Santosh Kumar Singh	Assistant Prof. to Associate Prof.	Electrical Engg.	30.03.2016
11.	16629	Dr. (Mrs.) Kalpana Chaudhary	Assistant Prof. to Associate Prof.	Electrical Engg.	30.03.2016
12.	16628	Dr. Manoj Kumar Meshram	Assistant Prof. to Associate Prof.	Electronic Engg.	04.08.2015 (AN)
13.	16657	Dr. Mohd. Zaheer K. Yusuf Zai	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
14.	17339	Dr. Swasti Sundar Mandal	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
15.	17388	Dr. Jahar Sarkar	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
16.	18139	Dr. Debashis Khan	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
17.	18214	Dr. Rakesh K. Gautam	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
18.	17252	Dr. Arnab Sarkar	Assistant Prof. to Associate Prof.	Mechanical Engg.	26.02.2016 (AN)
19.	16721	Dr. Meghanshu Vashista	Assistant Prof. to Associate Prof.	Mechanical Engg.	27.02.2016
20.	16732	Dr. Chhail Kumar Behera	Assistant Prof. to Associate Prof.	Metallurgical Engg.	16.10.2015
21.	16805	Dr. Ramapadmanna	Assistant Prof. to Associate Prof.	Metallurgical Engg.	16.10.2015
22.	18241	Dr. Kausik Chattopadhyay	Assistant Prof. to Associate Prof.	Metallurgical Engg.	16.10.2015
23.	18287	Dr. Girija Shankar Mahobia	Assistant Prof. to Associate Prof.	Metallurgical Engg.	16.10.2015
24.	18149	Dr. Ashok Jaiswal	Assistant Prof. to Associate Prof.	Mining Engg.	17.11.2015
25.	18150	Dr. Rajesh Rai	Assistant Prof. to Associate Prof.	Mining Engg.	17.11.2015
26.	18197	Dr. Gauri S. Prasad Singh	Assistant Prof. to Associate Prof.	Mining Engg.	17.11.2015
27.	18237	Dr. Sanjay Kumar Palei	Assistant Prof. to Associate Prof.	Mining Engg.	17.11.2015
28.	18148	Dr. Amrendra Kumar	Assistant Prof. to Associate Prof.	Mining Engg.	Nov. 2015
29.	16828	Dr. Senthil Raja A.	Assistant Prof. to Associate Prof.	Pharmaceutics Engg.	17.11.2015 (AN)
30.	17329	Dr. Indrajit Sinha	Assistant Prof. to Associate Prof.	Chemistry	04.08.2015
31.	18359	Dr. Praveen Chandra Pandey	Assistant Prof. to Associate Prof.	Physics	01.09.2015 (AN)
32.	17041	Dr. (Mrs.) Anita Mohan	Assistant Prof. to Associate Prof.	Physics	Sep. 2015
33.	18536	Dr. (Mrs.) Shail Upadhyay	Assistant Prof. to Associate Prof.	Physics	01.09.2015 (AN)
34.	17280	Dr. (Mrs.) Chandana Rath	Assistant Prof. to Associate Prof.	SMST	04.08.2015
35.	17387	Dr. Akhilesh Kumar Singh	Assistant Prof. to Associate Prof.	SMST	04.08.2015
36.	18433	Dr. Chandan Upadhyay	Assistant Prof. to Associate Prof.	SMST	04.08.2015
37.	17365	Prof. Vinay Kumar Singh	Associate Professor to Professor	Ceramic Engg.	10.12.2015 (AN)
38.	13749	Dr. Manoj Kumar Mondal	Associate Professor to Professor	Chemical Engg.	02.09.2015

39.	16729	Dr. Ram Saran Singh	Associate Professor to Professor	Chemical Engg.	02.09.2015
40.	16811	Prof. Sasankasekhar Mandal	Associate Professor to Professor	Civil Engineering	17.11.2015
41.	17051	Prof. Rajesh Kumar	Associate Professor to Professor	Civil Engineering	17.11.2015
42.	18387	Prof. Shyam Bihari Dwivedi	Associate Professor to Professor	Civil Engineering	17.11.2015
43.	17053	Prof. Arun Prasad	Associate Professor to Professor	Civil Engineering	17.11.2015
44.	18363	Prof. Rajeev Srivastava	Associate Professor to Professor	Comp. Sci. & Engg.	04.08.2015
45.	17590	Prof. Mitresh Kumar Verma	Associate Professor to Professor	Electrical Engg.	30.03.2016
46.	17318	Dr. Rajesh Kumar	Associate Professor to Professor	Mechanical Engg.	26.02.2016 (AN)
47.	16723	Dr. Prashant Shukla	Associate Professor to Professor	Mechanical Engg.	26.02.2016 (AN)
48.	16801	Dr. Pradumna Ghosh	Associate Professor to Professor	Mechanical Engg.	26.02.2016 (AN)
49.	18130	Dr. Shailendra K. Shukla	Associate Professor to Professor	Mechanical Engg.	26.02.2016 (AN)
50.	17341	Dr. Rajnesh Tyagi	Associate Professor to Professor	Mechanical Engg.	26.02.2016 (AN)
51.	13872	Dr. Suprakash Gupta	Associate Professor to Professor	Mining Engg.	20.11.2015
52.	17328	Prof. Dhanesh Tiwari	Associate Professor to Professor	Chemistry	04.08.2015
53.	17327	Prof. Kamdeo Mandal	Associate Professor to Professor	Chemistry	04.08.2015
54.	17048	Dr. Deba Prasad Giri	Associate Professor to Professor	Physics	01.09.2015 (AN)
55.	18366	Dr. Prabhakar Singh	Associate Professor to Professor	Physics	01.09.2015 (AN)
56.	18478	Dr. Sandip Chatterjee	Associate Professor to Professor	Physics	01.09.2015 (AN)
57.	17276	Dr. Rajendra Prasad	Associate Professor to Professor	Physics	01.09.2015 (AN)

Faculty/staff members who retired between April 2015-March 2016

Sl. No.	ID No.	Name of Faculty/Staff/ Officer	Designation	Department/ Section	Date of Birth	Date of Retirement
1.	16563	Dr. S. K. Balasubramanian	Professor	Electronics Engg.	01.05.1950	30.04.2015
2.	13672	Dr. B. N. Dwivedi	Professor	Physics	10.05.1950	31.05.2015
3.	13848	Dr. S. N. Ojha	Professor	Metallurgical Engg.	27.07.1950	31.07.2015
4.	13695	Dr. Om Parkash	Professor	Ceramic Engg.	03.10.1950	31.10.2015
5.	16809	Dr. S. P. Singh	Professor	Electronics Engg.	12.01.1951	31.01.2016
6.	13771	Dr. A. K. Agrawal	Professor	Comp. Scie. & Engg.	15.03.1951	31.03.2016

Faculty/staff members who expired while in service

Sl. No.	ID No.	Name of Faculty/ Staff/Officer	Designation	Department	Date of Birth	Date of Expiry (with FN/AN)
1.	13670	Dr. Om Prakash Singh	Professor	Mathematical Sciences	11.07.1951	14.01.2016

Faculty/staff members on extraordinary leave

Sl.No.	Name	Designation	Department	From	To	Details
1.	Dr. (Mrs.) Kalyani Mohanta	Associate Professor	Ceramic Engg.	30.01.2014	29.01.2017	Extra Ordinary Leave

Faculty members on sabbatical leave

Sl.No.	Name	Designation	Department	From To	Details
1.	Dr. Prashant Shukla	Associate Professor	Mechanical Engg.	01.06.2014	31.05.2015

Staff Members in Position

Group A Staff	25
Scientific Officers	04 + 08
Technical Staff	279
Administrative Staff	216

Staff Members appointed during 2015-16

Administrative Staff	25
Contractual Staff	00

List of Staff Members appointed during 2015-16

S No.	ID No.	Name of Staff	Designation	Department/ Section	Date of Joining
1.	50040	Dr. Sarvesh Kumar Tiwari	Deputy Registrar	Admin.	22.12.2015
2.	50012	Sri Sudhanshu Shukla	Assistant Registrar	Special Fund; Service Book & Pension	12.08.2015
3.	50019	Sri Sunil Kumar Dwivedi	Assistant Registrar	Research & Development	03.09.2015
4.	50023	Sri Ravi Kumar	Assistant Registrar	Internal Audit Wing	01.10.2015
5.	50009	Sri Anurag Tripathi	System Analyst	Examination Unit	24.07.2015
6.	50008	Sri Roshan Singh	System Analyst	Computer Unit	27.06.2015
7.	50013	Sri Mahesh Pandey	System Analyst	Computer Unit	27.08.2015
8.	50010	Ms. Nisha Singh	System Analyst	Examination Unit	10.08.2015
9.	50011	Sri Anoop Keshari	System Analyst	Computer Unit	18.08.2015 (AN)
10.	17436	Ms. Sudha Mishra	Junior Superintendent	Service Book & Pension	01.10.2015
11.	50030	Shri Shyam Sundar Parida	Junior Superintendent	Internal Audit Wing	14.10.2015
12.	50032	Shri Aditya Kaushik	Junior Superintendent	Institute Purchase Cell	16.11.2015
13.	50035	Ms. Arti Gupta	Junior Superintendent	General Administration	01.12.2015
14.	50050	Sri Prem Chandra Mishra	Assistant Engineer	I.W.D.	08.02.2016
15.	18471	Sri Atul Kumar Singh	Assistant Engineer (Civil)	I.W.D.	18.02.2016
16.	50045	Sri Shitala Prasad	Junior Engineer (Civil)	I.W.D.	01.02.2016
17.	50002	Sri Uttakarsh Srivastava	Junior Assistant	GAD	01.04.2015
18.	50006	Sri Narendra Prakash	Junior Assistant	Dy. Chief Proctor's Office	09.04.2015
19.	50004	Sri Ravi Kumar Bharati	Junior Assistant	Computer Science & Engg.	13.04.2015
20.	50007	Sri Ambuj Kumar Singh	Junior Assistant	R&D	24.04.2015
21.	50005	Sri Vibhuti Narayan	Junior Assistant	Scholarship Section	16.04.2015
22.	50022	Sri Rajesh Prasad	Junior Assistant	I.W.D.	24.09.2015
23.	18663	Sri Jitendra Kumar Sinha	Junior Assistant	Mechanical Engg.	04.09.2015
24.	50015	Sri Ravi Garg	Junior Assistant	Confidential	03.09.2015

25.	50018	Sri Santosh Kumar Patel	Junior Assistant	Central Instrument Facility	04.09.2015
26.	50017	Sri Ashish Srivastava	Junior Assistant	Resource & Alumni	04.09.2015
27.	50048	Sri Shubhanshu Singh	Junior Assistant	CoW's Office	16.02.2016
28.	50046	Sri Ashish Kumar Srivastava	Junior Assistant	U.W.D.	16.02.2016
29.	50051	Sri Nafees Akhtar	Junior Assistant	Recovery Unit	19.02.2016
30.	50053	Sri Kamlesh Kumar	Junior Assistant	Civil Engg.	16.02.2016
31.	50047	Sri Om Prakash Srivastava	Junior Assistant	Faculty Affairs	16.02.2016
32.	50049	Sri Shishir Kumar	Junior Assistant	R&D	16.02.2016
33.	19196	Sri G. Jagan Mohan	Junior Assistant	Non-Faculty Recruitment Cell	04.03.2016

Staff Members who Retired between

S No.	ID No.	Name of Staff/Officer	Designation	Department/ Section	Date of Birth	Date of Retirement (with FN/AN)
1.	13945	Sri Anil Kumar Singh	STA	Electronics Engg.	02.04.1955	30.04.2015
2.	14084	Sri Gopal Ji	Technical Assistant	Mining Engg.	06.05.1955	31.05.2015
3.	16653	Sri Krishna Gopal	STA	Ceramic Engg.	01.07.1955	30.06.2015
4.	14092	Sri Hareram Ram	JWA	Mining Engg.	01.07.1955	30.06.2015
5.	13951	Sri Awadh Narain	STA	Computer Engg.	15.07.1955	31.07.2015
6.	13703	Sri Ghanshyam Lal	STA	Ceramic Engg.	11.07.1955	31.07.2015
7.	14180	Sri Chhote Lal	Technical Assistant	Pharmaceutics	01.08.1955	31.07.2015
8.	14027	Sri C.P. Srivastava	STA	Mining Engg.	09.09.1955	30.09.2015
9.	13912	Sri K.B. Goswami	STA	Mechanical Engg.	02.01.1956	31.01.2016
10.	13635	Sri Doodh Nath Singh	Sr. W/s Asstt.	Main Workshop	02.01.1956	31.01.2016
11.	13943	Sri Siya Ram Singh Yadav	Lineman (Telephone)	Electronics Engg.	01.02.1956	31.01.2016
12.	14006	Sri R.N. Prasad	Jr. Lab. Asstt.	Electrical Engg.	02.02.1956	29.02.2016

Staff members who expired while in service

S No.	ID No.	Name of Staff/Officer	Designation	Department/ Section	Date of Birth	Date of Expiry (with FN/AN)
1.	14171	Sri Raj Kumar	Sr. Lab. Asstt.	Electronics Engg.	25.01.1959	13.05.2015

Officers/staff members on long leave

S No.	Name	Designation	Department	From	To	Details
1.	Sri Prakhar Mishra	Lab. Attendant	Pharmaceutics	14.10.2014	13.10.2016	On lien for 2 years
2.	Sri Akhilanand Upadhyay	Lab. Attendant	Pharmaceutics	16.02.2015	15.02.2017	On lien for 2 years

Staff members on extraordinary leave

S No.	Name	Designation	Department	From	To	Details
1.	Dr. C.S. Singh	Jr. Research Officer	Mining Engg.	16.02.2015	31.07.2016	Extra Ordinary Leave without Pay

Staff Welfare

a. External training

S No.	No. of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1.	5	Workshop on Noting & Drafting	06th to 07th July 2015	-	ISTM, New Delhi
2.	1	Orientation Programme for Registrars in IIT Bombay	5-6, Feb., 2016	-	IIT Bombay
3.	2	Workshop on Pay Fixation	18th to 20th Nov. 2015	-	ISTM, New Delhi
4.	4	Right to Information Public Information Officer	27th to 28th April 2015	-	ISTM, New Delhi
5.	3	Establishment Rules	25th to 29th May 2015	-	ISTM, New Delhi
6.	1	Workshop on Income Tax	06th to 07th July 2015	-	ISTM, New Delhi
7.	2	Management Development Programme on "Public Procurement	17th to 22nd July 2015	-	National Institute of Financial Management (NIFM) Faridabad (Haryana)
	2		30.11.2015 to 05.12.2015	-	
	2		08th to 13th February 2015	-	
	2		07th March 2016	-	
8.	1	Administrative Vigilance Role of IO/PO	14th to 18th Sept. 2015	-	ISTM, New Delhi

b. Internal training

S No.	No. of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1.	26	Workshop on Noting & Drafting	21st to 22nd Feb. 2016	-	IIT (BHU)
2.	26	Workshop on Noting & Drafting	06th to 07th March 2016	-	IIT (BHU)

Hindi Promotion Activities : lLFkku dh jkt Hkk"kk dk;kUo;u lfefr o jkt Hkk"kk lykgdkj lfefr dk xBu fd;k x;k gA

The Institute offered Ph.D. programmes in all 17 departments (Department of Humanistic Studies established in 2015-16), M.Tech. programme in 13 streams/specializations, M.Pharm. programme in one stream/specialization, B.Tech. programmes in 9 engineering departments, B.Pharm. in one department, Dual Degree (B.Tech. and M.Tech.) programmes in 10 engineering departments/schools, Dual Degree (B.Pharm. and M.Pharm.) programme in one department, Integrated Master's (M.Tech.) Degrees in 3 science departments besides a preparatory course for SC/ST students during the year under report.

Admissions 2015–2016

Candidates for admission to the 4-Year B.Tech./B.Pharm., 5-Year Dual Degree and 5-Year Integrated Master's (M.Tech.) degree programmes were selected through JEE(Advanced) and on the basis of the All India Rank. 2-Year M.Tech./M.Pharm. programmes, candidates get admitted on the basis of GATE/GPAT score. Quite a few candidates were also selected for the M.Tech. programme under the Sponsored and Q.I.P. programmes through interviews and/or written tests. Selection for the Ph.D. programmes was done through tests/interviews, they must qualify the GATE or GPAT or UGC/CSIR-NET.

The number of students and scholars admitted to the various programmes in July 2015 and in January 2016 are listed in Table as shown below.

Table Fresh admissions

Sl. No.	Department/School	B.Tech.	B.Pharm.	Degree (B.Tech. & M.Tech.)	Dual Degree (B.Pharm. & M.Pharm.)	Master's (M.Tech.) Degree	M.Tech.	M.Pharm.	Ph.D.	Total
1.	Biochemical Engineering	---	---	14	---	---	8	---	3	25
2.	Biomedical Engineering	---	---	16	---	---	6	---	7	29
3.	Ceramic Engineering	50	---	17	---	---	16	---	10	93
4.	Chemical Engineering	117	---	---	---	---	42	---	14	173
5.	Chemistry	---	---	---	---	13	---	---	15	28
6.	Civil Engineering	78	---	19	---	---	38	---	21	156
7.	Computer Science and Engineering	58	---	15	---	---	---	---	2	75
8.	Electrical Engineering	79	---	20	---	---	34	---	13	146
9.	Electronics Engineering	79	---	---	---	---	38	---	14	131
10.	Humanistic Studies	---	---	---	---	---	---	---	5	5
11.	IndustrialManagement	---	---	---	---	---	8	---	3	11
12.	Materials Science and Technology	---	---	17	---	---	14	---	13	44
13.	Mathematical Sciences	---	---	---	---	20	0	---	1	21
14.	Mechanical Engineering	97	---	20	---	---	45	---	30	192
15.	Metallurgical Engineering	62	---	18	---	---	30	---	9	119
16.	Mining Engineering	94	---	19	---	---	24	---	19	156
17.	Pharmaceutics	---	43	---	10	---	---	29	9	91
18.	Physics	---	---	---	---	21	---	---	13	34
19.	Systems Engineering	---	---	---	---	---	1	---	3	4
	Total	714	43	175	10	54	304	29	204	1533

In addition, 27 students (OBCPD – 2; GEPD – 2; 23 ST) joined the preparatory course.

Category/Gender-wise students among fresh admissions

Sl. No.	Programme	General		OBC		SC		ST		PD		Total		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
1.	B.Tech.	330	23	187	10	95	12	44	4	8	1	664	50	714
2.	B.Pharm.	22	2	13	---	6	---	---	---	---	---	41	2	43
3.	Dual Degree (B.Tech. & M.Tech.)	78	9	40	6	27	2	7	1	4	1	156	19	175
4.	Dual Degree (B.Pharm. & M.Pharm.)	2	1	4	---	2	---	---	---	1	---	9	1	10
5.	Integrated Master's (M.Tech.) Degree	23	5	12	2	8	---	2	1	1	---	46	8	54
6.	M.Tech.	126	28	72	12	40	6	14	4	1	1	253	51	304
7.	M.Pharm.	5	8	4	5	3	1	---	2	---	1	12	17	29
8.	Ph.D.	81	16	64	9	23	7	4	---	---	---	172	32	204
	Total	667	92	396	44	204	28	71	12	15	4	1353	180	1533

The students admitted during the year included the following:

	Foreign national	Nil.		Q.I.P.	Nil.
	OBC	440		Sponsored M.Tech.	5
	Scheduled Castes	232		Sponsored Ph.D.	2
	Scheduled Tribes	83		Project	---
	Physically handicapped	19		External registration Ph.D.	---
	Women Students	180			

Enrolment of Students/Scholars

The total numbers of students on roll in various programmes of the Institute in the academic year 2015–2016 are provided in Table.

Table: Students on roll

Sl. No.	Department/School	B.Tech.	B.Pharm.	Dual Degree (B.Tech. & M.Tech.)	Dual Degree (B.Pharm. & M.Pharm.)	Integrated Master's (M.Tech.) Degree	M.Tech.	M.Pharm.	Ph.D.	Total
1.	Biochemical Engineering	---	---	55	---	---	15	---	24	101
2.	Biomedical Engineering	---	---	54	---	---	17	---	24	99
3.	Ceramic Engineering	176	---	55	---	---	29	---	31	296
4.	Chemical Engineering	461	---	---	---	---	84	---	52	572
5.	Chemistry	---	---	---	---	51	---	---	60	119
6.	Civil Engineering	313	---	99	---	---	59	---	35	513
7.	Computer Science and Engineering	234	---	80	---	---	---	---	27	369
8.	Electrical Engineering	320	---	106	---	---	71	---	48	569
9.	ElectronicsEngineering	318	---	---	---	---	75	---	51	465
10.	Humanistic Studies		---	---	---	---			5	5
11.	Industrial Management	---	---	---	---	---	15	---	6	20

12. Materials Science and Technology	---	---	69	---	---	25	---	9	108
13. Mathematical Sciences	---	---	---	---	94	---	---	45	145
14. Mechanical Engineering	413	---	101	---	---	85	---	27	633
15. Metallurgical Engineering	234	---	79	---	---	18	---	58	416
16. Mining Engineering	334	---	61	---	---	6	---	32	470
17. Pharmaceutics	---	62	---	39	---	---	57	32	231
18. Physics	---	---	---	---	65	---	---	57	131
19. Systems Engineering	---	---	---	---	---	13	---	36	44
Total	2849	86	807	55	233	559	58	659	5306

Category/Gender-wise students on roll

Sl. No.	Programme	General		OBC		SC		ST		PD		Total		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
1.	B.Tech.	1289	92	731	39	381	42	196	12	64	3	2661	188	2849
2.	B.Pham.	27	6	29	6	15	1	2				73	13	86
3.	Dual Degree (B.Tech. & M.Tech.)	367	43	169	16	115	15	56	11	12	3	719	88	807
4.	Dual Degree (B.Pharm. & M.Pharm.)	18	5	13	2	9	1	5	1	1		46	9	55
5.	Integrated Master's (M.Tech.) Degree	103	15	51	7	30	4	17	3	2	1	203	30	233
6.	M.Tech.	237	58	136	15	65	16	22	5	5		465	94	559
7.	M.Pharm.	13	19	6	9	6	1	2	1	1		28	30	58
8.	Ph.D.	268	81	158	38	84	16	9	3	1	1	520	139	659
	Total	2322	319	1293	132	705	96	309	36	86	8	4715	591	5306

The students on roll including the following:

Foreign national	2		Q.I.P.		5
OBC	1425		Sponsored	M.Tech.	11
Scheduled Castes	801			Ph.D.	15
Scheduled Tribes	345		Project		8
Physically handicapped	94		External registration	Ph.D.	6
Women Students	591				

The branch-/discipline-wise and year-wise details of students enrolled in the B.Tech. B.Pharm., Dual Degree B.Tech.-M.Tech./B.Pharm.-M.Pharm., Integrated Mater's (M.Tech.) Degree and M.Tech./M.Pharm. programmes are provided here:

4-Year B.Tech. students on roll

Sl. No.	Branch	2015	2014	2013	2012 and earlier batches	Total
1.	Ceramic Engineering	49	31	43	53	176
2.	Chemical Engineering	117	103	107	109	436

3.	Civil Engineering	78	77	81	73	309
4.	Computer Science and Engineering	58	65	64	73	260
5.	Electrical Engineering	79	88	84	89	340
6.	Electronics Engineering	79	88	87	84	338
7.	Mechanical Engineering	96	110	107	106	419
8.	Metallurgical Engineering	62	58	52	60	232
9.	Mining Engineering	95	71	76	97	339
	Total	713	691	701	744	2849

4-Year B.Pharm. students on roll

Sl. No.	Branch	2015	2014	2013	2012 and earlierbatches	Total
1.	Pharmaceutics	43	15	6	22	86
	Total	43	15	6	22	86

5-Year Dual Degree (B.Tech. and M.Tech.) students on roll

Sl. No.	Branch	2015	2014	2013	2012	2011 and earlier batches	Total
1.	Biochemical Engineering	14	11	11	12	14	62
2.	Biomedical Engineering	16	10	10	13	14	63
3.	Ceramic Engineering	17	8	10	12	12	59
4.	Civil Engineering	19	18	20	21	21	99
5.	Computer Science and Engineering	15	17	15	18	17	82
6.	Electrical Engineering	20	22	23	21	22	108
7.	Materials Science andTechnology	16	11	15	17	14	73
8.	Mechanical Engineering	20	22	21	21	22	106
9.	Metallurgical Engineering	18	18	15	17	16	84
10.	Mining Engineering	19	8	12	19	13	71
	Total	174	145	152	171	165	807

5-Year Dual Degree (B.Pharm. and M.Pharm.) students on roll

Sl. No.	Branch	2015	2014	2013	2013	2011 and earlierbatches	Total
1.	Pharmaceutics	10	4	7	15	19	55
	Total	10	4	7	15	19	55

5-Year Dual Degree (B.Pharm. and M.Pharm.) students on roll

Sl. No.	Branch	2015	2014	2013	2012	2011 and earlier batches	Total
1.	Chemistry	13	13	9	14	10	59
2.	Mathematical Sciences	20	22	23	20	15	100
3.	Physics	21	13	13	14	13	74
	Total	54	48	45	48	38	233

2-Years M.Tech. students on roll

Sl. No.	Branch	2015	2014	Extended students	Total
1.	Biochemical Engineering	8	7	---	15
2.	Biomedical Engineering	6	6	---	12
3.	Ceramic Engineering	16	14	---	30
4.	Chemical Engineering	42	42	---	84
5.	Civil Engineering	38	31	1	70
6.	Electrical Engineering	34	39	---	73
7.	Electronics Engineering	38	37	1	76
8.	Industrial Management	8	6	---	14
9.	Materials Science and Technology	14	12	---	26
10.	Mechanical Engineering	45	36	---	81
11.	Metallurgical Engineering	30	11	1	42
12.	Mining Engineering	24	4	---	28
13.	Systems Engineering	1	7	---	8
	Total	304	252	3	559

2-Years M.Pharm. students on roll

Sl. No.	Branch	2014	2013	Extended Students	Total
1.	Pharmaceutics	29	29	---	58
	Total	29	29	---	58

Ph.D. scholars on roll

Sl. No.	Branch	I Year	II Year	III Year	IV Year	V Year and Others	Total
1.	Biochemical Engineering	3	---	9	6	6	24
2.	Biomedical Engineering	7	4	5	1	7	24
3.	Ceramic Engineering	10	4	8	3	6	31
4.	Chemical Engineering	14	8	16	11	3	52
5.	Chemistry	15	9	15	12	9	60
6.	Civil Engineering	21	6	4	2	2	35
7.	Computer Science and Engineering	2	4	9	8	4	27
8.	Electrical Engineering	13	12	10	4	9	48
9.	Electronics Engineering	14	13	7	5	12	51
10.	Humanistic Studies	5	0	0	---	---	5
11.	Industrial Management	0	3	3	---	---	6
12.	Materials Science and Technology	3	3	3	---	---	9
13.	Mathematical Sciences	13	11	9	6	6	45
14.	Mechanical Engineering	1	0	14	11	1	27
15.	Metallurgical Engineering	30	3	16	8	1	58

16.	Mining Engineering	9	2	8	9	4	32
17.	Pharmaceutics	19	10	3	0	0	32
18.	Physics	9	13	14	7	14	57
19.	Systems Engineering	13	6	6	6	5	36
	Total	201	111	159	99	89	659

Students Intake in different programmes

The Institute offered the following programmes in various departments/school. The Department/School-wise Intake is given below:

Department/Programme-wise Intake capacity

COURSES	Students Intake					
	GE	SC	ST	OBC	PC#	Total
Four-Years B.Tech. Programmes						
1. Ceramic Engineering	30	9	4	16	(2)	59
2. Chemical Engineering	60	18	9	32	(4)	119
3. Civil Engineering	40	12	6	22	(2)	80
4. Computer Science & Engg.	30	9	4	16	(2)	59
5. Electrical Engineering	40	12	6	22	(2)	80
6. Electronics Engineering	40	12	6	22	(2)	80
7. Mechanical Engineering	50	15	8	27	(3)	100
8. Metallurgical Engineering	35	10	5	19	(2)	69
9. Mining Engineering	50	15	8	27	(3)	100
Four-Years B.Pharm. Programme						
10. Pharmaceutics	35	10	5	19	(2)	69
Total in 4 year B.Tech. / B.Pharm	410	122	61	222	(24)	815
Five-Years Integrated M.Tech. Degree Programmes						
11. Engineering Physics	10	3	2	5	(1)	20
12. Industrial Chemistry	10	3	2	5	(1)	20
13. Mathematics & Computing	10	3	2	5	(1)	20
Total in 5 year Integrated M.Tech. Degree	30	09	06	15	(03)	60
Five-Years Integrated M.Tech. Dual Degree Programmes						
14. Biochemical Engineering	10	3	2	5	(1)	20
15. Bioengineering with M.Tech. in Biomedical Technology	10	3	2	5	(1)	20
16. Ceramic Engineering	10	3	2	5	(1)	20
17. Civil Engineering with M.Tech. in Structural Engg.	10	3	2	5	(1)	20
18. Computer Science & Engineering	8	2	1	4	(1)	15

19. Electrical Engineering with M.Tech. in Power Electronics	10	3	2	5	(1)	20
20. Materials Science & Technology	10	3	2	5	(1)	20
21. Mechanical Engineering	10	3	2	5	(1)	20
22. Metallurgical Engineering	10	3	2	5	(1)	20
23. Mining Engineering	10	3	2	5	(1)	20
Five-Year Integrated M.Pharm. Dual Degree Programme						
24. Pharmaceutics	10	3	2	5	(1)	20
Total in 5 year Integrated M.Tech. / M. Pharm. Dual Degree	108	32	21	54	(11)	215
Grand Total of UGD/IDD/IMD Courses	548	163	88	291	(38)	1090
Two-Years M.Tech. Programmes						
25. Ceramic Engineering	10	3	1	5	(1)	19
26. Chemical Engineering	25	7	3	12	(1)	47
27. Civil Engineering	25	7	3	12	(1)	47
28. Electrical Engineering	25	7	3	12	(1)	47
29. Electronics Engineering	25	7	3	12	(1)	47
30. Mechanical Engineering	25	7	3	12	(1)	47
31. Metallurgical Engineering	25	7	3	12	(1)	47
32. Mining Engineering	15	4	2	8	(1)	29
33. Biochemical Engineering	5	1	1	2	(0)	09
34. Biomedical Engineering	5	1	1	2	(0)	09
35. Materials Science & Technology	10	3	1	5	(1)	19
36. Industrial Management	5	1	1	2	(0)	09
37. Systems Engineering	5	1	1	2	(0)	09
Two-Years M.Pharm. Programme						
38. Phamaceutics	15	4	2	8	(1)	29
Grand total of 2-Years M.Tech. Courses	**220**	**60**	**28**	**106**	**(10)**	**414**

Student intake numbers for PC category has not been added in calculating total number of seats, as provision for the physically challenged candidate will be made from within the respective category.

Convocation

The 4th Convocation was held on October 17, 2015. Prof. Anil Kumar Gupta, Founder, Honey Bee Network and Shri Nikesh Arora, President & COO Soft Bank Corp. Group were delivered the convocation address. A total of 1295 candidates were awarded various degrees, and 631 candidates received degrees in person. The department-wise details of the degrees awarded are provided in Table.

Degrees awarded

Branch	Ph.D.	M.Tech.	M.Pharm.	Dual Degree							Total
				I.M.D.	B.Tech.	M.Tech.	B.Pharm.	M.Pharm.	B.Tech.	B.Pharm.	
Biochemical Engineering	01	09	---	---	06	06	---	---	---	---	22
Biomedical Engineering	---	10	---	---	06	06	---	---	---	---	22
Ceramic Engineering	03	11	---	---	12	12	---	---	43	---	81
Chemical Engineering	01	36	---	---	---	---	---	---	109	---	146
Chemistry	02	---	---	04	---	---	---	---	---	---	6
Civil Engineering	03	33	---	---	18	18	---	---	64	---	136
Computer Science & Engineering	02	---	---	---	14	14	---	---	64	---	94
Electrical Engineering	04	30	---	---	20	20	---	---	86	---	160
Electronics Engineering	07	27	---	---	---	---	---	---	85	---	119
Industrial Management	---	06	---	---	---	---	---	---	---	---	6
Materials Science & T ech .	05	13	---	---	09	09	---	---	---	---	36
Mathematical Sciences	09	---	---	17	---	---	---	---	---	---	26
Mechanical Engineering	03	39	---	---	17	17	---	---	103	---	179
Metallurgical Engineering	03	06	---	---	12	12	---	---	56	---	89
Mining Engineering	01	03	---	---	08	08	---	---	88	---	108
Pharmaceutics	05	---	28	---	---	---	05	05	---	06	49
Physics	03	---	---	10	---	---	---	---	---	---	13
Systems Engineering	---	03	---	---	---	---	---	---	---	---	3
TOTAL	52	226	28	31	122	122	05	05	698	06	1295

With this convocation, the total number of degrees awarded so far by the Institute is 35,005. Total 6,342 degrees awarded by IIT(BHU) and before conversion of IT-BHU into IIT(BHU), the IT-BHU was awarded total number of degrees is 28,663:

Sl. No.	Programme		No. of degrees awarded		
			After conversion	Before conversion	Total
1.	Ph.D.		279	854	1,133
2.	M.Tech.		1,335	3,119	4,454
3.	M.Pharm.		160	653	813
4.	I.M.D.		142	0	142
5.	Dual Degree	B.Tech.	540	0	540
		M.Tech.	540	0	540
6.	Dual Degree	B.Pharm.	31	0	31
		M.Pharm.	31	0	31
7.	B.Tech.		3,186	22,947	26,133
8.	B.Pharm.		98	1,090	1188
Total			6,342	28,663	35,005

Award of Prizes to Students

Convocation prizes

Prizes awarded to students at the 4rd Convocation:

1. **Shri Somnath Mandal**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Ceramic Engineering Examination, 2015.
2. **Shri Sista Kameshwara Srikar**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Chemical Engineering Examination, 2015.
3. **Shri Ankit Kumar Verma**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Civil Engineering Examination, 2015.
4. **Ms. Sayari Das**
   She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electrical Engineering Examination, 2015.
5. **Shri Prashishya Kumar Dwivedy**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Systems Engineering Examination, 2015.
6. **Shri Kuchana Pranav**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electronics Engineering Examination, 2015.
7. **Shri Atul Pandey**
   He is awarded
   a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mechanical Engineering Examination, 2015.
   b) Prof. (Dr.) Mahendra Kumar Jain Nyayacharya Gold Medal for securing highest CPI at the M.Tech. in Mechanical Engineering Examination, 2015.
8. **Shri Dharamveer Sharma**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Industrial Management Examination, 2015.
9. **Shri Aritra Routh**
   He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Metallurgical Engineering Examination, 2015.
10. **Shri Gurudev Choudhary**
    He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mining Engineering Examination, 2015.
11. **Ms. Shalini Shikha**
    She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biochemical Engineering Examination, 2015.
12. **Ms. Saksha Uttam Shinde**
    She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biomedical Engineering Examination, 2015.
13. **Ms. Pragya Singh**
    She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Materials Science and Technology Examination, 2015.
14. **Ms. Surabhi Soni**
    She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Pharm. Examination, 2015.
15. **Shri Anurag Kumar Pandey**
    He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Industrial Chemistry Examination, 2015.
16. **Ms. Lipy Kundan**

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Mathematics and Computing Examination, 2015.

17. **Shri Sambit Kumar Giri**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Engineering Physics Examination, 2015.

18. **Ms. Ashna Bindra**
She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Ceramic Engineering Examination, 2015.

19. **Ms. Mona Goyal**
She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Civil Engineering (Structural Engineering) Examination, 2015.

20. **Shri Parkhe Viraj Shripad**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Computer Science & Engineering Examination, 2015.

21. **Shri Mufeed Khan**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Electrical Engineering (Power Electronics) Examination, 2015.

22. **Shri Eswar Pradyumna Nalamaru**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mechanical Engineering Examination, 2015.

23. **Shri Rajendra Gayen**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Metallurgical Engineering Examination, 2015.

24. **Shri Aishwarya Mishra**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mining Engineering Examination, 2015.

25. **Ms. Veenu Kavaria**
She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Biochemical Engineering (Biochemical Engineering and Biotechnology) Examination, 2015.

26. **Ms. Aditi Kathpalia**
She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Bioengineering (Biomedical Technology) Examination, 2015.

27. **Ms. Smriti Gupta**
She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Materials Science & Technology Examination, 2015.

28. **Shri Pranay Pradhan**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Pharm.-M.Pharm.) Examination, 2015.

29. **Shri Vineet Rawat**
He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Ceramic Engineering Examination, 2015.

30. **Ms. Khushboo Garg**
She is awarded:-
    a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2015.
    b) The R.B.G. Modi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2015.
    c) Manishi Sharma Memorial Gold Medal for securing First position at B.Tech. Chemical Engineering Examination, 2015.
    d) Mrs. Gargi Devi Trivedi Memorial Gold Medal for securing highest marks in B.Tech. Chemical Engineering Examination, 2015.
    e) Dr. R.J. Rathi Financial Award Rs. 1000/= cash for standing First at the B.Tech. in Chemical Engineering Examination, 2015.

f) Manishi Sharma Memorial Cash Prize Rs. 2000/= for securing First position at the B.Tech. in Chemical Engineering Examination, 2015.

31. Shri Palash Pagaria

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Civil Engineering Examination, 2015.
b) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Civil Engineering Examination, 2015.
c) Prof. V.V. Chalam Prize (The Prize shall be in the form of books by Mr. J. Krishnamurti) for standing Second position among all the branches of B.Tech. Examination, 2015.
d) Rai Bahadur Taracharan Gue Memorial Award Rs. 500/= cash for standing First at the B.Tech. in Civil Engineering Examination, 2015.
e) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Civil Engineering Examination, 2015.
f) Meenakshamma Shankaranaramappa Prize Rs. 500/= cash for securing highest marks in Environmental Engineering (Theory) at the B.Tech. Civil Engineering Examination, 2015.

32. Shri Aditya Prakash

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Computer Science & Engineering Examination, 2015.
b) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Computer Science & Engineering Examination, 2015.

33. Shri Siddharth Varshney

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2015.
b) The R.B.G. Modi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2015.
c) Himmat Narayan Singh Memorial Gold Medal for securing the First position and First Division in B.Tech. Electrical Engineering Examination, 2015.
d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electrical Engineering Examination, 2015.
e) N.V.R. Nageshwar Iyer (Prize Rs. 100/= in the form of books) for standing First in B.Tech. in Electrical Engineering Examination, 2015.
f) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in the B.Tech. in Electrical Engineering Examination, 2015.

34. Shri Sanket Parashar

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2015.
b) The R.B.G. Modi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2015.
c) Himmat Narayan Singh Memorial Gold Medal for securing the First position and First Division in B.Tech. Electrical Engineering Examination, 2015.
d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electrical Engineering Examination, 2015.
e) N.V.R. Nageshwar Iyer (Prize Rs. 100/= in the form of books) for standing First in B.Tech. in Electrical Engineering Examination, 2015.
f) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in the B.Tech. in Electrical Engineering Examination, 2015.

35. Shri Himanshu Chauhan

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2015.
b) Lala Balak Ramji Kohinoor Memorial Gold Medal for securing highest marks at the B.Tech.

Examination, 2015 among the branches of Civil, Mechanical, Electrical and Electronics Engineering.

c) Late Shri Shyam Sunder Lal Razdan Memorial Gold Medal for securing highest percentage of marks in B.Tech. Examination, 2015.

d) Late Prof. Nagesh Chandra Vaidya Gold Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2015.

e) Prof. Gopal Tripathi Memorial Gold Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2015.

f) Dr. (Late) Nandita Saha Roy Memorial Gold Medal for securing First position in B.Tech. Electronics Engineering Examination, 2015.

g) Smt. Arati Paul and Prof. Binod Bihari Paul Gold Medal for securing highest marks in IV Year Examination among all the students of B.Tech./B.Pharm. Examination, 2015.

h) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electronics Engineering Examination, 2015.

i) Shri Raj Kishore Kapoor Silver Medal for securing highest marks at the B.Tech./B.Pharm. Examination, 2015.

j) Dr. Annie Besant Prize (in the forms of books by Dr. Annie Besant including copy of the 'Bhagavadgita') for standing First position among all the branches of B.Tech. Examination, 2015.

k) Dr. Ayyagari Sambasiva Rao Prize Rs. 1000/= cash for standing First at the B.Tech. in Electronics Engineering Examination, 2015.

l) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Electronics Engineering Examination, 2015.

36. Shri Bharat Saxena

He is awarded Prof. A.K. Ghosh Silver Medal for standing Second Position in B.Tech. in Electronics Engineering Examination, 2015.

37. Shri Akshat Sharma

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2015.

b) The Prince of Wales Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2015.

c) Sudhir Kumar Sharma Memorial Gold Medal for securing highest marks in B.Tech. Mechanical Engineering Examination, 2015.

d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Mechanical Engineering Examination, 2015.

e) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Mechanical Engineering Examination, 2015.

38. Shri Sidhant Ray

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Metallurgical Engineering Examination, 2015.

b) The Bishan Das Basil Medal for securing Fist position among B.Tech. in Mining and Metallurgical Engineering Examination 2015.

c) Swarnamma Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Metallurgical Engineering Examination, 2015.

39. Shri Akash Srivastava

He is awarded:-

a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mining Engineering Examination, 2015.

b) Dr. B.S. Verma Memorial Gold Medal for securing highest marks in B.Tech. Mining Engineering Examination, 2015.

Head of the Department Prof. Devendra Kumar

Brief Introduction of the Department/School:

The founder of Banaras Hindu University, Pandit Madan Mohan Malviyaji instituted a course in Ceramic Technology as early as in 1924 as a section in the Department of Industrial Chemistry and established Department of Glass Technology & Department of Ceramic Technology with the noble objective of advancing glass and ceramic technology in India. In the Year 1956, Department of Glass Technology and Department of Ceramic Technology were merged to form the Department of Silicate Technology, offering a four year degree course by injecting into its curriculum balanced engineering and scientific contents. In the year 1968 the Department was renamed as Department of Ceramic Engineering. Presently this department is unique in the country which offers B.Tech., M.Tech. and Ph.D. Programmes in the areas of Ceramic Engineering and Technology. The Department is pursuing active research in the emerging areas of glass, glass ceramics, refractories, electronic ceramic, cement and pottery & porcelain.

Major areas of Research

- Biomaterials
- Composites
- Electro-ceramics
- Energy Materials
- Glass & Glass Ceramics
- Nano Ceramics

Area of the Department/School (in square meters):

Infrastructure

Sl. No	Particulars	Number
1	No. of Classrooms	04
2	No. of Lecture Halls	01
3	No. of Laboratory	14
4	No. of Computers available for students in the Department/School/School	06

Unique Achievement / Preposition of the Department/School

- Introduced new curriculum

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course name	Course credit
1.	DC.MCR 101.14	Introduction to Ceramics	06
2.	EP.MCR 102.14	Basic Ceramic Practices	06
3.	DC.MCR 201.15	Ceramic Raw Materials	13
4.	DC.MCR 202.15	Thermodynamics & Phase Equilibria in Ceramic Systems	11
5.	DC.MCR 203.15	Particle Mechanics and Fluid Flow Process	11
6.	DC.MCR 204.15	Structure & Properties of Ceramic Materials	11
7.	DC.MCR 205.15	Ceramic Phase Diagrams and Phase Transformations	09

Students on Roll

Sl. No	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech	49	31	43	52	--
2	Dual Degree	17	8	10	12	12
3	M. Tech/ M. Pharm	16	18	--	--	--
4	Ph. D (Under Institute Fellowship)	10	4	7	3	3
5	Ph. D (Under Sponsored Category)	--	--	--	1	2

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1	Lakshya Mathur	15032007	International Conference and 79th Annual Session of the Indian Ceramic Society held at Christ University	Bangalore during 15th-17th, Dec. 2015.	IIT(BHU)
2	Aman Bhardwaj	15032003	International Conference and 79th Annual Session of the Indian Ceramic Society held at Christ University	Bangalore during 15th-17th, Dec. 2015.	IIT(BHU)
3	Aman Bhardwaj	15032003	International conference on waste management	IIT Gauhati 1st and 2nd April-2016	IIT(BHU)
4	Sampath Kumar	11601EN005	International Conference on Ceramic & Advanced Materials for Energy and Environment	Dec. 15-17, 2016	IIT(BHU)
5	Ashish Raj	12401EN006	CAMEE2015	15-17, Dec 15, Bangalore, India	STGS
6	Himanshu Raj	14034006	CAMEE2015	15-17, Dec 15, Bangalore, India	STGS
7	Abhinav Srivastava	10601EN001	Advanced Ceramics and Nanotechnology	Dec 4-5, 2015	None
8	Nayan Kr Debnath	15031005	Advanced Ceramics and Nanotechnology	Dec 4-5, 2015, Ceramic Engg.	None
9.	P. Hemanth Kumar	13031006	Advanced Ceramics and Nanotechnology	Dec 4-5, 2015	None
10.	D. Shekhawat	14031001	International Conference on Multifunctional Materials for Future Applications	27th to 29th October, 2015	None
11.	D. Shekhawat	14031001	International Conference on Ceramic & Advanced Materials for Energy and Environment	15th to 17th December, 2015	IIT BHU
12.	Seema Chauhan		International Conference on Nano science & Technology	IISER-Pune, 29th Feb to 2nd March 2016	IIT BHU

13.	Kumar Saurav	13031001	International conference on Engg., and material science	17th to 19th March, 2016	IIT BHU
14.	S Hossin, A. Bhardwaj,	15032003, 1503215	International Conference and 79th Annual Session of the Indian Ceramic Society	Bangalore during 15th-17th , Dec. 2015.	IIT BHU
15.	Shreevats		National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
			Workshop on Electric Energy Distribution	IIT (BHU), Varanasi	
16.	B. N. Bhattacharjee	12601EN001	National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
			ICFMST-2015	NIST, Berhampur	
17.	Pankaj Tripathi	13031005	National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
			ICMAP-2015	ISM Dhanbad	
			AEMC-2015	IIT, Guwahati	
18.	Shukdev Pandey	12615EN004	National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
19.	Preeti Kumari	14031003	National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
			CAMEE-2015	Incers, Banglore	
20.	Neera Singh	14031002	National Workshop on Advanced Ceramics-2015	IIT (BHU), Varanasi	Institute
			THERMANS-2016	IIT (BHU), Varanasi	
			CAMEE-2015	Incers, Banglore	
			ICAM-2015	KNIT Sultanpur	
ABROAD					
1.	Vikas kumar Vyas	11601EN006	Conference	September 20 to 23, 2015 at Hotel Centara Grand at Central World, Bangkok, Thailand.	IIT BHU
2.	Sunil Prasad	12601EN002	Conference	September 20 to 23, 2015 at Hotel Centara Grand at Central World, Bangkok, Thailand.	IIT BHU

Names of students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Shashwat Shivam Tripathi	12101EN028	Entrepreneurial Merit Award	8th March, 2015, Essec Business School, Paris	Essec Business School, Paris
2.	Kevin Bhimani	12101EN022	Awarded 2nd Prize in Paper Presentation.	3rd February, 2015, Indian Ceramic Society	Indian Ceramic Society

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Sampath Kumar Arepalli	11601EN005	2nd Research category (Ph.D)	HOD
2.	Sampath Kumar Arepalli	11601EN005	1st Innovation category (Ph.D)	HOD
3.	Harsha Sonkarniwal	12101EN052	1st Research category (B.Tech)	HOD
4.	Ashish Raj	12401EN006	2nd in Poster	HOD
5.	Himanshu Raj	14034006	3rd in Poster	HOD

Names of Students/Scholars who went for foreign Internship

Note: Individual faculty members should provide the data

Sl. No	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Shubham Jain	10401EN004	Georgia Institute of Technology	Atlanta	U.S.A	3 months

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
Example	**Michael Gromiha**	**Protein Bioinformatics**
PROFESSORS		
1.	Prof. D. Kumar	Glass & Glass Ceramic, Electronic & Microwave Ceramics, Metal Matrix Composites, Nano Phosphors, Bio-Ceramics
2.	Prof. S.P.Singh	Glass Science and Technology, Bioceramics, Phase equilibria and Thermodynamics
3.	Prof. Ram Pyare	Glass Sci. & Tech., Cera. Tech. Analysis, Bio-Ceramics
4.	Dr. Vinay Kumar Singh	Bio implant, Refractories and dental materials
ASSOCIATE PROFESSORS		
1.	Mr. Amarnath	Glass Technology & Furnaces
2.	Dr. Anil Kumar	Fabrication of Advance Ceramics
3.	Dr. Kalyani Mohanta (On Leave)	Cement, Refractories, Fuels & Furnaces
4.	Dr. Manas Ranjan Majhi	Bio-Ceramics,Advanced Refractory Engineering, Composite Materials
ASSISTANT PROFESSORS		
1.	Dr. Pradip Kumar Roy	Nano Technology, Magnetic Ceramics, Ferroelectric Relaxor Ceramics, Electro-Ceramics

2.	Dr. Ashutosh Kumar Dubey	Bioceramics, Electroceramics
3.	Dr. A. Dwivedi	High energy density capacitors, Sensors & Actuators, Piezo harvesters and multilayer structures for devices
4.	Dr. Preetam Singh	Energy Materials, SOFC, Exhaust and water gas shift catalysis, Hydrogen Production
5.	Dr. Mohammad Imteyaz Ahmad	Advanced Ceramics, Ceramic Processing, Energy Materials (Photovoltaics and Solid Oxide Fuel Cells)
6.	Dr. Santanu Das	Synthesis and Characterizations of Nanomaterials, including, 2D metal-dichalcogenides, Graphene, and Carbonnanotubes; electrical, electro-mechanical and electrochemical properties of thin films, Solar Cells, and Photo-catalysis.
Institute Professor		
1.	Dr. Om Prakash	Electronic Ceramics, Polymer Matrix composites
Research Officer		
1.	Dr. Raj Kumar Chaturvedi	Bio-glass
2.	Dr. Sudama Singh	Refractory, Ecology
Ramanujan Fellow		
1.	Dr. Bhupendra Singh	Synthesis and Characterization of Materials for Energy Conversion & Storage Devices, Solid state ionic conductors, Low &Intermediate Temperature Fuel Cells.

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1	Prof. Devendra Kumar	2nd National workshop on Advanced Ceramics and Nanotechnology (Theme : Electroceramics)	Dec. 4-5 2015, Varanasi.

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1	Dr. Preetam Singh	MECS 2016 (2 nd National Conference on Materials for Energy Conversion and Storage), Alternative Energy Solutions and Materials Challenges for Developing World	11^{th}-13^{th}-March 2016

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1	Dr. Pradip Kumar Roy	Application of Nano Materials in Industrial Varistors & Inductors	Department of Physics, Banaras Hindu University	02nd Nov2015

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Ashutosh Kumar Dubey	Hong Kong, China	Jan. 25, 2016	Jan. 28, 2016	Invited Lecture	DST, Govt. of India

2.	Prof. Ram Pyare	Thailand	September 18, 2015	September 24, 2015	International Commission on Glass (ICG) Annual Meeting 2015	IIT BHU
3.	Prof. S. P. Singh	Thailand	19th September	24th September	To participate in ICG Annual meeting, Bangkok 2015	IIT BHU

Honours and awards

Sl. No	Name of Faculty Member	Details of Award
1.	Dr. Ashutosh Kumar Dubey	Young Scientist Award (Dr. R. L. Thakur Memorial Award-2015 by Indian Ceramic Society
2.	Dr. Preetam Singh	Innovator of the year Award-2015 by Patent Licensing and Commercialization Cell, University of Texas at Austin, USA, Novemebr 2015. The award was conferred to Dr. Preetam Singh when he was working as a Post-Doctoral fellow at University of Texas at Austin, USA.

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Sampath Kumar Arepalli, Himanshu Tripathi, M. Vyshali Nanda, V.Sri Sravya, Ram Pyare and S.P.Singh	Fabrication and Characterization of Nano Bioglass-Ceramic Scaffold For Bone Tissue Engineering	Advances in Bioceramics and Porous Ceramics VIII, The American Ceramic Society, Wiley, 36 [5] 37-49 (2015).
2.	Vaibhav Chalisgaonkar, Ketki Pandey, A. Sampath Kumar, Ram Pyare and S.P. Singh	Synthesis and Characterization of Co-Cu Ferrite and Bioglass Composites for Hyperthermia Application	Advances in Bioceramics and Porous Ceramics VIII, The American Ceramic Society, Wiley, 36 [5] 51-62 (2015)
3.	Santanu Das, P. Sudhagar, Y. S. Kang, and Wonbong Cho	Synthesis, and Characterizations of Graphene; Carbon Nanomaterials for Advanced Energy Systems	Willey Interscience, November 2015.

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Dr Santanu Das	Editorial Board Member	Journal of Materials Science Research, Ceramic Sciences and Engineering
2.	Dr Santanu Das	Guest Editor for the special issue on Advanced Nanostructured Materials for Electrochemical Energy Conversion and Storage Devices	Journal of Nanomaterials
3.	Dr Pradip Kumar Roy	Editor-in-Chief	Ceramic Sciences and Engineering
4.	Dr Pradip Kumar Roy	Editor	Journal of Advances in Chemistry International Journal of Nanomaterials and Nanostructures, International Journal of Ceramics and Ceramic Technology
5.	Dr.Manas Ranjan Majhi	Associate Editor	Journal of Advanced Research in Glass, Leather and Plastic Technology.

6.	Dr. Mohammad Imteyaz Ahmad	Editorial Board Member	Ceramic Sciences and Engineering
7.	Dr. Ashutosh Kumar Dubey	Editorial Board Member	Ceramic Sciences and Engineering
8.	Dr. Preetam Singh	Editorial Board Member	Ceramic Sciences and Engineering

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	UV-VIS, NIR spectrophotometer	Rs. 12,00000.00

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Dr. Preetam Singh and Professor Rajiv Prakash	Advanced Electrode Materials for Superior Pseudocapacitors and Reversible Alkali-ion (Li +,Na +) Batteries; Filing Date: March 07, 2016; Application No: 201611007934

Research and Consultancy

Sponsored research projects

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	To develop technology for low cost manufacturing of a series of veneering porcelain powders and liquid products for metal-ceramic frame work, used on mass scale in the dental field of medical, especially for rural area	2012-2016	DST, New Delhi	Rs. 55.112/- Lakhs)	Professor Vinay Kumar Singh
2.	To develop low temperature ceramic colors to decorate ceramic wares, especially for Varanasi and Chunar Potters	2015-16	Project Varanasi-Design and Innovation Hub, IIT(BHU)	RS. 4.75 Lakhs	Professor Vinay Kumar Singh

Faculty members' participation with other universities under MoUs (Ongoing only)

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed International Journals	49
2.	Total Number of Papers Presented in National Conferences	07
3.	Total Number of Papers Presented in International Conferences	07

Refereed International Journals

1. Ashutosh Kumar Dubey and Ken-ichi Kakimoto (2016) Impedance spectroscopy and mechanical response of porous nanophase hydroxyapatite–barium titanate composite. Materials Science and Engineering C 63 : 211–221.
2. V. K. Vyas, S. Kumar Arepalli, S. P. Singh and R. Pyare, Effect of nickel oxide substitution on bioactivity & Mechanical properties of bioactive glass" Bulletin of Materials Science, 2016, Accepted.
3. V. K. Vyas, S. Kumar Arepalli, S. P. Singh, and R. Pyare, Effect of Cobalt Oxide Subsitution on Mechanical Behaviour and Elastic Properties of Bioactive glass and glass ceramics, Trans. Ind. Ceram. Soc., 2016, 75, 1-8.
4. V. K. Vyas, S. Kumar Arepalli, S. Prasad, S. P. Singh and Ram Pyare "Bioactivity and mechanical behavior of cobalt oxide-doped bioactive glass" Bull. Mater. Sci. 2015, 38, 957–964.
5. V. K. Vyas, S. Kumar Arepalli, S. Prasad, Md. Ershad, S. P. Singh and R. Pyare Preparation and Characterization of Cobalt Oxide Doped 45S5 Bioactive Glass-Ceramics Innovations in Corrosion and Materials Science, 2015, 5, 86-92.
6. S. Kumar Arepalli, H. Tripathi, V. K. Vyas, S. Jain, S. K. Suman, R. Pyare, S.P. Singh "Influence of barium substitution on bioactivity, thermal and physico-mechanical properties of bioactive glass", Materials Science and Engineering C, 2015, 49, 549–559.
7. M. Helena Braga, A. J. Murchison, J. A. Ferreira, P. Singh and J. B. Goodenough; Glass-amorphous alkali-ion solid electrolytes and their performance in symmetrical cells Energy and Environmental Science, 2016, 9, 948-954
8. J. B. Goodenoough and P. Singh; Solid Electrolytes in Rechargeable Electrochemical Cells, Journal of the Electrochemical Society, 2015, 162, A2387-A2392.
9. S. Das, K. Choudhary, A. Chernatynskiy, H. C. Yim, A. K Bandyopadhyay, S. Mukherjee; Spin-exchange interaction between transition metals and metalloids in soft ferromagnetic metallic glasses, Journal of Physics: Condensed Matter, 2016, Accepted.
10. S. Das, N. Y. Martinez, S. Das, R. S. Mishra , G. J. Grant, S. Jana, E. Polikarpov; Magnetic Properties of Friction Stir Processed Composite, Journal of Metals, 2016, DOI: 10.1007/s11837-016-1881-6.
11. Jeremy D. Fields*, Md. Imteyaz Ahmad*, Vanessa L. Pool, Jiafan Yu, Douglas G. Van Campen, Philip A. Parilla, Michael F. Toney & Maikel F. A. M. van Hest (2016) The formation mechanism for printed silver-contacts for silicon solar cells. Nature Communications, 7, 11143. (* Authors contributed equally)
12. Arepalli Sampath Kumar, Himanshu Tripathi, Kevin Bhimani and S. P. Singh, (2016) "Structural, Magnetic and In vitro Bioactivity of Co-Cu Ferrite and Bioglass Composite for Hyperthermia in Bone Tissue Engineering", Medical Science (Bioceramics Development and Applications), 6,[91]1-7.
13. Vikash Kumar Vyas, Arepalli Sampath Kumar, S. P. Singh and Ram Pyare (2016) "Effect of Cobalt Oxide Substitution on Mechanical Behaviour and Elastic Properties of Bioactive Glass and Glass-Ceramics", Transactions of the Indian Ceramic Society, 75, 1, 1-8, 2015.
14. Vikash Kumar Vyas, Arepalli Sampath Kumar, S. P. Singh and Ram Pyare, (2016)"Effect of nickel oxide substitution on bioactivity & mechanical properties of bioactive glass" Accepted for publication, Bulletin of Materials Science.
15. HimashuTripathi, A. Sampath Kumar, and S. P. Singh, (2015) "Preparation and Characterization of Li2O-CaO-Al2O3-P2O5-SiO2-Glasses as Bioactive Material", DOI: 10.1007/s12034-016-1154-6, Bulletin of Materials Science..
16. Himanshu Tripathi, A. Sampath Kumar and S.P. Singh, (2016) "Studies on Preparation and Characterisation of 45S5 Bioactive Glass doped with (TiO2+ ZrO2) as Bioactive Ceramic Material", Medical Science (Bioceramics Development and Applications), 6,[90]1-6.
17. H. Tripathi, S. Kumar Hira, A. Sampath Kumar, U. Gupta, P. Pratim Manna, and S.P. Singh, (2015) "Structural characterization and in vitro bioactivity assessment of SiO2–CaO–P2O5–K2O–Al2O3 glass as bioactive ceramic material," Ceramics International, 41 [9] 11756–11769.
18. Pattem Hemanth Kumar, Vinay Kumar Singh, Pradeep Kumar, "Mechanochemically synthesized kalsilite based bioactive glass-ceramic composite for dental veneering", Applied Nanoscience, ISSN 2190-5509, This article is published with open access at Springerlink.com DOI 10.1007/s13204-015-0491-

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19. Pattem Hemanth Kumar, Vinay Kumar Singh, Pradeep Kumar, Gaurav Yadav and R.K. Chaturvedi, "Effect of Al2O3 on leucite based bioactive glass ceramic composite for dental veneering," Ceramics International, Available online at www.sciencedirect.com, http://dx.doi.org/ 10.1016/j. ceramint. 2015. 11.022. impact factor: 2.605
20. Abhinav Srivastava , Nayan Kr. Debnath, Vijay Kumar, P. Hemanth Kumar,Vinay Kumar Singh, `The effect of mechanochemically activated MgO in Al2O3–MgO–C refractory,' Part I: Formulation and properties, Ceramics International, Article in press www.sciencedirect.com http://dx.doi.org/10.1016/j. ceramint. 2016.03.121, impact factor: 2.605
21. Kumar Saurav, M. R. Majhi ,Vinay Kumar Singh(2015)" Preparation and Characterization of High Strength High Porosity Porous Spinel by Decomposing an ex - potato known as Starch Soluble using Porous Magnesia" International Journal of Porous Materials 25(1),1-7
22. SK Saddam Hossain, AmanBhardwaj, ManasRanjanMajhi, (,2016) Preparation & Characterization of Insulating Refractory using Rice Husk as Pore Forming Agent, International Journal of Science and Research. 5 (2), 457-460
23. Bhupendra Singh, J.H. Kim, O. Parkash, S.J. Song, Effect of MnO doping in tetravalent metal pyrophosphate (MP2O7; M=Ce, Sn, Zr) electrolytes, Ceramics International 42(2), 2016, 2983-2989.
24. J.H. Kim, E.J. Park, D.K. Lim, Bhupendra Singh, C. Bae, S.J. Song, Fabrication of Dense Cerium Pyrophosphate-Polystyrene Composite for Application as Low-Temperature Proton-Conducting Electrolytes, J. Electrochemical Society 162(10), 2015, F1159-F1164.
25. J.H. Kim, Bhupendra Singh, J.W. Hong, H.N. Im, S.J. Song, Electrical Behavior and Stability of K2HPO4-KH5(PO4)2-Ce0.9Gd0.1P2O7 Composite Electrolytes for Intermediate Temperature Proton-Conducting Fuel Cells, J. Electrochemical Society 163(3), 2016, F225-F229.
26. T.R. Lee, D.K. Lim, Bhupendra Singh, S.J. Song, Study of mass transport kinetics in co-doped Ba0.9Sr0.1Ce0.85Y0.15O3- d by electrical conductivity relaxation, Solid State Ionics 289, 2016, 9-16.
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30. Vabbina, P. K.; Choudhary, N.; Chowdhury, A.-A.; Sinha, R.; Karabiyik, M.; Das, S.; Choi, W.; Pala, N., Highly Sensitive Wide Bandwidth Photodetector Based on Internal Photoemission in CVD Grown P-Type MoS2/Graphene Schottky Junction. ACS Applied Materials & Interfaces 2015, DOI: 10.1021/acsami.5b00887.
31. Das, S.; Bandi, V.; Arora, H. S.; Veligatla, M.; Garrison, S.; D'Souza, F.; Mukherjee, S., Synergistic catalytic effect of iron metallic glass particles in direct blue dye degradation. Journal of Materials Research, Cambridge University Press 2015, 30 (08), 1121-1127.
32. Pulkit Garg, Pallav Gupta, Devendra Kumar and Om Parkash, Structural and Mechanical Properties of Graphene reinforced Aluminum Matrix Composites J. Mater. Environ. Sci. 7 (5) (2016) 1461-1473
33. S Pandey, D Kumar, O Parkash, Electrical impedance spectroscopy and structural characterization of liquid-phase sintered ZnO–V2O5–Nb2O5 varistor ceramics doped with MnO, Ceramics International, 2016; doi:10.1016/j.ceramint.2016.03.057
34. S Pandey, D Kumar, O Parkash, Investigation of the electrical properties of liquid-phase sintered ZnO–V2O5 based varistor ceramics using impedance and dielectric spectroscopy, Journal of Materials Science: Materials in Electronic, 27 (2016) 3748-3758, DOI: 10.1007/s10854-015-4218-2
35. S Kobi, N Jaiswal, D Kumar, O Parkash, Ionic conductivity of Nd 3+ and Y 3+ co-doped ceria solid electrolytes for intermediate temperature solid oxide fuel cells, Journal of Alloys and Compounds 658, (2016) 513-519

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37. Kalyani, V. Jaiswal, R. B. Rastogi , D. Kumar, The investigation of different particle size magnesium-doped zinc oxide Zn0.92Mg0.08O) nanoparticles on the lubrication behavior of paraffin oil, Applied Nanoscience (2015) doi: 10.1007/s13204-015-0471-1
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42. Anshuman Srivastava, Karun Kumar Jana, Pralay Maiti, Devendra Kumar, Om Parkash, Poly(vinylidene fluoride)/ CaCu3Ti4O12 and La doped CaCu3Ti4O12 composites with improved dielectric and mechanical properties, Materials Research Bulletin, 70 (2015), 735–742 doi:10.1016/j.materresbull.2015.05.030
43. Aditya Maheshwari, Nitish Kumar Singh, Om Parkash, and Devendra Kumar, Effect of Crystallization Temperature on Electrical Properties of Er3+/Yb3+–SrO.TiO2 Borosilicate Glass, International Journal of Applied Glass Science, 1–9 (2015), DOI:10.1111/ijag.12126
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45. Pallav Gupta, Devendra Kumar, M.A. Quraishi, Om Parkash, Effect of Sintering Parameters on the Corrosion Characteristics ofIron-Alumina Metal Matrix Nanocomposites, J. Mater. Environ. Sci. 6 (1) (2015) 155-167
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48. Nandini Jaiswal, Shail Upadhyay, Devendra Kumar, Om Parkash, Enhanced ionic conductivity in La3+ and Sr2+ co-doped ceria: carbonate nanocomposite, Ionics (2015) DOI:10.1007/s11581-015-1386-2
49. Nandini Jaiswal, Devendra Kumar, Shail Upadhyay and Om Parkash, Preparation and characterization of Ce0.85La0.15 xSrxO{2 - (0.075 + x / 2)} solid electrolytes for intermediate temperature solid oxide fuel cells, Ionics 21 (2015), 497–505 doi: 10.1007/s11581-014-1190-4

Refereed National Journal

Proceedings of International Conferences

1. Sunil Prasad*, Vikas Kumar Vyas, Md. Ershad and Ram Pyare, In vitro bioactivity and physical-mechanical properties of HA based 45S5 biocomposites, International Commission on Glass (ICG) Annual Meeting 2015 from September 20 to 23, 2015 at Hotel Centara Grand at Central World, Bangkok, Thailand.
2. B.N. Bhattacharjee, V. K. Mishra, D. Kumar, Om Parkash, S. B. Rai, 2015Different Crystal Shapes of

Hydroxyapatite and Metal Doped Hydroxyapatite; A Biomimetic Concept, International Conference on Frontiers in Material Science and Technology, December 2015.

3. 2. Neera Singh, Pushkar Jha, Sitashree Banerjee, Om Parkash, Devendra Kumar, 2015 A Comparitive Study on Iron Based Composites Produced by Powder metallurgy (P/M) Route, International Conference on Advanced and Agile Manufacturing System, December 2015.
4. Preeti Kumari, Pankaj Tripathi, Om Parkash, Devendra Kumar, 2016 Study the effect of TiO2 as a nucleating agent on the thermal behaviour of MgO-B2O3-SiO2 Glass ceramics Twentieth Symposium and workshop on Thermal Analysis at IIT-BHU from Jan.2016.
5. Pankaj Tripathi, Bhagirath Sahu, Preeti Kumari, Om Parkash, S. P. Singh and Devendra Kumar,2015 Filleted Rectangular Dielectric Resonator Antenna Using BST Ceramic with Improved Bandwidth 5thIEEE Applied Electromagnetics Conference (AEMC-2015) at IIT Guwahati, Assam, December 2015.
6. Pankaj Tripathi, Bhagirath Sahu, Preeti Kumari, S. P. Singh, Om Parkash and Devendra Kumar, Design of rectangular dielectric resonator antenna using glass added barium strontium titanate" International Conference on Microwaves and Photonics (ICMAP-2015) at ISM Dhanbad, December 2015.

Proceedings of National Conferences

1. Kumar Saurav,M.R.Majhi (2016)Development of physical and mechanical properties of porous spinel,Jaipur national university, during 17-19th march-2016, held at Jaipur
2. S Hossin,A. Bhardwaj,M.R.Majhi(2016)Preparation & Characterization of Insulating Refractory using Rice Husk as Pore Forming Agent, Indian Ceramic Society during,dec-15-17th2015, held at Bengaluru.

Distinguished Visitors

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Dr. J. N. Tiwari, Ex-Chief and Executive Director, OCL INDIA LIMITED, Rajgangpur, Orissa	April 13th 2016	For interacting with faculty members, undergraduate and post graduate students along with delivering talk and possible future collaboration.
2.	CERA Industry	21.04 2016	Recruitment and interaction with faculty members for future collaboration

Indian Faculty visits in the Department/School/School

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. A. K. Shukla, IISc. Bangalore	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
2.	Prof. D. Pandey, IIT(BHU)	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
3.	Prof. S. Ram, IIT Kharagpur	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
4.	Prof. Sandeep Chatterjee IIT(BHU)	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
5.	Dr. S. K. Pratihar, NIT Rourkela	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
6.	Dr. Pralay Maiti, IIT(BHU)	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
7.	Prof. Laxman Pandey, Rani Durgavati university, Jabalpur	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
8.	Dr. R. K. Dwivedi, Jaypee Institute of information technology, Noida	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)

9.	Dr. C. R. Gautam, University of Lucknow	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
10.	Dr. Shail Upadhyay IIT(BHU)	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
11.	Prof. Prabhakar Singh IIT(BHU)	Invited Talk in 2nd national workshop on advanced ceramics	4-5 Dec, Ceramic Engg Dept., IIT(BHU)
12.	Prof Laxman Paney, Rani Durgavati university, Jabalpur	Invited lecture on Impedance Spectroscopy	6-7th,Ceramic Engg Dept., IIT(BHU)

Fourier transform infrared spectroscopy (FTIR)

X-ray diffraction (XRD)

Scanning electron microscope (SEM)

Head of the Department : Prof. Prabhat Kumar Singh

Brief Introduction of the Department :

The Department of Civil Engineering was established as a integral part of the erstwhile Banaras Engineering College of Banaras Hindu University in the Year 1949. The present annual intake at B. Tech., IDD, and M.Tech.level is 80, 20 and 47 respectively. The postgraduate courses (M. Tech.) are running at present in FIVE specialisations being offered are Environmental Engineering, Geotechnical Engineering, Hydraulic and Water Resource Engineering, Structural Engineering, and Transportation Engineering. Two other (M. Tech.) programmes have been finalized in "Engineering Geoinformatics" and "Engineering Geosciences". In addition to the above, Ph.D. programme is also continuing at this Department.

Department works through various sections based on the specializations. Each section is headed by the senior most professor of the section, who continuously keeps interacting with new as well as experienced faculty members for the purpose of revision the course curriculum, course contents, etc. under the guidance of the Head of the Department. The emerging research areas are thoroughly discussed to assign problems to the M. Tech. and Ph.D. students. Regular meetings of Faculty members of a particular section motivate new faculty members to take up the challenging research problems, and also enable them to work on these. Faculty members of Civil Engineering Department have contributed towards administrative responsibilities like Wardenship, IIT (BHU) Gymkhana. They also conduct classes for inculcating the moral and ethical values in the students.

The Department of Civil Engineering is continuously engaged in developing international standard in teaching and research programs. The Department directs concerted efforts to achieve an international level and also, to become a Mark of Prestige to the Nation.

Major areas of Research

Environmental Engineering, Geotechnical Engineering, Hydraulic and Water Resource Engineering, Structural Engineering, and Transportation Engineering

Area of the Department/School (in square meters):

Floor Area: 4000 Sq. m. (excluding faculty rooms)

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	08
2.	No. of Lecture Halls	---
3.	No. of Laboratory	09
n	No. of Computers available for students in the Department/School/School	50

Unique Achievement / Preposition of the Department/School

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course name	Course credit
1.	CE 5261	Geomorphology	11
2.	CE 5262	Environmental geology	11

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	78	77	82	73	
2.	Dual Degree	19	18	20	21	21
3.	M. Tech / M. Pharm	33	27	----	----	----
4.	Ph. D (Under Institute Fellowship)	15	6	4	2	1
5.	Ph. D (Under Project Fellowship)	----	----	----	----	----
6.	Ph. D (Under Sponsored Category)	----	----	----	----	----

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Atul Kr. Rahul	15061 005	1. Flood Risk Mitigation & Management(Training)	7th-11th Sep. 2015, NIH Roorkee	NIH Roorkee
			2. Open Source GIS(Workshop & Conference)	8th Oct. 2015, IIT BHU	Self
			3. River Training and Management(Training)	27th-29th Jan 2015, CWPRS PUNE	Self
			4. Mountain Hydrology and Climate Change	28th March-8th April (GBPUAT & NIH) ROORKEE)	IISC BANGLORE & NIH ROORKEE, GBPUAT
2.	Nikita Shivhare	15061 012	1. Open Source GIS (Workshop & Conference)	8th Oct 2015, IIT BHU	Self
			2. River Training and Management(Training)	27th-29 Jan. 2015, CWPRS PUNE	Self
			3. RAIT 2016(Conference)	3rd-5th March 2015, (ISM DHANBAD)	IIT BHU
			4. Mountain Hydrology and Climate Change	28th March-8th April (GBPUAT & NIH) ROORKEE)	IISC BANGLORE & NIH ROORKEE, GBPUAT
3.	PadamJee Omar		1. Open Source GIS(Workshop & Conference)	8th Oct 2015, IIT BHU	Self
			2. River Training and Management (Training)	27th-29 Jan. 2015, CWPRS PUNE	Self
	Dhanendra Kumar	11403 EN011	International Conference on Concrete & Construction Technology	Dec, 2015, Bengaluru, Karnataka, India	IIT BHU
	Shreyash Ashok Keote	11403 EN009		Dec, 2015, Bengaluru, Karnataka, India	IIT BHU

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Shubham Kumar Bansal	12103 EN023	30th International Conference on Recent Advances in Engineering and Technology (ICRAET)	2nd April 2016 & Kuala, Lumpur	IIT (BHU), Varanasi
2.	Yash Sharma	12103 EN034	30th International Conference on Recent Advances in Engineering and Technology (ICRAET)	2nd April, 2016 & Kuala, Lumpur	IIT (BHU), Varanasi

Names of students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	B.Tech.-II, IDD-IV		Best Design Award	2015, August	INSDAG, Kolkata

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Palash Pagaria	11103EN017	Gold medal	IIT (BHU)
2.	Mona Goyal	10403EN009	Gold medal	IIT (BHU)

Names of Students/Scholars who went for foreign Internship

Sl. No	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1.	Shivpal Yadav	11403EN010	York University	Toronto	Canada	15th May 2015 to 15th August 1st March to 30th June 2016
2.	Shivpal Yadav	11403EN010	Federal University of Rio De Janeiro	Rio De Janeiro	Brazil	15th June 2014 to 2nd August 2014
n	Yash Sharma	12103EN034	École de technologies upérieure under the MitacsGlobalink Program	Montreal, Quebec	Canada	MitacsGlobalink Program 12 weeks
	Saksham Gupta	12103EN014	University College Cork	London, Ontario,	Ireland	May 2015 to July 2015
	Akhil Kumar	12103EN048	Western University	London, Ontario,	Canada	Mitacs Globalink Research Internship 201512 weeks
	P Deepak Kumar	12103EN019	National University of Singapore	Singapore	Singapore	
	Vutukuru Krishna Sai	12403EN001	OVM-MENA	Tunis	Tunisia	6 weeks

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)	
PROFESSORS			
1.	V. Kumar	Structural Engineering	Plastic analysis, Concrete technology, Retrofitting
2.	G. Benerjee	Environmental Engineering	
3.	D. Mohan	Environmental Engineering	
4.	Prabhat Kr. Singh	Environmental Engineering	Water and waste water treatment Solid waste Engg. and Management River Health
5.	P.K.S. Dikshit	Hydraulics & Water Resources Engineering	Ground water and watershed management; Hydraulic structures
6.	S. Mandal	Structural Engineering	Wind effect on structures, FEM, Advanced Concrete Technology
7.	Rajesh Kumar	Structural Engineering	Structural Dynamics, optimisation
8.	S.B. Dwiwedi	Geology	Petrology, Geochemistry & Engg. geology
9.	Arun Prasad	Geotechnical Engineering	Ground Improvement, Unsaturated Soil, Foundation Design
10.	K.K. Pathak	Structural Engineering	
ASSOCIATE PROFESSORS			
1.	K.K.Pandey	Hydraulics &Water Resources Engineering	Fracture Mechanics of Concrete, Hyd & Hydrologic Modeling, Hyd. Strctures
2.	Brind Kumar	Transportation Engineering	Pvement Materials, Nalysis & Design of pavements, Road traffic noise
3.	P.R. Maiti	Structural Engineering	Strctural dynamic, Bridge Engineering, Steel Structures
4.	Medha Jha	Geology	Hydrogeomorphology, Engineering Geology
5.	S.K. Gupta	Hydraulics & Water Resources Engineering	Optimised Design of hydraulic strcutres, Modelling and simulation of hydrologic & hydraulicstructures; Simulation of hydraulic uncertainty analysis
6.	Anurag Ohri	Surveying	Remote sensing, GIS, Surveying, Solid Waste Engineering
7.	P. Bala Ramudu	Geotechnical Engineering	Geotechnical Engineering-Critical State Soil Mechanics;
ASSISTANT PROFESSORS			
1.	Kesheo Prasad	Hydraulics & Water Resources Engineering	Ground Water; Fluid Mechanics; Ground water recharge; CFD
2.	Suresh Kumar	Geotechnical Engineering	Soft soil, Stone column, static & dynamic analysis, Geosyntheticaaplication
3.	Ankit Gupta	Transportation Engineering	Pavement Performecnce evaluation, Traffic flow modelling, Pedestrian flow analysis, Pavement material characterisation

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1.	MedhaJha and AnuragOhri	Open Source GIS: Opportunities and Challenges	October 9-10, 2015
2.	Prabhat Kr. Singh		March 05-06, 2016
3.	Prabhat Kr. Singh		March 29-30, 2016

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Meetings			
1.	CED 57 (CED, BIS New Delhi)	Cyclone Resistant Structure, Use of Recycled aggregates in concreting,	One Day, March 25,
2.	ICI Day		One day, Varanasi

Special lectures delivered by faculty members in other institutions

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. PKS Dikshit	Meandering & erosion of River Ganga, Varanasi	MMM University of Technology, Gorakhpur	24.02.2016
2.	Prof. Prabhat Kumar Singh	(i) Expert lecture entitled" Options of Low Cost Sanitation	National Seminar on Low Cost Housing Models for Urban and Rural Areas of UP, Organized by Department of Technical Education, Government of Uttar Pradesh and Department of Civil Engineering, HBTI, Kanpur,	Nov.26, 2015.
3.	Prof. Prabhat Kumar Singh	(ii) Presented the paper entitled "Sanitary Landfill Site Selection by Using Open Source Geographic Information System" authored by Anurag Ohri, Prabhat Kumar Singh, SatyaPrakashMaurya, Sachin Mishra, at	National Conference on "Open Source GIS-Opportunities and Challenges", Organised by Department of Civil Engineering, IIT (BHU),	Oct.09-10, 2015.
4.	Dr P. R. Maiti	Delivered lecture on "Computational Approaches of Finite Element Analysis and its Applications"	KNIT Sultanpur	March 1, 2016

Fellowships of academic and professional societies

Sl. No	Name of faculty Member	Details of Fellowship
1.	Prof. PKS Dikshit	Fellow of Institute of Engineers
2.	Dr. MedhaJha	Geological Society of India, IAH, GAARC
n	Prof. Arun Prasad	Was invited by School of Civil & Environmental Engineering, Nanyang Technological University, Singapore as Visiting Research Scientist for a period of one year during 2014-15.

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Prof. Arun Prasad	'Soil Mechanics and Foundation Engineering'	Cengage Learning, India
2.	Dr. Anurag Ohri and DrMedhaJha	Proceedings of National Conference on Open Source GIS: Opportunities and Challenges	

Editorial boards of journals

Sl. No	Name of faculty Member	Position (Editor/member)	Name of Journal
1.	Dr. MedhaJha	Member	Scifront-Journal & Multiple Science

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Advanced Computational Laboratory	~ 5 Lakhs
2.	Universal Cyclic Testing System (Geotechncial Laboratory)	~ 20 Lakhs

Research and Consultancy

Sponsored research projects (Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Development of Support System for Containerized Organic Waste Processing Unit for IIT (BHU).		Supported by Design and Innovation Hub-Project Varanasi.	Rs 2.0 Lakh	Co-P.I.- Dr. Anurag Ohri

Industrial consultancy projects (Ongoing only)

Sl. No	Name of faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Testing & Consultancy Extended to Govt., and Private Organisations			427.35935

Faculty members' participation with other universities under MoUs (Ongoing only)

Member, BoS - Central University, Mizoram, Aizwal
Member, BoS - Dr. RML, University, Faizabada

Research Publications

Sl. No	Name of Faculty Member	No.
1.	Total Number of Papers Published in Refereed International Journals	19
2.	Total Number of Papers Presented in National Conferences	1
3.	Total Number of Papers Presented in International Conferences	1

Refereed International Journals

1. Singh, P.K., Banerjee, S., Srivastav, A.L. and Sharma, Y.C. (2015). Kinetics and Equilibrium Modeling for Removal of Nitrate from Aqueous Solutions and Drinking Water by a Potential Adsorbent, Hydrous Bismuth Oxide, Royal Society of Chemistry (RSC) Advances, 5, 35365.
2. Srivastav, A.L., Singh, P.K., Weng, C.H., and Sharma, Y.C. (2015). Novel Adsorbent Hydrous Bismuth Oxide for Removal of Nitrate from Aqueous Solutions, Journal of Hazardous Toxic and Radioactive Waste, ASCE, 19(2), 04014028-8.

3. Sanjay Kumar Srivastava, Rajesh Kumar and Prabhat Kumar Singh Dikshit, (2015) "Optimization of Pipeline Flow of Fine Particles Slurry Using Genetic AlgorithmsInternational jounal, I'mangers, Journal of Civil Engineering, Vol 3, No.4, December14-February 15. (Global Impact Factor-0.562)
4. Sanjay Kumar Srivastava, Rajesh Kumar and Prabhat Kumar Singh Dikshit, (2015) "Optimization of Pipe Network Design using Genetic Algorithm,International jounal, I'mangers, Journal of Civil Engineering, Vol 3, No.4, December14-February 15 (Global Impact Factor-0.562).
5. Kotha Rajeev Rathan Kumar, Veerendra Kumar and Rajesh Kumar, (2015), "Plastic Analysis of R.C. Annular Slabs Supported at both Edges", Journal of Structural Engineering, Vol. 42, June-July 2015, pp. 176-183 (Global Impact Factor-0.588).
6. Karan Modi, ShreyaThusoo, Rajesh Kumar and Hitesh Madaha., (2015), "Structural Response of Buildings due to Dynamic Soil-Structure Interaction", International jounal, I'mangers, Journal of Structural Engineering, Vol 3, No.4, December14-February 15 (Global Impact Factor-0.588).
7. Karan Modi, Rajesh Kumar, JyotiKatiyar and ShreyaThusoo, (2015), "Analysis of Plates with Varying Rigidities Using Finite Element Method", International Journal of Mechanical, Aeospace, Industrial and Mechatronics Engineering, Vol:9, No:4, 2015, World Academy of Science, Engineering and Technology.
8. ShreyaThusoo, Karan Modi, Rajesh Kumar, Hitesh Madahar, (2015), "Response of Buildings with Soil-Structure Interaction with Varying Soil Types", International Journal of Mechanical, Aeospace, Industrial and Mechatronics Engineering, Vol:9, No:4, 2015, World Academy of Science, Engineering and Technology.
9. G.J. Singh, S. Mandal and Rajesh Kumar (2015), "Effect of Relative Stiffness of Beam and Column on the Shear Lag Phenomenon in tubular Buildings", International jounal, I'mangers, Journal of Structural Engineering, Vol.4, No.1, March-May 2015 (Global Impact Factor-0.588) .
10. B.Yaswanth Kumar, Rajesh Kumar and Veerendra Kumar (2016), "Limit Analysis of Annular Footing acted upon by Axisymmetric Load", Journal of Structural Engineering, Vol.42, No. 5, December 2015-January 2016, pp. 379-385.
11. Ishan Sharma, P Deepak Kumar &P R Maiti (2015) " The effect of fiber orientation and Laminate layup in fiber reinforced polymer composite", The IUP Journal of Structural Engineering, Vol-VIII, No-1, pp 49-69
12. Gupta, S. K., Mishra, U. and Singh, V. P., "Design of minimum cost earthen channels having side slopes riveted with different types of riprap stones and bottom unlined by using particle swarm optimization", Irrigation and Drainage, John Wiley, 2015 (In press)
13. Singh, B., Gupta, A. and Suman, S. (2015) "Framework for Development of Advanced Traveler Information System: A Case Study for Chandigarh City", Journal of Institute for Urban Transport, India, Vol. 14, No. 1, pp. 75-83.
14. Gupta, A. and Pundir, N. (2015). "Pedestrian Flow Characteristics Studies: A Review", Transport Reviews, Taylor and Francis, Vol. 35, No. 4, pp. 445-465. (DOI: 10.1080/01441647.2015.1017866) [IF: 2.903]
15. Singh, B. and Gupta, A. (2015). "Recent Trends in Intelligent Transportation Systems: A Review", Journal of Transport Literature, Brazil, Vol. 9, No. 2, pp 30-34.
16. Mohanty, M. and Gupta, A. (2015)."Factors Affecting Road Crash Modeling", Journal of Transport Literature, Brazil, Vol. 9, No. 2, pp. 15-19.
17. Gupta, A., Kumar, P. and Rastogi, R. (2015). "Critical Pavement Response Analysis of Low Volume Pavements Considering Non Linear Behavior of Materials", Transportation Research Record (TRR), Journal of the Transportation Research Board (TRB), Vol. 2474, pp 3-11. (DOI: 10.3141/2474-01) [IF: 0.544]
18. Gupta, A., Kumar, P. and Rastogi, R. (2015). "Mechanistic-Empirical Approach for Design of Low Volume Pavements", International Journal of Pavement Engineering, Taylor and Francis, Vol. 16, No. 9, pp. 797-808. (DOI:10.1080/10298436.2014.960999) [IF: 0.706]
19. Kumar, A., Binns, A., Gupta, S. K., Singh, V. P. and Jack, Mckee. "Analyzing the Performance of Various Radar-Rain Gauge Merging Methods for Modeling Hydrologic Response of Upper Thames River Basin, Canada", Proceedings of EWRI Congress, American Society of Civil Engineers, 2016, Florida.

Proceedings of International Conferences

1. Kumar, D., Keote, S. and Mandal, S. (2015) "Experimental Investigation of Mechanical Properties of Bamboo Fiber Reinforced Concrete", Proceedings ofInternational Conference on Concrete &Construction Technology, VVIT, Bangalore, December-2015, Publisher:Mc. GrawHill Education 2015

Proceedings of National Conferences

1. Tignath, S. and Jha, M.(2015) "Impact of Urbanisation on the Wetland Conditions of Jabalpur, M.P. India", Proceedings of National Conference on Open Source GIS: Opportunities and Challenges Department of Civil Engineering, IIT (BHU), Varanasi, October 9-10, 2015,pp 159-164

Head of the Department : Prof. P.K. Mishra

Brief Introduction of the Department :

Department of Industrial Chemistry was established in 1921 at Banaras Hindu University. Subsequently, it was renamed as the Department of Chemical Engineering and Technology in 1956. The Department has established several benchmarks of achievements in teaching and research. It modernizes its programmes to impart education in upcoming areas of chemical engineering.

The Department presently offers courses leading to B. Tech., M. Tech. and Ph. D. degrees in Chemical Engineering. The Department also offers courses to IIT(BHU) and Banaras Hindu University.In the new undergraduate curriculum, the department has been entrusted to offer a number of institute level courses either independently or jointly with outer departments. The research facilities of the department are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories.

The floor area of the department is 4,002 sq. meter. The department 18 laboratories, a workshop, 7 lecture theatres, a 250 seat auditorium, a library having over 11,000 volumes of text and reference books and a textbook bank and internet facility. The Department also has a seminar room and a few instruction rooms and rooms for its faculty.

The University Grants Commission, New Delhi has granted the Department the Status of Centre of Advanced Study in Chemical Engineering. The Department also enjoys the status of DST – FIST Sponsored Department.

The Department enjoys an excellent rapport and professional interaction with various industrial organisations. Faculty members are engaged in high level consultancy work in industry, where as some others have projects funded by the industry. Besides these, the Department also provides know-how for process improvement/ development, raw materials and products analysis, pollution monitoring facilities, etc to the industries in and around Varanasi.

Major areas of Research

Currently major areas of research in the department are waste water treatment, separation processes, catalysis, biotechnology and fuel cell. The department has identified three major thrust areas for future research as energy, environment in addition to catalysis reaction engineering with emphasis on developing affordable solutions for the problems in the country such as drinking water,energy (harvesting, production and storage) and healthcare.

Area of the Department/School (in square meters):

The floor area of the department is 4,002 sq. meter.

Infrastructure

Sl. No	Particulars	Number
1	No. of Classrooms	07
2	No. of Lecture Halls	03
3	No. of Laboratory	18
4	No. of Computers available for students in the Department/School/School	80

Unique Achievement / Preposition of the Department/School

1921 : Established as Department of Industrial Chemistry
1935 : Two year M.Sc. (Tech.) Degree course started.
1949 : Four year Bachelor Degree Course in Engineering started
1956 : Renamed as the Department of Chemical Engineering and Technology
1963 : Two year Master Degree in Chemical Engineering started
1993 : Special Assistance under SAP/ COSIST Programmes of UGC
1997 : IFFCO Chair was granted by IFFCO Ltd, New Delhi
1999 : UGC - Centre of Advanced Study

2004 : DST-FIST (Level I)
2005 : UGC - Centre of Advanced Study Phase II
2010 : UGC – Centre of Advanced Study Phase III
2013 : DST – FIST (Level I further for next 5 yrs)

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course name	Course credit
1	CHE101	Chemical engineering Practices Lab	05
2	CHE291	Exploratory Project	05

Students on Roll

Sl. No	Programme	I Year	II Year	III Year	IV Year	V Year & above
1	B. Tech	117	105	106	108	N.A.
2	Dual Degree	N.A.	N.A.	N.A.	N.A.	N.A.
3	M. Tech/ M. Pharm	40	37	N.A.	N.A.	N.A.
4	Ph. D (Under Institute Fellowship)	13	16	9	12	02
5	Ph. D (Under Project Fellowship)	N.A.	N.A.	N.A.	N.A.	N.A.
6	Ph. D (Under Sponsored Category)	NA	N.A.	01	N.A.	N.A.

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1	Ms. Ramya Krishna	14042005	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
2	Mr. Bhupender Giri	14042006	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
3	Mr. Kedar Sahoo	14042013	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
4	Ms. Komal Tripathi	14042015	Conference	15-10-15, Punjab University	IIT(BHU)
5	Mr. Livingstone P. George	14042016	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
6	Ms. Marapu Reddy Sai Geetha	14042017	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
7	Mr. Mayank Joshi	14042018	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
8	Mr. S K Amir Ali	14042029	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)

9	Ms. Shalini Arora	14042032	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
10	Mr. Ravi K. Sonwani	14042027	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
11	Mr. Pavan K. Gupta	15041008	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
12	Ms. Vaishali Sharma	14042038	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
13	Mr. Manish Kumar	12602EN014	ICETEST 2015	9-11 Dec. 2015, GEC Trichur, Kerala	IIT(BHU)
14	Mr. Manish Kumar	12602EN014	ISHMT 2015	17-20 Dec. 2015, ISRO, Thiruvananthpuram, Kerala	Self
15	Mr. Manish Kumar	12602EN014	ICACE 2015	20-22 Dec 2015, NIT Surathkal, Karnataka	Self
16	Mr. Manish Kumar	12602EN014	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
17	Mr. Shivam K. Gautam	14042033	Conference	13 Dec. 2015, PU Chandigarh	
18	Ms. Vasu Chaudhary	14042040	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
19	Mr. Vishal Kamboj	14042044	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
20	Mr. Deepak Yadav	13041001	ICETEST 2015	9-11 Dec. 2015, GEC Trichur, Kerala	IIT(BHU)
21	Ms. Deepika Kushwaha	13041002	CHEMCON 2015	26-30 Dec. 2015, IIT Guwahati	IIT(BHU)
22	Mr. Mithilesh K. Rai	13041006	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
23	Mr. Pramendra Gaurh	13041009	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
24	Mr. Ankit Kumar	13041501	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
25	Mr. Dilip Kumar	13041502	Conference	27 Oct. 2015 IIT (BHU), Varanasi	IIT(BHU)
26	Mr. Dilip Kumar	13041502	Conference	13 Dec. 2015 IIT Bombay	IIT(BHU)
27	Mr. Dilip Kumar	13041502	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
28	Mr. Munna Kumar	13041503	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
29	Mr. Tarun K. Dixit	13041508	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)

30	Ms. Amrita Shahi	14041004	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
31	Ms. Suvera Trivedi	14041006	CHEMCON 2015	26-30 Dec. 2015 IIT Guwahati	IIT(BHU)
ABROAD					
1.	S.K. Srikar	13042040	International Conference on Key Engineering materials, (ICKEM-2015)	21-23 March, 2015 Singapore	IIT(BHU)

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Khushabu Garg	11102EN010	IIT(BHU) Varanasi Medal, RGB Modi Medal, Manishi Sharma Memorial Gold Medal, Gargi Devi Trivedi Memorial Gold Medal	IIT(BHU)
2	Sista Kameshwara Srikar	13042037	IIT(BHU) Varanasi Medal	IIT(BHU)
3	Dan Bahdur Pal (PhD)	12602EN009	Best Poster	
4	Anupma Mishra (PhD)	12602EN011	Best Poster	Institute Day committee
5	Garima singh (B Tech)	11102EN027	Best Poster	Institute Day committee
6	Gautam (BTech)	12102EN054	II Prize, Best Poster	Institute Day committee
7	Priyanka Dhar (M Tech)	13042032	II Prize, Best Poster	Institute Day committee
8	Meghna Kapoor (PhD)	11602EN005	III Prize, Best Poster	Institute Day committee
9	Vishnu M C (B Tech)	12102EN062	III Prize, Best Poster	Institute Day committee
10	Prakash Shah (B Tech)	12102EN023	III Prize, Best Poster	Institute Day committee
11	Nidhi Allangh (M Tech)	13042028	III Prize, Best Poster	Institute Day committee
12	S K Srikar (M Tech)	13042040	III Prize, Best Poster	Institute Day committee

Names of Students/Scholars who went for foreign Internship

Sl. No	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Shubham Gupta	12102EN060	Uniliver Limited	Jakarta,	Indonesia	May-July 2015

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1	K.K. Srivastava 13736	Process Engg., Transfer Processes, Fluidization Engg.
2	A.K. Verma 13744	Modeling & Simulation, Multiphase Reactor Design & Artificial Intelligence

3	A.S.K. Sinha 13741	Reaction Engg, Photocatalysis., Electrocatalysts, Process Development, Hydrogen Energy, Nanotechnology
4	Ram Prasad 13737	Chemical reaction Engg. & Catalysis, Process Design & Development, renewable Energy
5	B.N. Rai 13746	Bio-remediation, Water Pollution control, Air Pollution control and Environmental Biotechnology
6	P.K. Mishra 13747	Separation Processes (Extraction & Membrane Separation), Wastewater Treatment, Polymeric & Ceramic Nanofibers
7	Pradeep Ahuja 13748	Modeling & Simulation Kinetics & Thermodynamics, Energy & Polymer Technology
8	M.K. Mondal 13749	Industrial Pollution Control, Transfer Process, Chemical Reaction Engg., Modeling& Simulation Process Optimization
9	R.S. Singh 16729	Environmental Biotechnology, Process Control, Bioremediation of Waste
ASSOCIATE PROFESSORS		
1	V.L. Yadav 13745	Polymer Technology, Transfer Processes, Chem. Reaction Engg, Chemical Technology
2	S.V. Singh 18210	Fruit and vegetable storage and processing, Adsorption
3	H. Pramanik 17500	Fuel Cell Technology, Energy Engineering, Electrochemistry
ASSISTANT PROFESSORS		
1	A.C. Mohan 13742	Process Control, Polymer Technology
2	Bhawana Verma 18152	Heat Transfer, Liquid membrane separation, Biodiesel, Pyrolysis, Liquid-Liquid Extraction
3	Durga Prasad A. 18151	Process modeling and simulation, Optimization techniques, Process dynamics and control, Process Equipment design.
4	Pradeep Kumar 18479	Chemical Technology, Industrial Pollution Abatement.
5	Sweta 19770	EnvironmentalCatalysis, Reaction Kinetics, Polymer Blends, Diesel Exhaust Treatment
6	Jyoti P. Chakraborty 19844	Reaction Engineering, Pyrolysis, Renewable Energy, Modeling & Simulation
7	Ravi P. Jaiswal 50025	Interfacial Engineering, Particle Adhesion
8	Ankur Verma 50026	Interfacial Science, Microfluidics, Nanotechnology
9	Manoj Kumar 50027	Optical Nano System Design, Energy and Photocatalysis

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1	Prof. P. K. Mishra	Workshop on Water & Wastewater Treatment	21st May -5th June 2015
2	Prof. P. K. Mishra	Conclave on Renewable Energy Scenario in India (Inspire)	29th-30th January 2016
3	Prof. M.K. Mondal	Summer School-cum Workshop on Water and Wastewater Treatment (SSWWT-2015)	May 21-June 05, 2015

4	Dr. Satya Vir Singh	Renewable Energy and Sustainable Development"	January 18-22, 2016 at CERD IIT BHU, Varanasi
5	Prof. A.S.K. Sinha, Dr. Jyoti P. Chakrawarti, Dr. Sweta	Advances in Preparation and Characterization of Heterogeneous Catalyst	8-20 June, 2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1	Dr. Manoj Kumar	Internation Conference on Material Science and Technology	1st–4th March 2016, University of Delhi
2	Dr. Ankur Verma	Chemference 2016	5th–6th December 2015 IIT Hyderabad
3	Dr. Jyoti P. Chakraborty	Chemference 2016	5th–6th December 2015 IIT Hyderabad
4	Prof. P. K. Mishra	International Conference on Recent Advances in Analytical Sciences (RAAS-2016)	7th-9th April 2016
5	Prof. P. K. Mishra	Workshop on Water & Wastewater Treatment	21st May 5th June 2015
6	Prof. P. K. Mishra	Conclave on Renewable Energy Scenario in India	29th-30th January 2016
7.	Prof. P. K. Mishra	Seminar on Research in Clean Technology Options	24th July, 2015 ONGC New Delhi
8.	Prof. R.S. Singh	CHEMCON 2015	27-30 Dec. 2015, IIT Guwahati
9.	Dr. Ram Prasad	International Congress on Natural Sciences and Engineering (ICNSE 2015)	May 7-9, 2015, Kyoto, Japan
10	Dr. Ram Prasad	24th North American Meeting of the Catalysis Society (NAM 24)	June 14-19, 2015, Pittsburgh, Pennsylvania, USA
11.	Dr. Ram Prasad	7th International Conference on Green and Sustainable Chemistry (GSC-7)	July 5-8, 2015, Tokyo, Japan
12.	Dr. Ram Prasad	National Conference on Technological Advances in Chemical, Petroleum & Natural Gas Engineering (ACPNe-2015)	April 10-11, 2015, Chandigarh University
13.	Dr. Ram Prasad	Int. Conf. on Geo-Eng. and Climate Change Tech. for sustainable Environmental Management	Oct. 9-11, 2015, MNNIT, Allahabad.
14.	Dr. Ram Prasad	Int. Conf. on Adv. in Chem. Eng. (ICAChE-2015)	Dec. 9-11, 2015, GEC, Thrissur, Kerala
15.	Dr. Ram Prasad	Chemcon 2015	Dec 27-30, 2015, IIT Guwahati.
16.	Dr. Ram Prasad	Int Conf on Recent Trends in Eng. and Materials Sci. (ICEMS-2016)	March 17-19, 2016, Jaipur National University, Jaipur, Rajasthan.

Special lectures delivered by faculty members in other institutions

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. P. K. Mishra	Bioenergy from Municipal Waste	NER Headquarter, Varanasi	5th June 2015

2.	Prof. P. K. Mishra	Environment and Entrepreneurship, 15th Refresher's course in Women's Studies	UGC Human Resource Development Center	18th Aug-7thSept 2015
3.	Prof. P. K. Mishra	Mahamana's Vision for Chemical Industries in India	Interdisplinery Refresher's Course Mahamana Malviya's Mission	14th Oct 2015
4.	Prof. P. K. Mishra	Keynote Address on Make in India: A Global Perspective	Kashi Institute of Technology, Varanasi	4th Nov 2015
5.	Prof. P. K. Mishra	Keynote Address on Sustainable Development, Inspire Science Camp	Kashi Institute of Technology, Varanasi	2nd Dec 2015
6.	Prof. P. K. Mishra	Innovate to Serve "Harnessing Energy from the Waste".	73rd UGC Course, Human Resource Development Center	3rd Jan 2016
7.	Dr. Ram Prasad	Catalytic control of diesel vehicular emissions.	Intensive Course Chemical Engineering Dept., IIT (BHU)	8-20 June 2015
8.	Dr. Ram Prasad	Three-phase catalytic reactor design	Chandigarh University	20 Oct. 2015
9.	Dr. Ram Prasad	Applications of simultaneous thermal analysis in heterogeneous catalysis	Thermans-2016, IIT (BHU)	5th June 2015
10.	Dr. Satya Vir Singh	Energy use pattern in food processing	Krishi Vigyan Kendra, Institute of Agricultural Sciences, Rajiv Gandhi South Campus,Banaras Hindu University, Barkachha, Mirzapur (U.P.)	18-22 Jan 2016
11.	Dr. Satya Vir Singh	Low cost drying technologies of vegetables	Indian Institute of Vegetable Research, Varanasi, U.P. -221305.	2 Sep. 2015

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Ram Prasad	Japan	4 July 2015	13 July 2015	Conference	CPDA

Honours and awards

Sl. No	Name of Faculty Member	Details of Award
1.	Dr. Ram Prasad	Life-time Achievement Award-2014 by the Biotech Research Society India in Recognition of the Outstanding Contributions in the Field of Environmental Biotechnology
2.	Dr. Ram Prasad	Life-time Achievement Award 2014 by IITBHU Global.Org, Lisle, Illinois, USA, September 13, 2015

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Neha Srivastava*, Manish Srivastava, P.K. Mishra, Pradeep Singh and P.W. Ramteke	Nanoparticles for biofuels production from lignocellulosic waste	Sustainable Agriculture Reviews, Springer
2.	Tripti Singh, Neha Srivastava, P.K, Mishra, A.K. Bhatiya and NandLal Singh	Application of TiO_2 nanoparticle in photocatalytic degradation of organic pollutants	Trans Tech Publications, Switzerland
3.	Neha Srivastava, Manish Srivastava, P.K. Mishra, Himanshu Pandey and P.W. Ramteke	Green nanotechnology for biofuels production	Springer [Status: In process] Editors
4.	Shalini Srivastava, S.B. Agrawal and M.K. Mondal	Chapter 4: Chromium (VI) pollution in hydrosphere: its impact on human beings and remediation by adsorption	NOVA SCIENCE PUBLISHERS, INC.
5.	Shailesh Kumar and M.K. Mondal	Mass transfer and kinetics of CO_2 absorption into alkanolamines, Carbon Dioxide Capture: Processes, Technology and Environmental Implications	NOVA SCIENCE PUBLISHERS, INC.

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	NSW-133 Water Bath Incubator Shaker-1 Pc	95200.00
2.	10 KW Solar PV Power Palnt with Battery Backup-1 set	945555.00
3.	Microprocessor Based Programmable Ulrasonic Probe S-3 Pc	276000.00
4.	Nucon Series 5765 Dual Column Gas Chromatograph-3 set	1050000.00
5.	NSW-143 Oven Universal Hot Air-2 Pc	67200.00
6.	Double Beam UV-VIS Spectrophotometer Model SL-210-1 Pc	284350.00
7.	NSW 256 Orbital Shaking Incubator Cum BOD Incubator-2 Pc	553000.00
8.	Manual Fuelcell Test Station Rig-1 Pc	256000.00
9.	Split Tube Furnance-2 Pc	465000.00
10.	Closed Loop Water Circulating Plant-1 Pc	227000.00
11.	Single Channel Chromatography Data Station with Com-3 Pc	375000.00
12.	NSW 148 Tray Dryer-1 Pc	117450.00

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Prof. P.K. Mishra	A wound healing dermal membrane for human & animals and a method of prepration thereof" Inventors
2.	Prof. P.K. Mishra	A novel setup for reaction cum separation process during fermentative production of Alcohols
3.	Prof. P.K. Mishra	A novel fermenter for enhanced biohydrogen production through fermentative route
4.	Prof. P.K. Mishra	A pH independent cellulase system

Research and Consultancy

Sponsored research projects

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Development and Evaluation of IR NP for cellular wide sensitive E field mapping	2016-2019	DST Nano Mission	50.00	Manoj Kumar
2.	Municipal solid waste treatment and utilization	2015	IIT (BHU)	20.00	Pradeep Kumar, Co-PI
3.	To Develop Technology for Low Cost Manufacturing of a series of Veneering Porcelain Powder and Liquid Products for Metal-Ceramic Frame Work, Used on mass Scale in the Dental Field of Medical, Especially for Rural Area	2012 –2015	DST, India	50.00	Pradeep Kumar, Co-PI
4.	Development and evaluation of poly herbal bi-layer wound dressing materials	2014-17	DRDO	35.00	Prof. P.K. Mishra
5.	Aerosol and Black Carbon Monitoring in Indo-Gangatic Plane	2007–continue	VSSC, ISRO	42.00	Prof. R.S. Singh
6.	Sprouting Grant for Enhancement of Facilities	2014-2015	IIT (BHU)	15.00	Prof. R.S. Singh
7.	Design of High Temperature Facility for Graphite Dust Transport	2015-2017	BNRS, BARC, India	55.00	Prof. R.S. Singh
8.	“Development of Air Breathing Microfluidic Fuel Cell for the Direct use of Ethanol as Fuel for Power Generation”.	2013-2016	DST, New Delhi (under fast track young scientist scheme)	24.69	Dr. H. Pramanik
9.	Nox Removal from Diesel Exhaust by Combined NOxStorage Reduction and NH_3 SCR System	August 2015 -July 2018	DST, New Delhi (under fast track young scientist scheme)	30	Dr. Sweta

Industrial consultancy projects

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Prof. P.K.Mishra	Audit of Effluent Treatment Plant	Surya Carpet, Sant Ravidas Nagar, Bhadohi	1.25

Faculty members' participation with other universities under MoUs (Ongoing only)

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	22
2.	Total Number of Papers Published in Refereed International Journals	56
3.	Total Number of Papers Presented in National Conferences	13
4.	Total Number of Papers Presented in International Conferences	14

Refereed International Journals

1. A. Mishra, R. Prasad, Development of highly efficient double substituted Perovskite catalysts for abatement of diesel soot emissions, Clean Techn Environ Policy 17(8), 2015, 2337–2347.
2. A. Mishra, R. Prasad, Effect of Preparation Method and Calcination Temperature on $LaCoO_3$ Perovskite Catalyst for Diesel Soot Oxidation,Can Chem Trans. 3(1), 2015, 95-107.
3. B. P. Singh · S. Tiwari · P. K. Hopke · R. S. Singh · D. S. Bisht · A. K. Srivastava · R. K. Singh · U.C. Dumka · A. K. Singh · B.N. Rai · M. K. Srivastava, Seasonal Inhomogeneity of Soot Particles over the Central Indo-Gangetic Plains, India: Influence of Meteorology,Acta Meteorologica Sinica , Volume 29, Issue 6, pp 935-949 Jan 2016 (Impact Factor – 1.116)
4. C.V. Raghunath, M.K. Mondal,2016. Reactive absorption of NO and SO_2 into aqueous NaClO in a counter current spray column, Asia-Pacific Journal of Chemical Engineering, 11, 88-97, Wiley.Impact factor: 0.789.
5. D.B. Pal, R. Chand, P. K. Mishra. "Application of Pure Ceria and Copper-Ceria Electrospun Nanofiber in the Water Gas Shift Reaction. International Journal of advanced Technology in Engineering Science, Vol. (4) 48-54, (2016) (ISSN: 2348-7550)
6. D.B. Pal, R. Chand, P. K. Mishra. "Fabrication of copper-ceria nanofiber by electrospinning technique for application in water gas shift reaction. International Journal of Advanced Technology in Engineering Science, Vol. (4) 90-96, (2016) (ISSN: 2348-7550).
7. D. Singh, Krishnapriya Yadav, Deepshikha, R.S.Singh, Bio-fixation of carbon dioxide using mixed culture of microalgae, Indian Journal of Biotechnology, 14, 216-220, 2015.(Impact Factor 0.51)
8. D. Yadav, M. Kapur, P. Kumar, M.K. Mondal, 2015. Adsorptive removal of phosphate from aqueous solution using rice husk and fruit juice residue, Process Safety and Environmental Protection, 94, 402-409, Elsevier B.V. Impact factor: 2.55
9. D. Yadav, Meghna Kapoor, Pradeep Kumar, Monoj kumar Mondal (2015) Adsorptive removal of phosphate from aqueous solution using rice husk and fruit juice residue. Journal of Process Safety and Environmental Protection 94(2015) 402-409.
10. Geed S.R., Kureel M.K., Singh R.S., Rai B.N., Study of bioremediation of Hazardous Pollutants - Malathion Pesticide in Contaminated Soil by Bacterial pseudomonas sp., Energy Technology & Ecological Concerns: A Contemporary Approach, 98-102, ISBN: 978-81-93024-71-3, 2015.
11. I. B. Singh, A. Gupta, S. Dubey, M. Shafeeq, P. Banerjee and A. S. K. Sinha (2016) Sol-gel synthesis of nanoparticles of gamma alumina and their application in defluoridation of water. J. Sol-Gel Sci. & Technol. 77, 416-422.

    Kinetic Studies on Degradation of Reactive Red 120 dye in Immobilized Packed Bed Reactor by Bacillus cohnii RAPT1, Bioresource Technology, doi:10.1016/j.biortech.2016.02.126 (Impact Factor – 5.6)
12. Laxman Singh, Ill Won Kim, Satya Vir Singh, Byung Cheol Sin, Sang Kook Woo, Youngil Lee. (2015) Dielectric, ac-impedance and modulus spectroscopic studies of Nano-crystalline Bi0.5Na0.5TiO3 Synthesized by Using One Pot Glycine Assisted Solution Combustion from inexpensive TiO2" Published on line Journal of Materials Science: Materials in Electronics (JMSE) DOI 10.1007/s10854-014-2477-y
13. M. K. Mondal, Garima Mishra and Pradeep Kumar, 2015. Adsorption of cadmium (II) and chromium (VI) from aqueous solution by waste Marigold Flowers, Journal of Sustainable Development of Energy, Water and Environment Systems, 3, 405-415.
14. M.K. Mondal, Aparna Banerjee, 2015. Parametric evaluation of digestability of organic fraction of municipal solid waste for biogas production, Journal of Sustainable Development of Energy, Water and Environment Systems, 3, 416-424.
15. Madhvi , Laxman Singh, Sudhakar Saroj, Youngil Lee, Satya Vir Singh (2016) Facile synthesis of nano-crystalline anatase TiO2 and their applications in degradation of Direct blue 199. Accepted in Journal of Materials Science: Materials in Electronics (JMSE)27:2581–2588 DOI: 10.1007/s10854-015-4061-5
16. Maninder Kumar, Gaurav Rattan and Ram Prasad, Catalytic Abatement of Methane Emission from CNG

Vehicles: An Overview, Can Chem Trans. 3(4), 2015, 381-409.

17. Maninder Kumar, G. Rattan, R. Prasad, Optimization of Cobalt loading on γ-Al_2O_3 for total oxidation of Methane, Indian Chemical Engineer, DOI: 10.1080/00194506.2016. 1139470.
18. Manish Kumar Kureel · Sachin Geed · Awadhesh Kumar Shukla ·Birendra Nath Rai · Ram Sharan Singh, Bioremediation of Volatile Organic Compound Benzene by P.putida(1192), Journal of Basic and Applied Engineering Research p-ISSN: 2350-0077; e-ISSN: 2350-0255; Volume 2, Issue 23; October-December, 2015, pp. 1997-1999
19. Manoj K Srivastava , Suresh Tiwari, Bhanu Pratap Singh, Atul Srivastava, R S Singh, B. N. Rai, abhay singh, Deewan Singh Bisht, Umesh Chandra, "Seasonal inhomogeneity of soot particle over central Indo-Gangetic Plains, India : Influence of meteorology" Journal of Meteorological Research (JMR) (Accepted) (Impact Factor 1.116)
20. Meghna Kapur, M.K. Mondal, 2015. Design and model parameters estimation for fixed–bed column adsorption of Cu (II) and Ni (II) ions using magnetized saw dust, Desalination and water treatment, Taylor & Francis (Published online 22. 05.2015). Impact factor: 1.17
21. Meghna Kapur, M.K. Mondal, 2015. Magnetized sawdust for removal of Cu (II) and Ni (II) from aqueous solutions, Desalination and water treatment, Taylor & Francis (Published online 22. 05.2015). Impact factor: 1.17
22. N Srivastva, AK Shukla, RS Singh, SN Upadhyay, SK Dubey, Characterization of bacterial isolates from rubber dump site and their use in biodegradation of isoprene in batch and continuous bioreactors, Bioresource Technology, 188, 84-91, 2015.(Impact Factor 5.33)
23. Navnita Srivastva · Ram S. Singh · Siddh N. Upadhyay · Suresh K. Dubey, Degradation kinetics and metabolites in continuous biodegradation of isoprene Bioresour Technol. 2016 Apr;206:275-8. doi: 10.1016/j.biortech.2016.01.070 (Impact Factor – 5.6)
24. Neha Srivastava, Jay Singh, Pramod W. Ramteke, P.K. Mishra, Manish Srivastava, Improved production of reducing sugars from rice straw using crude cellulase activated with Fe_3O_4/Alginate nanocomposite, Bioresource Technology, 183 (2015) 262-266.
25. Neha Srivastava, Manish Srivastava, P. K. Mishra and Pramod W. Ramteke, Application of ZnO Nanoparticles for Improving the Thermal and pH Stability of Crude Cellulase Obtained from Aspergillus fumigatus AA001, Frontiers in Microbiology, 2016 | Volume 7 | Article 514.
26. Neha Srivastava, Manish Srivastava, P.K. Mishra, Pardeep Singh and P.W. Ramteke, Application of Cellulases in Biofuels Industries: An Overview,Journal of Biofuels and Bioenergy,2015, 1:55-63.
27. P. H. Kumar, A. Srivastava, V. Kumar, H. Singh, S. Sharma, P. Kumar, V. K. Singh (2015) New approach to maintain and to study role of CaF_2 on mechanochemical synthesis of leucite phase in dental veneering glass ceramics. Advances in Applied Ceramics 114 (2) (2015) 107-113.
28. Pardeep Singh, AnweshaBorthakur, Rishikesh Singh, Dhanesh Tiwary, P.K Mishra: Photocatalytic Degradation of Benzene and Toluene in Aqueous Medium. pollution 2016 (DOI: 10.7508/pj.2016.02.008)
29. Pardeep Singh, M.C. Vishnu, Karan Kumar Sharma, Rishikesh Singh, Sughosh Madhav Dhanesh Tiwary, Pradeep Kumar Mishra: Comparative study of dye degradation using TiO2 /activated carbon nanocomposites as catalysts in photocatalytic, sonocatalytic, and photosonocatalytic reactor. Desalination and water treatment 11/2015; DOI:10.1080/19443994.2015.1108871.
30. Pardeep Singh, Rishikesh Singh, Anwesha Borthakur, Pratap Srivastava, Neha Srivastava, Dhanesh Tiwary, Pradeep Kumar Mishra: Effect of nanoscale TiO2-activated carbon composite on Solanum lycopersicum (L.) and Vigna radiata (L.) seeds germination. Energy Ecology and Environment 02/2016; 1(1):1-10. DOI:10.1007/s40974-016-0009-8.
31. Pardeep singh, Vishnu M.C, Karan Kumar Sharma, Anwesha Borthakur, pratap Srivastava, D.B. Pal, Dhanesh Tiwary, Pradeep Kumar Mishra: Photocatalytic degradation of acid red dye in the presence of activated carbon-TiO2 composite and its kinetic enumeration. Journal of Water Process Engineering

08/2016; X(X):X-Y. DOI:10.1016/j.jwpe.2016.04.007.

32. Pardeep Singhet. al., P. K. Mishra :Utilization of Temple Floral Waste for Extraction of Valuable Products: A Close Loop Approach towards Environmental Sustainability and Waste Management, Pollution 2016 (Accepted)
33. Pattem Hemanth Kumar, Vinay Kumar Singh, Abhinav Srivastava, Sumit Kumar, Hira Kumar, Pradeep Kumar, Partha Pratim Manna (2015) Mechanochemically synthesized leucite based bioactive glass ceramic composite for dental veneering. Journal of Ceramics International 41(2015) 11161-11168.
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35. Pattem Hemanth Kumar, Vinay Kumar Singh, Pradeep Kumar, Gaurav Yadav and R.K. Chaturvedi (2016) Effect of Al_2O_3 on leucite based bioactive glass ceramic composite for dental veneering. Journal of Ceramics international 42, 3591–3597 (2016).
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38. Pramanik, H., Rathoure, A.K., "Electrooxidation Study of Ethanol in Air Breathing Microfluidic Fuel Cell at Low Loading of Electrode-catalyst" International Journal of Chemical and Environmental Engineering, 6(2) (2015) 90-94.
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40. R S Singh, V.C.Padmanaban, Sachin Ramesh Rao Geed, Anant Achary
41. R S Singh, Manish Kumar, Tirthankar Banarjee, Mineral Dust: The Underestimated Component of Earth system, Pure and Applied Geophysics, (Impact Factor 1.85)
42. R. Narayan, R.P. Meena, A.K. Patel, A.K. Prajapati, S. Srivastava, M.K. Mondal, 2016. Characterization and application of biomass gasifier waste material for adsorptive removal of Cr (VI) from aqueous solution, Environmental Progress & Sustainable Energy, American Institute of Chemical Engineers, 35, 95-102. Impact factor: 1.631
43. R. Saini, M.K. Mondal, P. Kumar, 2015. Kinetic study on biodegradation of kitchen waste using anaerobic digestion,International Journal of Chemical and Environmental Engineering, 6, 69-72.
44. Ram Singh, Laxman Singhand Satya Vir Singh (2015) Beneficiation of Iron and Aluminium oxides from Fly Ash at Lab scale.International Journal of Mineral Processing 145:32-37 DOI 10.1016/j.minpro.2015.08.001
45. Ravi S. Singh, Pradeep Kumar, M.K. Mondal, 2015. Intra-particle diffusion during adsorption of Cr (VI) on carbon slurry and Parthenium Hysterophorous, International Journal of Chemical and Environmental Engineering, 6, 15-21.
46. Ravi S. Singha, Pradeep Kumar, M. K. Mondal (2015) Intra-particle Diffusion during Adsorption of Cr (VI) on Carbon Slurry and Parthenium Hysterophorous. International Journal of Chemical and Environmental Engineering 6(1) (2015) 15-21.
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48. Roli Saini, Pradeep Kumar (2016) Simultaneous removal of methyl parathion and chlorpyrifos pesticides from model wastewater using coagulation/flocculation: Central composite design. Journal of Environmental Chemical Engineering 4 (2016) 673–680.

49. S B Mishra, Sadhna Sachan, S N Upadhyay and P K Mishra, Synthesis, Characterization and Performance Evaluation PVDF-SPES-ZrO2 Membrane, Desalination and Water Treatment, 10.1080/19443994.2015.1085442 (2015)
50. S. Dey, D Mohan, R Prasad Automobile Pollution Control Using Catalysis. Discovery, 2015, 39(176), 20-26.
51. S. K. Srikar, D. D. Giri, D. B. Pal, P. K. Mishra, S. N. Upadhyay, Green Synthesis of Silver Nanoparticles: A Review. Green and Sustainable Chemistry, 2016, 6, 34-56.
52. S. K. Srikar, D. D. Giri, D. B. Pal, P. K. Mishra, S. N. Upadhyay , Light Induced Green Synthesis of Silver Nanoparticles Using Aqueous Extract of Prunus amygdalus, Green and Sustainable Chemistry, 2016, 6, 26-33.
53. S. Rajendra, C.V. Raghunath, M.K. Mondal, New experimental data for absorption of SO_2 into DMA solution, Environmental Progress & Sustainable Energy, American Institute of Chemical Engineers (Accepted on February 4, 2016). Impact factor: 1.631
54. S. Singh, A. Bhatnagar, V. Dixit, V. Shukla, M. A. Shaz, A. S. K. Sinha, O. N. Srivastava and V. Sekkar (2016) Synthesis, characterization and hydrogen storage characteristics of ambient pressure dried carbon aerogel. Int. J. Hydrogen Energy 41, 3561-3570.
55. S. Sood, A. Umar, S. K. Mehta, A. S. K. Sinha, S. K. Kansal (2015) Efficient photocatalytic degradation of brilliant green using Sr-doped TiO_2 nanoparticles. Ceramics International 41, 3533-3540.
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57. S. Srivastava, S.B. Agrawal, M.K. Mondal, 2016. Characterization, isotherm and kinetic study of Phaseolus vulgaris husk as an innovative adsorbent for Cr(VI) removal, Korean Journal of Chemical Engineering, 33, 567-575, Springer, US. Impact factor: 1.24
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59. Sanjay Singh, B.N. Rai and R.S. Singh, Biofiltration of styrene using composite beads of wood charcoal and compost as biofilter media, Research Journal of Chemistry (Accepted) (Impact Factor 0.30)
60. Sanjay Singh, B.N. Rai and R.S. Singh, Biofiltration of styrene using composite beads of compost as modified biofilter media, Research Journal of Chemistry, 19(9), 1-6, 2015 (Impact Factor 0.30)
61. Sanjay Singh, J Verma, B.N. Rai and R.S. Singh, Biodegradation of vapour phase benzene toluene and xylene (BTX) using compost based modified biofilter, Indian Journal of Biotechnology, 14, 228-232, 2015.(Impact Factor 0.51)
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63. Shweta Singh, R. Prasad, Physico-chemical analysis and study of different parameters of hopcalite catalyst for CO oxidation at ambient temperature, Int. J. Sci. Eng. Res., 7(4), (2016) 846-855.
64. Sudeep Yadav, Amitabh Srivastava, R.S. Singh, "Prioritization of Multifaceted Criteria for the Different CO_2 Removal Technologies from Biogas Using Analytic Hierarchy Process" in "International Journal of Advance Research in Science & Engineering (ISSN 2319-8354)",Volume 04,Issue SI(01) ,April 2015 ,I.F. (1.142) Page No. 310-320
65. Sudeep Yadav, Amitabh Srivastava, R.S. Singh, "Ranking of Multifaceted Criteria for the Different H_2S Removal Technologies from Biogas Using Analytic Hierarchy Process" in "International Journal of Advance Technology in Engineering and Science (ISSN 2348-7550)", Volume 03,Issue SI(01), May 2015 ,I.F. (1.142) (60-70).
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Perspective USING Analytic Hierarchy Process, International Journal of Engineering Technology Science and Research, Volume 2, 89-98, 2015.

67. Sudeep Yadav, Amitabh Srivastava, R.S. Singh, Selection and Ranking of Multi faceted Criteria for the Prioritization of most Appropriate Conversion Technology for Biomass to Biofuel in Indian Perspective Using Analytic Hierarchy Process, 3(1), 869-881, 2015 (ISSN 2348-7550)..
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73. V. Gautam, A. Srivastav, K. P. Singh, and Vijay Laxmi Yadav' Preparation and Characterization of Polyaniline, Multiwall Carbon Nanotubes, and Starch Bionanocomposite Material for Potential Bioanalytical Applications, Polymer Composite 2015, DOI 10.1002/pc.23608.
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75. Vishnu murari, Manish Kumar, Nandita singh, R S Singh and Tirthankar Banerjee, Particulate morphology and elemental characteristics: Variability at middle Indo-Gangetic Plain, JOURNAL OF ATMOSPHERIC CHEMISTRY · SEPTEMBER 2015 (Impact Factor – 1.95)

Refereed National Journal

1. Chandradhwaj Nayak, SatyaVir Singh, and A. K.Verma (2015) Drying of Green Peas Using Short Duration Pulses of Hot Air. Indian Food Packer 69(2): 102-105.
2. Khairnar, M., Sharma, V., Pramanik, H., "Studies on Direct Glucose Fuel Cell at Low Temperature" " 68th Annual session of IIChE, Chemcon 2015, Guwahati, Dec 27-30, 2015.
3. Satya Vir Singh and Anjali Verma (2015) "Spray Drying of Mosambi Juice in lab" Journal of The Institution of Engineers (India): Series A. Volume 95 , Issue 1 (DOI: 0.1007/s40030-014-0072-0) Online published
4. Satya Vir Singh, R.K. Jain, A. K. Gupta (2015) Adsorptive Reduction of Naringin from Kinnow Mandarin Juice with Non-Ionic Macroporous Adsorbent Resin. Indian Chemical Engineer pp1-21 DOI 10.1080/00194506.2015.1006144.

Proceedings of International Conferences

1. A. Mishra and R. Prasad, Design of La-based perovskite catalysts for diesel soot combustion following a novel route of reactive calcination, 24th North American Meeting of the Catalysis Society (NAM 24), June 14-19, 2015, Pittsburgh, Pennsylvania, USA.
2. B. Giri, H. Pramanik, Electrooxidation Study of Formic Acid Using Air Breathing Microfluidic Fuel Cell and Half Cell, ICEFN-2016, Nainital, March 27-29, 2016.
3. H. Pramanik, U. Bhusan, A. K. Rathoure, Electrooxidation study of methanol and ethanol fuel mixture on Pt-Ru/C electrode Using Cyclic Voltammetry, International Conference IC-CAST-2015 held on August 7-9, 2015 (BHU).
4. Pattem Hemanth Kumar, Vinay Kumar Singh, Pradeep Kumar. 2015. Synthesis and characterization of bioactive kalsilite glass ceramic composite for dental veneering. International Conference on Advanced

Nanotech 2015 held on 16-18 march, 2015 at Dubai.

5. Poornima Pandey, Roli Saini, Chelluboyana Vaishnava Raghunath, Pradeep Kumar. 2016. Chemical characterization of transformer oils and motor oil. International conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016), held on March 17-19, 2016 at Jaipur National University, Jaipur, India.
6. Prasad R., Anupama Mishra, D. Mohan, Synthesis and performances of nano-size perovskite-type LaxM1- xCoxO3 oxide catalysts for diesel soot combustion, Int Conf on Recent Trends in Eng. and Materials Sci. (ICEMS-2016), March 17-19, 2016, Jaipur National University, Jaipur, Rajasthan.
7. Prasad, R. and Mishra, Anupama, Nano-size perovskite catalyst synthesised by reactive grinding for diesel soot oxidation, 7th International Conference on Green and Sustainable Chemistry (GSC-7), July 5-8, 2015, Tokyo, Japan.
8. Pratichi Singh, R. Prasad and J. Pandey, H2-LPG-SCR of NOx over green Ag/Al2O3 reactively calcined nano-catalyst. International Congress on Natural Sciences and Engineering (ICNSE 2015), May 7-9, 2015, Kyoto, Japan.
9. Ranvijay Mahato, Roli Saini, Pradeep Kumar. 2015. Degradation of methyl parathion using fenton oxidation as an advanced oxidation process. International conference on new frontiers in chemical, energy and environmental engineering held on March 20-21, 2015 at Department of Chemical Engineering National Institute of Technology Warangal, Warangal, Telangana, India.
10. Roli Saini, Poornima Pandey, Chelluboyana Vaishnava Raghunath, Pradeep Kumar. 2016. Optimization of Fenton oxidation for the removal of methyl parathion in aqueous solution. International conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016), held on March 17-19, 2016 at Jaipur National University, Jaipur, India.
11. S. Dey, D. Mohan andR. Prasad, Automobile pollution control using catalysis, Int. Conf. on Geo-Eng. And Climate Change Tech. for sustainable Environmental Management, Oct. 9-11, 2015, MNNIT, Allahabad.
12. U. K. Gupta, H. Pramanik, Cyclic Voltammetry of Electrooxidation of Ethanol and Methanol Mixtures as fuel on Pt-Ru/C anode, ICEFN-2016, Nainital, March 27-29, 2016.
13. V. Gautam, K. P. Singh and V. L. Yadav, Polyaniline/MWCNTs/Starch Composite Material for Hydrogen Peroxide Sensor, International Conference on Recent trends in engineering and Material Sciences (ICEMS-2016), organized by Jaipur National University, dated 17 – 19 March, 2016.
14. Yadav D. and Prasad R., Low temperature DeNOx technology- a challenge for vehicular exhaust and its remediation: An overview, Int. Conf. on Adv. in Chem. Eng. (ICAChE-2015), Dec. 9-11, 2015, GEC, Thrissur, Kerela.

Proceedings of National Conferences

1. D.B. Pal, R. Chand, P. K. Mishra. "Fabrication of copper-ceria nanofiber by electrospinning technique for application in water gas shift reaction. 2nd International Conference on Recent Trends in Engineering Science and Management, YMCA, Connaught Place, New Delhi, Date: 20 February, 2016. (Proceedings: P- 565-571) (ISBN-978-81-932074-3-7)
2. D.B. Pal, R. Chand, P. Singh, P. K. Mishra. "Application of pure ceria and copper-ceria electrospun nanofiber in the water gas shift reaction. 3rd International Conference on Recent Innovations in Science, Engineering and Management, Sri Venkateswara College of Engineering & Technology, NH-5, Etcherla, Srikakulam, A. P., 27 February 2016. (Proceedings: P: 1361-67) (ISBN-978-81-932074-1-3).
3. Deepika Kushwaha, Gurudutta Singh, Pradeep Kumar Singh, "Evaluation of Algal Biomass (Lyngbya limnetica) for simultaneous production of lipids and fermentable sugars for Biofuels" 56th Annual Conference of Association of Microbiologists of India & International Symposium on "Emerging Discoveries in Microbiology" December 7-10; 2015, Jawaharlal Nehru University, New Delhi.
4. Dey S., Mohan D., Prasad R., Catalytic control of CO emissions at ambient conditions, National Conference on Technological Advances in Chemical, Petroleum & Natural Gas Engineering (ACPNe-2015), April 10-11, 2015, Chandigarh University.

5. Gaurh, P., Pramanik, H., "Design Modification in Reactor for Pyrolysis of Polyethylene for Liquid Hydrocarbon Production" 68th Annual session of IIChE, Chemcon 2015 , Guwahati, Dec 27-30, 2015.
6. Giri, B., Pramanik, H., "Synthesis of Platinum Based Bi-Metallic Catalyst for Electrooxidation of Glucose Using 3-Electrode Half Cell Assembly" 68th Annual session of IIChE, Chemcon 2015 , Guwahati, Dec 27-30, 2015.
7. Laxmi Deepak Bhatlu M, Satya Vir Singh, Ashok Kumar Verma (2016) Development of process technology for recovery of naringin from kinnow (citrus reticulate Blanco) peels using indigenous resin ISBN 978-81-932074-1-3 Published in proceedings of Conference 3rd International Conference on Recent Innovations in Science Engineering and Management(ICRISEM-16),27 February 2016 Sri Venkateswra College of Engineering and Technology, Srikakulam, Andhra Pradesh & International Journal of Advance Research in Science and Engineering Vol 5, spl issue no. 1
8. Pramanik, H., Aditya, Singh, T., "Co-pyrolysis of Lignocellulosic Biomass and Polyethylene for Recovery of Valuable Chemicals" 68th Annual session of IIChE, Chemcon 2015 , Guwahati, Dec 27-30, 2015.
9. Salini Arora and R. Prasad, Dry reforming of methane: An overview, Chemcon 2015, Dec 27-30, 2015, IIT Guahati.
10. Shukla, K., Singh, V., and Pramanik, H., "Synthesis of Gas Diffusion Layer (GDL) forFuel Cell Applications" 68th Annual session of IIChE, Chemcon 2015 , Guwahati, Dec 27-30, 2015.
11. Susmit Ilame and S V Singh (2015) Mathematical modeling of membrane separation process of kinnow fruit juice. International Journal of Research in Science and Engineering Vol 1, issue no. 5
12. Trivedi S., Prasad R. and Gautam S. K. Comparative study of Co-Mn and Ce-promoted Co-Mn mixed catalysts for simultaneous oxidation of CO-CH_4 emissions from CNG fuelled vehicles. Chemcon 2015, Dec 27-30, 2015, IIT Guahati.
13. V. Gautam, K. P. Singh and V. L. Yadav "Preparation and Characterization of Polyaniline/Kaolin Composite Material", National Conference on Impact of Rapid Advancements in Management, Science and Technology (IRAMST), organized by Rajshree Institute of Management & Technology Bareilly, UP, dated 26-27 December, 2015.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Birla, A., Singh, B., Sharma, Y.C., and Upadhyay, S.N., Kinetics Studies of Synthesis of Biodiesel from Waste Frying Oil Using a Heterogeneous Catalyst Derived from Snail Shell, Bioresource Technology, 106, 95-100, (2012).(Citations121)
2. Sharma, Y.C., Uma, Upadhyay, S.N., Removal of a Cationic Dye from Wastewaters by Adsorption on Activated Carbon Developed from Coconut Coir, Energy & Fuels, 23, 2983-2988 (2009). (Citations118)
3. Maya, K., Singh, R.S., Upadhyay, S.N., and Dube, S.K., Kinetic Analysis Reveals Bacterial Efficacy for Biodegradation of Chlorpyrofos and Its Hydrolyzed Metabolite TCP, Process Biochemistry, 46, 2130-2136 (2011). (Citations 44)
4. R. Prasad, V. R. Bella. A Review on Diesel Soot Emission, its Effect and Control. Bull. Chem. React. Eng. & Catal. 5(2) (2010) 69-86. (Citations 40)
5. Singh, K., Singh, R. S., Rai, B. N., and Upadhyay, S.N., Biofiltration of Toluene Using Wood Charcoal as the Biofilter Media, Bioresource Technology, 101(7), 3947-3951, (2010). (Citations39)

Head/Coordinator of the Department : Prof. K. K. Shukla

Brief Introduction of the Department :

The Department of Computer Engineering was established in July 1983. The department offers a 4 year course, B.Tech. in Computer Sc. & Engineering, 5 year Integrated Dual Degree (B.Tech. and M.Tech.) in Computer Sc. & Engineering from 2005-2006, and Ph.D. degree in various specializations of Computer Sc. and Engineering. Computer Sc. & Engineering is the most sought-after branch for the JEE selected students that come to the Institute. Our graduates have distinguished themselves in higher studies at the top Universities. They also occupy positions of eminence in the computer industry. Our Alumni remain in constant touch with us and are contributing in the development of the department. Placements for our graduates are the best in the Institute. The department has on its roll faculty members with international experience and training. The departmental research is focused in the areas of Artificial Intelligence, Neuro Computing, Parallel Processing,Software Engineering, Image Processing and Computer Vision, Medical Image Processing, Pattern Recognition, Datamining and Webmining, Biometrics and semantic web. Besides plan funding, the Department attracts financial inputs through externally funded projects and alumni donations. The department was selected by the Ministry of Communications and Information Technology as a node in the National endeavor on Technology Development for Indian Languages.

Major areas of Research

- Parellel/Distributed Computing , Software Engineering
- Artificial Intelligence, Neural Networks, Data Mining
- Artificial Intelligence, Multiagent Systems, Semantic Web
- Image Processing, Computer Vision, and Pattern Classification
- Biometrics, Pattern Classification, Image Processing, Video Processing
- Software Engineering,SoftwareRengineering
- Data Mining, Web Mining and Social Networks
- Data Structures,Algorithms and High Performance Computing
- Information Extraction, Text Summarization, Web Mining
- Natural Language Processing, Computational Linguistics, Information Retrieval
- Wireless Sensor Networks, Mobile Ad-hoc Network, and Human-Computer Interaction
- Information Retrieval, Natural Language Processing, Text Mining

Area of the Department/School (in square meters): 1454.66 sqm

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	02
2.	No. of Lecture Halls	03
3.	No. of Laboratory	07
4.	No. of Computers available for students in the Department/School/School	196 PC + 04 Servers

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	58	65	64	65	
2.	Dual Degree	15	17	15	19	16
3.	Ph. D (Under Institute Fellowship)	02	02	10	02	01+01 (Rajeev Gandhi Fellowship)
4.	Ph. D (Under Sponsored Category)	----	----	02	----	----

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Mr. Anuranjan Kumar	11400EN011	IC3, Noida	20-22 August, 2015	STGS, IIT (BHU)
2.	Mr. Dharmendra Prasad Mahato	13071006	ICGHPC 2016, Chunkankadai, India	26-27 February, 2016	STGS, IIT (BHU)
3.	Mr. Anupam Biswas	13071009	CINE 2016, Bhubaneswar, Odisha, India	11th January, 2016	STGS, IIT (BHU)
4.	Mr. SumitJaiswal	13071008	FICTA 2015, Durgapur, India	16-18 November, 2015	STGS, IIT (BHU)
5.	Mr. Kuldeep Singh	13071010	ICCCT-2015, Allahabad, India	25-27 September, 2015	STGS, IIT (BHU)
6.	Mr. Santosh Kumar	12600EN004	ICIIP 2015, Shimla, Himachal Pradesh, India	21-24 December, 2015	STGS, IIT (BHU)
7.	Mr. Alok Kumar Singh Kushwaha	12600EN009	MCVPRIPG 2015 at IIT Patna, India	16-19 December, 2015	STGS, IIT (BHU)
8.	Mr. Nagendra Pratap Singh	13071011	ICCI-2015, Mesra, Ranchi	10-11 December, 2015	STGS, IIT (BHU)
9.	Mr. Debanjan Sadhya	13071001	UPCON 2015, Allahabad, India	04-06 December, 2015	STGS, IIT (BHU)
10.	Mr. Ramashish Gaurav	12400EN009	UPCON 2015, Allahabad, India	04-06 December, 2015	STGS, IIT (BHU)
11.	Mr. SubhamVarma	12100EN060	UPCON 2015, Allahabad, India	04-06 December, 2015	STGS, IIT (BHU)
12.	Mr. Ali Imam Abidi	12600EN001	CGVIS 2015, Bhubaneswar, Odisha, India	02-03 November 2015	STGS, IIT (BHU)
13.	Mr. Abhishek J.	11400EN006	NGCT-2015, Dehradun, India	04-05 September 2015	STGS, IIT (BHU)
14.	Mr. Manajit Chakraborty	14071004	ACM IKDD-CODS-2016, Pune, India	13-16 March 2016	STGS, IIT (BHU)

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization
Example	Michael Gromiha	Protein Bioinformatics
PROFESSORS		
1.	Prof. A.K. Tripathi	Parellel/Distributed Computing , Software Engineering
2.	Prof. K.K. Shukla	Artificial Intelligence, Neural Networks, Data Mining
3.	Prof. R.B. Mishra	Artificial Intelligence, Multiagent Systems, Semantic Web

4.	Prof. Rajeev Srivastava	Image Processing, Computer Vision, and Pattern Classification
ASSOCIATE PROFESSORS		
1.	Dr. S.K. Singh	Biometrics, Pattern Classification, Image Processing, Video Processing
ASSISTANT PROFESSORS		
1.	Dr. V. Srivastava	Software Engineering, Software Rengineering
2.	Dr. B. Biswas	Data Mining, Web Mining and Social Networks
3.	Dr. R.S. Singh	Data Structures, Algorithms and High Performance Computing
4.	Dr. R.N. Chowdary C	Information Extraction, Text Summarization, Web Mining
5.	Dr. A.K. Singh	Natural Language Processing, Computational Linguistics, Information Retrieval
6.	Dr. H.P. Gupta	Wireless Sensor Networks, Mobile Ad-hoc Network, and Human-Computer Interaction
7.	Dr. S. Pal	Information Retrieval, Natural Language Processing, Text Mining

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Coordinator	Title	Period
1.	Dr. H. P. Gupta, Prof. K. K. Shukla	QIP Short Term Course on Wireless Sensor Networks	Feb. 12-18, 2016
2.	Dr. A.K. Singh	Workshop on Morphological Analysis for Bhojpuri	June 8-10, 2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Dr. A.K. Singh	53rd Annual Meeting of Association of Computational Linguistics (ACL-2016)	July 26-31, 2015, Beijing, China
2.	Dr. A.K. Singh	Conference of Computational Natural Language Learning (CoNLL-2015)	July 30-31, 2015, Beijing, China
3.	Dr. A.K. Singh	4th International Endangered and Lesser Known Languages Conference (ELKL-4)	February 25-27, 2015, Agra, India

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Student	Roll No.	Name of Prize	Date
1.	Prof. K.K. Shukla	Is Information Security an after thought?	BAIT, Satyamangalam, Tamil Nadu	02-09-2015
		Prospects for Engineering Graduates in Information Security	YCCE, Nagpur, Maharashtra	25-02-2016
		Security issues specific to wireless networks	At QIP Sponsored Short term Course on Wireless Sensor Networks, IIT (BHU)	Feb 16,2016
2.	Prof. Rajeev Srivastava	Image Processing and its applications in Wireless Visual Sensor Networks (WVSN).	At QIP Sponsored Short term Course on Wireless Sensor Networks, IIT (BHU)	Feb 16,2016

		Research report writing in Engineering and Technology	Madan Mohan Malviya University of Technology (MMMUT), Gorakhpur, UP	March 29, 2016
		Image Processing, Computer Vision and its Applications in Medical Image Analysis	MMMUT Gorakhpur, UP	December 27, 2015
		Selected Topics in Design and Analysis of Algorithms	Rajiv Gandhi College of Engineering & Research (RGCER), Nagpur, Maharashtra	August 20-21, 2015
		Recent Research Developments in Computer Vision, Pattern Classification and Its Applications	YCCE Nagpur	April 20, 2015
		Image Processing, Pattern Classification and Its Medical Applications	Gujrat Technological University (GTU), Ahmedabad	April 13, 2015
3.	Dr. S. K. Singh	Recent Advances in Biometrics	ISM, Dhanbad	28-05-2015
		Big Data Landscape : Computer Graphics and Vision	IEEE CGVIS 2015, Bhubneshwar	2.11.2015
4.	Dr. A.K. Singh	Machine Translation Quality Estimation: Lessons from a Typical NLP Task	IIT, Delhi	04-07-15
		Computer-Aided Teaching and Testing in the Context of Machine Translation	Banaras Hindu University, Varanasi	07-11-16

Visits abroad by faculty members

Sl. No	Name of faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Prof. K.K. Shukla	Hong Kong	15.12.2015	19.12.2015	Presented paper * and Chaired session** in EECS-2015	CPDA
2.	Prof. R.B. Mishra	London, UK	25.06.2015	03.07.2015	To attend the International conference	CPDA
3.	Dr. A.K. Singh	China	25.07.2015	05.08.2015	Attending a conference (ACL-2016)	IIT (BHU)

* A HybridModelling Approach for Software Clone Evolution Prediction.
** Computer Science Applications – Wireless Communication and Computing.

Honours and awards

Sl. No	Name of faculty Member	Details of Award
1.	Prof. K. K. Shukla	Awarded certificate of recognition for being Editor of ICTACT Journal on Soft Computing, 2015.
2.	Prof. Rajeev Srivastava	1. Member, Board of Studies, JNTU Hyderabad 2. Expert Member (Technical Advisor) to Interview boards of UPPSC, Allahabad. 3. Nominated as expert member AICTE 4. Expert member UGC Confidential work related to national level exams in Computer Sc. area

		5. Reviewer of International Journals : Journal of Electronic Imaging, SPIEDefence Science Journal, Computer Methods and Programs in Biomedicine, Elsevier. (Reviewer). Medical & Biological Engineering & Computing (MBEC), Springer SpringerPlus Journal. 6. Technical program committee members of 04 International Conferences
3.	Dr. S. K. Singh	1. Expert Visiting Committee AICTE 2. Member Senate Appellate Committee (SAC) AICTE 3. Expert Board of Studies YCCE Nagpur. 4. Guest Editor for Multimedia Tools And Applications 5. Expert Member (Technical Advisor) to Interview boards of UPPSC, Allahabad

Fellowships of academic and professional societies

Sl. No	Name of faculty Member	Details of Fellowship
1.	Prof. Rajeev Srivastava	Fellow Institution of Electronics and Telecommunication Engineers (India) (FIETE)
2.	Prof. Rajeev Srivastava	Fellow Institution of Engineers (India) (FIEI)

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	R. S. Singh	Wavelets with Application in Image Compression	IGI Global
2.	Debanjan Sadhya and Sanjay Kumar Singh	"Biometric Template Security and Biometric Encryption Using Fuzzy Frameworks", Encyclopedia of Information Science and Technology, Third Edition.	IGI Global
3.	Santosh Kumar, DebanjanSadhya, Durgesh Singh and Sanjay Kumar Singh	"Cloud Security Using Face Recognition," Handbook of Research on Securing Cloud-Based Databases with Biometric Applications	IGI Global
4.	Santosh Kumar, Sanjay Kumar Singh	'Feature Selection and Recognition of Muzzle Pattern of Cattle by using Hybrid Chaos BFO and PSO Algorithms', Advances in Chaos Theory and Intelligent Control, (edited by Ahmad TaherAzar and SundarapandianVaidyanathan, 2015. (Status: Accepted).	Publisher : Studies in Fuzziness and Soft Computing, Springer-Verlag, Germany
5.	Kumar, S., Pandey, R. C., Tiwari, S., and Sanjay Kumar Singh	Face Recognition in Unconstrained Environment. Handbook of Research on Emerging Perspectives in Intelligent Pattern Recognition, Analysis, and Image Processing,	IGI Global

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. K. K. Shukla	Editor	ICTACT Journal on Soft Computing, 2015.
2.	Debanjan Sadhya and Sanjay Kumar Singh	Lead Guest Editor	Multimedia Tools and Applications, Springer

Design and Development Activities

New facilities added

Sl. No	Name of faculty Member	Value (in Lakhs of Rupees)
1.	Robotics Items	9.83
2.	Machine Vision Lab (High Speed Imaging System)	24.97

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Efficient generation of a query specific extractive summary on multiple documents–A distributive approach	3 years	DST-SERB	16.64 Lakhs	Dr. R. N. Chowdary
2.	Resources and Tools for Bhojpuri, Maithili and Magahi Machine Translation System	6 months	Project Varanasi, IIT (BHU)	10 Lakhs	Dr. A. K. Singh
3.	Development of Anusaraka Support Modules	1 year	Project Varanasi, IIT (BHU)	18 Lakhs	Dr. A. K. Singh
4.	Resource Creation and Language Technology Tools Development for Bhojpuri, Magahi and Maithili	1 year	Project Varanasi, IIT (BHU)	9 Lakhs	Dr. A. K. Singh

Research Publications

Sl. No	Particulars	No.
1.	Total Number of Papers Published in Refereed International Journals	33
2.	Total Number of Papers Presented in National Conferences	02
3.	Total Number of Papers Presented in International Conferences	17

Refereed International Journals

1. Madhushi Verma and K. K. Shukla (2015) Fuzzy Metric Space Induced by Intuitionistic Fuzzy Points and Its Application to the Orienteering Problem. IEEE Transactions on Fuzzy Systems 24(2): 483-488, SCI Impact Factor: 8.746
2. Madhushi Verma and K. K. Shukla (2015) Application of Fuzzy Optimization to the Orienteering Problem. Advances in Fuzzy Systems 2015: 1-12.
3. R.C. Pandey, S. K. Singh and K. K. Shukla (2015) Passive Copy- Move Forgery Detection Using Speed-Up Robust Features, Histogram Oriented Gradients & Scale Invariant Feature Transform. International Journal of System Dynamics Applications 4(3):70-89. ISSN:2160-9772.
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2. R. Gaurav, A. Vallecha, M. Verma and K. K. Shukla. 2015. Multimodal subspace learning on Flickr images," 2015 IEEE UP Section Conference on Electrical Computer and Electronics (UPCON), Allahabad, India, 2015, pp. 1-6. doi: 10.1109/UPCON.2015.7456738.

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4. Shailendra Tiwari, Rajeev Srivastava, A non-linear modified CONVEF-AD based approach for low-dose sinogram restoration, International Conference on Computer Vision and Image Processing (CVIP-2016), IIT-Roorke. Feb 26-28, 2016. (Accepted). Proc. in Springer.
5. Ishan Agarwal, Alok K. Singh Kushwaha, Rajeev Srivastava, "Weighted Fast Dynamic Time Warping Based Multi-View Human Activity Recognition Using a RGB-D Sensor", NCVPRIPG 2015, IIT Patna (Accepted).
6. Vibhav Singh, Ashim Gupta, Shubham Singh, and Rajeev Srivastava, "An Efficient Content Based Image Retrieval for Normal and Abnormal Mammograms", IEEE UPCON-2015, IIIT Allahabad. (Accepted).
7. Shailendra Tiwari, Rajeev Srivastava, "An Efficient and Modified Median Root Prior based Framework for PET/SPECT reconstruction Algorithm", Eighth International Conference on Contemporary Computing (IC3), IC3 2015, pp 1-6, JIIT, Noida. (Indexed in Scopus (Elsevier) IEEE Explore Computer Society.
8. Shailendra Tiwari, Rajeev Srivastava, "A Probabilistic Patch based hybrid framework for CT/PET Image Reconstruction", International Conference on Signal Processing and Communication, (ICACNI-2015), June. 23-25, 2015 KIIT, Smart Innovation, Systems and Technologies Springer Verlag Publication LNCS, Vol 43, Chapter 33. (Indexed in Scopus).
9. Shailendra Tiwari, Rajeev Srivastava, "A Hybrid-Cascaded Framework for MLEM based Image Reconstruction", International Conference on Signal Processing and Communication, (ICSC 2015), Mar. 16-18, 2015 JIIT, Noida, IEEE Explore Signal Processing and Communication Society, pp. 285 – 290, DOI 10.1109/ICSPCom.2015.7150663. ISBN978-1-4799-6760-5.
10. Shailendra Tiwari, Rajeev Srivastava, "On the evaluation and selection of Priors for MLEM based CT and PET image reconstruction", International Conference on Emerging Trends in Information Technology (ICETIT-2015), February 21-22, 2015 BabasahebBhimraoAmbedkarUnivesrity (BBAU), Central University, Lucknow.
11. Arvind Kumar Tiwari, Rajeev Srivastava, Shailendra Tiwari "Machine learning based approach for the prediction of voltage gated ion channels and their subfamilies". In the International Conference on Emerging Trends in Information Technology (ICETIT-2015).
12. Arvind Kumar Tiwari, Rajeev Srivastava "Feature based classification of nuclear receptors and their subfamilies using fuzzy k-nearest neighbor".In The international conference on advances in computer engineering and applications(ICACEA-2015), IEEE Explore.
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16. Ravindranath Chowdary C, Anil Kumar Singh, "Responding to Retrieval: A Proposal to Use Retrieval Information for Better Presentation of Website Content", Current Trends in Web Engineering - 15th International Conference, ICWE 2015 Workshops, NLPIT, PEWET, Rotterdam, The Netherlands, 2015-10-16, Springer .

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1. ManajitChakraborty, Ravindranath Chowdary C, "Using Sort-Union to Enhance Economically-Efficient Sentiment Stream Analysis", Proceedings of the 3rd IKDD Conference on Data Science, Pune, India, 2016-03-15, ACM .
2. V.N. Mishra, R. Prasad, Pradeep Kumar, D. K. Gupta, P.K.S. Dixit, S.B. Dwivedi, R.S. Singh, V. Srivastava, "Supervised Algorithms for classification of remedy sensed satellite image using open source support" , National Conference in Open Source, GIS, opportunities and challenges organized by the Department of Civil Engg., IIT(BHU), Varanasi October 9-10, 2015.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

Distinguished Visitors

Sl. No	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Prof.Pushpak Bhattacharya, Director, IIT-Patna & Professor IIT-Bombay	05.01.2016	Expert Talk
2.	Dr. ZviGalii, Dean, Georgia Tech., College of Computing, USA	08.04.2016	Invited for Interaction to faculty members and senior students
3.	Prof. K. V. Noori, Professor, USA	02.12.2015	Invited talks and Faculty Interaction
4.	Dr. T. V. Prabhakar, Professor, IIT Kanpur	09.10.2015	Expert lecture
5.	Dr. Steven Pearce, Visiting Faculty, IIIT-Allahabad	09.10.2015	Research Talks
6.	Dr. T. Venkatesh, IIT Guwahati	17.02.2016	Expert lecture

Other activities

Foreign Faculty Visits in the Department/School/School

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. Zvi Galii, Dean, Georgia Institute of Technology College of Computing	Invited for Interaction to faculty members and senior students	08th April, 2016

Name of Item : High Speed Imaging System with other components
Description : Vision Processor, Industrial CCD Camera, Imaging Library and Analysis Software, Imaging Computer, Lens Kit, Zoom Lens, Copy Stand/Camera Sound, Lighting. **Value :** 24,97,309.00

Robotics Lab
Name of Item: Robotics
Description : 5 Axis Robotic Arm Trainer, Speech based Robot Manipulator (Software), Vision based Robot Manipulator (Software), Set of 5 different robot (Foundation Robotics Lab), Set of 10 different robot (Advance Robotics Lab), 5 Axis Servo based Robotic Arm trainer kit, Speech Based Robot Arm Manipulator, Vision Based Robot Arm Manipulator. **Value:** 09,83,820.00

Head of the Department: Prof. R. Mahanty

Introduction

Mahamana Pt. Madan Mohan Malviya founded BHU in the year 1916, with benevolent and magnanimous contributions of the then maharajas and other persons of eminence. The University was nurtured by Sir Sunderlal, as the 1st V.C. of the university, followed by the great visionaries, such as Pt. Madan Mohan Malviya, Acharya Narendradev, Sir S. Radhakrishnan and many other eminent personalities.

The Benaras Engineering College (BENCO) was started in the year 1919, with its strong foundation laid by revered Prof. Charles A. King, Prof. H. P. Philpot and Prof. M. Sengupta. With the passage of time, College of Mining and Metallurgy (MINMET) and College of Technology (TECHNO) were included, expanding its horizon. These three colleges were merged and named as Institute of Technology in the year 1968 with a view to give more autonomy for its better perspective in terms of academic as well as administrative decisions. Its undergraduate students are admitted through Joint Entrance Examination (JEE) being conducted for all IITs.

Since the inception of BENCO in 1919, combined Bachelor's degree in Mechanical and Electrical Engineering was awarded till 1952. Department of Mechanical Engineering and Department of Electrical Engineering were separated in 1953 and conferred separate degrees in respective disciplines.

Presently, Department of Electrical Engineering runs five post graduate (M. Tech.) programmes in Electrical Machines and Drives (started in 1956), Power Systems (started in 1964), Control Systems (started in 1964), Power Electronics (started in 1982) and Interdisciplinary Systems Engineering (started in, 1982) and Ph. D. programme in all disciplines of Electrical Engineering. The department has also a five year Integrated Dual Degree Program (started in 2006) leading to Masters degree with specialization in Power Electronics.

The department has been sanctioned Special Assistance Programme (SAP) of UGC since 1988 and COSIST program of UGC from 1995 to 2000. Apart from these, the department has been conducting research projects funded by DST, AICTE, CPRI and other R&D organizations of Govt. of India.

Department has very good placement records over the years. The students of this department are joining core companies such as PGCIL, IOCL, HPCL, Trident, Reliance, Maruti, etc. Electronics companies such as Broadcom, Sony, etc are also regularly recruiting students of this department. Our students are also regularly joining software companies such as Morgan Stanley, Goldman Sachs, Citrix, Oracle, SISO, etc. The vast number of job offers is mainly due to the versatility of the branch which ensures that students are allowed to sit for interviews in software, core electrical, electronic as well as non technical companies.

Some of the department's famous alumni includes, Mr.Nikesh Arora: Senior Vice President and Chief Business Officer at Google, Mr. Rajiv Dogra: Indian diplomat, Ex- Consul General to Karachi, Pakistan, Mr. Gyanesh Pandey: Co-founder, CEO and CTO of Husk Power Systems and Mr. Narla Tata Rao: Winner of Padma Shree, a doyen of power sector in India.

The department is pursuing academic activities with the following goals and objectives:

- Further up-gradation and technological modernization of infrastructural facilities.
- Encouraging teaching innovations through audio visual and multimedia aids.
- Channelizing expertise of faculty in the frontier areas of electrical engineering.
- Research, testing and consultancy.
- Training the undergraduate and post graduate students towards entrepreneurship in consonance with liberalization and privatization policies of the Government.
- Development of energy efficient, environment-friendly electrical technologies as per the norms set by various planning, regulatory and other statutory bodies

Major areas of Research : Power System, Power Electronics, Machines and Drives, Control System

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms & Lecture Halls	7
2.	No. of Laboratory	5
3.	No. of Computers available for students in the Department/School/School	100

Unique Achievement Preposition of the Department

In the last five years, the department has produced 500 graduates and 200 post-graduates. Apart from this, the department has to its credit 11 Ph.D.s awarded during the last five years.

Academic Programmes offered

Students on Roll (Please give No. of students only in respective years)

Sl. No	Programme	I Year	II Year	III Year	IV Year	V Year
1.	B. Tech	NA	92	89	83	NA
2.	Dual Degree	NA	21	22	23	21
3.	M. Tech / M. Pharm	45	33	NA	NA	NA
4.	Ph. D	Total 55				

students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Sunil singh	Research Scholar	IEEE International Conference on Microelectronics, Communication & Computing	January 23-25, 2016, NIT, Durgapur	IIT (BHU)
2.	Sunil singh	Research Scholar	IEEE International Conference on Power Systems, 2016	March 4-6, 2016, IIT-Delhi	IIT (BHU)
3.	Ekta Purwar	Research Scholar	IEEE International Conference on Power Systems, 2016 (ICPS 2016)	March 4-6, 2016, IIT-Delhi	IIT (BHU)
4.	Avneet Kumar	Research Scholar	IEEE International Conference on Power Systems (ICPS 2016)	4-6 March, 2016, IIT-Delhi	IIT (BHU)
5.	Naresh K Pilli	Research Scholar	IEEE Power, Communication and Information Technology Conference	15-17 October 2015, Bhubaneswar	IIT (BHU)
6.	Mr. Shailendra Kumar Gupta	Research Scholar	Power Electronics for Grid Connected Renewable Energy System (PEGCRES-2015)	14-16, May 2015 National Institute of Technology, Calicut	IIT (BHU)
7.	S. K. Gupta	Research Scholar	IEEE INDICON 2015	17-20 Dec. 2015, Delhi	IIT (BHU)
8.	S. K. Gupta	Research Scholar	International Transportation Electrification Conference (ITEC'15)	27-29 August 2015 Chennai	IIT (BHU)

9.	Ankita Dwivedi	Research Scholar	International Transportation Electrification Conference (ITEC'15)	27-29 August 2015 Chennai	IIT (BHU)
10.	Durgesh K. Banchhor	M.Tech. Student	ICEPE 2015 International Conference on Energy, Power and Environment	12-13 June 2015 Shillong, India	IIT (BHU)
11.	Ashish K Kalo	M.Tech. Student	ICEPE 2015 International	12-13 June 2015 Shillong, India	IIT (BHU)
12.	Mr Gaurav Kesarwani	M.Tech. Student	VLSI and Embedded Systems Design using Xilinx Vivado Design Suite and ZyboSoC	25 - 27 September, 2015, The LNM Institute of Information Technology, Jaipur	IIT (BHU)
13.	Rituraj	M.Tech. Student	VLSI and Embedded Systems Design using Xilinx Vivado Design Suite and ZyboSoC	25 - 27 September, 2015, The LNM Institute of Information Technology, Jaipur	IIT (BHU)
14.	S. Parashar		IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG),	May-2115, Latvia, Riga	Self
15.	Abhishek Kumar	Research Scholar	IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions, (IEEE WCI 2015)	Dec. 14-15, 2015 IIT Kanpur	IIT (BHU)
16.	Tarun Maini	Research Scholar	IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions, (IEEE WCI 2015)	Dec. 14-15, 2015 IIT Kanpur	IIT (BHU)
17.	Pankaj Sahu	Research Scholar	IEEE UPCON-2015	December 4-6, 2015 IIIT, Allahabad	IIT (BHU)
18.	Alok Jain	Research Scholar	Electric Energy Distribution Coneference	November 6-8, 2015 IIT (BHU)	IIT (BHU)
19.	Alok Jain	Research Scholar	IEEE International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16)	March 11-12, 2016 KNIT Sultanpur	IIT (BHU)
20.	Alok Jain	Research Scholar	IEEE International Conference on Computing for Sustainable Development – INDIACOM -2016	March 16-18, 2016 Bharti Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi,	Self

ABROAD					
1.	Amit Singh	Research Scholar	IEEE International Conference on Power Electronics and Drive Systems (PEDS 2015),	9-12 June 2015, Sydney, Australia	Self
2.	Ankita Dwivedi	Research Scholar	International Conference on Industrial Engineering, Management Science and Applications (ICIMSA2015)	May 26-28, 2015, Tokyo, Japan	IIT (BHU)

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
Example	Michael Gromiha	Protein Bioinformatics
PROFESSORS		
1.	Prof. S.N. Singh (Emeritus)	Power electronics and Drives
2.	Prof. S.C. Gupta (Institute)	Digital Instrumentation, Computer Networks, Fault Tolerance & Reliability
3.	Prof. S.N. Mahendra	Electrical Machines, Linear Induction Machines, Electric Traction, Electro-magnetic Fields, Development of low cost LIM propelled metro system
4.	Prof. S. P. Singh	Power System, Electricity Markets and Deregulation, Operation and Dynamics, Distribution System Automation.
5.	Prof. S. K. Nagar	Control Systems, AI Applications
6.	Prof. A. K. Kapoor	Power Electronics, Microcomputer Applications, Control systems
7.	Prof. D. N. Vishwakarma	Power Systems, Digital Protection, Microprocessor, Microcontroller AI Applications
8.	Prof. R. K. Pandey	EHV AC & DC Transmission, FACTS Controllers Design & Analysis, Integrated Large Power System Operation & Control, Intelligent Grid Control,High Voltage DC Transmission Technology, Electricity Policy and Planning, Distribution System Planning & Automation, Distributed Energy Resources & Management
9.	Prof. R. K. Srivastava	Electrical machines & Drives, Linear Induction Motor, Electromagnetic Fields, PM Motors & Generators
10.	Prof. R. K. Mishra	Power Systems Operations & Control AI Applications, Digital Signal Processing
11.	Prof. R. Mahanty	Power Electronics
12.	Dr. M. K. Verma	Voltage stability Studies, Power System Dynamics Security Enhancement of Power Systems Application of FACTS controllers Power System Operation and Control
ASSOCIATE PROFESSORS		
1.	Mr. Gopal Sharma	Systems Engineering
2.	Dr. R. K. Saket	Reliability Engg., Power System Reliability Engg., Elec. Machines/Electric Drives, Reliability Evaluation of SEIG / DFIG, ReliabilityImprovement of Induction Machines, Micro Hydro Power GenerationSystems, Renewable Energy Applications, Reliability Issues inAdhoc Networks, Control System Engineering

3.	Dr. (Mrs.) Kalpana Chaudhary	Power Electronics Electrical Machines & Drives
4.	Dr. S. K. Singh	Power Electronics, Silicon carbide converters, Electrical Drives, Hybrid electric vehicles, Renewable energy integration and applications
5.	Dr. R. K. Singh	Energy Storage System and Optimal Bidirectional Battery Chargers, Modeling, simulation, and control of Power Electronics System, Power Electronics for the Hybrid Renewable AC/DC micro-grid, Modeling and control for Point-of-load's, EV/PHEV interface with renewable energy and grid.
ASSISTANT PROFESSORS		
1.	Dr. Manish Kumar	Renewable Energy Technologies Plasma Physics Coherent Radiation Generation, Terahertz Radiation Generation
2.	Dr. V. N. Lal	Design and Control of Grid Connected Solar PV system, ANN application in Power Forecasting, Electrical Power Distribution System
3.	Mr. J. C. Pandey	Electromagnetics, Finite Element Finite Element Analysis of Electrical machines and Devices High Voltage Engineering.
4.	Ms. Sobhita Meher	Computer Science

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Name of Faculty Member (Role)	Title	Period and Venue
1.	DR. S. K. Singh (Co-ordinator)	Short Term Course on Power Electronics and Applications (PEA-2015)	10th-12th Oct 2015
2.	Dr. R. K. Singh (Co-ordinator)	Short Term Course on Power Electronics and Applications (PEA-2015)	10th-12th Oct 2015
3.	Prof. S. P. Singh (Co-ordinator)	Short Term Course Electric Energy Distribution	Nov. 6-8, 2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
1.	Prof. R. Mahanty	IEEE-ECCE Conference 2015, Montreal, Canada	20-25 Sep. 2015
2.	Dr. R. K. Singh	IEEE-ECCE Conference 2015, Montreal, Canada	20-25 Sep. 2015
3.	Prof. R. K. Srivastava	International Conference on Industrial Engineering, Management Science and Applications (ICIMSA) Tokyo, Japan	26-28 May 2015
4.	Prof. D. Singh	IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions,IIT, Kanpur	24-27 Dec. 2015
5.	Dr. V. N. Lal	Workshop Advance applications of Real Time Digital Simulator in power engineering research and controller validation, IIT, Kanpur	20-21 Nov. 2015
6.	Prof. M. K. Verma	Workshop Advance applications of Real Time Digital Simulator in power engineering research and controller validation, IIT, Kanpur	20-21 Nov. 2015
7.	Prof. R. K. Mishra	IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions, IIT,Kanpur	24-27 Dec. 2015

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Dr. R. K. Singh	1. Power Electronic Converter Circuits	1. IIIT, Jabalpur	1. Even Semester 2015-16 (10 Lectures)
		2. Power Processor for Battery Charging, Renewables, HEV's	2. Delhi Technical University (DTU), New Delhi	2. 06/11/2015
		3. Recent researches in power electronic interface for renewable applications	3. Govt. Engineering College, Bharuch	3. 04/11/2015
		4. Optimal Bidirectional Battery Charger in Power Electronics and Applications under NAMPET (PHASE II)	4. IIT (BHU), Varanasi	4. 12/10/2015
2.	Dr. S. K. Singh	Expert Lecture in Power Electronics and Applications under NAMPET (PHASE II)	4. IIT (BHU), Varanasi	4. 12/10/2015
3.	Dr. S. K. Singh	Distribution system reconfiguration", IEEE International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16)	KNIT, Sultanpur, India	March 11, 2016

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. R. Mahanty	IEEE International Conference on Energy Conversion Congress and Exposition	20-25 Sep. 2015 Montreal, Canada
2.	Dr. R. K. Singh	IEEE International Conference on Energy Conversion Congress and Exposition	20-25 Sep. 2015 Montreal, Canada
3.	Prof. R. K. Srivastava	International Conference on Industrial Engineering, Management Science and Applications (ICIMSA)	26-28 May 2015 Tokyo, Japan

Honours and awards

Sl. No	Name of Faculty Member	Name of Award
1.	Dr. V. N. Lal	POSOCO Power System Award (PPSA)-2016
2.	Prof. D. Singh	Young Researcher Award during ICETEESES-16 (International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16) at KNIT, Sultanpur

Books, monographs authored/co-authored

Sl. No	Name of Co-Author	Title	Publisher
1.	Ankita Dwivedi, S. K. Singh and R. K. Srivastava	Analysis of Permanent Magnet Brushless AC Motor Using Two Dimensional Fourier Transform-Parseval's Theorem	Springer, Singapore

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/member)	Name of Journal
1.	Dr. R. K. Saket	Editorial board member	1. International Journal of Electrical, Robotics, Electronics and Communications Engineering 2. International Journal Of Research And Reviews In Applied Sciences (IJRRAS), 3. Engineering, Technology And Applied Science Research (ETASR) 4. International Journal Of Management, Modern Sciences And Technologies, UAE
2.	Prof. M. K. Verma	Editor	Journal of Advanced Research in Electrical Engineering and Technology

Design and Development Activities

New facilities added

1. Rapid prototype controller based on FPGA, DSP and dSpace for Power electronic and Electric drive applications.
2. Linear Induction Motor based traction drives.
3. High voltage testing facilities.
4. Advanced computing facilities using software such as (i) EMTP (ii) PSCAD (iii) ETAP (iv) DIGSILENT (v) NEPLAN (vi) ANYS (vii) MATLAB (viii) LABVIEW (ix) CASPOC (x) OrCadPspice.
5. PV Simulator, Solar Emulator.

Patents filed

Sl. No	Name of Faculty Member	Position (Editor/member)	Name of Journal
1.	Prof. D. Singh	A System and Method for inrush and fault detection for differential protection of transformer	

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Design and Development of a Smart Energy Grid Architecture with Energy Storage	2014-17	Ministry of Science and Technology, DST	200	Prof. R. K. Pandey
2.	Renewable Energy Research	2013--	IIT (BHU) Varanasi	20	Dr. R. K. Singh (PI), Prof. D. Singh, Prof. R. K. Mishra and Dr. S.K. Singh
3.	A Versatile Optimal Bidirectional Battery Charger	2013--	Department of Science and Technology (DST), Govt. of India	20.54	Dr. R.K. Singh(PI), Prof. D. Singh and Prof. R.K.Mishra
4.	Design, development and performance analysis of silicon carbide converter for aerospace application	2013--	DST	23.92	Dr. S.K. Singh

5.	Design analysis and Development of Permanent Magnet Synchronous Generator	2015	DIH, IIT (BHU) Varanasi	0.91	Dr. S.K. Singh
6.	NaMPET-phase-II	2015	CDAC Thiruvananthpuram	3.0	Dr. S.K. Singh
7.	Improved Operation of Distribution Networks Incorporating Load Models	2015	CPRI, Bangalore	30.60 Lakh	Prof. S.P. Singh

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	1
2.	Total Number of Papers Published in Refereed International Journals	9
3.	Total Number of Papers Presented in National Conferences	17
4.	Total Number of Papers Presented in International Conferences	28

Refereed National Journals

1. D. K. Tanti, M. K. Verma, Brijesh Singh and O. N. Mehrotra, "An ANN based approach for optimal placement of custom power devices", Electrical India (Chary Publication), Vol. 55, No. 8, pp. 56-61, August 2015

Refereed International Journal

1. Venkata R Vakacharla, M Raghuram, and Santosh Kr Singh, "Hybrid Switched Inductor Impedance Source Converter- A Decoupled approach", IEEE Transactions on Power Electronics (finally accepted in Feb 2016)
2. A Dwivedi, SK Singh, RK Srivastava, "Analysis of Permanent Magnet Brushless AC Motor Using Fourier Transform Approach", IET Electric Power Applications (finally accepted in Feb 2016).
3. Dwivedi A., Singh S.K., Srivastava R.K., "Generalized Space Fourier Transform method for the analysis of Electrical Machines", Industrial Engineering, Management Science and Applications (ICIMSA), 26-28 May 2015, Tokyo, Japan, Lecture Notes on Electrical Engineering (LNEE), Vol. 349, pp. 617-627, 2015. (Springer)
4. Mukul Garg, Rajeev Kumar Singh and R. Mahanty, "Magnetically coupled boost converter with enhanced ESR filter capacitor for DC microgrid" accepted for publication in IET Power Electronics March 2016. (Impact Factor: 1.683, ISSN: 1755-4535).
5. V. N. Lal, S. N. Singh, "Modified PSO Based MPPT Controller for Single-Stage Utility-Scale PV System with Reactive Power Injection Capability", IET Renewable Power Generation (Accepted on 11/01/2016 for publication).
6. R. K. Pandey and Ravi Bhushan, "Dynamic Performance of Multi Area Systems with HVDC- Model Development-Part I", International Journal of Electrical Energy Systems (IJEES), Vol. 7 No. 2, Dec. 2015, pp 193-208
7. R. K. Pandey and Ravi Bhushan, "Dynamic Performance of Multi Area Systems with HVDC-System Studies-Part II", International Journal of Electrical Energy Systems (IJEES), Vol. 7 No. 2, Dec. 2015, pp 171-191
8. Rajendra K. Pandey and Deepak Kumar Gupta, "Knowledge Domain States Mapping Concept for Controller Tuning in an Interconnected Power Network", International Journal of Electrical Power and Energy Systems, Vol. 80, pp. 160-170, 2016
9. Abhishek Vashishth and M. K. Verma, "Voltage stability based available transfer capability enhancement in competitive electricity market using UPFC", International Journal of Electrical and Electronics

Engineering (published by International Academy of Science Engineering and Technology), Vol. 4, No. 4, pp. 1-8, April-May 2015.

Proceedings of National Conferences

1. Sunil singh and D.N.Vishwakarma," Faults Classification in Series Compensated Lines based on Wavelet Entropy and Neural Network", IEEE International Conference on Microelectronics, Communication & Computing (MicroCom 2016) held at National Institute of Technology Durgapur, India during January 23 - 25, 2016.
2. Sunil singh and D.N.Vishwakarma," ANN and Wavelet Entropy based Approach for Fault Location in Series Compensated Lines", IEEE International Conference on Microelectronics, Communication & Computing (MicroCom 2016) held at National Institute of Technology Durgapur, India during January 23 - 25, 2016.
3. Sunil singh and D.N.Vishwakarma," Application of DWT and ANN for Fault Classification and Location in a Series Compensatend Tramsnission line", 6th IEEE International Conference on Power Systems, 2016 (ICPS 2016) held at Indian Institute of Technology New Delhi, during March 4-6, 2016.
4. Ekta Purwar, D. N. Vishwakarma and S. P. Singh, "Optimal Relay Coordination for grid connected variable size DG",6th IEEE International Conference on Power Systems, 2016 (ICPS 2016) held at Indian Institute of Technology New Delhi, during March 4-6, 2016.
5. Ekta Purwar, D. N. Vishwakarma and S. P. Singh, "Inclusion of Dfact-Active Fault Current Limiter considering Coordination of Relay with DG", IEEE International Conference on Emerging Trends in Electrical Electronics & Sustainable Energy Systems 2016 (ICETEESES-16).
6. Sanjay Kumar and D. N. Vishwakarma, "FPGA Based Condition Monitoring of InductionMotor - An Overview", IEEE International Conference on Emerging Trends in Electrical Electronics & Sustainable Energy Systems 2016 (ICETEESES-16).
7. Avneet Kumar, Venkata V Vakacharla and Santosh Kumar Singh, "Multiple PMSG fed Non-Inverting Buck-Boost Converter for HEVs", accepted for the 6th IEEE International Conference on Power Systems (ICPS 2016), IIT Delhi and India Habitat Centre, New Delhi, 4-6 March 2016
8. Akash Deep, Naresh K. Pilli, Avneet K. Chauhan, and Santosh Kumar Singh, "Design and development of Rapid prototype controlled PMSM drive", IEEE Industrial and commercial Power Systems/Petroleum and chemical industry conference (ICPSPCIC 2015),Hyderbad, 19-21 Nov, 2015
9. P. Akash Pattanaik, Naresh K Pilli, Santosh Kumar Singh, "Design, Simulation & Performance Evaluation of three phase grid connected PV panel, IEEE Power, Communication and Information Technology Conference (PCITC) 2015, Bhubaneswar, 15-17 October 2015.
10. Dwivedi A., Singh S.K., Srivastava R.K., "Line Start Permanent Magnet AC Motor with Conducting Sleeve", International Transportation Electrification Conference (ITEC'15), 27-29 August 2015
11. Gupta S.K., Dwivedi A., Srivastava R.K., "Fabrication of Dual-stator Permanent Magnet Synchronous generator", IEEE INDICON 2015, 17-20 Dec. 2015, Delhi, India (available in IEEE Xplore)
12. S. K. Gupta, R. K. Srivastava and S. N. Mahendra, "Voltage regulation of dual stator permanent magnet synchronous generator, International Transportation Electrification Conference (ITEC'15), 27-29 August 2015, pp. 1-6, 2015 (available in IEEE Xplore)
13. Durgesh K Banchhor, Ashish K Kalo, Ankita Dwivedi, R K Srivastava, "Experiences with Axial Flux Induction Motor", ICEPE 2015 International Conference on Energy, Power and Environment, 12-13 June 2015, Shillong, India
14. Abhishek Kumar, R. K. Misra and D. Singh, "Butterfly Optimizer", paper id. 61, IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions, (IEEE WCI 2015), Dec 14-17, 2015, Indian Institute of Technology Kanpur, India
15. Tarun maini, R. K. Misra and D. Singh," Optimal Feature Selection using Elitist Genetic Algorithm"Paper ID: 49, IEEE Workshop On Computational Intelligence: Theories, Applications and Future Directions, (IEEE WCI 2015), Dec 14-17, 2015, Indian Institute of Technology Kanpur, India

16. Chetan Mishra, S.P. Singh and Jimit Rokadia, "Optimal Power Flow in Presence of Wind Power using Modified Cuckoo Search", IET Gener. Transm., 2015, Vol. 9, Iss. 7, pp. 615-626.
17. Arun K. Reddy and S. P. Singh, "Congestion Mitigation Using UPFC", Accepted for publication in IET Gener. Transm., (In press, DOI: 10.1049/iet-gtd.2015.1199).

Proceedings of International Conferences

1. Amrita Sharma, Bura Pramod, Rajeev Kumar Singh, R.Mahanty, "Interleaved Hybrid Boost Converter with Simultaneous AC and DC Outputs for Microsource Applications," accepted for publication in IEEE-ECCE 2016, Milwaukee, WI, USA, 18-22 Sep 2016.
2. Anish Ahmad, Rajeev Kumar Singh, R.Mahanty, "Design and Analysis of a Modular Magnetically Coupled Quadratic Boost Topology with a Damping Network for DC Microgrid" in IEEE-ECCE 2015, Montreal, Canada, pp 3392-3399. 20 - 25 Sep. 2015.
3. Varun Chitrans, Amit Singh, and Rajeev Kumar Singh, "A Clamped Feedback Based Digital Versatile Optimal Bidirectional Battery Charger for HEV/PHEV," in IEEE International Conference on Power Electronics and Drive Systems (PEDS 2015), Sydney, Australia, pp. 1138-1143, 9 - 12 June 2015.
4. Mukul Garg and Rajeev Kumar Singh, "Coupled Inductor Boost Converter with Enhanced ESR Filter Capacitor for DC Microgrid Applications," in IEEE International Conference on Industrial Technology (IEEE ICIT 2015), Seville, Spain, pp. 963-968, 17-19 March 2015.
5. Rajeev Kumar Singh and Rishav Goel, "A Novel Lossless Digital Inductor Current Sensing Technique based Control Implementation for Switching DC/DC Converter," accepted for presentation in IEEE International Conference on Industrial Technology (IEEE ICIT 2015), Seville, Spain, pp. 2030-2035, 17-19 March 2015.
6. Ankita Dwivedi, S K Singh, R K Sriavastava, "Generalized Space Fourier Transform method in the analysis of Electrical Machines", 2nd International Conference on Industrial Engineering, Management Science and Applications (ICIMSA2015) Tokyo, Japan, May 26-28, 2015
7. S. Parashar and R. K. Srivastava, "Turn to turn fault analysis of three phase PMSG for different rotor air gap," 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG), Riga, 2015, pp.114-120 doi: 10.1109/PowerEng.2015.7266304
8. Dwivedi A., Singh S.K., Srivastava R.K., "Generalized Space Fourier Transform Method in the analysis of Electrical Machines", International Conference on Industrial Engineering, Management Science and Applications (ICIMSA), 26-28 May 2015, Tokyo, Japan
9. A. Edpuganti, A. Dwivedi, A. K. Rathore and R. K. Srivastava, "Optimal pulse width modulation of cascade nine-level (9L) inverter for medium voltage high power industrial AC drives," Industrial Electronics Society, IECON 2015 - 41st Annual Conference of the IEEE, Yokohama, 9-12 Nov, 2015, pp. 4259-4264.
10. Satyendra Pratap Singh and S. P. Singh, "Optimal Placement of Phasor Measurement Units using Gravitational Search Algorithm", International Jr. of Electrical, Computer, Electronics and Communication Engineering (ECECE),vol. 9, no. 3, pp. 268-272, 2015
11. S. Das, D.Shukla, and S.P. Singh, "Single and two area LFC using RBF," in Recent Developments in Control, International Conference on Automation and Power Engineering (RDCAPE), pp.355-360, 12-13 March 2015.
12. Vijay Babu and S.P. Singh, "Optimal Placement of DG in Distribution network for Power loss minimization using NLP & PLS Technique", 5th International Conference on AdvancesinEnergy Research (ICAER-2015), IIT Bombay, Powai, Mumbai, Dec.15-17, 2015.
13. Vijay Babu and S.P. Singh, "Optimal Placement of DG in Distribution network for Power loss minimization using NLP & PLS Technique," in Proc. 5th International Conference on Advances in Energy Research (ICAER-2015), IIT Bombay, Mumbai, Dec.15-17, 2015, pp. 1229-1238
14. Shailendra Singh, S. P. Singh, "Opportunities and Challenges for Deployment of CVR/VVO Methodology

in Indian Smart Energy Distribution System" International Conference & Exhibition on Smart Grids and Smart Cities,(ISGW 2016), at ISGF India, 15-19 March , 2016.

15. Shailendra Singh, S. P. Singh , "A Smart Volt-Var Optimization Engine for Energy Distribution System" IEEE International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16),at KNIT, Sultanpur India, on March 11-12, 2016.
16. Vijay Babu and S.P. Singh, "Optimal Capacitor Placement in RDS using combined Fuzzy & Novel loss sensitivity method," in Proc. 6th IEEE International Conference on Power Systems (ICPS-2016), IIT Delhi, New Delhi, March 4-6, 2016, pp. 1-6.
17. Ekta Purwar D. N. Viswakarma and S.P.Singh " Optimal Relay Coordination for grid connected variable size DG", in Proc. 6th IEEE International Conference on Power Systems (ICPS-2016), IIT Delhi, New Delhi, March 4-6, 2016.
18. Ekta Purwar D. N. Viswakarma and S.P.Singh " Inclusion of Defact-Active fault Current Limiter considering Coordination of Relay with DG", IEEE International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16),at KNIT, Sultanpur India, on March 11-12, 2016
19. J C Pandey and Nandini Gupta, "Estimation of Interphase Thickness in Epoxy Based Nanocomposites", 19th International Symposium on High Voltage Engineering, Pilsen, Czech Republic, 23-28 Aug., 2015.
20. J C Pandey and Nandini Gupta, "Space Charge Estimation in Epoxy Based Nanodielectrics Using Complementary Techniques ", IEEE Conference on Electrical Insulation and Dielectric Phenomena (CEIDP), Ann Arbor, MI, USA, 18-21 Oct, 2015
21. Sandeep Pandey, Nitesh Kumar Soni and R. K. Pandey, "Fractional Order Integral and Derivative (FOID) Controller with Anti Windup for Temperature Profile Control", 2nd International Conference on Computing for Sustainable Development, New Delhi, March 2015, Proceedings of 9th INDIA Com-2015.
22. R. K. Pandey and Deepak Gupta, "PSS Tuning with Firefly Driven Knowledge Domain- A Smart Control Concept", IEEE TENCON 2015, Nov. 2015, Macau.
23. R. K. Pandey, "Multi-Terminal Operational Improvement with STATCOM", IECON2015, YOKOHAMA, Nov. 2015. pp 003099-003103.
24. R. K. Pandey, Satish Kumar and Chandan Kumar, "Large Power Network SignatureAnalysis with PMU Signal- Dynamic Clustering Approach", IEEE UPCON 2015, Dec.2015, Allahabad.
25. R. K. Pandey, Satish Kumar and Chandan Kumar, "Development of Cluster Algorithm for Grid Health Monitoring", IEEE CIEC 2016, Jan 2016, Kolkata.
26. Pankaj Sahu and M. K. Verma, "On-line voltage voltage stability monitoring and control in smart grid – A survey", Proc. Of the International Conference IEEE UPCON-2015, Indian Institute of Information Technology, Allahabad, India, Paper No. 205, December 4-6, 2015.
27. Alok Jain, Bhanu Pratap Singh, Suman Bhullar and M. K. Verma, "Performance of hybrid wind-microturbine generation system in isolated mode", Accepted for IEEE International Conference on Emerging Trends in Electrical, Electronics & Sustainable Energy Systems (ICETEESES-16), Kamla Nehru Institute of Technology (KNIT), Sultanpur, India, Paper No. NEC_04, March 11-12, 2016.
28. Alok Jain and M. K. Verma, "Implementation of automatic meter reading technique using SYNC 2000 & SYNC 5000 in Indian power system", Accepted for IEEE International Conference on Computing for Sustainable Development – INDIACOM 2016, Bharti Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi, India, Paper No. 463, March 16-18, 2016.

Brief Details of 5 Articles from the Department with maximum no. of Citations in last 5 years

1. S. Dutta and SP Singh, "Optimal rescheduling of generators for congestion management based on particle swarm optimization", IEEE Transactions on Power Systems, Vol. 23, No. 4, pp. 1560-1569.
2. T. N.Shukla, SP Singh, V Srinivasarao, KB Naik, "Optimal sizing of distributed generation placed on radial distribution systems," Electric power components and systems, Vol. 38, No.3, pp. 260-274

3. Deependra Singh, D. Singh, and K.S. Verma, "Multi-objective Optimization for DG Planningwith load Models", IEEE Trans. On power systems, Vol. 24, No.1, Feb.2009, pp. 427-436
4. Devender Singh, R.K. Misra and Deependra Singh, "Effect of load models in distributed generation planning", IEEE Trans. On power systems, Vol. 22, No. 4, Nov. 2007, pp. 2204-2212.
5. A. S. Pandey, D. Singh, and S.K. Sinha, "Intelligent Hybrid Wavelet Models for Short-Term Load Forecasting", IEEE Trans. On power systems, Vol. 25, No.3, Aug. 2010, pp. 1266 –1273.

Distinguished Visitors

Sl. No	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Dr. K.R.Rajagopal Professor, IIT Delhi	30/10/2015	Special guest lecture on "Evolution and Advancements in Electrical Machines and Drives"
2.	Dr. D. Thukaram Professor, IISC Bangalore	13/10/1015	Special guest ecture on "Voltage Stability Monitoring and Improvement in EHV Systems"

Faculty visits

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. R. K. Singh	Expert lecture	IIIT Jabalpur, March, 2016
2.	Dr. R. K. Singh	Expert lecture	Delhi Technical University (DTU), New Delhi 06/11/2015
3.	Dr. R. K. Singh	Expert lecture	Govt. Engineering College, Bharuch 04/11/2015
4.	Dr. R. K. Singh	Expert lecture	IIT (BHU), Varanasi 12/10/2015
5.	Prof. R. K. Pandey	Expert lecture	UPCON-ICEEE2015 Allahabad March 26-28, 2015 NPESC-2015 KNIT Sultanpur, April 10-11, 2015 Abellon Group Interaction Meeting, April 18, 2015 Ahmadabad ETSGRES-15, Dec. 8-9, 2015 MMMUT, Gorakhpur

Foreign Visit by Faculty member

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. R. K. Singh	IEEE-ECCE Conference	20-25 Sep, 2015 Montreal, Canada
2.	Prof. R. Mahanty	IEEE ICIT Conference	20-25 Sep, 2015 Montreal, Canada
3.	Prof. R. K. Pandey	IEEE TENCON Conference	Nov 2105, MACAU, China

Head of the Department : Prof. Satyabrata Jit

Brief Introduction of the Department :

Department of Electronics Engineering came into existence as an offshoot of Electrical Engineering Department in the year 1971 (when Banaras Engineering College, College of Mining and Metallurgy and College of Technology had been amalgamated to form the Institute of Technology. Our Institute was converted to IIT(BHU), Varanasi on June 29, 2012. The intake every year of the Department is 79 in the B.Tech. level and 47 (without sponsored category) in the M.Tech. level. Besides teaching students of our own discipline (Electronics Engineering), we also offer the basic courses in Electronics Engineering to almost all the Departments of the Indian Institute of Technology(BHU), we also teach advanced-level courses to the students of Electrical Engineering and Computer Engineering Departments. We have a training and placement section in the Institute through which most of our students are professionally placed in various jobs.

Major areas of Research

(i) Microelectronics
(ii) Microwave Engineering
(iii) Digital Techniques & Instrumentation and
(iv) Communication Systems Engineering

Area of the Department/School (in square meters) : 77.25 x 46.10=3561.22 Sq. Mtr.

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	08
2.	No. of Lecture Halls	01
3.	No. of Laboratory	16
4.	No. of Computers available for students in the Department	150

Unique Achievement / Preposition of the Department/School

In the last five years, the department has produced 373 graduates and 178 post-graduates. Apart from this, the department has to its credit 7 Ph.D.s awarded during the last five years.

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course Name	Course credit
1.	EC-4206	Information Theory and Coding	09
2.	EC-4215	RF Circuit Design	09

Students on Roll (Please give No. of students only in respective years)

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	79	88	88	84	NIL
2.	Dual Degree	----	----	----	----	----
3.	M. Tech / M. Pharm	33	39	----	----	----
4.	Ph. D (Under Institute Fellowship)	14	12	11	05	03
5.	Ph. D (Under Project Fellowship)	----	----	----	----	----
6.	Ph. D (Under Sponsored Category)	----	----	----	----	----

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Mr. Gopal Rawat	13091004	Conference (IEEE India International Conference (INDICON 2015))	December 2015 & Jamia Millia Islamia, New Delhi, India	STGS
2.	Mr. Hemant Kumar	13091005	Workshop (International Workshop on the Physics of Semiconductor Devices (IWPSD))	December, 2015 & IISc, Bangalore, India,	STGS
3.	Ms. Ekta Goel	13091003	Workshop (International Workshop on the Physics of Semiconductor Devices (IWPSD))	December, 2015 & IISc, Bangalore, India,	STGS
4.	Mr. Kunal Singh	12605EN003	Workshop (International Workshop on the Physics of Semiconductor Devices (IWPSD))	December, 2015 & IISc, Bangalore, India,	STGS
5.	Mr. Sanjay Kumar	13091008	Workshop (International Workshop on the Physics of Semiconductor Devices (IWPSD))	December, 2015 & IISc, Bangalore, India,	STGS
6.	Mayank Agarwal	14091011	5th IEEE Applied Electro-magnetics Conference (AEMC 2015)	Dec. 18-21, 2015 Guwahati, Assam	STGS, IIT (BHU), Varanasi
7.	Mayank Agarwal	14091011	IEEE MTT-S International Microwave and RF Conference (IMaRC 2015)	Dec. 10-12, 2015 Hyderabad	STGS, IIT (BHU), Varanasi
8.	Ashis Kumar Behera	14091009	5th IEEE Applied Electro-magnetics Conference (AEMC 2015)	Dec. 18-21, 2015 Guwahati, Assam	STGS, IIT (BHU), Varanasi
9.	Ashis Kumar Behera	14091009	International Conference on Emerging Trends in Electrical, Electronics and Sustainable Energy Systems (ICETEESES-16)	Mar. 11-12, 2016 KNIT Sultanpur, UP	STGS, IIT (BHU), Varanasi
10.	Ashis Kumar Behera	14091009	National Conference on Recent Advancement in Communication Engi-neering and Microelectro-nics (RACEM-2016)	Mar. 09-10, 2016 MMMUT Gorakhpur, UP	---
11.	Gaurav Kumar Pandey	11605EN002	5th IEEE Applied Electromagnetics Conference (AEMC 2015)	Dec. 18-21, 2015 Guwahati, Assam	STGS, IIT (BHU), Varanasi

12.	Gaurav Kumar Pandey	11605EN002	National Conference on Recent Advancement in Communication Engineering and Microelectronics (RACEM-2016)	Mar. 09-10, 2016 MMMUT Gorakhpur, UP	---
13.	Sarthak Singhal	12605EN001	IEEE Applied Electro-magnetics Conference 2015	18-21 December 2015 at IIT Guwahati	STGS
14.	Sudhir Bhaskar	14091004	National Conference On Recent Advancement In	Department of Electro-nics and Communication Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur- 273010 (India), March 9-10, 2016	STGS
15.	Sudhir Bhaskar	14091004	Communication Engineering And Microelectronics (RACEM-2016)	Department of Electro-nics and Communication Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur- 273010 (India), March 9-10, 2016	STGS
16.	V. S. Gangwar	13091011	1. IEEE International Conf. on Applied and Theoretical Computing and Communi-cation Technology (iCATccT-2015) 2. International Microwave & RF Conference (IMaRC2015)	1. Oct 29th -31st, 2015 Karnatka 2. Dec 10-12, 2015, Hyderabad	
17.	Soni Singh	11605EN001	5th biennial IEEE Applied Electromagnetics Conference (AEMC-2015)	Dec 18-21, 2015, IIT Guwahati	STGS
18.	Situ Rani Patre	11605EN005	1. International Microwave & RF Conference (IMaRC2015) 2. International Conference on Microwave and Photonics (ICMAP 2015) 3. 5th biennial IEEE Applied Electromagnetics Conference (AEMC-2015) 4. Recent Advances in Communication Engineering and Microelectronics (RACEM 2016)	1. Dec 10-12, 2015, Hyderabad 2. 11-13 December 2015, ISM Dhanbad 3. Dec 18-21, 2015, IIT Guwahati 4. Mar. 09-10, 2016 MMMUT Gorakhpur	STGS
19.	Bhagirath Sahu	13091002	1. International Microwave & RF Conference (IMaRC2015) 2. 5th biennial IEEE Applied Electromagnetics Conference (AEMC-2015)	1. Dec 10-12, 2015, Hyderabad 2. Dec 18-21, 2015, IIT Guwahati	STGS

20.	P. Tripathi (Ceramic Engg.)	13031005	1. International Conference on Microwave and Photonics (ICMAP 2015) 2. 5th biennial IEEE Applied Electromagnetics Conference (AEMC-2015)	1. Dec 11th-13th, 2015 ISM Dhanbad 2. Dec 18-21, 2015, IIT Guwahati	STGS
ABROAD					
1.	Mayank Agarwal	14091011	IEEE Radio and Antenna Days of the Indian Ocean (RADIO 2015)	Sep. 21-24, 2015 Mauritius	STGS, IIT (BHU), Varanasi & Partial travel fellowship from center for international co-operation in sciences (CICS), Chennai

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Gourav Modanwal	14091006	Navkirti Award	IIT (BHU)
2.	Gourav Modanwal	14091006	Innovative Research First position Prize	IIT (BHU)

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name of the Faculty	Specialization
Professor		
1.	Dr. P. Chakrabarti	Microelectronics
2.	Dr. Anand Mohan	Digital Techniques & Instrumentation
3.	Dr. S. P. Singh	Microwave Engineering
4.	Dr. P. K. Jain	Microwave Engineering
5.	Dr. R. R. Das	Digital Techniques & Instrumentation
6.	Dr. V. N. Mishra	Microelectronics
7.	Dr. Satyabrata Jit	Microelectronics, Communication
Associate Professor		
1.	Dr. R. Dwivedi	Microelectronics
2.	Mr. P. K. Mukherjee	Digital Techniques & Instrumentation
3.	Dr. M. K. Meshram	Microwave Engineering
Assistant Professor		
1.	Dr. N. S. Rajput	Digital Techniques & Instrumentation
2.	Mr. M. K. Singh	Communication System Engineering
3.	Dr. Amit Kumar Singh	Microwave Engineering
4.	Mr. Amritanshu Pandey	Communication System Engineering, Microelectronics
5.	Dr. M. Thottappan	Microwave Engineering
6.	Dr. K.V. Srinivas	Communication System Engineering
7.	Dr. Kishor P. Sarwadekar	Digital Techniques & Instrumentation

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Prof. Satyabrata Jit	Effects of Seed Layers on the ZnO Nanostructure materials grown on Si Substrates for Electronic and Ultraviolet Detection Application	10-12 December, 2015 at National Institute of Science and Technology, Berhampur, Odisha, India (International Conference)
2.	Prof. Satyabrata Jit	Electrical and Ultraviolet Detection Properties of Some n-ZnO/p-Si Nanostructure Heterojunctions	03 November, 2015 at Department of Physics, Banaras Hindu University, Varanasi, India(Workshop)
3.	Prof. Satyabrata Jit	Fabrication and Characterization of Some p-Si/n-ZnO Nanostructured Heterojunction Devices for Electronic and Ultraviolet Detection Applications	24-25 October, 2015 at Manipal University, Jaipur, India (International Conference)
4.	Prof. Satyabrata Jit	Principles and Applications of Terahertz Technology: An Overview	24- 26 September, 2015 at Jaypee University of Information Technology, Waknaghat, Solan, H.P., INDIA (International Conference)
5.	Prof. Satyabrata Jit	Art of Referencing in Research Articles	15-24 June, 2015 at Faculty of Management Studies, BHU (Workshop)
6.	Dr. Manoj Kumar Meshram	5th IEEE Applied Electromagnetics Conference (AEMC 2015)	Dec. 18-21, 2015 IIT Guwahati, Assam
7.	Dr. Manoj Kumar Meshram	IEEE Radio and Antenna Days of the Indian Ocean (RADIO 2015)	Sep. 21-24, 2015 Mauritius
8.	Dr. Manoj Kumar Meshram	Recent Advancement in Communication Engineering and Microelectronics (RACEM) 2016	9-10 March, 2016 MMMUT, Gorakhpur
9.	Prof. S. P. Singh	5th biennial IEEE Applied Electromagnetics Conference (AEMC-2015)	Dec 18-21, 2015, IIT Guwahati
10.	Prof. S. P. Singh	15th edition of IEEE Mediterranean Microwave Symposium (MMS2015)	Nov 30-Dec 02, 2015, Grand Hotel Tiziano e dei Congressi, Lecce, Italy

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Prof. Satyabrata Jit	Advances in CMOS Devices: An Overview	MepcoSchlenk Engineering College, Sivakasi, Tamilnadu-626 005	12November, 2015
2.	Prof. Satyabrata Jit	Terahertz Technology : Principles and Applications	Dept. of Electronics and Communication Engineering, Kashi Institute of Technology, Varanasi	14October, 2015
3.	Prof. Satyabrata Jit	Referencing in Research Articles using EndNote Software	Faculty of Commerce, BHU	6-19September, 2015

4.	Dr. M K Meshram	Reconfigurable Antennas for Wireless Applications	MMMUT, Gorakhpur	23 Jan 2016
5.	Dr. M K Meshram	Return Loss : Misconcept	MMMUT, Gorakhpur	10 March 2016
6.	Dr. Kishor Sarawadekar	FPGA Architectures	Shri Sant Gajanan Maharaj College of Engineering, Shegaon,MS	27/8/2015
7.	Dr. Kishor Sarawadekar	Role of FPGAs and its Architecture	HVPMs College of Engineering & Technology, Amaravati, MS	27/8/2015
8.	Prof S. P. Singh	Microwave Hyperthermia for Cancer Treatment	Madan Mohan Malviya University of Technology, Gorakhpur	19/10/2015

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1.	Dr. M K Meshram	Maritius	19.9.2015	26.9.2015	Conference	CPDA
2.	Prof S. P. Singh	Italy	29/11/2015	05/12/2015	To present a research paper in Mediterranean Microwave Symposium (MMS2015)	CPDA and Institute Special Fund

Fellowships of academic and professional societies

Sl. No	Name of Faculty Member	Details of Fellowship
1.	Prof. Satyabrata Jit	Fellow, The Institution of Engineers (India)
2.	Dr. M K Meshram	Senior Member, IEEE Life Member IETE
3.	Prof. S. P. Singh	IEEE Senior Member (04585881)
4.	Prof. S. P. Singh	Life Fellow IETE (F165587)

Books, monographs authored/co-authored (From 1st April 2015 to 31st March 2016)

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Prof. Satyabrata Jit	Millman's Electronic Devices and Circuits, 4e	McGraw-Hill Education (India) Pvt. Ltd., New Delhi

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/member)	Name of Journal
1.	Dr. M K Meshram	Managing Editor	International Journal of Advances in Microwave Technology (IJAMT)
2.	Prof. S. P. Singh	Editorial Board Member	International Journal of Advances in Microwave Techniques (IJAMT)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipment, etc.)	Value (in Lakhs of Rupees)
1.	Vacuum deposition Unit (Thermal Evaporator)	12.77
2.	Hall Measurement	13.15
3.	Power meter (200nm to 1100nm)	2.25
4.	Light Source (350nm to 2500nm) with accessories	8.60
5.	Autoclave	0.08
6.	Semiconductor Parameter Analyzer	27.45
7.	Visual TCAD (software)	6.93
8.	IC-CAP (software)	5.95
9.	MAGIC Pro 3D Electromagnetic Simulation Software	9.80 Lakhs
10.	DELL Workstation Computer	4.5 Lakhs

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Dr. Kishor Sarawadekar	A method and system for interacting with computers or other electronic systems based on dactylology and reduced shape signature

Research and Consultancy

Sponsored research projects(Ongoing only)

Note : Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Special Manpower Development Project for System to Chip Design (SMDP-C2SD)	05 Years	DeitY, Govt. of India	10.43	Prof. S. Jit
2.	Electromagnetic Analysis, Design and Simulation of an X-band Gyro-Twystron Amplifier	3 years Oct. 2015 to Sep 2018	SERB, DST, New Delhi.	29,10,448	Dr. M.Thottappan

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed International Journals	36
2.	Total Number of Papers Presented in National Conferences	04
3.	Total Number of Papers Presented in International Conferences	14

Refereed International Journals

1. B. Singh, D. Gola, K. Singh, E. Goel, S. Kumar, and S. Jit (2016) Analytical Modeling of Channel Potential and Threshold Voltage of Double Gate Junctionless Field Effect Transistor with a Vertical Gaussian-Like Doping Profile. IEEE Trans. Electron Devices Vol(99): 1-7. ISSN : 0018-9383.
2. M. Kumar, Ekta Goel, S. Kumar, K. Singh, B. Singh, and S. Jit (2016) Strain-Induced Plasma Radiation at Terahertz Domain in Strained-Si-on-Insulator MOSFETs. IEEE Trans. Plasma Science 44(3): 245-249.

ISSN : 0093-3813.

3. G. Rawat, D. Somvanshi, H. Kumar, Y. Kumar, C. Kumar, and S. Jit (2015) Ultraviolet Detection Properties of p-Si/n-TiO_2 Heterojunction Photodiodes Grown by Electron-Beam Evaporation and Sol-Gel Methods: A Comparative Study. IEEE Trans. Nanotechnology 15(2): 193-200. ISSN : 1536-125X.
4. Ekta Goel, S. Kumar, K. Singh, B. Singh, M. Kumar, and S. Jit (2016) Two-Dimensional Analytical Modeling of Potential Distribution and Threshold Voltage for Graded-Channel Dual-Material Double-Gate (GCDMDG) MOSFETs. IEEE Trans. Electron Devices 63(3): 966-973. ISSN : 0018-9383.
5. Mirgender Kumar and S. Jit (2015) A Novel Four-Terminal (4T) Ferroelectric Tunnel FET (Fe-TFET) for Quasi-Ideal Switch. IEEE Trans. Nanotechnology (under Letters category) 14(4): 600-602. ISSN : 1536-125X.
6. Mirgender Kumar and S. Jit (2015) Effects of Electrostatically Doped Source/Drain and Ferroelectric Gate Oxide on Subthreshold Swing and Impact Ionization Rate of Strained-Si-on-Insulator Tunnel Field Effect Transistors. IEEE Trans. Nanotechnology (under Letters category) 14(4): 597-599. ISSN : 1536-125X.
7. A. B. Yadav, A. Pandey, D. Somvanshi, and S. Jit (2015) Sol-Gel Based High Sensitive Pd/n-ZnO Thin Film/n-Si Schottky Ultraviolet Photodetectors. IEEE Trans. Electron Devices 62(6): 1879-1884. ISSN : 0018-9383.
8. P. K. Tiwari, V. R. Samoju, T. Sunkara, S. Dubey, and S. Jit (2016) Analytical Modeling of Threshold Voltage for Symmetrical Silicon Nano-Tube Field-Effect-Transistors (Si-NT FETs). J. Computational Electronics 15(2): 516-524. Print ISSN : 1569-8025.
9. B. Singh, D. Gola, E. Goel, S. Kumar, K. Singh, and S. Jit (2016) Dielectric Pocket Double Gate Junctionless FET: A New MOS Structure with improved Subthreshold Characteristics for Low Power VLSI Applications. J. Computational Electronics 15(2): 502-507. Print ISSN : 1569-8025.
10. K. Singh, M. Kumar, Ekta Goel, S. Kumar, K. Singh, B. Singh, and S. Jit (2016) Subthreshold Current and Swing Modeling of Gate Underlap DG MOSFETs with Source/Drain Lateral Gaussian Doping Profile. Journal of Electronic Materials (JEMS) (In press).
11. A. Pandey, D. Somvanshi, and S. Jit (2015) Electrical and Ultraviolet Detection Properties of n-ZnO Thin film/p-Si Heterojunction Diodes Using a ZnO Buffer Layer. Journal of Nanoelectronics and Optoelectronics 10(2): 219-225. ISSN 1555-130X (Print); ISSN: 1555-1318 (Online).
12. Amritanshu Pandey, Snehlata Chanchal, and S Jit (2015) WO_3 Nanowire based Diode for Ultraviolet Light Sensing Applications. Journal of Electron Devices 21: 1830-1833. ISSN: 1682-3427.
13. Kunal Singh, Mirgender Kumar, Ekta Goel, Balraj Singh, Sarvesh Dubey, Sanjay Kumar, and Satyabrata Jit (2016) Analytical Modeling of Potential Distribution and Threshold Voltage of Gate Underlap DG MOSFETs with a Source/Drain Lateral Gaussian Doping Profile. Journal of Electronic Materials (JEMS)45(4): 2184-2192.Print ISSN : 0361-5235.
14. M. Agarwal, A. K. Behera, and M. K. Meshram (2016) Wide-angle quad-band polarization-insensitive metamaterial absorber. Electronics Letters 52 (5): 340-342.
15. Mayank Agarwal, Ashis Kumar Behera, and Manoj Kumar Meshram (2016) Dual Resonating C-Band with Enhanced Bandwidth and Broad X-Band Metamaterial Absorber. Applied Physics A 122 (166).
16. Gaurav Kumar Pandey, Hari Shankar Singh, and Manoj Kumar Meshram (2016) Platform Tolerant UWB Antenna Over Multi-band AMC Structure. Microwave Optical Technology Letters 58 (5): 1052-1059.
17. Gaurav Kumar Pandey, Hari Shankar Singh, and Manoj Kumar Meshram (2016) Meander-Line Based Inhomogeneous Anisotropic Artificial Material for Gain Enhancement of UWB Vivaldi Antenna. Applied Physics A 122 (134).
18. Gaurav Kumar Pandey, Hari Shankar Singh, Pradutt Kumar Bharti, and Manoj Kumar Meshram (2015) Design and analysis of multi-band notched pitcher-shaped UWB antenna. International Journal of RF and Microwave Computer-Aided Engineering 25(9): 795-806.
19. Gaurav Kumar Pandey, Hari Shankar Singh, Pradutt Kumar Bharti, and Manoj Kumar Meshram (2016) Design and Analysis of Y-Shaped UWB Antenna with Dual Band Notched Characteristics. Wireless

Personal Communications, (in press).

20. S. Singhal and A. K. Singh (2015) Beveled Monopole Antenna With Slot Loaded Semi-Circular Like Ground Plane For UWB Applications. Microwave and Optical Technology Letters 57(6), 1289-1296 ISSN: 1098-2760.
21. S. Singhal and A. K. Singh (2015) Modified Theta Shaped Monopole Antenna With Defected Ground Structure For UWB Applications. Microwave and Optical Technology Letters, 57 (7), 1625-1632 ISSN: 1098-2760.
22. S. Singhal and A. K. Singh (2015) Crescent Shaped Dipole Antenna For Ultra Wideband Applications. Microwave and Optical Technology Letters, 57(8), 1773-1782 ISSN: 1098-2760.
23. S. Singhal, A. Pandey and A. K. Singh, " CPW-Fed Circular Shaped Fractal Antenna With Third Iterative Orthogonal Elliptical Slots for UWB Applications," International Journal of Microwave and Wireless Technologies (doi:10.1017/S1759078715001506) ISSN: 1759-0787.
24. A. Pandey, S. Singhal and A. K. Singh (2016) CPW-Fed Third Iterative Square Shaped Fractal Antenna For UWB Applications. Microwave and Optical Technology Letters, 58 (1), 92-99 ISSN: 1098-2760.
25. R. S. Brar, S. Singhal and A. K. Singh (2016) Fractal Dipole Antenna For UWB Applications. Microwave and Optical Technology Letters, 58 (1), 39-47 ISSN: 1098-2760.
26. S. Singhal, N. K. Verma and A. K. Singh (2016) Hex-Sided Rounded Dipole Antenna (HSRDA) For UWB Applications. Frequenz-Journal of RF-Engineering and Telecommunications, 70 (3-4), 81-88 (DOI 10.1515/freq-2015-0178) ISSN: 2191-6349.
27. S. Singhal, P. Singh and A. K. Singh (2016) Asymmetrically CPW-Fed Octagonal Sierpinski UWB Fractal Antenna. Microwave and Optical Technology Letters (Accepted) ISSN: 1098-2760.
28. S. Singhal, T. Goel and A. K. Singh (2016) Outer Tapered Tree Shaped Fractal Antenna For UWB Applications. International Journal of Electronics (Accepted) ISSN: 0020-7217 (Print), 1362-3060 (Online).
29. S. Singhal, N. K. Verma and A. K. Singh (2016) Elliptical Annular Slot Loaded Trapezoidal Dipole Antenna For Band-Notched UWB Applications. Iraqi Journal of Electrical and Electronics Engineering (Accepted) ISSN 1814-5892 (Print), ISSN 2078-6069 (Online) .
30. M.Thottappan, and P.K.Jain, "Nonlinear Investigation and 3-D Particle Simulation of Second Harmonic Gyro-TWT with a Mode Selective RF Circuit", IEEE Transactions on Electron Devices, vol. 62, no. 5, pp. 1641-1647, May 2015.
31. Soni Singh and Surya Pal Singh (2015) Water-Loaded Metal Diagonal Horn Applicator for Hyperthermia. IET Microwaves, Antennas and Propagation 9(8): 814-821. ISSN: 1751- 8725.
32. Situ Rani Patre, Soni Singh, and S. P. Singh (2015) Study of Trapezoidal Toothed Log-Periodic Antenna fed through Tapered Microstrip Line-to-Coplanar Stripline Transition. Microwave and Opt. Tech. Letters 57(7):1671-1677. ISSN: 0895-2477.
33. Bhagirath Sahu, Pankaj Tripathi, S. P. Singh (2015) Investigation on Cylindrical Dielectric Resonator Antenna with Metamaterial Superstrate. Wireless Personal Communications (Springer Publ.), Wireless Personal Communications.84(2): 1151-1163.ISSN: 0929-6212.
34. Soni Singh and Surya P. Singh (2015) Theoretical and Simulation Studies on Water-Loaded Metal Diagonal Horn Antenna for Hyperthermia Application. Progress in Electromagnetics Research C 58:105–115.ISSN: 1937-8718.
35. Saba Shahin, Somanshu Banerjee, Surya Pal Singh and Chandra Mohini Chaturvedi (2015) 2.45 GHz Microwave Radiation Impairs Learning and Spatial Memory via Oxidative/Nitrosative Stress Induced p53 Dependent/Independent Hippocampal Apoptosis: Molecular Basis and Underlying Mechanism, Toxicological Sciences, (Oxford University Press Publ.) 148(2): 380-399. ISSN: 1096-0929.
36. Situ Rani Patre and S. P. Singh (2015) Study of CPW-Fed Flower-Shaped Patch Antenna for Broadband Applications. Microwave and Opt. Tech. Letters 57(12): 2908-2913. ISSN: 0895-2477.

Proceedings of International Conferences

1. Gopal Rawat, Hemant Kumar, Yogesh Kumar, Chandan Kumar, Divya Somvanshi, and Satyabrata Jit. 2015. Structural and Optical Characteristics of n-TiO_2 Thin Films by Sol-Gel Method : 1-4, 12th IEEE India International Conference, (INDICON 2015), Jamia Millia Islamia, New Delhi, India, December 2015.
2. Hemant Kumar, Yogesh Kumar, Gopal Rawat, Kunal Singh, Bhoal N. Pal, and Satyabrata Jit. 2015. Kink Effect in TiO_2 Embedded ZnO based TFT. 18th International Workshop on the Physics of Semiconductor Devices (IWPSD)-2015, IISc, Bangalore, India, December, 2015.
3. Ekta Goel, Kunal Singh, Sanjay Kumar, Balraj Singh, M. Kumar, and S. Jit. 2015. Impact of Heterogeneous Gate Dielectric on Strained Silicon Double-Gate Tunnel Field Effect Transistor. 18th International Workshop on the Physics of Semiconductor Devices (IWPSD)-2015, IISc, Bangalore, India, December, 2015.
4. Kunal Singh, Ekta Goel, Sanjay Kumar, Balraj Singh, M. Kumar, and S.Jit. 2015. Source/Drain Lateral Extension as Current On/Off ratio Booster in Gate Underlap DG MOSFETs with Source/Drain Lateral Gaussian Doping Profile. 18th International Workshop on the Physics of Semiconductor Devices (IWPSD)-2015, IISc, Bangalore, India, December, 2015.
5. Sanjay Kumar, Ekta Goel, Kunal Singh, Balraj Singh, Mirgender Kumar, and S. Jit. 2015 A 2D Analytical Model of Double-Gate (DG) Tunnel-Field-Effect Transistor (TFET): Impact of Shortest Tunneling Distance. 18th International Workshop on the Physics of Semiconductor Devices (IWPSD)-2015, IISc, Bangalore, India, December, 2015.
6. Mayank Agarwal, Ashis Kumar Behera, and Manoj Kumar Meshram. 2015. Closed ring resonator based absorber for C- and X- band applications. 5th IEEE Applied Electromagnetics Conference (AEMC 2015), Guwahati, Assam, India, Dec. 18-21, 2015.
7. Mayank Agarwaland Manoj Kumar Meshram. 2015. X-band metamaterial absorber with dual band/broadband absorption characteristics. IEEE MTT-S International Microwave and RF Conference (IMaRC 2015), Hyderabad, India, Dec. 10-12, 2015.
8. Mayank Agarwaland Manoj K. Meshram. 2015. Bandwidth enhanced compact PIFA for dual band operation. IEEE Radio and Antenna Days of the Indian Ocean (RADIO 2015), Mauritius, Sep. 21-24, 2015.
9. Ashis Kumar Behera, Mayank Agarwal, and Manoj K. Meshram. 2016. Frequency reconfigurable triple band antenna for handheld device. International Conference on Emerging Trends in Electrical, Electronics and Sustainable Energy Systems (ICETEESES-16), KNIT Sultanpur, UP, India, Mar. 11-12, 2016.
10. Ashis Kumar Behera, Mayank Agarwal, Gaurav Pandey and Manoj Kumar Meshram. 2015. Frequency-reconfigurable triple band antenna for mobile handsets. 5th IEEE Applied Electromagnetics Conference (AEMC 2015), Guwahati, Assam, India, Dec. 18-21, 2015.
11. Gaurav K. Pandey and Manoj K. Meshram, "Anisotropic Artificial Material with ENZ and High Refractive Index property for High Gain Vivaldi Antenna Design," 15th IEEE Mediterranean Microwave Symposium 2015 (MMS2015), Lecce, Italy, Nov 30-Dec 2, 2015
12. Hari Shankar Singh, Gaurav Kumar Pandey, and Manoj Kumar Meshram, "Internal Coupled-Fed Four-Element Multi-Wideband Diversity Antenna for LTE Mobile Handsets," 5th IEEE Applied Electromagnetics Conference (AEMC-2015), IIT Guwahati, India, December 2015.
13. S. Singhal and A. K. Singh 2015 CPW-Fed Phi Shaped SWB Monopole Antenna. Proceedings of IEEE Applied Electromagnetics Conference(AEMC), IIT Guwahati, Guwahati, December 2015
14. S. Singhal and A. K. Singh 2016 Hexagonal Super Wideband Fractal Antenna. APS/URSI 2016 (Accepted)

Proceedings of National Conferences

1. Ashis Kumar Behera, Mayank Agarwal, Gaurav Pandey and Manoj K. Meshram. 2016. A hepta-band Frequency-reconfigurable antenna for handheld device using PIN diode. National Conference on Recent Advancement in Communication Engineering and Microelectronics (RACEM-2016), MMMUT Gorakhpur, UP, India, Mar. 09-10, 2016.

2. Gaurav Kumar Pandey and Manoj Kumar Meshram, "Improved radiation characteristics of Antipodal Vivaldi Antenna using Broadband Artificial Material," Recent Advancement in communication Engineering and Microelectronics (RACEM-2016), MMMUT, Gorakhpur, India, March 9-10, 2016.
3. S. Bhaskar, S. Singhal and A. K. Singh (2016) A 2.4/5.8 GHz Dual Band Monopole Antenna for RFID Applications," National Conference On Recent Advancement In Communication Engineering And Microelectronics (RACEM-2016), Gorakhpur-273010 (March 9-10, 2016), India organized by Department of Electronics and Communication Engineering, Madan Mohan Malaviya University of Technology
4. S. Bhaskar, S. Singhal and A. K. Singh (2016) CPW-Fed Inverted U-Shaped Folded-Slot Monopole Antenna for RFID Applications. National Conference On Recent Advancement In Communication Engineering And Microelectronics (RACEM-2016), Gorakhpur-273010 (March 9-10, 2016), India organized by Department of Electronics and Communication Engineering, Madan Mohan Malaviya University of Technology

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Saba Shahin, Vineet Prakash Singh, Ritesh K. Shukla, Alok Dhawan, Ravi Kumar Gangwar,Surya Pal Singh, Chandra Mohinii Chaturvedi (2013) 2.45 GHz microwave irradiation –induced oxidative stress affects implantation or pregnancy in mice, Mus musculus. Appl Biochem Biotechnol 169(5): 1727-1751. (Cited by: 28)
2. HS Singh, BR Meruva, GK Pandey, PK Bharti, MK Meshram, "Low mutual coupling between MIMO antennas by using two folded shorting strips," Progress In Electromagnetics Research B 53, 205-221, 2013. (Cited by: 15)
3. Divya Somvanshi and S. Jit, "Mean Barrier Height and Richardson Constant for Pd/ZnO Thin Film Based Schottky Diodes Grown on n-Si Substrates by Thermal Evaporation Method," IEEE Electron Device Letters, Vol.34(10), pp.1238-1240, 2013. (Cited by: 14).
4. K. Sarawadekar and S. Banerjee, "An efficient pass-parallel architecture for embedded block coder in JPEG 2000," IEEE Transactions on Circuits and Systems for Video Technology, vol. 21, no. 6, pp. 825–836, Jun. 2011 (Cited by: 14)
5. C.M. Chaturvedi, V.P. Singh, P. Singh, P. Basu, R.K. Shukla, A. Dhawan, R.K. Gangwar, S.P. Singh (2011) 2.45 GHz (CW) microwave irradiation alters circadian organization, spatial memory, DNA structure in the brain cells and blood cell counts of male mice, Mus musculus. PIER B 29: 23-42. (Cited by: 12)
6. GK Pandey, HS Singh, PK Bharti, MK Meshram, "Design of WLAN band notched UWB monopole antenna with stepped geometry using modified EBG structure," Progress In Electromagnetics Research B 50, 201-217, 2013. (Cited by: 12)

Equipment :

Fig 1. Thermal Deposition Unit.

Fig 2. Hall Effect Measurment.

Fig 3. Semiconductor Device Analyzer.

Information

- Dr. Kishor Sarawadekar was invited as an expert for the research symposium held at Shri Guru Gobind Singhji Institute of Engineering and Technology, Nanded, Maharashtra (26-27 July, 2015)
- Dr. Kishor Sarawadekar conducted a 5 days short term course on "VHDL Design Constructs and Applications" at Jawaharlal Darda Institute of Engineering and Technology, Yavatmal, Maharashtra (08-12 June, 2015)

Head/Coordinator of the Department : Prof. Rakesh Kumar Misra

Brief Introduction of the Department :

The Department of Humanistic studies isnewly established at IIT (BHU) in 2015. Banaras as it is recognized for teaching, learning and research needs such departmentto bring sustainable development in society through pursuit of humanities at IIT (BHU). The department plays manyroles in this institute as well as for this country.One of the important roles this department plays is that, this department convened fourharmony workshops in which many faculty members and students of this institute and from other institutesparticipated and gained knowledge about Jivan Vidya. Second, the department creates a platform for creative activities in which studentsof many different engineering streams participate to show their creative activity. For example:creative writing, music.Third, the department providescourses on creative practice through which students learn about painting, drawing and makingsculpture. Forth, the department invited many eminent scholars who could make our students notice how humanbeing is acreator ofmany social and environmental problems and understood thatscience and technology should be used in the humanitarian way. Another important role this department plays in teaching differenthumanistic subjects like History, Sociology, Philosophy, Education, Linguistics and Literature.

The important purpose of this department is to educate people to recognize themselvesas worthy citizens and recognize their own values as well as values of others in a country like ours. The department strives to be a centre of moral technology regarding human thinking, human conduct and human aspirations for the future; so that people pursuing science and technology can use their knowledge for human development in wholesome manner.

The goal of this department is to develop the understanding of students so that they can feel their responsibility in family, society and nature and they can see harmony in these levels.Department wants to see its students do justice in their relationship , becoming creator of their own life, feeling prosperity, becoming compassionate and getting internal bliss. To achieve this goal and purpose it houses studyof manydifferent courses like Universal Human Values-1, Universal Human Values -2, Study of Development of Society, Study of History of Civilization, Study of Introductory Philosophy and Study of Education. Students of UG, PG and PhD obligatorily pursue these courses. This Department also makes research in many different disciplines like Computational Linguistics, English Language andLiterature, Philosophy, History and Sociology. The Department has only two faculty members including one visiting faculty.Now, the department proposes for a separate building in which classrooms and office can be created.

Major areas of Research; Computational Linguistics, English, History, sociology and Philosophy.

Unique Achievement / Preposition of the Department/School

This department wishes to propagate that right understanding about anything is an important asset of human beings which can help them about what they should do and what they should not. In year last this department arranged many different programs regarding how we can get right understanding in which students and faculties participated and viewed that there are many changes in their thinking, behaviour, conduct and decision making. We noticed that people participating in these programs are able to solve their own problems alongwith becoming more appropriate in their work and relationship.

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course Name	Course Credit
1.	PhD (Linguistics) H-202	Computational Linguistics	11
2.	PhD (Linguistics) H- 7102	Research Methodology-II	11
3.	PhD (Linguistics) H- 7206	Corpus Linguistics	11
4.	PhD (Linguistics) H- 7302	Reasoning & Communication: Nyaya Perspective	11

5.	PhD (Linguistics) H-7207	Linguistic Data- Collection & Modelling	11
6.	PhD (Linguistics) H-7208	Introduction to Linguistics-2	11
7.	PhD (Linguistics) H-7203	Linguistic Data- Collection & Analysis	11
8.	PhD (Linguistics) H-7204	Introduction to Linguistics-1	11
9.	PhD (Linguistics) H-7205	Syntax	11
10.	PhD (Linguistics) CS-7023	Computer and Scripting-1	11
11.	PhD (Linguistics) AM-7101	Basic Mathematics-1	11
12.	PhD (Linguistics) AM-7108	Basic Mathematics-2	11
13.	PhD (Linguistics) CS-7024	Computer Scripting-2	11
14.	PhD (Linguistics) H-7301	Logic in Language	11
15.	PhD(English) H-7401	Indian Literature	11
16.	PhD (English) H-7403	Literary Theories in Practice	11
17.	Ph.D(English) H-7406	Writing in the Literary Genre	11
18.	Ph.D(Linguistics) H-7201	Linguistics and Translation	11
19.	Ph.D(English) H-7402	Women's Writing	11
20.	Ph.D(English) H-7404	Advanced Literary Theory	11
21.	Ph.D(English) H-7405	Dynamics of Indian civilization	11
22.	UG	Universal Human Values-1	
23.	UG	Universal Human Values-2	
24.	UG	Preparatory English	
25.	UG	Basic English	
26.	UG	Development of Socities	8
27.	UG	Philosophy	8
28.	UG	History and Civilization	28
29.	UG	Educational and Self	29
30.	UG	Computer Scripting-2	
31.	UG	Computer Scripting-2	
32.	PhD (Linguistics) CS-7024	Computer Scripting-2	

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	Ph. D (Under Institute Fellowship)	1	1+3			

Students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Shubhra Apurve	1519501	Workshop on Sanskrit Computational Linguistics, Allahabad	15th March to 22nd March	Self +TA from conference

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
Example	**Michael Gromiha**	**Protein Bioinformatics**
PROFESSORS		
1.	P.K. Panda	English Literary Theory, Professional Communication, Creative Writing
POST DOCTORAL FELLOWS		
1.	Dr. Swasti Mishra	Computational Linguistics, Cognitive Linguistics, Lexicography, Digital Humanities

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1.	Dr. Swasti Mishra (Member Organizing Committee)	Regional Symposium on Natural Language Processing (regICON-2015)	March 21-22,2015
2.	Dr. Swasti Mishra (Co-Cordinator)	Rashtriya Karyashala Bhojpuri Aur Computer Anuprayog	March 23, 2015
3.	Dr. Swasti Mishra (Co-Cordinator)	Workshop on Morph Analysis for Bhojpuri	June 08-10, 2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
1.	Prof, P.K. Panda	An Analysis of Pitfalls in Professional Communication Courses in Engineering Institutions in India	24-25 March-2015
2.	Prof, P.K. Panda	International Poetry Festival	21-22 Sept. 2015
3.	Dr. Swasti Mishra	National Conference on Localization of Teaching and Testing in Hindi and other Indian Languages	5-7 November, 2015

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Dr. Swasti Mishra	Machine Readable Dictionary : An Integral Part of MT System	Bhojpuri Adhyayan Kendra, BHU	March 23, 2015

Books, monographs authored/co-authored

Sl. No	Name of Author/Co- Author	Title	Publisher
1.	Dr. Swasti Mishra, Chief Editorial Consultant	Collins Cobulid Learner's English-English-Hindi Dictionary Year, 2015, ISBN-13:978-0-00-815619-0	Collins India A Division of Harper Collins Publisher India Limited, Noida
2.	Dr. Swasti Mishra, Consultant	Collins Essential English-English-Hindi Dictionary 2015, ISBN 978-0-00-815618-3	Collins India A Division of Harper Collins Publisher India Limited, Noida

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. P.K. Panda	Member	IOSR Journal of Humanities and Social Sciences
2.	Prof. P.K. Panda	Advisory Board Member	Journal of Research and Innovation in Social Sciences
3.	Prof. P.K. Panda	Editor-in -chief	Nuances; A Journal of Humanistic Inquiry

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1.	(Dr. Swasti Mishra) Cognitive Linguistic Study of Perception Verbs in Hindi and English: In the Context of Machine Translation	Two Years (Sept.2014-Sept.2016)	Department of Science & Technology (DST), New Delhi	17,78,666/-	Mentor- Prof. Rajeev Sangal PI- Dr. Swasti Mishra

Industrial consultancy projects

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Dr. Swasti Mishra	English-English-Hindi Dictionaries	Harper Collins Publishers, Glasgow, UK.	Per task Based

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	2

Refereed National Journal

1. Panda, P.K. 2015.An Analysis of Pitfalls in Professional Communication Courses in Engineering Institutions in India.Professionalization of Education, ed O.N. Singh. Bharati Publication. New Delhi.2015
2. India: The future is now by Sashi Thoroor. Wisdomtree New Delhi 2013. In Nuances Vol -1 No. 1. Jan-July 2015.

Head/Coordinator of the Department : Prof. A. K. Agrawal

Brief Introduction of the Department/School:

The Department of Mechanical Engineering came into existence in 1919 under the leadership of Professor Charles A. King, the first Head of the Department and Principal of the erstwhile Banaras Engineering College. Over the last ninety seven years, the department has grown four folds to become the largest department in IIT (BHU), Varanasi. The post-graduate and doctoral program in the department is well-established and infrastructural facilities exist for studies and research for a range of specialisations such as Machine Design, Thermal and Fluid Engineering, Production Engineering and Industrial Management.

Unique Achievement Preposition of the Department

In the last five years, the department has produced 300 graduates and 125 post-graduates. Apart from this, the department has to its credit 7 Ph.D.s awarded during the last five years.

Major areas of Research

Fracture mechanics, Vibrations and dynamic analysis, Smart materials,Tribology, Heat Transfer, Fluid dynamics, Metal forming/joining, Machining, Supply Chain Management.

Area of the Department/School (in square meters):

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	08
2.	No. of Lecture Halls	04
3.	No. of Laboratory	14
4.	No. of Computers available for students in the Department/School/School	250

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course Name	Course Credit
1.	ME-5137	Alternative fuels for transportation	11
2.	ME-5138	Solar Energy Engineering	11

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	97	110	110	105	
2.	Dual Degree	20	22	19	22	22
3.	M. Tech / M. Pharm	36	43			
4.	Ph. D (Under Institute Fellowship)	30	04	23	07	01
5.	Ph. D (Under Project Fellowship)		01			
6.	Ph. D (Under Sponsored Category)		01	01		

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Manish Kr.	13101002	RENCON-16, Renewable energy, conservation & efficient use of electricity	Feb. 2016	IIT (BHU)
2.	Bharat S. Patel	12606EN005	International Conference on Agile Manufacturing-2015	Dec. 2015	IIT (BHU)
3.	Bharat S. Patel	12606EN005	National conference on Skill India initiative	Feb. 2016	Self
4.	Mr. Awani Bhushan		International Conference on Multifunctional Materials for Future Applications (ICMFA 2015)	October 27-29, 2015, IIT (BHU) Varanasi, India	IIT (BHU) Varanasi
5.	Mr. Awani Bhushan		COMSOL Conference-2015	October 29-30, 2015, Pune, India.	IIT (BHU) Varanasi
6.	Mr. Shushant Singh		International Conference on Multi-functional Materials for Future Applications (ICMFA 2015)	October 27-29, 2015, IIT (BHU) Varanasi, India	IIT (BHU) Varanasi
7.	Miss. Soumiya Shah		International Conference on Multi-functional Materials for Future Applications (ICMFA 2015)	October 27-29, 2015, IIT (BHU) Varanasi, India	IIT (BHU) Varanasi
8.	Miss. Soumiya Shah		International Conference on Vibration Problems (ICOVP-2015)	December 14-17, 2015, IIT Guhawati, India	IIT (BHU) Varanasi
9.	Miss. Soumiya Shah		DAE-BRNS Twentieth Symposium & Workshop on Thermal Analysis (THERMANS-2016),	January 18-20, 2016, IIT (BHU) Varanasi, India.	IIT (BHU) Varanasi
10.	Mr. Rishi Ram	14132032	international coference on environmental systems and sustainable development	15-16 Jan 2016	CERD, IIT(BHU) Varansi
11.	Mr. Avinash Ravi Raja	12606EN004	National Welding Seminar	9-10 Dec., 2015, CIDCO Exhibition Centre, Navi Mumbai	
12.	Mr. Harikishore	13131005	National Welding Seminar	9-10 Dec., 2015, CIDCO Exhibition Centre, Navi Mumbai	
13.	Mr. Ashish Srivastava	13131504	National Welding Seminar	9-10 Dec., 2015, CIDCO Exhibition Centre, Navi Mumbai	
14.	Mr. Manvandra Kumar Singh	13131007	7th Summer School in Tribology	At IiPM Gurgaon, 8-12June-2015	Tribology society of India
15	Mr. Manvandra Kumar Singh	13131007	Short Term Training Programme on Fundamental of Tribology and Its Industrial Applications (FTIA - 2015)	July 06-10, 2015. At NIT SURAT-GUJRAT	No Fund Given

16.	Mr. Manvandra Kumar Singh	13131007	International Conference on Multifunctional Materials for Future Applications (ICMFA-2015)	At IIT(BHU)Varanasi, 221005 (27-29 October, 2015).	Institute Fund
17.	Mr. Manvandra Kumar Singh	13131007	National Conference On Product Design and Manufacturing (NCPDM 2015)	At MNNIT-Allahabad (21-22 November-2015).	Institute Fund
18.	Mr. Manvandra Kumar Singh	13131007	International conference on Advanced and Agile Manufacturing Systems (ICAM'2015)	At KNIT-Sultanpur (28-29 December-2015).	No Fund Given
19.	Mr. Rajeev Nayan Gupta	13131009	7th Summer School in Tribology	8-12 June 2015 @ IIPM Gurgaon	Tribology Society of India
20.	Mr. Rajeev Nayan Gupta	13131009	National conference on "Tribology: Energy, Environment and Efficiency"	21-22 Jan 2016@ AMPRI Bhopal	Institute Fund
21.	Mr. Shushant Singh	13131011	Multifunctional Materials for Future Application (ICMFA-2015)	Oct. 27-29, 2015@ IIT (BHU)	Institute fund
22.	Mr. Ajeet Kumar		International Conference on Environmental systemsand Sustainable Development ESSD16,	January 15-16, 2016, Pune	IIT(BHU)
23.	Mr. Sunil Kumar		International Conference on Industrial Instrumentation and Control	COE Pune May 28-30, 2015.	IIT(BHU)
24.	Mr. Shalin		International Conference on Environmental systemsand Sustainable Development ESSD16,	January 15-16, 2016. Pune	IIT(BHU)
25.	Mr. Harshit Dwivedi	14132015	5th Int Conf on Material Processing Characterization	12/3/16; Hyderabad	Dept of Mech Engg
26.	Ms. Sakshi Devi	14132034	5th Int Conf on Material Processing Characterization	12/3/16; Hyderabad	Dept of Mech Engg
27.	Mr. M.K.P. Naik	14102009	International Conference on E-Business and Supply chain Competitiveness	12-14 February 2016 Indian Institute of Technology Kharagpur	IIT(BHU)
28	Mr. M.K.P.Naik	14102009	2nd international conferences on recent technological Advancement & Entrepreneurship in sports,	12-13March 2016 IMS(BHU),	Self
ABROAD					
1.	Mr. Vinaytosh Mishra	14101003	International Conference on Industrial Engineering and Operations Management	March 8-10, 2016, Malaysia	IIT (BHU) + Self
2.	Mr. Arun Kumar	Av.....	International Conference on Technologies and Materials for Renewable Energy, Environment and Sustainability, TMREES15,	April 17-20 Beirut, Lebanon	CERD, IIT(BHU)

Names of students/scholars who got prizes and awardsoutsidethe Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	Mr. M.K.P. Naik	14102009	Best Full length paper	12-14 February 2016 Indian Institute of Tech-nology Kharagpur	Indian institute of Technology Kharagpur

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Mr. Ajeet Kr Yadav	14102002	2nd in Poster, MTech, Mech Engg.	IIT (BHU)
2.	Mr. Anand Jaiswal	13101001	3rd in Poster, PhD, Mech Engg.	IIT (BHU)

Names of Students/Scholars who went for foreign Internship

Note: Individual faculty members should provide the data

Sl. No	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1.	Mr. Deepanshu Arora	12106EN107	State KeyLaboratory of Tribology,Tsinghua University	Beijing	China	6 weeks, during May to July 2015
2.	Mr. Prabhat Srivastava	12106EN108	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	6 weeks during May to July 2015
3.	Mr. Ishan Prakash	12106EN106	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	8 weeks during May to July 2015
4.	Mr. Amit Kumar	12106EN103	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	8 weeks during May to July 2015
5.	Mr. Manish Kumar	14131002	State Key Laboratory of Tribology, Tsinghua University	Beijing	China	May 14 to July 1, 2015
6.	Mr. Shubham Verma	12106EN102	University of Alberta (MITACS)	Edmonton	Canada	12 weeks during May to Aug 2015

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
Example	Michael Gromiha	Protein Bioinformatics
PROFESSORS		
1.	Prof. J.P.Dwivedi	Solid Mechanics, Process Plasticity and Vibrations
2.	Prof. V. P. Singh	Vibrations, Solid Mechanics
3.	Prof. A.K. Agrawal	Quality Control, Six Sigma, Optimization, Industrial Engineering, Operation Management, Supply Chain Management
4.	Prof. A.K. Jha	Manufacturing process and Manufacturing System

5.	Prof. V.K. Srivastava	NDT of Composites, Delaminating of Fibre Composites, Fracture, Toughness and interface of Fibre Composites, Metal-Matrix Composites, Ceramic Fibre Composites, Biocomposites, Glass Composites,NanoComposites.
6.	Prof. Santosh Kumar	Metal Forming/CAD-CAM-RP & Manufacturing Automation/Machine tools & Unconventional Manufacturing
7.	Prof. S.P. Tewari	Production Engg., Welding and Casting
8.	Prof A.P. Harsha	Tribology, Bio-Tribology
9.	Prof. Sandeep Kumar	Computational Mechanics(Wavelets, FEM, Meshless)
10.	Prof. K. S.Tripathi	Mechanisms, Vibrations
11.	Prof. S. K. Sinha	CNC
12.	Prof. Rajesh Kumar	Tribology, MEMS Reliability, Optimization
13.	Prof. Prashant Shukla	Thermal and Fluid Sciences
14.	Prof. Pradyumna Ghosh	Heat Transfer and CFD, Nanofluids
15.	Prof. S.K. Shukla	Energy and Resources, Solar Thermal, Alternate Fuels
16.	Prof. Rajnesh Tyagi	Materials development & Tribology, Surface Engineering, Production Engineering
ASSOCIATE PROFESSORS		
1.	Dr. S.K.Panda	Failure Analysis and Reliability Design, Finite Element Analysis, Impact Dynamics and Ballistics, Advanced Composite Structures, Rolling Element Bearings
2.	Shri S. K. Shah	Production Engg.
3.	Dr. Prabhas Bhardwaj	Cellular Manufacturing System, Supply Chain Management, Production Systems
4.	Dr. Mohd Zaheer Khan Yusufzai	Welding, Materials
5.	Dr. Meghanshu Vashista	Machining, Grinding, Material Characterization
6.	Dr. Swasti Sunder Mondal	Thermal Engg.
7.	Dr. Jahar Sarkar	Heat Transfer, Refrigeration, Thermodynamics
8.	Dr. Arnab Sarkar	Wind Engineering and Building Aerodynamics, Biomedical Engineering
9.	Dr. Debashis Khan	Computational Mechanics
10.	Dr. Rakesh Kumar Gautam	Development of Metal matrix based composite, hybrid composite, nano materials based composite, self - healing Materials, Bio- Tribology, dental tribology and air erosion of high temperature steels
ASSISTANT PROFESSORS		
1.	Dr. Jeewan Vachan Tirkey	1. SI and CI Engine Design simulation 2. Alternate fuel
2.	Dr. Cherian Samuel	Supply Chain Management, System Dynamics
3.	Dr. Nilanjan Mallik	Smart materials and structures including nanostructures, finite element method, composites, fatigue
4.	Dr. Amit Tyagi	Machine Design
5.	Dr. U. Srinivas Rao	Modeling and Simulation, Micro-machining, Machining, Tool Condition Monitoring
6.	Mrs. Rashmi Rekha Sahoo	IC Engine, Automobile Engg, Combustion technology, Combustion pollution
7.	Shri Prakash Chandra Mani	Tribology and Maintenance Engineering

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1.	Dr. Arnab Sarkar and Dr. J.V. Tirkey	International Workshop on Energy and Resources Development	16-17th May, 2015
2.	Dr. J.V. Tirkey	Renewable Energy and Sustainable Development	Jan 18-22,2016, IIT (BHU)
3.	Prof. Santosh Kumar	National Workshop on, Mathematical Modeling and Computer Simulation (NWMMCS-2015),	March 20-21, 2015
4.	Prof. Santosh Kumar	National SYMPOSIUM on Research Methodology for Future Researchers (RMFR-2015).	March 22, 2015
5.	Prof. Santosh Kumar	National Workshop on 'Faculty Development Program (FDP-2014) March 29, 31, 2015.	March 29, 31, 2015
6.	Prof. Santosh Kumar	One day Brain storming session on 'Best teaching practices in Teaching-Learning & Effective tutorials & teaching'	Jan 27, 2015
7.	Prof. Santosh Kumar	Four months, IIRS	Aug, 10-Nov 27, 2015
8.	Prof. Santosh Kumar	QEEE Live Course on " Pythen for Beginners"	10 oct.-19 Nov, 2015
9.	Prof. Santosh Kumar	Two days workshop on 'Research Method & Skills'	4-5 Dec, 2015
10.	Prof. Santosh Kumar	Two days workshop on 'Mooks with mOOkit'	22-23 Dec, 2015
11.	Prof P. Ghosh	Volume Averaging Method for Upscaling in Porous Media	Jan 5-16, 2015
12.	Prof. Santosh Kumar	Two months IIRS,	11 Feb-15 March 2016
13.	Prof. Santosh Kumar	Short workshop on "How to make Poster & Poster Presentation"	16 March 2016
14.	Prof. Santosh Kumar	Short workshop on "How to make Poster & Poster Presentation"	30 March 2016
15.	Prof. S.K. Shukla	Biodiesel Blending Estimation and Performance of Tata Vehicles	30/08/2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
	Seminars/Symposia/Conferences		
1.	Dr. Prabhas Bhardwaj	International Conference on Industrial Engineering and operations Management	March 8–11, 2016 Malaysia
2.	Prof. A.P. Harsha	"Influence of temperature on galling resistance of SS 416", Malaysian International Tribology Conference 2015,	16-17, November 2015, Parkroyal Penang Resort, Malaysia
3.	Prof. J.P. Dwivedi	International Conference on Materials processing and Characterization (ICMPC-2016)	March-2016 Hyderabad
4.	Prof. Santosh Kumar	Two days Symposium on 'National Workshop on 'Teaching-Learning in Higher Technical Education' at Teaching-Learning Centre, IIT-Madras.	(Jan 22-23, 2016) IIT-Madras.
5.	Prof. Rajnesh Tyagi	Malaysian International Tribology Conference	16-17, November 2015 Penang Malaysia

Meetings			
1.	Prof.S.K.Shukla	Workshop on Outcome Based Accreditation	16th November 2015, Convention Centre, India Habitat Centre, Lodhi Road, New Delhi-110003.
2.	Prof. Sandeep Kumar	Workshop on Diamond Turning for S & T, Industrial Applications	April 19-21, 2015 conducted by CSIR-CSIO, Chandigarh
3.	Dr. U. Srinivas Rao	Workshop on Diamond Turning for S &T, Industrial Applications	April 19-21, 2015 conducted by CSIR-CSIO, Chandigarh
4.	Prof. Sandeep Kumar	Workshop on Adv in Tooling for Diamond Turning	Sept 05-06, 2015, IIT Bombay
5.	Dr. U. Srinivas Rao	Workshop on Adv in Tooling for Diamond Turning	Sept 05-06, 2015, IIT Bombay
6.	Prof. Sandeep Kumar	Workshop on	4th March,2016,
7.	Dr. U. Srinivas Rao	Workshop on Advances in Single Point Diamond Turning Technology	4th March, 2016, CMTI Bangalore

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Prof. A.P. Harsha	Bio-Tribology	Tribology Society of India, Faridabad, 7th Summer School in Tribology,	08-12 June 2015
2.	Prof. A.P. Harsha	Wear behaviour of polymers for artificial joints in human body	National conference on Product design and manufacturing, Motilal Nehru National Institute of Technology, Allahabad.	21-22, November, 2015
3.	Dr. Jeewan V. Tirkey	Energy in Agriculture	BHU (Barkacha Campus)	Dec. 02, 2015
4.	Dr. Jeewan V. Tirkey	Soil to oil	Institution of Engineers, UP State centre, Lucknow	Dec. 14, 2015
5.	Dr. Meghanshu Vashista	Grinding and super-abrasive process	Moradabad Institute of Technology, Moradabad	02-11-2015
6.	Dr. Meghanshu Vashista	Technology drift in manufacturing	Dr. K. N. Modi University Newai, Tonk, Rajasthan.	19-20 Feb., 2016
7.	Dr. Meghanshu Vashista	Residual stress assessment using Barkhausen Noise analysis.	DLW Varanasi.	04-03-2016
8.	Prof. Rajesh Kumar	Boundary Lubricated Wear	B. S. Anangpuria Institute of Technology and Management Faridabad, Haryana in National Conference on Advances in Mechanical Engineering (NCAME-2016).	12th March 2016
9.	Prof. Santosh Kumar	'Additive Manufacturing & Applications'.	MMMTU, Gorakhpur	March 13, 2016

10.	Prof. Santosh Kumar	on 'Technology of Rapid Prototyping:	Inside 3D printing show' Mumbai	Dec 3-4, 2015 at
11.	Prof. S.K. Shukla	Future Electricity Needs of India	Chief Guest and delivered IEI Lecture at Rewa Engineering College , M.P.	Dec 3-4, 2015 at
12.	Prof. S.K. Shukla	Future Energy Requirements, Generation and Availability of Resources In India	Chief Guest at Energy Day Function at IEI Lucknow centre	December14th, 2015
13.	Prof. S.K. Shukla	Energy needs and Role of Renewable Energy	CT Bora College, Shirur, Pune University	January 16th, 2016
14.	Prof. S.P. Tewari	Welding in Indian Railways	DLW, Varanasi	4-5/03/ 2016
15.	Prof. S.P. Tewari	Selection of welding processes, safety precautions and welding of Non-Ferrous Metals	DLW, Varanasi	13/12/2015
16.	Dr. Mohd Zaheer Khan Yusufzai	Metallurgy of Welding	Rustamji Institute of Technology	25/11/15
17.	Prof. Sandeep Kumar	Wavelets", Short Term Advanced Training Programme on INTEGRAL TRANSFORM, DISTRIBUTION AND WAVELET ANALYSIS	ISM Dhanbad	Dec 14-18, 2015
18.	Prof. Sandeep Kumar	"Wavelets in Computer Graphics", Keynote address in 2015 IEEE International Conference on Computer Graphics, Vision and Information Security	KIIT University, India	Nov 2-3, 2015
19.	Prof. Sandeep Kumar	"Customized Scale Orthogonal Wavelets for Solution of PDEs", BARC-BRNS Theme Meeting	Homi Bhabha National Institute, Mumbai	June 16-17, 2015

Visits abroad by faculty members

Sl. No	Name of faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Dr. Arnab Sarkar	Brazil	21.6.2015	27.6.2015	To participate in 14th International Conference on Wind Engineering	IIT (BHU), Varanasi
2.	Dr. PRABHAS BHARDWAJ	Malaysia	March 7, 2016	March 12, 2016	To attend a conference	IIT(BHU)
3.	Prof.A.P.Harsha	Malaysia	13th Nov 2015	18th Nov 2015	For attending international conference	CPDA
4.	Dr. Jeewan V. Tirkey	Manila, Philippines	01 March 2016	09 March 2016	Mentor of Team Averera of IIT (BHU), participation in Eco Shell Marathon Asia	CERD, IIT(BHU)
5.	Dr. R.K. Gautam	Malaysia	Novemeber 14, 2015.	Novemeber 18, 2015.	To present a research paper in conference	IIT(BHU), CPDA
6.	Prof. Rajnesh Tyagi	China	May 14, 2015	July 1, 2015	Collaborative Research	CPDA, MHRD

7.	Prof. V. K. Srivastava	University of Trento, Trento, Italy,	10th May 2015	11th June, 2015	Visiting Professor
8.	Prof. V. K. Srivastava	Institute of Frontier Materials, Deakin University, Geelong, Australia, 15-30th June, 2015.	15th June, 2015	30th June, 2015	Visiting Professor
9.	Prof. V. K. Srivastava	Rydges Sydney Airport Hotel, Sydney, Australia,	12th February 2015	13th February 2015	Attended Indo-Australia Joint S & T committee meeting
10.	Prof. V. K. Srivastava	Institute of Frontier Materials, Deakin University, Geelong, Australia,	26th June 2015.		Presented invited talk
11.	Prof. V. K. Srivastava	Hawthorn, Victoria, Australia	1st July July 2015.	20th July 2015.	Visited and presented invited talk under AISRF project, Faculty of Engineering and Industrial Sciences, Swinburne University of Technology, Hawthorn, Victoria, Australia
12.	Prof. V. K.Srivastava	Hawthorn, Victoria, Australia	1st March 2016	12th March 2016	Visited and presented invited talk under AISRF project, Faculty of Engineering and Industrial Sciences, University of Technology,

Honours and awards

Sl. No	Name of faculty Member	Details of Award
1.	Prof. K. K. Shukla	Chairperson at the Malaysian International Tribology Conference 2015, 16-17, November 2015, Parkroyal Penang Resort, Malaysia
2.	Prof A.P. Harsha	Appointed as Executive Committee member, Tribology Society of India.
3.	Prof. J.P. Dwivedi	Chairperson of a session at the International Conference on Materials processing and Characterization (ICMPC-2016), March-2016, Hyderabad

Fellowships of academic and professional societies

Sl. No	Name of faculty Member	Details of Fellowship
1.	Prof. V. P. Singh	Fellow, The Institution of Engineers (India)

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Nilanjan Mallik et. Al.	GATE Mentor	Cengage
2.	A Sethuramiah and Rajesh Kumar	Modelling of Chemical Wear-its Relevance to Practice (ISBN No. 9780128045336)	Elsevier (released on 27th October 2015)

3.	R. K. Gautam	Development Processing techniques and tribological 16pprox.16r of composite materials	IGI Global, USA, ISBN 978-1-4666-7530-8 (hardcover) ISBN 978-1-4666-7531-5 (ebook), 2015
4.	Kumar Y. and Kumar S.	Book chapter on 'Incremental Sheet Forming (in book titled "Advances in Material Forming and Joining)	Springer, ISBN 978-81-322-2355-9, pages: 29-46. (2015).
5.	S. K. SINHA	CNC Programming Skills: Understanding G32, G34, G76 and G92 on a Fanuc Lathe	Self-published
6.	V. P. Singh	Mechanics of Solids	The Institution of Engineers (India)
7.	Rajnesh Tyagi/J Paulo Davim	Processing techniques and Tribological Characteristics of Composite Materials	IGI Global, USA

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Dr. Jahar Sarkar	Member	American Journal of Engineering and Applied Science
2.	Dr. Jahar Sarkar	Member	Journal of Advanced Research in Mechanical Engineering and Technology
3.	Dr. Meghanshu Vashista	Editorial board member	Journal of Material Sciences and Applications, a Journal of American Association of Science and Technology (ASSCIT).
4.	Dr. Meghanshu Vashista	Editorial board member	International Journal of Production Engineering (JournalPub)
5.	Dr. Meghanshu Vashista	Editorial board member	Journal of Advanced Research in Mechanical Engineering and Technology, ADR Publications (ISSN 2454-8650)
6.	Dr. Meghanshu Vashista	Editorial board member	International Journal of Metallurgy (JournalPub)
7.	Prof. S.K. Shukla	Editor in Chief	Journal of Thermal Engineering and Applications (2349-8994)
8.	Dr. Pradyumna Ghosh	Editorial board member	American journal of nanoscience and engineering
9.	Dr. Pradyumna Ghosh	Editorial board member	Recent Advances in fluid Mechanics
10.	Dr. Mohd Zaheer Khan Yusufzai	Editorial board member	Journal of Material Sciences and Applications, a Journal of American Association of Science and Technology (ASSCIT).
11.	Dr. Mohd Zaheer Khan Yusufzai	Editorial board member	International Journal of Production Engineering (JournalPub)
12.	Dr. Mohd Zaheer Khan Yusufzai	Editorial board member	Journal of Advanced Research in Mechanical Engineering and Technology, ADR Publications (ISSN 2454-8650)
13.	Dr. Mohd Zaheer Khan Yusufzai	Editorial board member	International Journal of Metallurgy (JournalPub)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Thermal property analyzer	15
2.	Viscometer	5
3.	Variable compression Ration engine	20
4.	Biodiesel transesterification unit	06
5.	Gas Analyser of engine emission	12
6.	Engine performance with gear setup (Design by Btech student)	0.12
7.	Friction Stir welding machine	30
8.	Micro-hardness tester	6.9
9.	Tenso-compression machine	5.35
10.	Abrasive cutter	1
11.	Nano Scan and Optical Particle Sizer (OPS)	30
12.	Magnetron Sputtering Set up	22.5

Patents filed

Sl. No	Name of faculty Member	Title of Patent
1.	Prof. Santosh Kumar	"Sheet Hydro-forming Setup for producing Titanium material cup shape products" filed at Patent Office, Intellectual Property Office Building, Plot No. 32, Sector 14, Dwarka, New Delhi-110078, CBR No. 12288, Application No. 1667/DEL/2014.

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	International Bilateral Project Under AISRF MAGNETRON SPUTTERING OF NANOLAMINATES WITH MATERIALS DESIGNED AND ENGINEERED PROPERTIES	2012-16	Australia Science & Technology and DST, India	40.0	Prof. V. K. Srivastava
2.	Study on Wind Climatology on Slender Structures Using Weibull and Generalized Extreme Value Distribution	2014-16	BRNS, Department of Atomic Energy, Govt. of India	24.95	Dr. Arnab Sarkar
3.	"Development of tribological test method to measure galling resistance for various metal pairs under dry, lubricated and water lubricated environment"	October, 2012-December, 2015	Board of Research in Nuclear Sciences (BRNS), Mumbai.	22.71	Prof. A.P.Harsha

4.	Heat Transfer and Flow Characteristics of Hybrid Nanofluids in Mini-Micro-channels	3 yrs.	IIT (BHU)	15	Dr. Jahar Sarkar
5.	Assessment of residual stress upon friction stir welding of steel	2014-2017	DST	45	Dr. M.Z. Khan Yusufzai Dr. Meghanshu Vashista
6.	Design and fabrication of all terrain vehicle	March 15-16 narch	DIH, IIT BHU	3 lakhs	Mrs. Rashmi Rekha sahoo
7.	Study of tool wear in diamond turn machining & micro machining processes and development of tool wear monitoring and compensation methodology to enhance the size and shape accuracies of the ultra-precision machined components	February, 2013-February, 2016	BARC, Mumbai	24.058	Prof. Sandeep Kumar
8.	Development of micro-Sheet hydro forming process for Missile Components-	2013-15	DRDL, Hyderabad, (INDIA)	8.86	Prof Santosh Kumar
9.	Technology Development and fabrication of Tabletop CNC Machine for Micro-tube hydro forming with process optimization	2013-15	BRNS, Mumbai	48.0	Prof Santosh Kumar
10.	Design Development of an Incremental Sheet Hydro forming MachineSetup	2015-17	DST	49	Prof Santosh Kumar
11.	Development of Rubber based Sheet hydro forming Setup	2016-18	DRDL, Hyderabad, (INDIA)	9.84	Prof Santosh Kumar
12.	Setting of 'Teaching Learning Centre (Technical) under PMMMNMTT Scheme	2016-18	Min. of education, MHRD	678	Prof Santosh Kumar
13.	Centre for Energy and Resources Development	2015-2017	MHRD	100	Prof.S.K.Shukla
14	Quenching behaviour of dry heated rod in Nanofluids	2014-16	BARC, DAE	37	Prof. P. Ghosh

Industrial consultancy projects *(Ongoing only)*

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Prof. SK Shukla, Dr. J.V. Tirkey, Dr.S.V.Singh	performance analysis of pet coke to be co-fired with base-coal	Hindalco industries limited	4.30

Faculty members' participation with other universities under MoUs

For the International Collaborative Bilateral Research Programme of Prof. V.K. Srivastava:

i. Memorandum of understanding (MOU) between University of Limoges, Limoges, France and Indian Institute of Technology, BHU, Varanasi, India.

ii. Memorandum of understanding (MOU) between University of Bayreuth, Bayreuth, Germany and Indian Institute of Technology, BHU, Varanasi, India

iii. Memorandum of understanding (MOU) between Swinburne University of Technology, Vectoria, Melbourne, Australia and Indian Institute of Technology, BHU, Varanasi, India

iv. Memorandum of understanding (MOU) between IFM, Deakin University, Geelong, Melbourne, Australia, and Indian Institute of Technology, BHU, Varanasi, India.
v. International bilateral research, Department of Mechanical Engineering , Trento University, Trento, Italy and Department of Mechanical Engineering, IIT(BHU), Varanasi.
vi. International bilateral research, Institute of Mechanics, Otto-von-Gurieck University Magdeburg, Magdeburg, Germany and Department of Mechanical Engineering, IIT(BHU).

Research Publications

Sl. No	Particulars	No.
1.	Total Number of Papers Published in Refereed National Journals	08
2.	Total Number of Papers Published in Refereed International Journals	59
3.	Total Number of Papers Presented in National Conferences	06
4.	Total Number of Papers Presented in International Conferences	42

Refereed International Journals

1. N.K. Singh, A. Sarkar, A. Deo, K. Gautam and S.K. Rai (2016) Estimation of Suitable Methodology for Determining Weibull Parameters for the Vortex Shedding Analysis of Synovial Fluid. Journal of Biomedical Engineering Research 37(1): 21-30. ISSN: 1229-0807
2. Jaiswal A., Samuel C., Patel B.S. & Kumar M., (2015), 'Go green with WEEE: Eco-friendly approach for handling e-waste', Elsevier Procedia Computer Science 46 pp1317-1324.
3. Vinaytosh Mishra, Cherian Samuel, Tackling Supply Chain Bottlenecks of Essential Drugs in Primary Health Centres: A Case of Eastern Uttar Pradesh, India, IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 11. Ver. (Nov. 2014), PP 92-96
4. Kumar M., Samuel C., & Jaiswal A., (2015), 'An overview of distributed generation in power sector', International Journal of Science, Technology & Management 4.1 pp1407-1423.
5. V Mishra , A Rautela, B. Manjunatha, Cherian Samuel, S. K. Sharma, A. Mishra, Use of Visual Analytics and Durometer in Risk Reduction of Foot Problems in Diabetes, Springer: CAD/CAM, Robotics and Factories of the Future Part of the series Springer Lecture Notes in Mechanical Engineering pp 491-498
6. Jaiswal A., Samuel C., Kumar M. & Saurabh. "Assessing the Reasons Behind Farmers' Suicide and Identifying the Application of Improved Agricultural Supply Chain as a Solution." International Journal for Scientific Research and Development (2016): 10-17.
7. Vinaytosh Mishra , Dr. Cherian Samuel , Prof. S.K.Sharma, Use Of Machine Learning To Predict The Onset Of Diabetes, International Journal of Recent advances in Mechanical Engineering (IJMECH) Vol.4, No.2, May 2015
8. Vinaytosh Mishra, Manish Kumar, Saurabh, Monu Pandey and Dr. Cherian Samuel. "Comparative Study of Human Values in Private and Public Healthcare in India." International Journal for Scientific Research and Development (2016), pp: 40-43
9. Shah, S., Panda, S. K. and Khan, Debashis (2016) Weibull Analysis of H-451 Nuclear-Grade Graphite, Procedia Engineering, SCImago Journal Rank: 0.274 (2014)
10. Singh, Shushant, Khan, Debashis and Panda, S. K. (2016) A Numerical Study of Crack Tip Hydrostatic Stress Fields in Plastically Compressible Hardening Solids, Materials Research Bulletin. Journal impact factor: 2.288 (2014) (Accepted)
11. A.P.Harsha, P. K. Limaye, Rajnesh Tyagi, and Ankit Gupta. (2016) "Development of Tribological Test Equipment and Measurement of Galling Resistance of Various Grades of Stainless Steel." ASME Journal of Tribology 138, no. 2: 024501-024509.
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Engineers, Part J: Journal of Engineering Tribology, 229(7) 795-806.
13. A.P.Harsha, R.Wäsche, and M.Hartelt. (2016)"Friction and wear studies of polyetherimide composites under oscillating sliding condition against steel cylinder." Polymer Composites ((In press). DOI 10.1002/pc.23559
14. Sarkar J, Ghosh P, Adil A. A Review on hybrid nanofluids: Recent research, development and applications, Renewable & Sustainable Energy Reviews, 2015; 43: 164-177.
15. Sarkar J. Performance improvement of double-tube gas cooler in CO2 refrigeration system using nanofluids. Thermal Science, 2015; 19(1): 109-118.
16. Sarkar J. Analyses and optimization of a supercritical N2O Rankine cycle for low-grade heat conversion, Energy 2015; 81: 344-351.
17. Sarkar J. Review and future trends of supercritical CO2 Rankine cycle for low-grade heat conversion, Renewable & Sustainable Energy Reviews, 2015; 48: 434-451.
18. Tiwari AK, Ghosh P, Sarkar J. Particle concentration levels of various nanofluids in plate heat exchanger for best performance, International Journal of Heat and Mass Transfer, 2015; 89: 1110-1118.
19. Sarkar J, Bhattacharyya S. Potential of organic Rankine cycle technology in India: Working fluid selection and feasibility study, Energy 2015; 90(2): 1618-1625.
20. Sarkar J. Power generation options of next generation gas-cooled fast nuclear reactor (GFR): an overview, International Journal of Thermal Energy and Applications, 2015; 1(1): 21-30.
21. Jeewan Vachan Tirkey, Amar Kumar Singh and S.K.Shukla (2015) Performance and emission characteristics of CI engine operated with Waste Cooking oil Methyle-Eater and Diesel Blends, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume -5 (1) Oct 2015.
22. 2. Amit Kumar maurya, Rishi Ram, Jeewan V. Tirkey and S.K.Shukla, (2016) Effect on performance and emission characteristics on direct injection diesel engine fueled with Mahua Biodiesel, CTBC's International Research Journal, proceedings of international coference on environmental systems and sustainable development, Volume 2 (7)pp 259-263 (special issue) Jan 2016, ISSN:2350-0905
23. 3.Ajeet Kumar, S.K.Shukla and J. V. Tirkey,(2015) Life cycle assessment for the production of Biodiesel in India, CTBC's International Research Journal, proceedings of international coference on environmental systems and sustainable development, Volume 2 (7)pp 254-258 (special issue) Jan 2016, ISSN:2350-0905
24. M. Vashista and V. Moorthy (2015) On the shape of the magnetic Barkhausen noise profile for better revelation of the effect of microstructures on the magnetisation process in ferritic steels. Journal of Magnetism and Magnetic Materials 393: 584–592
25. 2. M. Vashista and S. Paul (2016) Effect of process parameters on convective heat transfer coefficient of fluid and heat partitioning in high efficiency deep grinding with water based coolant, International Journal of Machining and Machinability of Material, Inderscience Publisher (In Press)
26. Narendra Kumar, Gaurav Gautam, Rakesh Kumar Gautam, Anita Mohan, Sunil Mohan, (2016), "High Temperature Tribology of AA5052/ZrB2 PAMCs", Journal of Tribology, ASME. (TRIB-15-1335), accepted.
27. Narendra Kumar, GauravGautam, Rakesh Kumar Gautam, Anita Mohan, Sunil Mohan, (2016), "Wear, friction and profilometer studies of insitu AA5052/ZrB2 composites", Tribiology International, 97 (2016) 313–316.
28. G. Gautam, N.Kumar, A.Mohan, R.K.Gautam & S.Mohan, (2016), "Tribology and surface topography of tri-aluminide reinforced composites" Tribology International, 97(2016) 49–58.
29. S. Mohan, Gaurav Gautam, Narendra Kumar, R.K.Gautam, A. Mohan, Ashish. Kr. Jaiswal, (2016),"Dry sliding wear behavior of Al-SiO2 composites, Composite Interfaces, 23,1-10.
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33. N. Kumar, R.K. Gautam, S. Mohan. (2015), "Wear and Friction Behaviour of in-situ AA5052/ZrB2 Composites under Dry Sliding Conditions".Tribology in Industry, Vol. 37, No. 2, pp. 244-256.
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38. S.K.Shukla and R.K.Khandal (2016) Design Investigations on Solar Cooking Devices for Rural India, Distributed Generation and Alternative Energy, Vol.31(1): 29-65, (Taylor and Francis Publication)
39. B.Singh and S.K.Shukla,(2016) Experimental analysis of combustion characteristic on variable compression ratio engine fueled with biodiesel (castor oil) and diesel blends BIOFUELS, http://dx.doi.org/10.1080/17597269.2016.1163210, Taylor and Francis Publications.
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41. S. D. Pandey, V. K. Nema and S. K. Shukla (2016) Theoretical Analysis of Swing Jaw Plates used in Heat Exchanger International Journal of Energy Engineering , 6(1A): 23-31
42. Arun Kumar, S.K.Shukla, Sunil Kumar and N.V. Rahul Sharma, (2015) Installation and Experiments on 14 Kw Gasifier System 978-1-4799-7165-7/15 ©2015 IEEE
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45. Sakendra Kumar and S.P.Tewari (2015), "A review on solidification of casting under oscillatory conditions of ferrous and non-ferrous materials" Elixir International journal, Vol.80 31152-31161
46. Sakendra Kumar and S.P.Tewari (2015) , "Effect of vibration on mechanical properties of A356 Aluminum alloy casting" International Journal of Mechanical and Production Engineering Research and Development, Vol.5 75-80
47. Rajnish Singh, S. A Rizvi and S.P Tewari (2015) "Design and Fabrication of Friction Stir Welding Fixture with a New Approach" "Elixir International Journal. 86 34844-34846"
48. S.A Rizvi, SP Tewari, Wajahat Ali (2015) "Effect of Shielding Gases on Weld Quality in GTA & GMA Welding--A Review" "Elixir International Journal. 88 36692-36698".
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lubricating Composites, Composite Interfaces Vol. 23 Issue 6, pp. 481-92.
51. Jian Song, Zhenhua Liao, Song Wang, Yuhong Liu, Weiqiang Liu, Rajnesh Tyagi, (2016), "Study on the Tribological Behaviors of Different PEEK Composite Coatings for Use as Artificial Cervical Disk Materials, Journal of Materials Engineering and Performance, Vol. 25 No. 1, pp. 116-129.
52. Ankit Sharma, Abhishek Kumar, Rajnesh Tyagi (2015) Erosive wear analysis of medium carbon dual phase steel under ambient condition, Wear, 334-35, pp 91-98.
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54. S. Singh, V. K. Srivastava and R. Prakash, Influences of carbon nanofillers on mechanical performance of epoxy resin polymer, APPLIED NANOSCIENCE, Springer Press, Vol. 5, 305-313 (2015).
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Refereed National Journal

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2. Vinay Jaiswal, Kalyani,Rashmi B. Rastogi and Rajesh Kumar,Theoretical and experimental studies on the tribological behaviour of Saps-free salicyladehyde propanoylhydrazone Sciff base and its Cu (Li) complex in paraffin oil for steel-steel contact, Indian Journal of Tribology, 7, 1, (July 2015) 26-32.
3. R.R Sahoo. A Singh(2016),performance comparison of porous medium combustion cycle with diesel engine, journal of material science and mechanical engineering, vol3,140-145
4. R .R Sahoo. A Raj (2016), numerical study of heat transfer enhancement by u8sing nanofluids in convection over a flat plate, journal of material science and mechanical engineering, vol3,65-69
5. R R Sahoo, M K Gupta,2016, performance of micro channel heat exchanger in automotive radiator, journal of aeronautical and automotive engineering, vol 3, 33-37
6. R R Sahoo, S Singh,2016, performance enhancement in automotive radiator with different configuration, journal of aeronautical and automotive engineering, vol 3 ,17-22
7. R R Sahoo, S Shukla, S Agnihotri,2016 design and analysis of formula SAE chassis, journal of aeronautical and automotive engineering, vol 3 ,26-32

Proceedings of International Conferences

1. A Sarkar, G Gugliani, V Agrawal and D Mitra. 2015. Wind climate modelling of India for specification of design wind and fatigue load. Paper ID 02505, Proceedings of 14th International Conference on Wind Engineering, Porto Alegre, Brazil, June 2015
2. K. Agrawal, P. Bhardwaj, R. Kumar and S. Sharma, 2015 "Particle Swarm Optimization for natural grouping in context of group technology application," Industrial Engineering and Operations Management

(IEOM), International Conference on, Dubai, 2015, pp. 1-8.doi: 10.1109/IEOM.2015.70938202.

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4. Singh, Shushant, Khan, Debashis and Panda, S. K. (2015) Effect of T- Stress on Crack Tip Fields in Plastically Compressible Rate Dependent Elastic-Viscoplastic Solids, Proceedings of the International Conference on Multifunctional Materials for Future Applications (ICMFA 2015), October 27-29, 2015, IIT (BHU) Varanasi, India.pp 76-77
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9. Deo JP, Sarkar J. Heat transfer and entropy generation through internally finned tube (ME123), 4thInt conf on Emerging trends in Engineering and Technology, April 24-25, 2015, College of Engg, TMU, Muradabad, India.
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14. Dwivedi J.P., Springback analysis of I-sectioned bar of linear work-hardening materials under torsional loading, International Conference on Materials processing and Characterization (ICMPC-2016) , March 2016, Hyderabad
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17. Manvandra Kumar Singh, Guddu Yadav, Dr. R. K. Gautam, Pushkar Jha, "Synthesis of highly strained steel powder reinforced copper hybrid composite using stir casting"International Conference on Materials, Design and Manufacturing Process (ICMDM '16), February 17-19, 2016, Chennai, INDIA. Paper Number- 4973.

18. Manvandra Kumar Singh, Dr. R. K. Gautam, Pushkar Jha, "Synthesis and characterizations of copper based hybrid composite for industrial application", International Conference on Multifunctional Materials for Future Applications (ICMFA-2015), IIT(BHU)-Varanasi, 221005 (27-29 October-2015).
19. Manvandra Kumar Singh, Dr. R. K. Gautam, "Synthesis of tertiary reinforced copper metal matrix hybrid composite using stir casting technique", International conference on Advanced and Agile Manufacturing Systems (ICAM'2015), KNIT-Sultanpur (28-29 December-2015).
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21. Shalini Rai, Manvandra Kumar Singh, Pushkar Jha, Dr. R. K. Gautam, "Dry sliding behaviour of cold extruded copper using pin-on-disc", International conference on Advanced and Agile Manufacturing Systems (ICAM'2015), KNIT-Sultanpur (28-29 December-2015).
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23. Narendra Kumar, Gaurav Gautam, Rakesh Kumar Gautam (2015) Sunil Mohan. Effect of Temperature on Tensile Properties of AA5052-6Vol% ZrB2 in-situ Composite. Proceedings International Conference on Advances in Materials, Manufacturing and Applications (AmmA-2015). Organised by Department of Metallurgical and Materials Engineering, NIT, Tiruchirappalli., ISBN 978-93-84743-68-0 © 2015 Bonfring pp. 1046-1051.
24. Manvandra Kumar Singh, Dr. R. K. Gautam,Pushkar Jha, "Dry sliding wear behaviour of cold forged copper based nano tungsten carbide composite". International Conference on Advances in Materials, Manufacturing and Applications (AMMA 2015), April 9-11, 2015, NIT Trichy; 04/2015. ISBN 978-93-84743-68-0 © 2015 Bonfring,pp. 643-648.
25. Pushkar Jha, Manvandra Kumar Singh, Dr. R. K. Gautam,R Tyagi, Devendra Kumar "Effect of annealing on the microstructure, crystal structure and microhardness of Cu-5 wt% Cr alloys". International Conference on Advances in Materials, Manufacturing and Applications (AMMA 2015), April 9-11, 2015, NIT Trichy; 04/2015. ISBN 978-93-84743-68-0 © 2015 Bonfring PP.45-49
26. Sarvesh Kumar Mishra, U. Srinivas Rao, Sandeep Kumar, 2015, "Tool Condition Monitoring by Using Wavelet Transform" Proceedings of Conference on Precision Engineering (COPEN-2015); held at IIT Bombay, Mumbai.
27. Arun Kumar and S.K.Shukla, A Review on Thermal Energy Storage Unit for Solar Thermal Power Plant Application, Procedia Technology 2016, 23: 454 – 463 (Paper presented at International Conference on Technologies and Materials for Renewable Energy, Environment and Sustainability, TMREES15, Beirut, Lebanon,April 17-20, 2015)
28. Sunil Kumar and S.K.Shukla, Installation and Experiments on 14 kW Gasifier System, IEEE Explore,(Paper presented at IEEE –ICIC2015, Procedia IEEE Explore, 2015:1-5, International Conference on Industrial Instrumentation and Control, held at COE Pune) on May 28-30, 2015.
29. Sunil Kumar and S.K.Shukla Analysis of Different Feedstock in Downdraft Gasifier System Used in Diesel Engine in Dual Fuel Mode, Procedia 2016: International Conference on Environmental systemsand Sustainable Development ESSD16, Pune January 15-16, 2016.
30. Arun Kumar and S.K.Shukla Passive Heating Model of a Passenger Car Using Exhaust Gas, Procedia: 2016:International Conference on Environmental systems and Sustainable Development ESSD16, Pune, January 15-16, 2016

31. Shalin and S.K.Shukla, The Future of Solar Photovoltaic Cells-Nanostructured Thin Film Perovskite Cell-A Review, Procedia 2016: International Conference on Environmental systems and Sustainable Development ESSD16, Pune January 15-16, 2016
32. Ajeet Kumar, J.V.Tirkey and S.K.Shukla, A review of Research and Policy on Using Different Biodiesel Oils as Fuel for CI Engine, ICAER2015, held at IIT Mumbai, December 15-17, 2015
33. Sunil Kumar and S.K.Shukla, Study of Degradation of Quality of Soyabean Biodiesel with Storage Time and Its Emmissions on Various Loads ICAER2015, held at IIT Mumbai, December 15-17, 2015
34. Amit Prakash, R K Lal, V K Choubey, J.P. Dwivedi and V.P. Singh, "Study of residual stresses in I sectioned bar of linear work-hardening materials under torsion", Proc of 2nd Int. Con. On Advances in Mechanical Engg & its Interdisciplinary Areas (ICAMEI-2015), 2-4th Jan 2015, Dept of Mech Engg, College of Engg & Management, Kolaghat (India), pp. 299-310.
35. J P Dwivedi, V P Singh, R K Lal and Harshit Dwivedi, "Dynamic response of circular tunnel in viscoelastic medium", XXVII IUPAP Conf. on Computational Physics: CCP2015, 2-5 Dec, 2015, IIT Guwahati.
36. Sandeep Dwivedi, R K Lal, V K Choubey, J P Dwivedi, V P Singh and S K Shah, "Stresses of residual stresses in I-sectioned bars of nonlinear work-hardening materials under torsion", 4th Int Conf on Material Processing & Characterization, 14-15 March 2015: Materials Today: Proceedings, vol 2, Issues 4-5, pp. 2046-2055, 2015. (Elsevier).
37. V.P. Singh, J.P. Dwivedi, R K Lal and P Kumar, "Study of stresses induced in axisymmetric buried thin orthotropic empty cylindrical shell due to shear wave loading", 4th Int Conf on Material Processing & Characterization, 14-15 March 2015: Materials Today: Proceedings, vol 2, Issues 4-5, pp. 1603-1612, 2015. (Elsevier).
38. M.K.P.Naik,Vinaytosh Mishra and S.K.sharma "Green Product Packing options for E-commerce :An Indian example" Proceedings of international Conference on E-Business and Supply chain Competitiveness ,Indian Institute of Technology Kharagpur,12-14 February 2016
39. M.K.P.Naik,Vinaytosh Mishra and S.K.Sharma,"Selection of Sports as a career: Using Analytic Hierarchy process", Proceedings of 2nd international conferences on recent technological Advancement &Entrepreneurship in sports, IMS(BHU),12-13March 2016.
40. Anubha Rautel, Nishith Mohan, S. K. Sharma and P. Bhardwaj,Optimization Model for Advertisement Decision a Case of Cooperative Dairy Conference Proceedings IEOM 2016 ,Malaysia
41. Anubha Rautela, Vinaytosh Mishra, S. K. Sharma, P. Bhardwaj and Nishith Mohan,Assessing Customer Requirements and Preferences for a Perishable Product: A Case of an Indian Cooperative Dairy,Conference Proceedings IEOM 2016 ,Malaysia
42. Abhishek Kumar, Rakesh K. Gautam, Rajnesh Tyagi, Dry sliding wear of in-situ synthesized Al-TiC composites, Malaysia International Tribology Conference (MITC 2015) held at Penang during Nov 16-17, 2015

Proceedings of National Conferences

1. Shah, S., Panda, S. K. and Khan, Debashis (2016) Thermo-Elastic Analysis of Bimodulus Beam. Proceedings of DAE-BRNS Twentieth Symposium & Workshop on Thermal Analysis (THERMANS-2016), January 18-20, 2016, IIT (BHU) Varanasi, India. pp.
2. Avinash Ravi Raja, Harikishor Kumar, M. Vashista, M.Z.Khan Yusufzai (2015) Residual Stress Assessment after Friction Stir Welding of Aluminium at National Welding Seminar (NSW-2015) 9th-11th December 2015, at Vashi, Navi Mumbai organized by Indian Institute of welding.
3. Saarthak Dwivedi, Sanjeet Verma, Salam Goldie Singh, Shubham Madhesia, Vikram Singh Rana, Manvandra Kumar Singh, Rakesh Kumar Gautam, "Dry sliding wear behavior of copper metal matrix hybrid composite under condition", National Conference on Tribology: Energy, Environment and Efficiency, At CSIR-Advanced Materials and Processes Research Institute(AMPRI), Bhopal (January 21-22,2016).

4. Manvandra Kumar Singh, Dr. R. K. Gautam, "Mechanical property of dual reinforced copper based hybrid composite", National Conference On Product Design and Manufacturing (NCPDM 2015), MNNIT-Allahabad (21-22 November-2015).
5. Mulk Raj Anand, Dr. R. K. Gautam, Manvandra Kumar Singh, Pushkar Jha, "Dry sliding wear behaviour of Cu based hybrid composite using pin-on-disc machine". National conference on "Innovations in Materials Design & Manufacturing" (IMDM-5015), HBTI, Kanpur. (27-28 March 2015).
6. Avinash Ravi Raja, Harikishor Kumar, M. Vashista, M.Z.Khan Yusufzai (2015) Improving the surface of aluminium by friction stir processing at National Welding Seminar (NSW-2015) 9th-11th December 2015, at Vashi, Navi Mumbai organized by Indian Institute of welding.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

Top 4 papers published in last 5 years with maximum citations

Sl. No	Details	Citations
1.	***Sarkar J,*** A critical review on convective heat transfer correlations of nanofluids, Renewable & Sustainable Energy Reviews, 2011; 15(6): 3271-3277.	129
2.	***Sarkar J.*** Ejector Enhanced Vapor Compression Refrigeration and Heat Pump Systems-A Review, Renewable & Sustainable Energy Reviews, 2012; 16(9): 6647-6659.	58
3.	Tiwari AK, Ghosh P, **Sarkar J.** Heat transfer and pressure drop characteristics of CeO_2//water nanofluid in plate heat exchanger, Applied Thermal Engineering, 2013; 57(1-2): 24-32.	36
4.	Tiwari AK, Ghosh P, **Sarkar J.** Performance comparison of the plate heat exchanger using different nanofluids, Experimental Thermal and Fluid Science, 2013; 49: 141-151.	34
5.	**Nilanjan Mallik** and M. C. Ray. "Effective Coefficients of Piezoelectric Fiber-Reinforced Composites", AIAA Journal, Vol. 41, No. 4 (2003), pp. 704-710.	22

Top 5 papers (published any time) with maximum citations in last 5 years (2011-2016)

Sl. No	Details	Citations
1.	***Sarkar J,*** A critical review on convective heat transfer correlations of nanofluids, Renewable & Sustainable Energy Reviews, 2011; 15(6): 3271-3277.	129
2.	**Sarkar J,** Bhattacharyya S, Ramgopal M. Optimization of a transcritical CO_2 heat pump cycle for simultaneous cooling and heating applications. International Journal Refrigeration 2004; 27(8); 830-838.	94
3.	**Sarkar J.** Optimization of ejector-expansion transcritical CO_2 heat pump cycle, Energy, 2008; 33(9): 1399-1406.	76
4.	**Sarkar J.** Ejector Enhanced Vapor Compression Refrigeration and Heat Pump Systems - A Review, Renewable & Sustainable Energy Reviews, 2012; 16(9): 6647-6659.	58
5.	**Sarkar J,** Bhattacharyya S, Ramgopal M. Simulation of a transcritical CO_2 heat pump cycle for simultaneous cooling and heating applications, International Journal Refrigeration, 2006; 29(5); 735-743.	58

Other activities

Indian Faculty visits in the Department

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. B.B. Kale, Director, CMET Pune	Delivered guest lecture at CERD and Collaboration with CERD	October 10, 2016 Centre for Energy and Resources Development, IIT(BHU)

Foreign Faculty Visits in the Department/School/School

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. Jayant Sirohi, Associate Professor, Department of Aerospace Engineering1 and Engineering Mechanics, 1 University Station, C0600 The University of Texas at Austin Austin, TX 78712 512 471 4186	Delivered guest lecture at CERD and Collaboration with CERD	November 19, 2016, Centre for Energy and Resources Development, IIT(BHU)

Head of the Department: Professor Rajiv Kumar Mandal

Brief Introduction of the Department :

The Department of Metallurgical Engineering, established in the year 1923 has pioneered metallurgical education and research in the country. The far-sighted vision of Mahamana Pandit Madan Mohan Malaviyaji has helped this to attain such a recognition. This is now a part of IIT (BHU). The UG programme began soon after in the year 1923 and the first ever undergraduate and doctoral degrees in metallurgy in the country were awarded by this Department in the years 1927 and 1955 respectively. This is one of the first two Departments in the country to confer a postgraduate degree in metallurgy in the year 1959. The foundation of this educational edifice was laid by Professor N.P. Gandhi and nurtured by Professors Daya Swarup and T.R. Anantharaman who were the first three successive Heads of this Department. Subsequently, illustrious successive Heads of the Department have continued to do their utmost to enhance the levels of excellence that the Department is known for. The Department celebrated its Golden Jubilee in the year 1973, Diamond Jubilee in 1983 and Platinum Jubilee in the year 1998 in a befitting manner.

The current faculty strength consists of 6 Professors, 9 Associate Professors and 2 Assistant Professors. It is heartening to mention that recently some of our colleagues (Dr. C.K. Behera, Dr. R. Manna, Dr. G.S. Mahobia, Dr. Kausik Chattopadhyay and Dr. Vikas Jindal) have been promoted to the post of Associate Professor. Presently, Dr. Joysurya Basu from IGCAR, Kalpakkam joined the Department as Associate Professor. In addition, we have Prof. S. Lele as Distinguished Professor, Prof. Vakil Singh, Prof. A.K. Ghose, Prof. T. R. Mankhand and Prof. S.N. Ojha, as Institute Professor. Prof. S.N. Tiwari has been kind enough to engage the classes of our students in this and last semester.

Dr. Bratindra Nath Mukherjee and Shri Gangeshwar Singh are continuing their services as DST Inspired Faculty and Visiting Faculty respectively. The members of staff have been actively engaged in research and have undertaken many research/consultancy projects. The current research activities span over wide - ranging fields e.g. synthesis and characterization of nanomaterials, quasicrystals, spray forming, powder metallurgy, modeling of phase diagrams by cluster variation method, ultra-fine grained materials, phase transformations in steels and nonferrous alloys and structure property correlations, creep and fatigue behaviour of materials, thermodynamics of semiconducting intermetallics and ternary alloys, pyrometallurgy of sulphide minerals, hydrometallurgy, bioleaching, preparation of molycarbide, processing of ferrous and non-ferrous alloys, foundry and welding, wear studies of composites, waste utilization and energy management etc.

Our Departmental Library is enriched with over 13,000 technical books, 76 non-technical books and 3886 periodicals. Online access to several journals and periodicals is also available through our IIT Main Library and Central Library of BHU.

Major areas of Research

1. Microstructural, Structural and Chemical Characterization
2. Mechanical Behavior, Deformation Processing and Failure Analysis
3. Phase Equilibria and Phase Transformation
4. Non-Equilibrium Processing of Advanced Materials
5. Ultra-Fine Grained and Nano-Structured Material
6. Metallurgical and E-Waste Utilization
7. Design and Development of Advanced Steels
8. Tribology and Surface Engineering
9. Thermodynamics and Kinetics of Metallurgical Processes
10. Advanced Structural and Functional Materials

Area of the Department/School (in square meters):
Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	04
2.	No. of Lecture Halls	03
3.	No. of Laboratory	10 labs+1workshop
4.	No. of Computers available for students in the Department/School/School	40

Unique Achievement / Preposition of the Department/School

The Department of Metallurgical Engineering has so far produced 2523 graduates, 479 postgraduates (including M.Tech dual degree) and 172 Ph.D. degree holders. The first one is a record for any Metallurgy Department in the country. The outstanding research contributions of the Department have resulted in its recognition as a Centre of Advanced Study (CAS) in Metallurgy by the UGC in 1980, the first-ever Engineering Department to be so recognized in the country and the first one in our University. The Department has a unique distinction of receiving special assistance under CAS for four consecutive phases, the fourth phase starting from the year 2005. The Department successfully completed the FIST level II. The Department is also recognized as a Centre for Quality Improvement Programme of MHRD/AICTE from the year 1981. The Department has received special assistance under the COSIST programmes of UGC and also as a National Electron Microscopy Facility (NELMIF) from DST in 1982. Govt. of India approved setting up Advanced Research Centre for Iron and Steel, in the Institute which will be located in the Department.

Members of the staff, research scholars and students have won a very large number of awards and distinctions in recognition of their outstanding contributions. These include Medals, Prizes, Awards and Fellowships from many prestigious national and international professional societies and other organizations. Some of the above recognitions pertain to John Taylor Gold Medal, Henry C. Sorby Award, Howe Medal, Alexander von Humboldt Fellowships, Al Kharazmi Award, S.S. Bhatnagar prizes of CSIR, S.S. Bhatnagar Medal of INSA, Platinum Medal, Tata Gold Medal and Prizes, G.D. Birla Award, National Metallurgists' Day Awards, MRSI Medals, Young Metallurgists' Awards, INSA Medals for Young Scientists, ISCA Young Scientist Awards, Dr. R.H. Kulkarni Memorial Fellowships, Prof C.N.R. Rao Award besides several best paper Awards. The faculty members have distinctions of receiving Fellowships (FNA, FASc, FNASc, FNAE, FAPM, FIIM, FIE, EMSI) of various professional societies such as INSA, IASc, NASc, INAE, APAM, IIM, IE (I) and EMSI.

Academic Programmes offered
New Courses Introduced

Sl. No	Course Code	Course Name	Course Credit
UG/IDD Level			
1.	MT-102	Introduction to Metallurgical and Materials Engineering	9
2.	MT-101	Metallurgical Thermodynamics and Kinetics	11
3.	MT-201	Structure of Materials	11
4.	MT-202	Principles of Extractive Metallurgy	12
5.	MT-203	Metallurgical Practices-I	3
6.	MT-101	Deformation & Testing of Materials	12

Ph.D. Level			
7.	MT-7101/ MT-7101	High Resolution Electron Microscopy	11
8.	MT-7102/ MT-7202	Texture Analysis	11
9.	MT-7103/ MT-7203	Solidification Processing	11
10.	MT-7104/ MT-7204	Advances in Steels	11
11.	MT-7105/ MT-7205	Analysis of Diffraction Patterns	11
12.	MT-7106/ MT-7206	Computational Thermodynamics of Materials	11
13.	MT-7107/ MT-7207	Biomaterials: Design and Applications	11
14.	MT-7108/ MT-7208	Advanced Composites	11
15.	MT-7131/ MT-7231	Integrity and Life Assessment of Structural Components	11
16.	MT-7132/ MT-7232	Processing Methods of Heavy Engineering component	11
17.	MT-7133/ MT-7233	Wear and Friction	11
18.	MT-7134/ MT-7234	Design and Evaluation of Materials for Tribological applications	11
19.	MT-7161/ MT-7261	Advanced Thermodynamics of Materials	11
20.	MT-7162/ MT-7262	Aluminium Technology	11
21.	MT-7163/ MT-7263	Technology of Ferroalloys	11
22.	MT-7164/ MT-7264	Modelling in Process Metallurgy	11
23.	MT-7165/ MT-7265	Rate Phenomena in Metallurgical Systems	11

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	62	57	52	62	
2.	Dual Degree	18	18	15	17	16
3.	M. Tech / M. Pharm	26	11	----	----	----
4.	Ph. D (Under Institute Fellowship)	09	----	----	----	

Faculty & their Activity
Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Dr. G.V.S. Sastry, B.Tech.(Met.), M.Tech.(Met.), Ph.D.(Met.)	Physical Metallurgy, Rapid Solidification, Electron Microscopy, Ni-Base Superalloys, Quasi Crystals, Nanomaterials
2.	Dr. R.K. Mandal, BSc (Phys., Hons), M.Sc.(Phys.) M.Tech, Ph.D.	Quasicrystals, Nanostructured Materials, Phase Transformations, Microstructural Evoluation
3.	Dr. N.K. Mukhopadhyay, B.E.(Met.), M.E., Ph.D.	Physical Metallurgy, Mechanical Alloying, Nanoindentation
4.	Dr. Sunil Mohan, B.E.(Met.), M.E., Ph.D.	Alloy Development, Tribology
5.	Dr. B.N. Sarma, B.E. (Met.), M.Tech.(Met.), Ph.D.	Phase Equilibria, Phase Transformations, Computational Thermodynamics
ASSOCIATE PROFESSORS		
1.	Dr. K. K. Singh, B.Sc. Engg (Met.Engg), M.Sc. Engg (Process Met), Ph. D(Met Engg.). PGDBA (BHU)	Extractive Metallurgy, Electronic waste treatment
2.	Dr. O. P. Sinha, B.Sc. Engg. (Met.Engg.),M.Tech (Iron& Steel),Ph.D.(Met.Engg.)	Ferrous Process Metallurgy, N_2 bearing Special Steels, Industrial wastes utilization, Plasma Technology
3.	Dr. I. Chakrabarty, B.E., M.E., Ph.D	Foundry Metallurgy, Phase Transformations, Wear of metals, Failure Analysis
4.	Dr. Joysurya Basu B.E. (Metallurgy) Ph.D. (Metallurgy)	Electron Microscopy, Energy and Electronic Materials, Complex Structures and Phase Transformation in Metals and Ceramics
5.	Dr. C. K. Behera, B. E , ME , PhD	Extractive Metallurgy, Experimental Thermo-lead free solder, nitrogen steel
6.	Dr. Rampada Manna, B. E , M.E , Ph. D	Heat Treatments of Metals, Ultra Fine Grained Metals, Severe Plastic Deformation, Phase Transformation
7.	Dr. Vikas Jindal, B. Tech, M.Sc.(Engg.), Ph.D.	Computational Thermodynamics, Advanced Materials
8.	Dr. Kuashik Chattopadhyay, B.E., M. Tech., Ph.D.	Mechanical Metallurgy, Structure-Property Relationship of Materials, Oxidation of Metals and Alloys, Powder Metallurgy, Fatigue & Fracture
9.	Dr. G.S. Mahobia, B.E.(Met.Engg), M.Tech.(Met.Engg.), Ph.D.	Welding Engineering, Heat-Treatment, Ferrous Metallurgy, Fatigue & Fracture, Hot Corrosion
ASSISTANT PROFESSORS		
1.	Dr. J. K. Singh,	Foundry Metallurgy, Transport Phenomena
2.	Dr. N. K. Prasad, B.Sc. (Met.), M. Tech, Ph.D	Physical Metallurgy, Magnetic Materials, Nanomaterials and Biomaterials
INSTITUTE PROFESSORS		
1.	Dr. Vakil Singh, B.Sc.(Met), Ph.D.	Mechanical Behaviour of Metals and Alloys Fatigue, Fracture and Environmental Effects Bio-implant Materials

2.	Dr. A.K. Ghose, B.Sc.(Met), M.Sc.(Met), Ph.D.	Foundry Technology & Welding Technology
3.	Dr. T. R. Mankhand, B.Sc.(Met.), M.Sc.(Met.), Ph.D.	Extractive Metallurgy, Sulphide & Oxide Reduction, Utilization of Metallurgical Waste,
VISITING FACULTY		
1.	Shri Gangeshwar Singh B.Tech (Met.), M.Tech (Met.)	Ferrous Metallurgy, Alloy Steel Technology, Hot Rolling & Heat Treatment of special steels
DST-INSPIRE FACULTY		
1.	Dr. Bratindranath Mukherjee B.Sc., Ph.D	Nanomaterials for Energy Applications

Short-term courses/workshops/seminars/symposia/conferences organized by faculty members

Sl. No	Coordinator	Title	Period
1.	Dr. R. Manna (Convener) & Dr. Kausik Chattopadhyay (Convener)	Three day workshop on Metallurgy for Non Metallurgist (MNM-2015)	December 8-10, 2015

Visits abroad by faculty members

Sl. No	Name of faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Vikas Jindal	U.S.A.	April 30, 2015	June, 2016	Post-Doctoral fellowship	University of Utah, U.S.A.

Fellowships of academic and professional societies

Sl. No	Name of Faculty Member	Details of Fellowshipn
1.	Prof. N.K. Mukhopadhyay	West Bengal Academy of Science and Technology (FAScT) (2015)

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. N.K. Mukhopadhyay	Key-Reader (Editorial Board	Metallurgical and Materials Transactions A (USA)
2.	Prof. N.K. Mukhopadhyay	Editor	Multimedia Tools and Applications, Springer
2.	Prof. N.K. Mukhopadhyay	Member, Editorial Advisory committee	Transactions of The Indian Institute of Metals, (Springer)

Research and Consultancy
Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Strain induced melt-assisted semi-solid processing of Al-alloys.	2014-15	Sprouting Grant Fund, IIT(BHU), Varanasi	15 lakhs	Dr. I.Chakrabarty (PI), Prof. S.N. Ojha, Shri J.K. Singh

2.	Hot deformation behaviour of Indigenously produced nitrogen steels for critical applications	2014-15	Sprouting Grant Fund, IIT(BHU), Varanasi	20 lakhs	Prof.(Smt.) N.C. Santhi Srinivas (PI), Dr. G.S. Mahobia, Dr. O.P. Sinha, Dr. K. Chattopadhyay
3.	Mechanical milling of metallic alloy powder and subsequent consolidation through hot pressing	2014-15	Sprouting Grant Fund, IIT(BHU), Varanasi	15 lakhs	Prof. N.K. Mukhopadhyay (PI), Prof. R.K. Mandal, Dr. N.K. Prasad
4.	Development of Tc tunnel magnetic nanoparticle for bioapplications	2011-15	DST	9.06 lakh	Dr. N.K. Prasad (PI) & Prof. R.K. Mandal
5.	Effect of Mean Stress on High Cycle Fatigue Properties of GTM-SU-T18 alloy	2014-15	GTRE-Bangalore	41.2 lakhs	Dr. G.S. Mahobia (PI) & Prof. Vakil Singh
6.	Development ofElectropulsing facility for synthesis of bulk nanostructural materials	2017-17	BRNS	26.484 lakh	Dr. R. Manna (PI), Prof. R.K. Pandey (Co-PI), Prof. S.N. Ojha (Co PI), Prof. G.V.S. Sastry (Co-PI)
7.	Microstructural Modifications of high strength metals and alloys for ductilisation by electropulsing	2014-15	Sprouting Grant Fund, IIT(BHU), Varanasi	17.57 lakh	Dr. R. Manna (PI), Prof. R.K. Pandey (Co-PI), Prof. G.V.S. Sastry (Co-PI)
8.	Development of Bulk Ultrafine Grained Steels of High Strength and High Ductility through Severe plastic Deformation	2011-14	DST	44.61	Dr. R. Manna (PI), Prof. N.K. Mukhopadhyay, Prof. G.V.S. Sastry

Industrial consultancy projects

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Prof. G.V.S. Sastry	TEM Analysis	Vikram Sarabhai Space Centre, Kerla	1,11,150.00
2.	Prof. G.V.S. Sastry	TEM Analysis	Vikram Sarabhai Space Centre, Kerla	22,230.00
3.	Dr. C.K. Behera	Chemical Testing	The Executive Engineer UPPTCL, Naini, Allahabad	4,275.00
4.	Dr. C.K. Behera	Chemical Testing	The Assistant Executive Engineer, CPWD	12,825.00
5.	Dr. C.K. Behera	Chemical Testing	M/s Sahu Steel Traders, Maladahiya, Varanasi	4,275.00
6.	Dr. C.K. Behera	Chemical Testing	The Assistant Executive Engineer, CPWD	12,825.00
7.	Prof. (Smt.) N.C. Santhi Srinivas	Mechanical Testing	Shri Santosh Kumar DGM, NTPC, Unchahar, Raebareli	9,120.00
8.	Prof. (Smt.) N.C. Santhi Srinivas	Mechanical Testing	The Executive Engineer (Br)/Line North Central Railway, Allahabad	14,364.00
9.	Dr. C.K. Behera	Chemical Testing	M/s Northern Coalfields, Singrauli, M.P.	4,275.00
10.	Dr. C.K. Behera	Chemical Testing	M/s Northern Coalfields, Singrauli, M.P.	4,275.00

11.	Prof. (Smt.) N.C. Santhi Srinivas	Mechanical Testing	Shri Santosh Kumar DGM, NTPC, Unchahar, Raebareli	9,120.00
12.	Dr. K.K. Singh	Chemical Analysis & Consultancy	Ms. Vasundhara Singh, NIT, Durgapur	18,000.00
13.	Dr. C.K. Behera	Chemical Testing	The Project Manager, PEMS, DLW, Varanasi	12,825.00
14.	Dr. C.K. Behera	Chemical Testing	The Project Manager, PEMS, DLW, Varanasi	4,275.00
			Total:	2,43,834.00

Faculty members' participation with other universities under MoUs (Ongoing only)

Research Publications

S. No.		No.
	Total Number of Papers Published in Refereed International Journals	49
	Total Number of Papers Presented in International Conferences	02

Refereed International Journals

1. S. K. Alla, V. Yeddu, E. V. Prasadrao, R. K. Mandal and N. K. Prasad, Concentration dependent saturation magnetization of Cr-Substituted CeO2 nanoparticles, Mater. Chem. Phys. DOI:10.1016/ j.matchemphys. 2016.07.033.
2. S. K.Alla, A. D. Verma, Vinod Kumar, R.K.Mandal, I. Sinha, N. K. Prasad, Solvothermal synthesis of CuO-MgO nanocomposite particles and their catalytic applications, RSC Adv., 2016, 6, 61927 –61933.
3. M. Srivastava, S. S. Meena, R. K. Mandal, S. M. Yusuf and N. K. Prasad, AC magnetic field regulated in-vivo switch of Hf-substituted magnetite (HfxFe3-xO4, 0 ≤x ≤0.8) nanoparticles, J. Alloys and Comp. 688 (2016) 219-227.
4. N. K. Prasad, M. Srivastava, S. K. Alla, J. R. Danda, D. Aditya, and R. K. Mandal, ZrxFe3-xO4 (0.01 ≤x ≤ 1.0) nanoparticles: a possible magnetic in-vivo switch, RSC Adv., 2016, 6, 41268–41274.
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Transactions A 47 (4), 1803-1817

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Proceedings of International Conferences

1. Subham, Parth Shukla and IndrajitChakrabarty; Effect of vanadium addition and cryogenic treatment on the development of carbidic austempered ductile iron, Proceedings of 72nd. World Foundry Congress, Nagoya, Japan.
2. Cyclic Deformation Behaviour of Modified 9Cr-Mo steel at elevated Temperature, Preeti Verma, N.C. Santhi Srinivas, P. Chellapandi, Vakil Singh, Proceedings of International Conference on Fatigue of Nuclear Components, Sevillia 28 Sep-01 Oct 2015, Seville Spain

Head of the Department : Professor S.K. Sharma

Brief Introduction of the Department :

The Department of Mining Engineering a well conceived dream of the founder of this university PANDIT MADAN MOHAN MALVIYAJI and the oldest Mining Engineering Department in the country, came into existence as early as 1923, as a section of the Department of Geology, Mining and Metallurgy. Later, in the year 1944, separate departments of Mining and Metallurgy were constituted under the College of Mining and Metallurgy.

The first Ph.D. degree in Mining Engineering in the country was awarded from this department in the year 1964. This lead was further strengthened by introducing the First Post- Graduate course in 1966 leading to M.Sc. degree in Mining Engineering n Metal Mining and Coal Mining, respectively and later the M.Sc. degree in Mine Planning was introduced in 1972. Since, 1995-96 the department offers M.Tech. degree in Mine Environment, Mine Planning and Rock Mechanics.

The Department of Mining Engineering, BHU was one of the first in the country to receive UGC Assistance under COSIST and SAP Programme in 1984. Subsequently, the Department was upgraded as a Centre of Advanced Study in the area of Rock Mechanics and Ground Control in 1984.

The Department of Mining Engineering, IIT (BHU) occupies a pioneering position in the field of mining education and research. It has many firsts to its credit. The first Bachelor, Postgraduate and Doctoral degrees in mining engineering in India have been awarded by this department. Today's Mineral Industry is being run by many of its illustrious alumni who are holding key positions within the country and abroad. Senior faculty members have been recognized by the mining and allied industries as experts in the respective fields and are members of the important decision making bodies associated with CIMFR, NIRM, UGC, ISMU, NCL, CCL, SCCL, CIL, HZL, UCIL etc. The Department received generous grants to accelerate its research and developmental activities.

The Department is divided into six divisions with laboratories that are well equipped with the conventional and modern facilities. Facilities have also been developed for research in collaboration with mining industry to deal with their practical problems, these laboratories are also equipped to undertake fundamental research in the field of mining.

The above divisions consist of 19 laboratories. The Department is also provided with an Underground Experimental Model Mine well equipped for demonstration, experimental and research purposes particularly in the field of underground mechanised transport systems, mine ventilation and mine surveying experiments.

Major areas of Research

- Rock Mechanics & Ground Control and numerical modelling
- Mine Environment, Mine Ventilation, Mine Safety, Water Soluble Polymer
- Mining Geology, Mine Water Management & Environmental Pollution
- Mining Methods, Production and Productivity analysis of Mining Machines
- Design of Structure in Rock, Mine Planning, Mine Environment
- Reliability Analysis and and Slope stability
- Environmental Economic, GIS and Remote Sensing, Operations Research
- Mine Surveying, Mine economics, Mine legislation and Computer Applications in Mining
- Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
- Rock Fragmentation Engineering, Rock Mechanics, Surveying

Area of the Department (in square meters):

Ground floor (including Model Experimental of Underground Mine) = 5815.0826 m^2 Ground Floor Open Space & Workshop & Laboratories = 1829.179 m^2

First Floor = 3219.4264 m^2

Second Floor = 505.3867 m^2

Infrastructure

S. No.	Particulars	Number
1.	No. of Classrooms	03
2.	No. of Lecture Halls	01
3.	No. of Laboratory	18
4.	No. of Computers available for students in the Department	32

Unique Achievement / Preposition of the Department

- Special Assistance Programme
- COSIST
- FIST Assistance
- MODROB
- Centre of Advanced Study in the area of Rock Mechanics & Ground Control and Geo-Environment
- QIP Centre (Quality Improvement Programme for teachers of Technical Institution for M.Tech. & Ph.D. degrees)

Academic Programmes offered: B.Tech, M.Tech, IDD and PhD

New Courses Introduced

S. No.	Course Code	Course Name	Course credit
1.	MN5109	Introduction to GIS	09

Students on Roll (Please give No. of students only in respective years)

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	95	70	76	97	----
2.	Dual Degree	19	07	12	19	13
3.	M. Tech / M. Pharm	24	03	----	----	----
4.	Ph. D (Under Institute Fellowship)	16	10	04	----	
5.	Ph. D (Under Project, JRF/SRF)	04	----	----	----	----
6.	Ph. D (Under Sponsored Category)	----	03	----	----	----

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Conference/Seminar/Symposia/Workshop	IV Year
INDIA			
1.	Shri Gurudev Choudhary	4th Int. Conf. ICATETR - 2015, org. by BKIT	19-20 June 2015 Kota

Names of students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	Shri Gurudev Choudhary		4th Int. Conf. ICATETR - 2015, org. by BKIT	19-20 June 2015 Kota	
2.	M.Venkat Subhash	11408EN014	Won Gold Medal, Cricket	IIT Delhi, January 2016	Director, IIT Delhi

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	M.Venkat Subhash	11408EN014	IIT Color	Director, IIT BHU
2.	M.Venkat Subhash	11408EN014	Best Player, Cricket	Director, IIT BHU
2.	M.Venkat Subhash	11408EN014	Best Fielder, Cricket	Director, IIT BHU

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Dr. B.K. Shrivastava	Mining Machinery, Rock Mechanics & Ground Control
2.	Dr. N.C. Karmakar	Mine Environment, Mine Ventilation, Mine Safety,Water Soluble Polymer
3.	Dr. A. Jamal	Mining Geology,Mine Water Management & Enviromental Pollution
4.	Dr. Piyush Rai	Mining Methods, Production and Productivity analysis of Mining Machines, Fragmentation and Blasting
5.	Dr. S.K. Sharma	Design of Structure in Rock, Mine Planning, Mine Environment
6.	Dr. S. Gupta	Reliability Analysis,Mine Ventilation
ASSOCIATE PROFESSORS		
1.	Shri R. P. Singh	Mine fire, Mine mechanization & Planning
2.	Dr. Ashok Jaiswal	Rock Mechanics & Ground Control
3.	Dr. Rajesh Rai	Rock Mechanics and Slope stability
4.	Dr. A Kumar	Environmental Economic, GIS and Remote Sensing, Operations Research
5.	Dr. G.S.P. Singh	Rock Mechanics and Ground Control
6.	Dr. S. K. Palei	Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
ASSISTANT PROFESSORS		
1.	Shri Tarun Verma	Mine Environment, Mine Ventilation, Mine Surveying, Mine economics
2.	Dr. Suresh Kumar	Rock Fragmentation Engineering, Rock Mechanics, Surveying
3.	Dr. Naval Kishore	

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1.	Prof. B.K. Shrivastva Dr. Ashok Jasiwal	Social Cost Benefit Analysis of and Project	20 - 24 Jan, 2016
2.	Prof. B.K. Shrivastva Dr. Ashok Jasiwal	Application of Numerical Modelling in Strata Control	11- 15 May, 2015
3.	Prof. N.C. Karmakar Dr. S. Gupta, Dr. S.K. Palei	Mine Ventilation with special reference to Pressure Quantity Survey	-----
4.	Prof. B.K. Shrivastva Dr. Rajesh Rai	Rock Mechanics and Ground Control	26 - 31 Aug, 2015

Honours and awards

Sl. No	Name of Faculty Member	Details of Award
1.	Member, Environmental Appraisal Committee (for Non- Coal Mining)	Ministry of Environment & Forest, Govt. of India
2.	Chairman, Institution of Engineers' (I), Varanasi Local Centre	Institution of Engineers
3.	MEAI Eco- Friendly Mining Award (presented on 20th June, 2015) for Paper on Eco- Friendly Mining published in the Mining Engineers' Journal	Mining Engineers
4.	Session's Best Paper Award, presented by 4th Int. Conf. ICATETR- 2015, org. by BKIT, Kota, 19- 20 June, 2015	ICATETR

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Desktop Nos 15	8.50
2.	Software	2.10
3.	Work stations	7.78
4.	Erosion mass monitor	4.57
5.	Water quality system	5.67
6.	Personal dust sampler	6.51

Research and Consultancy

Sponsored research projects (Ongoing only)

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Development of a methodology for human error classification analysis and reduction to improve safety and productivity for underground coal mines.	3 year	CSIR	20.0	Dr. Suprakas Gupta Prof. N.C. Karmakar
2.	Development and Scaled-up Synthesis of Anionic, Cationic and Nonionic Flocculants Based on Amphoteric Amylopectin for Mineral Industry Effluents & Municipal Waste Water Treatment.	3 year	DST	19.332	Prof. N.C. Karmakar Dr. Suprakas Gupta
3.	Studies on Machine Induced Vibration on Health and Safety of Equipment Operators in Surface Mines	One year		15.0	S.K. Palei
4.	Application of Data Analytics Tool to Enhance Decision Making for Better Productivity and Safety in Mines	One year		5.0	Dr. S. Gupta

Industrial consultancy projects (Ongoing only)

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	BK Shrivastva & Ashok Jaiswal	Scientific study for multi seam mahakali.	WCL	41523
2.	A. Jamal, S.B. Dwivedi & C.S. Singh	Irrigation Projects, Knahar, Sonbhadra	Knahar	305889
3.	B.K. Shrivastva, Rajesh Rai & Ashok Jaiswal	Design of shorting system pillar with amaching and contiguous pile in Rajeev Gandhi, Cancer Research Institute, New Delhi.	Indigo Infra projects	168540
4.	N.C. Karmarkar	Illumination survey of Dudhichua Mine, Sonbhadra	NCL	125000
5.	A. Jamal & S.B. Dwivedi	Executive Engineer, Kanhar Nirman Alkali aggregate by peto grace excavation, Sonbhadra	Kanhar Nirman Alkali aggregate	67416
6.	G.S.P. Singh	Scientific study of stability of the barrier pillars, Hydarabad	Hydarabad	153900
7.	B.K. Shrivastva & Ashok Jaiswal	Hydrochemical power, Sikkim		45600
8.	B.K. Shrivastva & Ashok Jaiswal	Hydrochemical power, Sikkim		22800
9.	N.C. Karmarkar, S. Gupta & S.K. Palei	Pressure quality survey of U/G Mines of Kathara, CCL	CCL	750000
10.	B.K. Shrivastva, Rajesh Rai & Ashok Jaiswal	Design and velting of the sallow piling with anchoring, Indigo infra, New Delhi	Indigo Infra projects	159600
11.	Sanjay Kumar Sharma & G.S.P. Singh	Consulting of survey for scientific study of strata control instrumentation mantling analysis and infra project, SECL	SECL	1294000
12.	B.K. Shrivastva	Prediction of subsidence KTK-3 Incline, SCCL	SECL	572438
13.	B.K. Shrivastva	Prediction of subsidence Sector D&E Mandmarri Area, SCCL	SECL	572438
14.	B.K. Shrivastva	Prediction of subsidence of 3D Numerical Modelling Bhatgaon Mine, SECL		488000
15.	B.K. Shrivastva & Ashok Jaiswal	Support design for U/G working of Seam-III, Gare Plama, Sector IV/4,	Hindalco Industries Ltd.	171000

Faculty members' participation with other universities under MoUs

Research Publications

S. No.		No.
1.	Total Number of Papers Published in Refereed National Journals	11
2.	Total Number of Papers Published in Refereed International Journals	10
3.	Total Number of Papers Presented in National Conferences	05

Refereed International Journals

1. Mohammadi Mousa, Rai Piyush and Gupta Suprakash, Performance measurement of Mining Equipments, International Journal of Emerging Technology and Advance Engineering 2015, Vol. 5, Issue 7, 240-248.
2. Mohammadi, Mousa and Rai, P., 2015. Improving Performance of Mining Equipment Through Enhancement of Speed Factor – A Case Study, International Jl. of Engineering [IJE], Trans. "C", V. 28, No. 9, (DOI: 10.5829/idosi. ije.2015.28.09c.00).

3. Yadav H. L., and A. Jamal, 2015. Removal of Heavy Metals from Acid Mine Drainage: A Review. International Journal of New Technologies in Science and Engineering 2 (3), 77-84.
4. Mohammadi, Mousa, Rai, Piyush and Oraee, S. Kazem, 2015. A Critical Investigation of Digging Time Segment of Draglines in a Large Surface Mine, Geotech. & Geol. Engg. Journal (Springer), V. 33, Issue 4 (2015), pp: 763-771(DOI: 10.1007/s10706-015-9857-9).
5. Rai, Piyush, Hakan Schunesson, Per-Arne Lindqvist, and Kumar, Uday, 2015. Measurement-While-Drilling Technique and its Scope in Design and Prediction of Rock Blasting, Int. Journal of Mining Science and Technology (Elsevier), In-Press.
6. Sharma, Suresh Kumar and Rai, Piyush, 2015, "Evaluation of Use of Crushed Aggregate as Stemming Material in Bench Blasting – A Case Study", Geotech. & Geol. Engg. Journal (Springer), (DOI:10.1007/s10706-015-9911-7).
7. Garg, P, Pandit, B and Singh, GSP (2015), "Development of a 3D Elasto-plastic Model for Simulation of Progressive Roof Caving in Underground Coal Mines", Journal of the International Society of Rock Mechanics (India), July 2015-08-07.
8. Mohammadi Mousa, Rai Piyush and Gupta Suprakash, Improving Productivity of Dragline through Enhancement of Reliability, Inherent Availability and Maintainability, Acta Montanistica Slovaca 21(1), January 2016,1-8
9. Mohammadi, Mousa, Rai, Piyush, Singh, U.K. and Singh, S.K., 2016. Investigation of Cycle Time Sements of Dragline Operation in a Surface Coal Mine, Int. Geotech. & Geol. Engg. Journal (Springer), DOI 10.1007/s10706-016-9987-8
10. Kumar Pramod,Gupta Suprakash, Agarwal Mudit and Umesh Singh, Categorization and standardization of accidental risk-criticality levels of human error to develop risk and safety management policy, Safety Science 85(2016) 88-98.
11. Rahul ,Manoj Khandelwal, Rajesh Rai . B. K. Shrivastva (2015) "Evaluation of dump slope stability of a coal mine using artificial neural network" Geomech. Geophys. Geo-energ. Geo-resour.DOI 10.1007/s40948-015-0009-8.
12. Rajesh Rai , B K Shrivastva & T N Singh (2015) "Numerical simulation of biologically stabilized dump slope", MEAI, Vol. 17, No. 2, pp 15-1
13. Malpani H., Lokhande R.D., Pradhan M. and Kishore N.,2015." Highwll Mining", Minetech Journal, CMPDI, Vol.36, No.3, July-Sept.2015.
14. Prasoon Garg and Ashok Jaiswal (2015), Estimation of Modulus of the Caved Rock for Underground Coal Mines by Back Analysis using Numerical Modelling, Journal of the Institute of Engineering (India) Series D DOI 10.1007/s40033-015-0097-1.

Refereed National Journal

1. Prasoon Garg, Ashok Jaiswal, (2015), "Estimation of Modulus of the Caved Rock for Underground Coal Mines by Back Analysis using Numerical Modelling", Journal of the Institute of Engineering (India) Series D DOI 10.1007/s40033-015-0097-1
2. Hussain A. and N. C. Karmakar. Multiplier Accounting of Indian Mining Industry—The Concept. J. Inst. Eng. India Ser. D (Jan–June 2015), vol. 96(1), pp 51–56
3. Kumara, K, P Adhikarya, N.C. Karmakar, S Guptab, R P Singh, S. Krishnamoorthi. Synthesis, characterization and application of novel cationic and amphoteric flocculants based on amylopectin. Carbohydrate Polymers, vol. 127, Aug 2015, pp 275-281.
4. Ram Ashray B and Singh, GSP (2015), "Microseismic monitoring for assessment and mitigation of ground control hazards in underground mining structures", Vol. 16, No. 9, 18-23.
5. Malpani H., Lokhande R.D., Pradhan M. and Kishore N.,2015." Highwll Mining", Minetech Journal, CMPDI, Vol.36, No.3, July-Sept.2015.
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11. Rai, Piyush., Schunnesson, Håkan., Lindqvist, Per-Arne. and Kumar, Uday, 2015. "An Overview of Measurement-While Drilling and its Scope in Excavation Industry", The Journal of Inst. of Engineers (India): Series-D, (Springer) DOI 10.1007/s40033-014-0054-4.
12. Shailendra Chawla, Ashok Jaiswal, B K Shrivastva, (2016), "Numerical Simulation of depillaring panel of thick seam coal mining", Minetech. Vol 36 (2), pp 20-25

Proceedings of National Conferences

1. Aarif Jamal, Saba Shirin, Akhilesh Kumar Yadav and S. Sidharth, 2016.Waste Production in Coal mines and Scope of Utilization for Making Value added Product - A Case Study. National Seminar on "Recent Practices & Innovations in Mining Industry"19-20 February 2016 Organized by Department of Mining Engineering,National Institute of Technology Raipur.
2. Ashish Jain, Rajesh Rai, Nawal Kishore, Ashok Jaiswal, 2016, "Applicability of Surface Miner in Open Cast Mines", Recent Practices & Innovations in Mining Industry"19-20 February 2016 Organized by Department of Mining Engineering,National Institute of Technology Raipur.
3. Rahul Upadhyay, Suprakash Gupta, 2016 "Equipment Specific Optimum Blast-Design Using Genetic Algorithm", Recent Practices & Innovations in Mining Industry"19-20 February 2016 Organized by Department of Mining Engineering,National Institute of Technology Raipur.
4. Singh, GSP (2016), "Numerical modelling study for assessment of chain pillar stability in longwall workings", National Seminar on Recent Practices and Innovations in Mining Industry (RPIMI), 117-126
5. Verma L.K., and Kishore N., 2016. " Predicting Dangerous Seismic Events in Active Coal Mines Through Data Mining", Proceedings of Seminar on Recent Practices and Innovations inMining Industry; RPIMI 2016,19-20 February 2016, Raipur, pp.193-198.

Head of the Department: Dr. S.K.Singh

Brief Introduction of the Department:

Department of Pharmaceutics is a pioneer in Pharmaceutical education in India at University level. It was started in July 1932 by Prof. Mahadev Lal Schroff under the auspicious guidance of Mahamana Madan Mohan Malaviya Ji. A two-year course was introduced in 1934 for the degree of B.Sc. (Pharmaceutical Chemistry). The department has expanded academically by the inception of B.Pharm. in 1937, M.Pharm. in 1941, Ph.D. in 1945 and integrated dual degree (IDD) in 2006 as its regular programmes.The Department has produced over 2105 B.Pharm., 1138 M.Pharm., 18 M.Pharm.(Dual Degree) and 95 Ph.D. (as on 2014) students who enjoy leading positions in industry, academia, drug administration, research institutes and contemporary pharmacy practice worldwide. The Department has also hosted many events at the National level and to name a few are the 17th, 34th& 59th editions of Indian Pharmaceutical Congress in the years 1965, 1982 & 2007 in conjunction with Silver Jubilee, Golden Jubilee and Platinum Jubilee of the Department, respectively.

Major areas of Research

The department is actively involved in the following broad research areas.

(i) Drug discovery – Identification and optimization of new chemical agents from natural and synthetic origin for the treatment of diabetes, epilepsy, depression, pain, Alzheimer's, cancer, tuberculosis and other infectious diseases etc.

(ii) Drug formulation design and development – Design and development of new drug delivery systems with improved pharmacokinetic and pharmacodynamic profiles.

Area of the Department (in square meters):

Total area of the Department: 62,677 Square feet

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	07
2.	No. of Lecture Halls	01
3.	No. of Laboratory	36
4.	No. of Computers available for students in the Department/School/School	30

Unique Achievement/Preposition of the Department

Department of Pharmaceutics is the pioneer department to start the degree level pharmacy education in the Country and in South-east Asia. This department is known for its enormous contribution to the growth and expansion of pharmaceutical education and research across the country. In pursuit of achieving its goal, the department has been continuously imparting quality education to produce pharmacists befitting to the requirements of industry and society. Recently the department introduced a research based undergraduate and integrated dual degree curriculum to impart innovative research skills and expertise among the students.On the research front, the department has been actively engaged in the cutting edge research areas of drug discovery and development. Apart from institute funded research projects, extramural research funding to the tune of about two crores has been generated during the last two years. On an average the faculty members of the department publish around 60 peer-reviewed research papers annually.

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course Name	Course Credit
1.	PH222	Bioorganic and Medicinal Chemistry	9

2.	PH231	General Pharmacology	11
3.	PH241	General Pharmacognosy	9
4.	PH251	Pharmaceutical Analysis	8
5.	PH291	Exploratory Project	5

Students on Roll

Sl. No	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	43	14	17	11	NA
2.	Dual Degree	10	04	07	15	19
3.	M. Tech / M. Pharm	28	29	NA	NA	NA
4.	Ph. D (Under Institute Fellowship)	07	12	13	05	02
5.	Ph. D (Under Project Fellowship)	02	--	--	--	--
6.	Ph. D (Under Sponsored Category)	--	01	02	02	02

Students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Pooja Mittal	13161008	QbD in Pharma development world congress	16-18th April, 2015, Chandigarh	IIT (BHU)
2.	Bharat S. Patel	13161008	Workshop on Thermal Analysis, THERMANS-2016.	21st-22nd January, 2016. IIT (BHU) Varanasi	Self
3.	Harsh Vardhan	13161002	QbD in Pharma Development world Congress 2015	16-18th Apr, 2015, Chandigarh	IIT (BHU)
4.	Harsh Vardhan	13161002	Pharmaceutical Summit and Expo 2015	08-10th Oct 2015 held at Delhi	Self
5.	Kanchan Bharti	14162005	6th International Symposium on Current Trends in Drug Delivery Research	25th-28th Feb 2016	IIT (BHU)
6.	Manish	14162006	OMICS International Pharma-ceutical Summit and Expo	8th-10th Oct 2015, New Delhi	IIT (BHU)
7.	Naga sreenu Komanna	14162007	6th International Symposium on Current Trends in Drug Delivery Research	25th-28th Feb 2016	IIT (BHU)
8.	Sarita Kumari Yadav	11621EN001	QbD in Pharma Development World Congress 2015	16-18th Apr, 2015, Chandigarh	IIT (BHU)
9.	Sarita Kumari Yadav	11621EN001	OMICS International Pharma-ceutical Summit and Expo	8th-10th Oct 2015, New Delhi	IIT (BHU)
10.	Nagendra Kumar	10621EN001	412th OMICS International Conference	Nov 2015, Dubai	DBT, ICMR, IIT (BHU)
11.	Ujjwal Bairagi	11421EN010	Pharmaceutical Summit and Expo 2015	08-10th Oct 2015, Delhi	IIT (BHU)

12.	Ankit Patel	13162012	OMICS International QbD in Pharma Development world congress 2015	16-18th Apr, 2015, Chandigarh	IIT (BHU)
13.	Meenakshi Singh	330395	International conference on translational biotechnology 2016	4-6 Feb 2016, Allahabad	IIT (BHU)
14.	Ravindray	15161008	Animal Cell Culture And Biomaterial Characterization 2016	28th Feb to 5th March, Rourkela	Self
15.	Gopichand Gutti	15161003	Animal Cell Culture And Biomaterial Characterization 2016	28th Feb to 5th March, Rourkela	Self
16.	Shilpkala	14162004	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	IIT (BHU)
17.	Deepika	14162003	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	IIT (BHU)
18.	Neha	11421EN020	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	IIT (BHU)
19.	Uddipak	1416610	Indian Pharmacological Society Congress	17-20 Dec. 2016 Rajkot	IIT (BHU)
20.	Priyanka K Choubey	15161007	67th Indian Pharmaceutical Congress	Mysuru	IIT (BHU)
21.	Munish Kumar	14162015	67th Indian Pharmaceutical Congress	Mysuru	IIT (BHU)
22.	Payal Kesharwani	14162009	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	CDIR LUCKNOW
23.	T. Vinay Karan	14162011	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	CDIR LUCKNOW
24.	Nishi Gupta	11421EN014	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	CDIR LUCKNOW
25.	Amit Sirothiya		Qb D in Pharma Development World Congress 2015	April 16-18, Chandigarh	Chandigarh
26.	Amitabha Dey	13161001	48th Annual Conference of the Indian Pharmacological Society (IPSCON-2015)	December 18-22, 2015 Saurashtra University, Rajkot	Self
27.	Madhuri Acharjya	15162017	48th Annual Conference of the Indian Pharmacological Society (IPSCON-2015)	December 18-22, 2015 Saurashtra University, Rajkot	IIT (BHU)
28.	Shobha	14162025	8th NIPER (RBL)-CSRI-CDRI Symposium	March 18-19, 2016 & NIPER, Raebareli.	IIT (BHU)

29.	Mamta Chaudhary	11421EN011	OMICS International Pharmaceutical Summit and Expo New Delhi	8th-10th Oct 2015	IIT (BHU)
30.	Neelam	14162008	OMICS International Pharmaceutical Summit and Expo New Delhi	8th-10th Oct 2015	IIT (BHU)
31	Rati K P Tripathi	11621EN002	International symposium on current trade in drug discovery and research	25-28 Feb. 2016 Lucknow	IIT (BHU)
ABROAD					
1.	Mr. Anupam G. Banerjee	10621EN003	Pharma Middle East 2015	Dubai UAE	IIT (BHU)
2.	Mr. Pavan Shrivastava	13161007	Pharma Middle East 2015	Dubai UAE	DBT & IIT (BHU)
3.	Debapriya Garabadu	289351	Neuropharmacology Conference	Nov 2015 Chicago, USA	IIT (BHU)
4.	Jasmine	11421EN018	Neuropharmacology Conference	Nov 2015 Chicago, USA	IIT (BHU)
5.	Neha Singh	11421EN008	Neuropharmacology Conference	Nov 2015 Chicago, USA	IIT (BHU)
6.	Amitabha Dey	13161001	15th International Congress of the International Society for Ethnopharmacology	May 05-08, 2015 & Petra, Jordan.	IIT (BHU)
7.	Suruchi Verma	13161013	19th International Congress Phytopharm 2015	July 21-24, 2015 & University of Bonn, Bonn, Germany	IIT (BHU)
8.	Naveen Shivavedi	13161006	19th International Congress Phytopharm 2015	July 21-24, 2015 & University of Bonn, Bonn, Germany	ICMR, New Delhi & IIT (BHU)
9.	Anshul Shakya	106EN052	19th International Congress Phytopharm 2015	July 21-24, 2015 & University of Bonn, Bonn, Germany	Self
10.	Deepaneeta Sarmah	14162021	International Conference of Pharmacy and Health Sciences-2016	March 18-20, 2016 Kuala Lampur, Malaysia	IIT (BHU)

Students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	Nagendra Kumar	10621EN001	Best Poster Award	02-04 Nov., 2015, Dubai	OMICS Group
2.	Ujjawal Bairagi	11421EN010	Best Poster Award	10th Oct., 2015, New Delhi	OMICS Group
3.	Payal kesharwani	14162009	Best Poster Award	25th to 28th Feb., 2015, Cdir Lucknow	OMICS Group
4.	Neelam	14162008	Best Poster Award	10th Oct., 2015 Radisson Hotel, New Delhi	OMICS Group

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Mr. Satheesh Kumar S	13161011	1 st prize on Poster Presentation	IIT (BHU)
2.	Ms. Nancy Kapoor	11421EN007	Model Presentation (First Prize)	IIT (BHU)
3.	Mr. Hitesh Kumar	13161003	Model Presentation (First Prize)	IIT (BHU)
4.	Ms. Swati Prakash	14161011	Model Presentation (Second prize)	IIT (BHU)
5.	Ms. Amrita Rawat	14162020	Model Presentation (Second prize)	IIT (BHU)
6.	Ms. Snehalata	1242EN008	Model Presentation (Second prize)	IIT (BHU)
7.	Mr. Uddipak	1416610	Model Presentation (Second prize)	IIT (BHU)
8.	Ms. Deepika	14162003	Model Presentation (Second prize)	IIT (BHU)
9.	Mr. Pavan Shrivastava,	13161007	Third Prize for poster presentation	IIT (BHU)
10.	Mr. Avneesh Tripathi	14161002	Third Prize for poster presentation	IIT (BHU)
11.	Mr. Tanmaya K. Parida	13161502	Third Prize for poster presentation	IIT (BHU)
12.	Mr. Prabhash Nath	13161009	Third Prize for poster presentation	IIT (BHU)

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Brameshwar Mishra (M.Pharm., Ph. D.	Pharmaceutics - Nanoformulations, Drug Delivery Systems, Pharmacokinetic and Pharmacodynamic Evaluation
2.	Sushil Kumar Singh (M.Pharm., Ph.D.)	Pharmaceutical Chemistry - Chemistry of Natural Drug Products, Synthetic Analogues and Evaluation of their Biological Activity
3.	Sanjay Singh (M.Pharm., Ph.D.)	Pharmacology - Nanomedicine, PK/PD Modeling, Stress and Diabetic Pharmacology
4.	Sushant Kumar Shrivastava (M.Pharm., Ph.D.)	Pharmaceutical Chemistry - Rational Drug Design and Molecular Modeling
ASSOCIATE PROFESSORS		
1.	A.K. Srivastava (M.Pharm.)	Pharmaceutics - Newer Drug Delivery System especially Oral Controlled Release Solid Dosage Form
2.	S. Hemalatha (M.Pharm., Ph.D.)	Pharmacognosy - Pharmacognostical and Pharmacological Evaluation of Indian Medicinal Plants
3.	Dr. Sairam, K (M.Pharm., Ph.D.)	Pharmacology - Neuropharmacology, Mitochondrial Medicine, New Drug Discovery, Organelle Targeted Drug Development
4.	Vikas Kumar (M.Pharm., Ph.D.)	Pharmacology - Ethnopharmacology, Neurological Disorders and Metabolic Disorders
5.	Senthil Raja A (M.Pharm., Ph.D.)	Pharmaceutical Chemistry - Synthetic Medicinal Chemistry, Computational Chemistry, Lead identification and Optimization

ASSISTANT PROFESSORS		
1.	Alakh Niranjan Sahu (M.Pharm., Ph.D.)	Pharmacognosy - Quality control studies and Standardization of Indian Medicinal Plants
2.	Sunil Kumar Mishra (M.Pharm., Ph.D.)	Pharmacognosy - Medicinal & Aromatic Plants (MAP) Research, MAP Tissue Culture, Natural Drugs
3.	Ruchi Chawla (M.Pharm.)	Pharmaceutics - Nano-drug Delivery System and Pharmacokinetics
4.	M.S. Muthu (M.Pharm., Ph.D.)	Pharmaceutics - Cancer Nanotechnology, Micelles and Liposomes
5.	Prashanta Kumar Nayak (M.Pharm., Ph.D.)	Pharmacology - Memory Impairment and Stroke, Personalized Treatment Strategies for Cancer
6.	Gyan Prakash Modi (M.Pharm., Ph.D.)	Pharmaceutical Chemistry - Design, Development of Novel Drugs to Treat Infections and CNS Disorders
SENIOR RESEARCH OFFICER		
1.	Ashok Kumar (M. Sc., Ph.D.)	Pharmaceutical Chemistry - Synthesis and Characterization of Novel Compounds
INSTITUTE PROFESSOR		
1.	Radhey Shyam Srivastava (M.Sc., Ph. D)	Pharmaceutical Chemistry - Chemical and Pharmacological Evaluation of Indian Medicinal Plants and Synthetic Analogues of Phytochemicals; Discovery of Natural Anticancer Agents

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Co-ordinator	Title	Period
1.	Dr. A.N.Sahu	Spirit 2016	February 27-28, 2016

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
	Seminars/Symposia/Conferences		
1.	Sushil K Singh	Global Biotechnology Summit, 2016	5-6th February, 2016, New Delhi
2.	Prof. Sanjay Singh	IPS- 2015	17-20 Dec. 2015 Rajkot, Gujarat
3.	Prof. Sushant K. Shrivastava	International Conference and Alumini Meet-"Academia-Industry Interaction: Global Pharma Prospects"	6-7th Feb 2016, Dept. of Pharm. Sciences, Dr. H.S. Gour University, Sagar
4.	Prof. Sushant K. Shrivastava	67th Indian Pharmaceutical Congress	19-21st December 2015, JSS University, Mysuru
5.	Dr. Prasanta Kumar Nayak	Animal Cell Culture and Biomaterial Characterization (ACCBC-2016)	28 February-05 March 2016 (7 Days) Department of Biotechnology and Medical Engineering, National Institute of Technology, Rourkela. Odisha.
6.	Dr. Prasanta Kumar Nayak	Biostatistics and Research Methodology (Biostats 2016)	22-24 April 2016 (3 Days) CIENCIA Research Communications Private Ltd., Hyderabad

7.	Dr. Gyan Prakash Modi	7th NIPER (RBL) CSIR-CDRI Symposium on recent advances in pharmaceutical sciences for drug discovery and development	20-21 Feb.,2016 NIPER, Raebareli
8.	Dr. Senthil Raja A	National Workshop on NIRF	December 12, 2015, Kolkata
9.	Dr. Senthil Raja A	IMPRINT-Healthcare Domain Call-for-Proposal Workshop	January 21, 2016,ICMR, New Delhi.
Meetings			
1.	Prof. B. Mishra	Scientific meeting at Indian Pharmacopoeia Commission	July 25, 2015, Ghaziabad
2.	Prof. B. Mishra	IIT (BHU) Retreat	Dec 26 &27, 2015
3.	Dr. Prasanta Kumar Nayak	Pharma-Vision: Challenges and Opportunities	Department of Pharmaceutics, IIT (BHU)
4.	Dr. Senthil Raja A	Pharma-Vision: Challenges and Opportunities	Department of Pharmaceutics, IIT (BHU)

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Prof. B. Mishra	Quality of Academic Research-Potential To Be Explored	67th Indian Pharmaceutical Congress	Dec 19-21, 2015
2.	Prof. B. Mishra	Role of some smart materials and process in controlled and pulsatile delivery of drug for better management of asthma	United Institute of Pharmacy	Jan 23, 2016
3.	Prof. B. Mishra	Osmoregulated and pastillation technology based drug delivery systems.	Gujrat Technological University, Ahmedabad	Feb 17, 2016
4.	Prof. B. Mishra	Role of pharmacists in effective medication.	Chandra Shekhar Singh College of Pharmacy, Allahabad.	Mar 05, 2016
5.	Prof. B. Mishra	Shelf life and effective medication	UDC-HRDC, BHU, Varanasi	Mar 10, 2016
6.	Prof. B. Mishra	Risk management for effective medication.	Evonic India Pvt. Ltd., Bandra, Mumbai	Mar 15, 2016
7.	Prof. B. Mishra	Risk management for effective medication.	Evonic India Pvt. Ltd., Hyderabad	Mar 16, 2016
8.	Prof. B. Mishra	Osmo-pastillation technology based drug delivery systems.	NIPER, Raibareily	Mar 19, 2016
9.	Prof. Sanjay Singh	Nanotechnology: A Versatile Platform for Formulation Development and Disease Treatment	Department of Rasa Shastra, Banaras Hindu University, Varanasi	2015
10.	Dr. Vikas Kumar	The Success Story of St. John's Wort	Sri Ramachandra University, Chennai	February 18, 2016

Honours and awards

Sl. No	Name of Faculty Member	Details of Award
1.	Prof. Sushant Kumar Shrivastava	Illustrious Alumnus Award, Department of Pharmaceutical Sciences, Dr. H.S. Gour Vishwavidyalaya, Sagar (M.P)
2.	Prof. Sushant Kumar Shrivastava	Senior Scientist Award, European Institute of Scientific Research on Ayurveda (EISRA) Netherland

Books, monographs authored/co-authored

Sl. No	Name of Author/Co-Author	Title	Publisher
1.	Bharti SK, Mahapatra DK, Singh SK	Thiazole: A simple scaffold with tremendous therapeutic potential, In: Chemical and Biochemical Engineering	Apple Academic Press, Inc.

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. B. Mishra	Editor In Chief	SPER Journal of Pharmaceutical Sciences [SJPS]
2.	Dr. Vikas Kumar	Member	EC Pharmaceutical Science
3.	Dr. Vikas Kumar	Member	Pharmacologia
4.	Dr. Vikas Kumar	Member	Pharmacy & Pharmacology International Journal
5.	Dr. Vikas Kumar	Member	TANG [Humanitus Medicine]
6.	Ms. Ruchi Chawla	Associate Editor	SPER Journal of Pharmaceutical Sciences [SJPS]
7.	Dr. M.S.Muthu	Editor-in-chief	Research and reviews : pharmacology and toxicologystudies
8.	Dr. M.S.Muthu	Editorial board member	ISRN: Biomedical imaging
9.	Dr. Prasanta Kumar Nayak	Editorial Board Member	Journal Of Research Innovation And Management Science (http://www.jrim.net/)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Multi Mode Reader	10.00 Lakhs
2.	Ultra low temperature Freezer	9.84 Lakhs
3.	Cryostat	6.32 lakhs
4.	Multi experimental Lab reactor	9.98 lakhs
5.	Ultracentrifuge	22.10 Lakhs
6.	RT-PCR	7.00 Lakhs
7.	Schrodinger Maestro 15.0.14 Molecular Modelling software for drug designing and discovery	9.53 Lakhs
8.	Workstation to run Molecular modelling software	1.71 Lakhs
9.	Roatory Evaporator	4.00 Lakhs
10.	Automated cell counter	6.00 Lakhs

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Prof. Sushant Kumar Shrivastava	Choline Esterase Inhibiting Compounds, Compositions and Process Thereof. Indian Patent (Patent Application No. -201611011127)

Research and Consultancy

Sponsored research projects(Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1.	Design and Synthesis of Matrix Metallo Proteinase (MMP -2 & 9) inhibitors as therapeutic agents for Alzheimer's disease	03 years	DBT, New Delhi	60.52 Lakhs	Prof. S. K. Singh
2.	Development of bioactive molecules as therapeutic agent for Alzheimer's disease and screening their toxicity	02 years	IIT BHU	15 Lakhs	Prof. S. K. Singh
3.	Development and Evaluation of Nanocarrier System for Enhanced Anti-microbial Activity of Anacardic acid Against Human and Plant Pathogens	2014-2017	DST-State S&T Councils Programme	65,49,253/-	Prof. Sanjay Singh
4.	To Study the Effect of Antiplatelet Agent on Vascular Inflammation for the Treatment of Atherosclerosis	2016-2018	IIT (BHU)	15,0000/-	Prof. Sanjay Singh
5.	Post Doctoral Fellowship-IIT (BHU), Varanasi	3 Years	IIT (BHU)	---	Prof. Sushant Kumar Shrivastava
6.	Mr. Piyoosh Sharma HRD Fellowship – Young Scientist in Drug Chemistry	3 Years	Department of Health Research (DHR), Ministry of Health and Family Welfare	45.12 Lakhs	Prof. Sushant Kumar Shrivastava
7.	Experimental and clinical basis of novel treatment strategy using mitochondrial modulators in neonatal anoxic injury	2012-16	DBT, New Delhi	71,99,550/-	Sairam Krishnamurthy

Research Publications

Sl. No	Name of Faculty Member	No.
1.	Total Number of Papers Published in Refereed National Journals	01
2.	Total Number of Papers Published in Refereed International Journals	61
3.	Total Number of Papers Presented in National Conferences	02
4.	Total Number of Papers Presented in International Conferences	17

Refereed International Journals

1. R.R.Patel, S.Chaurasia, G.Khan, P.Chaubey, N.Kumar, B.Mishra (2016) Cromolyn Sodium Encapsulated PLGA Nanoparticles: An Attempt to Improve Intestinal Permeation. International Journal of Biological macromolecules.83, 249-258.
2. N.Kumar, S.Chaurasia, R.R.Patel, G.Khan, V.Kumar, B.Mishra (2016) Atorvastatin calcium loaded

polycaprolactone nanoparticles development, optimization, in vitro and in vivo assessments. RSC Advances. 6:16520-16532.

3. K.M.R.Srivalli and B.Mishra (2016) Improved aqueous solubility and antihypercholesterolemic activity of ezetimibe on formulating with hydroxypropyl-cyclodextrin and hydrophilic auxiliary substances, AAPS PharmSciTech. 17:272–283.
4. N.Kumar, S.Chaurasia, R.R.Patel, G.Khan, V.Kumar, B.Mishra (2015) Atorvastatin Calcium Encapsulated Eudragit Nanoparticles with Enhanced Oral Bioavailability, Safety and Efficacy Profile. Pharmaceutical Development and Technology. 11:1-12.
5. G.Pandey, S.K.Yadav , B.Mishra (2015) Preparation and characterization of Isoniazid and Lamivudine co-loaded polymeric microspheres. Artif Cells Nanomed Biotechnol. 1-11.
6. G.Khan, S.K.Yadav , R.R.Patel, Nath G, Bansal M, B.Mishra (2015) Development and evaluation of biodegradable chitosan films of metronidazole and levofloxacin for management of periodontitis. AAPS PharmSciTech.
7. R.R.Patel, G.Khan, S.Chaurasia, N.Kumar, B.Mishra (2015) Rationally Developed Core-Shell Polymeric-Lipid Hybrid Nanoparticles as a Delivery Vehicle for Cromolyn Sodium: Implications of Lipid Envelop on In-vitro and In-vivo Behaviour of Nanoparticles upon Oral Administration, RSC Advances. 5 (93), 76491-76506.
8. K.M.R.Srivalli and B.Mishra (2015) Preparation and pharmacodynamic assessment of ezetimibe nanocrystals: effect of P-gp inhibitory stabilizer on particle size and oral absorption, Colloids Surfaces B.135:756-764.
9. S.Chaurasia, P.Chaubey, R.R.Patel, N.Kumar, B.Mishra (2015) Curcumin-Polymeric Nanoparticles Against Colon-26 Tumor-Bearing Mice: Cytotoxicity, Pharmacokinetic and Anticancer Efficacy Studies, Drug Development and Industrial Pharmacy, 14:1-7.
10. Mishra B, A.K.Singh, S.K.Yadav (2015) Study of comparative aspects of gastroretentive delivery of cefixime trihydrate from microspheres and microsphere based tablets, Journal of Pharmaceutical Investigation. 45(6):541-554.
11. S.Chaurasia, R.R.Patel, P.Chaubey, N.Kumar, G.Khan, B.Mishra (2015) Lipopolysaccharide Based Oral Nano Carriers for the Improvement of Bioavailability and Anticancer Efficacy of Curcumin, Carbohydrate Polymers. 130 (5) 9-17.
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Proceedings of International Conferences

1. N.Kumar, S.Chaurasia, R.R.Patel, G.Khan, V.Kumar, B.Mishra. 2015. Lipid safety profile assessment of atorvastatin calcium loaded oral biodegradable polymeric nanoparticles in rats. J of Clinical Pharmacology and Biopharmaceutics. 4(4):18, As a proceedings of "Pharma Middle East", Dubai, 412th OMICS International Conference, November 2015.
2. Manish, N.Maya, S.K.Yadav, B.Mishra. Plackett-Burman screening and optimization of triple antibiotic based polymeric nanocapsules formulated by emulsification-solvent diffusion method. OMICS International Pharmaceutical Summit and Expo New Delhi, India, Oct 2015.
3. S.K.Yadav, G.Khan, M.Bansal, B.Mishra. Screening and optimization formulation factors affecting fabrication of chitosan microspheres by emulsion cross-linking technique. Pharmaceutical Summit and Expo, New Delhi, India, October 2015.
4. H.Vardhan, P.Mittal and B.Mishra. 2015. DOE strategy in preparation and optimization of nano-therapeutic system for the management of cancer. Pharmaceutical Summit and Expo, New Delhi, India, October 2015.
5. U.Bairagi, P.Mittal, A.R.Patel, B.Mishra. 2015.Development, optimization and evaluation of exemestane loaded solid lipid nanoparticles and in vitro cytotoxicity studies against human breast cancer cell line MCF-7. Pharmaceutical Summit and Expo, New Delhi, India, October 2015.
6. A.Patel, R.R.Patel, B.Mishra. 2015. 23 Full-Factorial Design based Optimization and Development of Exemestane loaded Solid Lipid Nanoparticles, QbD in Pharma Development World Congress, Chandigarh, India, April 2015.
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9. S.K.Yadav , G.Khan, P.Mittal, B.Mishra. 2015. Application of statistical experimental design to optimise the formulation variables influencing fabrication of microspheres, QbD in Pharma Development World Congress, Chandigarh, India, April 2015.
10. Kanchan Bharti, Sanjeev Kumar, Pooja Mittal, B. Mishra. Formulation and characterization of mouth dissolving tablets of paroxetine hydrochloride. 156.6th International Symposium on Current Trends in Drug Delivery Research. CDRI Lucknow. Feb 2016.
11. Nagasreenu, AjitDiwedi, B. Mishra. Studies on development of phytoformulation encapsulated with silymarin and piperine. 197. 6th International Symposium on Current Trends in Drug Delivery Research. CDRI Lucknow. Feb 2016.
12. Anupam G. Banerjee, Nirupam Das, Radhey Shyam Srivastava, Sushant K Shrivastava. 2015. Synthesis,Evaluation and Docking Studies of Some Novel 1,2,4-triazine Derivatives Bearing Five Member Heterocyclic Moieties as a Potential Anti-inflammatory and Analgesic Agent. Pharma Middle East 2015, Dubai UAE (November 02-04,2015).
13. Pavan Shrivastava, Robin Bandresh, Sushant K. Shrivastava. 2015. Design, synthesis, preliminary pharmacological screening of some indolazine derivatives for anti-inflammatory activity. Pharma Middle East 2015, Dubai UAE (November 02-04,2015).
14. Mamta Chaudhary, Sunil Kumar, Ruchi Chawla. Formulation and evaluation of Curcumin loaded Polymeric nanoparticles for the treatment of Breast Cancer.Doi.org/10.4172/2376-0419.C1.009. OMICS International Pharmaceutical Summit and Expo New Delhi, India, Oct 2015.
15. Neelam, Amit kumar Chauhan, Ruchi Chawla. Formulation, Optimization and Evaluation of Cream of Nigella sativa seed oil .Doi.org/10.4172/2376-0419 C1 009. OMICS International Pharmaceutical Summit and Expo New Delhi, India, Oct 2015.
16. Rati K P Tripathi, Senthil Raja Ayyannan. Synthesis and evaluation of some benzothiazole based hydrazones as potential MAO-A inhibitors. International Conference on Multifunctional Materials for Future Applications, during 27 – 29, October 2015, IIT (BHU), Varanasi.
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Proceedings of National Conferences

1. M. Kumar, O. Sinha, P. N. Tripathi, S. K. Shrivastava (2015) Synthesis, Evaluation and Characterization of Some Novel GABA Aminaotransferase Inhibitors for the Treatment of Epilepsy at 67th Indian Pharmaceutical Congress, Mysuru, India (December 19-21,2015).
2. P. K. Choubey, P. Srivatava, S.Yadav, S. K. Shrivastava (2015) Synthesis, Characterization and Evaluation of Some Novel Indole Derivatives as Potential 5-Lipoxygenase Enzyme Inhibitors at 67th Indian Pharmaceutical Congress, Mysuru, India (December 19-21,2015).

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Garg, A., Singh, S. (2011): Enhancement in antifungal activity of eugenol in immunosuppressed rats through lipid nanocarriers. Colloids and Surfaces B: Biointerfaces. 87, 280-288. (citation-34)
2. N Das, M Dhanawat, B Dash, RC Nagarwal, SK Shrivastava.Codrug: an efficient approach for drug optimization, European Journal of Pharmaceutical Sciences (2010) 41 (5), 571-588 (Citations: 31)
3. K Shah, S Chhabra, SK Shrivastava, P Mishra. Benzimidazole: a promising pharmacophore, Medicinal Chemistry Research (2013) 22 (11), 5077-5104. (Citations: 24)
4. G.K. Singh and V. Kumar (2011) Acute and sub-chronic toxicity study of standardized extract of Fumaria indica in rodents. Journal of Ethnopharmacology 134(3): 992-995. (24 citations)

5. G.M. Husain, S.S. Chatterjee, P.N. Singh and V. Kumar (2011) Beneficial effect of Hypericum perforatum on depression and anxiety in a type 2 diabetic rat model.Acta Poloniae Pharmaceutica 68(6): 913-918. (21 citations)

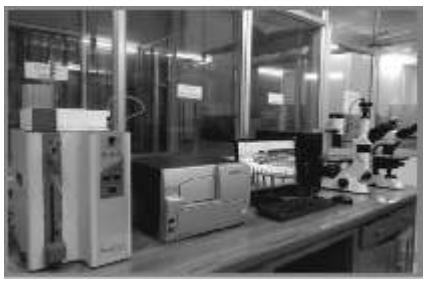
Distinguished Visitors

Sl. No	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Dr. Praful Naik	04 September 2015	Meeting of PSM
2.	Dr. G.N.Singh	10 August 2015	Meeting of IIT BHU Alumni meet Committee
3.	Dr. Pramil Tiwari	10 August 2015	Meeting of IIT BHU Alumni meet Committee
4.	Dr. Bangarurajan	26 February 2016	Workshop on Pharmacy Curriculum
5.	Dr. Jawahar Lal	26 February 2016	Workshop on Pharmacy Curriculum

Other activities

- MOU with PSAI: A memorandum of understanding (MOU) was signed between the Institute and Patient Safety and Access Initiative (PSAI) of India foundation on 10th August, 2015 in Varanasi during the 'National Consultation and Launch of Varanasi Pilot project on Universal Health Coverage' to set-up a Centre of Excellence at Department of Pharmaceutics on Safe Medicine and Access to quality healthcare through expertise of Faculty Members of IIT, BHU and students.
- Organ Donation awareness and Blood donation Camp: Team SPIRIT'16 in association with Kashi Utkarsh, powered by blood connect, organized Organ Donation awareness and Blood Donation Camps as part ofthe Health Weekend during 23rd-24th January, 2016. The Blood Donation Camp won great acclaim for the donation with over 650 units of blood for our SSL Hospital BHU. The team has been widely acclaimed by BHU fraternity and felicitated with one of the NAVARATNA's for achieving the record of blood donation in the state of Utter Pradesh.
- Spirit 16: The All-India Pharmacy student's festival “SPIRIT'16-Experience the Knowledge” A National Level Seminar & All India Student Conclave was organized during 27th-28th February 2016. This year's theme of the seminar was “Avenues and Challenges in Pharmaceutical Sector”. This function is being organized annually since the last six years. This year it has attracted more than 500 delegates & students across the country to compete and excel their knowledge in various fields ata single platform. The chief guest of the inaugural function was Sri Prafull D. Seth, Vice-President, International Pharmaceutical Federation (FIP), Former President, Indian Pharmaceutical Association, and Indian Pharmaceutical Congress Association. The function was presided over by our Director Professor Rajeev Sangal.

Equipments :



Pharmaceutical Chemistry Lab: Flash Chromatograph, Microplate Reader, Microtome

Nanomedicine Lab: Particle Size Analyzer

Neuropharmacology Lab

Head of the Department : Prof. Rashmi Bala Rastogi

Brief Introduction of the Department/School:

The Department of Chemistry, IIT-BHU, previously known as Department of Applied Chemistry (Institute of Technology), was established in the year of 1985. Earlier this Department was functioning as a Section in the School of Basic Sciences in Banaras Hindu University-Varanasi. This Department currently constitutes 16 faculty members including 10 Professors, 1 Institute professor, 2 Associate Professors and 3 Assistant Professors. The prime responsibility of the department is to organize the teaching of chemistry courses in various B.Tech and integrated M.Tech programs. In addition, this department is also providing an excellent research platform to the students in various thrust areas of chemistry.

The Department of Chemistry offers a five year integrated M.Tech program in Industrial Chemistry and Ph. D programs in Organic, Inorganic, Physical and Analytical chemistry. More than 100 PhD's have been awarded from this department and about 50 students are currently pursuing their research. Research programs in the department have been supported by DST, CSIR, BRNS, UGC and AICTE. The department has recently received 85 lakhs from DST-FIST for the establishment of research and teaching facilities. The department is presently equipped with primary instruments including AAS, AFM, UV-Vis spectrophotometers, FTIR, and powder-XRD, etc.

Major areas of Research

Computational Chemistry, Nanoparticles for adsorption and catalytic applications;
Organic synthesis, Carbohydrate chemistry;
Organometallic Chemistry, Corrosion Inhibitors, Antiwear/Extreme Pressure Lubricant Additives

Area of the Department/School (in square meters):

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	03
2.	No. of Lecture Halls	02
3.	No. of Laboratory	02
4.	No. of Computers available for students in the Department/School/School	10

Unique Achievement / Preposition of the Department/School

Department purchased Atomic Force Machine (AFM) under the DST-FIST Grant

Academic Programmes offered

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	12	13	08	13	10
2.	Dual Degree	N.A.	N.A.	N.A.	N.A.	N.A.
3.	M. Tech / M. Pharm	N.A.	N.A.	N.A.	N.A.	N.A.
4.	Ph. D (Under Institute Fellowship)	38 + 1 (Part Time research scholar)				
5.	Ph. D (Under Project Fellowship)	16 (Project : 02 + UGC : 11 + CSIR : 03 Fellowships)				
6.	Ph. D (Under Sponsored Category)	N.A.	N.A.	N.A.	N.A.	N.A.

students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ÌNDIA					
1.	Vinay Jaiswal	10611EN002	ICFMA-2015	27-29 Oct'15; Chemistry Department, IIT(BHU) Varanasi	
			ICANN-2015	8-10 Dec'15;IIT Guwahati	
			ICEMS-2016	17-19 Mar'16; JNU Jaipur	
2.	Punita Mourya	11611EN004	ICFMA-2015	27-29 Oct'15;Chemistry Department, IIT(BHU) Varanasi	IIT (BHU)
			International Conference on Materials Science & Technology (ICM Tech - 2016)	01 - 04 March, 2016, at Conference Centre, University of Delhi, Delhi.	STGS
3.	Kalyani	12611EN006	ICFMA-2015	27-29 Oct'15;Chemistry Department, IIT(BHU) Varanasi	IIT (BHU)
			ICANN-2015	8-10 Dec'15;IIT Guwahati	IIT (BHU)
			ICEMS-2016	17-19 Mar'16; JNU Jaipur	IIT (BHU)
4.	Surendra Kumar	12611EN002	International Conference on Multifunctional Materials for Future Applications (ICMFA-2015),	27-29 October, 2015, at Seminar Complex, Faculty of Science, BHU, Varanasi	
			International Conference on Materials Science & Technology (ICMTech - 2016)	01 - 04 March, 2016, at Conference Centre, University of Delhi, Delhi.	STGS
ABROAD					
1.	Punita Mourya	11611EN004	International Conference on Surfaces, Coatings and. Nanostructured Materials-2015	Manchester Conference Centre, Manchester, United Kingdom	IIT (BHU) & DST
			4th International Conference and Exhibition on Materials Science & Engineering-2015	Florida, USA, 14-16 September 2015	IIT (BHU) & DST

Students/Scholars who went for foreign Internship

Note: Individual faculty members should provide the data

Sl. No	Name of Student	Roll No.	Name of Organization	Place of Internship	Country	Duration
1.	Mr. Satyajit Mahapatra	11411EN007	LCPME-CNRS-UL, Nancy	Nancy, France	France	Jan 3-April 29, 2016
1.	Mr. Yashashwa Pandey	12411EN001	BTU -Cottbus, Senftenberg	Gemany, Senftenberg	Germany	May to July, 2016

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Prof. Rashmi Bala Rastogi	Organometallic Chemistry, Corrosion Inhibitors, Antiwear/Extreme Pressure Lubricant Additives
2.	Prof. P. C. Pandey	Sensors Technology, bioelectrochemistry, Organically modified silicate based Nanomaterial and optoelectrochemistry
3.	Prof. M. A. Quraishi	Corrosion Inhibition & Green Chemistry
4.	Prof. A. K. Mukherjee	Physical Chemistry, Computational Chemistry
5.	Prof. S. H. Hasan	Nanomaterials, Nuclear Materials, Water Remediation
6.	Prof. V. Srivastava	Synthetic Organic and Green Chemistry
7.	Prof. Y. C. Sharma	Renewable Energy and Bio-fuels, Development and characterization of heterogenous catalysts, Synthesis and application of nanoadsorbents, Macrophytes for Uptake of Metallic Species from industrial effluents.
8.	Prof. D. Tiwary	Isotopic Application in Removal Processes Adsorption / lon Exchange
9.	Prof. K. D. Mandal	Electro -Ceramics, Nano-materials, Materials Chemistry, Solid State Chemistry
ASSOCIATE PROFESSORS		
1.	Dr. Sundaram Singh	Synthetic Organic Chemistry, Microwave Assisted Organic Synthesis
2.	Dr. Indrajit Sinha	Computational Physical Chemistry, Nanoparticles for Adsorptive and catalytic applications
ASSISTANT PROFESSORS		
1.	Dr. M. Malviya	Nanoparticles of Transition Metal oxides
2.	Dr. Jeyakumar Kandasamy	Organic Synthesis, Carbohydrate Chemistry
INSTITUTE PROFESSORS.		Organic Synthesis, Carbohydrate Chemistry
1.	Prof. M. M. Singh	Corrosion & Inhibition of metals & Alloys

Short-term courses/workshops/seminars/symposia/conferencesorganised by faculty members

Sl. No	Coordinator	Title	Period
1.	Prof. K. D. Mandal	International conference on Multifunctional Materials for Future Applications (ICMFA-2015)	Oct. 27-29, 2015

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	18TH National Congress on Corrosion Control	Fundamental aspects of corrosion inhibitors and their industrial applications (Invited lecture)	24 –26 February, 2016, Chennai.
2.	International Conference on Oil Country Tubular Goods (OCTG) and metal materials	Corrosion Inhibitors and their Applications in Petroleum Industry (Invited lecture)	18th to 20th December 2015 at Southwest Petroleum University, China.

3.	International Science Congress Association is organizing 5th International Science Congress	The Ugly Faces of Corrosion (Invited lecture)	8th–9th Dec. 2015 at Tribhuvan University, Kathmandu, Nep al.
4.	International Seminar Birmingham University, U.K.	Corrosion Inhibitors: Principle mechanism and Applications (Invited lecture)	25 September 2015.
5.	European Congress on Corrosion & Surface Treatment in Industry	Phenomenology and Industrial Applications of Corrosion Inhibitors (Plenary lecture)	Sept 30 –Oct 02, 2015 at Slovakia.
6.	Prof. Vandana Srivastava	103rd Indian Science Congress Microwave Assisted Stereoselective Green Synthesis of Diels-Alder products and its Configurational Assignment: -Naphthol -Maleic Adduct ;	3--7 January (2016) University of Mysore, Mysoru.
7.	Dr. Indrajit Sinha	ICMFA	
8.	Dr. Indrajit Sinha	Advanced Materials Challenges for Alternative Energy Solutions (AMAES) 2015, New Delhi	18-19 Dec. 2015
9.	Dr. Jeyakumar Kandasamy	Carbo-XXX,	29-31 Dec-2015Pondicherry University,Pondicherry

Special lectures delivered by faculty members in other institutions

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	M.A. Quraishi	Corrosion Inhibitors: Phenomenology and Applications	Birmingham University, U.K.	25 Sep. 2015
2.	Dr. Indrajit Sinha	Synthesis and Catalytic Properties of Ag, Cu and Magnetic Iron Oxide Nanoparticles		
3.	Prof. M.M. Singh	Corrosion and its prevention	S.P.P. University, Pune	March 2015
		Fundamental of Corrosion	ISM Dhanbad	
		Thermodynamics of Corrosion	ISM Dhanbad	
		Forms of Corrosion	ISM Dhanbad	
		Techniques for Corrosion Prevention	ISM Dhanbad	

Visits abroad by faculty members

Sl. No	Name of faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	M.A. Quraishi	Slovakia and UK	20 Sep. 2015	5 Oct. 2015	Plenary lecture in Slovakia and Invited lecture in Birmingham	80% funding from organizer Kosice Technical University Slovakia
2.	M.A. Quraishi	Southwest Petroleum University, China.	17 Dec. 2015	21 Dec. 2015	Invited lecture	100% funding from Southwest Petroleum University, China.
2.	M.A. Quraishi	Tribhuvan University, Kathmandu, Nepal.	7 Dec. 2015	8 Dec. 2015	Invited lecture	Travel expenses CPDA and registration wave off by the University

Honours and awards

Sl. No	Name of faculty Member	Details of Award
1.	M.A. Quraishi	Life Time Achievement Award International Science Congress Association (ISCA) 2015.

Fellowships of academic and professional societies

Sl. No	Name of faculty Member	Details of Fellowship
1.	M.A. Quraishi	Fellow Royal Society of Chemistry UK

Books, monographs authored/co-authored

Sl. No	Name of Author/Co -Author	Title	Publisher
1.	Dr. Jeyakumar Kandasamy (Co-Author)	Recent Developments in Automated Oligosaccharide Synthesis: Techniques and Applications	John Wiley & Sons, New York City, New York, United States

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	M.A. Quraishi	Member Advisory Board	International Journal of Advanced Chemical Science andApplications (ISSN: 2347-761X))
2.	M.A. Quraishi	Member of Editorial Board	Research Journal of Chemical Sciences (ISSN: 2231-606X)
3.	M.A. Quraishi	Member of Editorial Board	Journal of Steel Structure & Construction (ISSN: 2472-0437)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Development of Green Inhibitors for Corrosion Control (DIC Project), Gaussian Software and Server (Prof. V. Srivastava)	2 Lakhs
2.	Design of Low Cost Pyrolysis Machine for Plastic Wastes Conversion into Liquid Hydrocarbon Fuel	One Lakh

Research and Consultancy

Sponsored research projects(Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	2015-2018	DST-SERB	28.00	Dr. Jeyakumar Kandasamy

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	01
2.	Total Number of Papers Published in Refereed International Journals	31

3.	Total Number of Papers Presented in National Conferences	08
4.	Total Number of Papers Presented in International Conferences	14

Refereed International Journals

1. V. Jaiswal, Kalyani, S. Umrao, R.B. Rastogi, R. Kumar and A. Srivastava (2016)Synthesis, Characterization and Tribological evaluation of TiO_2-Reinforced Boron and Nitrogen Co-doped Reduced Graphene Oxide Based Hybrid Nanomaterials as Efficient Antiwear Lubricant Additives. ACS Applied Materials & Interfaces (Accepted) DOI: 10.1021/acsami.6b01876; (IF=6.72)
2. Kalyani, R.B. Rastogi and D. Kumar (2016) Synthesis, Characterization and Tribological Evaluation of SDS stabilized Magnesium-Doped-Zinc Oxide ($Zn_{0.88}Mg_{0.12}O$) Nanoparticles as Efficient Antiwear Lubricant Additives. ACS Sustainable Chemistry & Engineering (Accepted) DOI:10.1021/acssuschemeng.6b00472; (IF=4.64)
3. Kalyani, V. Jaiswal, D. Kumar, R.B. Rastogi and P. Singh (2016) Evaluation of Tribological Properties of Sulfur and Phosphorous-free Quinolinium Salts and their Correlation with Quantum Chemical Parameters. Tribology Transactions (Accepted)· DOI: 10.1080/10402004.2016.1168899; (IF=1.35)
4. P. Mourya, P. Singh, A.K. Tewari, R.B. Rastogiand M.M. Singh (2016)Inhibition of mild steel corrosion by 1,4,6-trimethyl-2-oxo-1,2-dihydropyridine-3-carbonitrile and synergistic effect of halide ion in 0.5M H_2SO_4. Applied Surface Science APSUSC-32495.DOI: 10.1016/j.apsusc.2016.01.263.; (IF=2.71)
5. J.L. Mourya, V. Jaiswal and R.B. Rastogi (2016) Highly efficient sulfur and phosphorous free antiwear additives for paraffin oil. Proc.IMech Engineers Part J: Journal of Engineering Tribology 230, 222-237.; (IF=0.96)
6. V. Jaiswal, S.R. Gupta, R.B. Rastogi, R. Kumar and V.P. Singh (2015) Evaluation of antiwear activity of substituted benzoylhydrazones and their copper(II) complexes in paraffin oil as efficient low SAPS additives and their interactions with the metal surface using density functional theory. Journal of Materials Chemistry A3:5092-5109.; (IF=7.77)
7. P. Mourya, P. Singh, A.K. Tewari, R.B. Rastogiand M.M. Singh (2015) Relationship between Structure and Inhibition Behaviour of Quinolinium Salts for Mild Steel Corrosion: Experimental and Theoretical Approach, Corrosion Science 95, 71-87.; (IF=4.83)
8. Kalyani, V. Jaiswal, R.B. Rastogi and D. Kumar (2015) The investigation of different particle size magnesium-doped zinc oxide ($Zn_{0.92}Mg_{0.08}O$) nanoparticles on the lubrication behavior of paraffin oil. Applied NanoscienceDOI: 10.1007/s13204-015-0471-1
9. P. Mourya, R.B. Rastogi and M.M. Singh (2015) Synergistic inhibitive effect and related quantum chemical paramaters of 2-ethoxy-4,6-dimethylnicotinonitrile and iodide ions on corrosion of mild steel in sulfuric acid. Journal Material Science & Engineering http://dx.doi.org/10.4172/2169-0022.C1.029.
10. K.R. Ansari M. A. Quraishi, Ambrish Singh, Sowmya Ramkumar and Ime B. Obot (2016) Corrosion inhibition of N80 steel in 15% HCl by pyrazolone derivatives: electrochemical, surface and quantum chemical studies. RSC Advances. 6: 24130–24141. ISSN: 2046-2069 (Royal Society of Chemistry, United Kingdom).
11. Chandrabhan Verma, L. O. Olasunkanmi, I. B. Obot, Eno E. Ebenso and M. A. Quraishi (2016) 5-Arylpyrimido-[4,5-b]quinoline-diones as new and sustainable corrosion inhibitors for mild steel in 1 M HCl: a combined experimental and theoretical approach. RSC Advances. 6: 15639–15654. ISSN: 2046-2069 (Royal Society of Chemistry, United Kingdom).
12. Priyanka Singh, M.A. Quraishi (2016) Corrosion inhibition of mild steel using Novel Bis Schiff's Bases as corrosion inhibitor: Electrochemical and Surface measurement. Measurement 86: 114–124. ISSN: 0263-2241 (Elsevier).
13. Priyanka Singh, Ambrish Singh, M.A. Quraishi (2016) Thiopyrimidine derivatives as new and effective corrosion inhibitors for mild steel in hydrochloric acid: Electrochemical and quantum chemical studies. Journal of the Taiwan Institute of Chemical Engineers 60: 588–601. ISSN: 1876-1070 (Elsevier).

14. Chandrabhan Verma, M.A. Quraishi, Ambrish Singh (2016) A thermodynamical, electrochemical, theoretical and surface investigation of diheteroaryl thioethers as effective corrosion inhibitors for mild steel in1M HCl. Journal of the Taiwan Institute of Chemical Engineers 58: 127–140. ISSN: 1876-1070 (Elsevier).
15. Priyanka Singh, Eno E. Ebenso, Lukman O. Olasunkanmi, I. B. Obot, and M.A. Quraishi (2016) Electrochemical, Theoretical, and Surface Morphological Studies of Corrosion Inhibition Effect of Green Naphthyridine Derivatives on Mild Steel in Hydrochloric Acid. The Journal of Physical Chemistry C 120: 3408- 3419. ISSN: 1932-7447 (ACS Publications).
16. Neeraj Kumar Gupta, Chandrabhan Verma, M.A. Quraishi, A.K. Mukherjee (2016) Schiff's bases derived from L-lysine and aromatic aldehydes as green corrosion inhibitors for mild steel: Experimental and theoretical studies. Journal of Molecular Liquids 215: 47–57. ISSN: 0167-7322 (Elsevier).
17. C.B. Verma, M. A. Quraishi, L. O. Olasunkanmi and Eno E. Ebenso (2015) L-Proline-promoted synthesis of 2-amino-4-arylquinoline-3-carbonitriles as sustainable corrosion inhibitors for mild steel in 1 M HCl: experimental and computational studies. RSC Advances. 5: 85417–85430. ISSN: 2046-2069 (Royal Society of Chemistry, United Kingdom).
18. Sudheer and M.A. Quraishi (2015) The corrosion inhibition effect of Aryl Pyrazolo Pyridines on Copper in hydrochloric acid system: Computational and Electrochemical studies. RSC Advances 5: 41923–41933 ISSN: 2046-2069 (Royal Society of Chemistry, United Kingdom).
19. C.B. Verma, P. Singh, I. Bahadur, E.E. Ebenso, M.A. Quraishi (2015) Electrochemical, thermodynamic, surface and theoretical investigation of 2-aminobenzene-1, 3-dicarbonitriles as green corrosion inhibitor for aluminum in 0.5 M NaOH. Journal of Molecular Liquids 209: 767-778. ISSN: 0167-7322 (Elsevier).
20. C.B. Vermaa, M.A.Quraishi, Ambrish Singh, (2015) 2-Aminobenzene-1,3-dicarbonitriles as green corrosion inhibitor for mild steel in 1MHCl: Electrochemical, thermodynamic, surface and quantum chemical investigation. Journal of the Taiwan Institute of Chemical Engineers 49: 229–239. ISSN: 0167-7322 (Elsevier).
21. Ambrish Singha,b, Yuanhua Lina, I.B. Obotc, Eno E. Ebensod, K.R. Ansarif, M.A. Quraishi (2015) Corrosion mitigation of J55 steel in 3.5% NaCl solution by amacrocyclic inhibitor. Applied Surface Science 356: 341–347. ISSN: 0169-4332. (Elsevier).
22. K.R. Ansari, M.A. Quraishi (2015) Isatin Derivatives as a non-toxic corrosion inhibitor for mild steel in 20% H2SO4., Corrosion Science 95: 62–70 ISSN: 0010-938X (Elsevier).
23. K.R. Ansari, M.A. Quraishi (2015) Experimental and computational studies of naphthyridine derivatives as corrosion inhibitor for N80 steel in 15% hydrochloric acid. Physica E 69: 322–331. ISSN: 1386-9477 (Elsevier).
24. K.R. Ansari, M.A. Quraishi, A. Singh (2015) Corrosion inhibition of mild steel in hydrochloric acid by some pyridine derivatives: An experimental and quantum chemical study. Journal of Industrial and Engineering Chemistry 25: 89-98. ISSN: 1226-086X (Elsevier).
25. Shivam Bajpai, Sundaram Singh and Vandana Srivastava (2015), Nano zirconia catalysed one-pot synthesis of some novel substituted imidazoles under solvent-free conditions. RSC Adv., 5, 28163–28170.
26. Priyanka Singh, Vandana Srivastava, M.A. Quraishi (2016). Novel quinoline derivatives as green corrosion inhibitors for mild steel in acidic medium: Electrochemical, SEM, AFM, and XPS studies; Journal of Molecular Liquids, 216, 164–173.
27. Neeraj K Gupta, Priyanka Singh, Vandana Srivastava, Kritika Srivastava, Chandrabhan Verma, M. A. Quraishi (2016). Curcumine Longa: Green and Sustainable corrosion inhibitor for aluminum in HCL medium. Ain Shams Engineering Journal, (Communicated).
28. Laxman Singh, Byung Cheol Sin, Won Kim, K.D. Mandal, Hoeil Chung, (2016) A novel one-step flame synthesis method for Tungsten-doped CCTO and Youngil Lee. J. Am. Ceram. Soc., 99 [1] 27–34
29. Laxman Singh, Youngil Lee, K. D. Mandal (2015)Combustion synthesis of nano-crystalline Bi2/3Cu3Ti2.90Fe0.10O12 using inexpensive TiO2 raw material and its dielectric characterization. Powder Technology 280 256-265.

30. Sunita Sharma, M. M. Singh and K. D. Mandal (2015) Dielectric and Electrical Properties of undoped and Fe-Doped Yttrium Copper Titanate. Ceramic Transactions 252 95-106
31. Sunita Sharma, M. M. Singh, U. S. Rai and K. D. Mandal (2015) Rationalization of Dielectric Properties of nano-sized iron doped Yttrium Copper Titanate using Impedance and Modulus Studies. Materials Science in Semiconductor processing 31 720-727
32. I. Sinha* and A. K. Mukherjee, Effect of surface oxide transformation on CO oxidation, Brazilian Journal of Physics, (2015) 45:72-78.
33. P. N. Singh, D.Tiwary and I. Sinha*, Starch-functionalized magnetite nanoparticles for hexavalent chromium removal from aqueous solutions, Desalination and Water Treatment 2015; Published online.
34. A. D. Verma, R. K. Mandal and I. Sinha*, Kinetics of p-nitrophenol reduction catalyzed by PVP stabilized copper nanoparticles, Catalysis Letters 145 (2015) 1885.
35. P. N. Singh, D. Tiwary and I. Sinha*, Chromium removal from aqueous media by superparamagnetic starch functionalized maghemite nanoparticles, Journal of Chemical Sciences Vol. 127, No. 11, November 2015, pp. 1967–1976.
36. P. N. Singh, Dhanesh Tiwary and I. Sinha*, Kinetics and Thermodynamics of Adsorption of Chromium (VI) on Starch Functionalized Iron Oxide Nanoparticles in Aqueous Medium, Innovations in Corrosion and Materials Science, 2015, 5, 98-104.
37. Shivam Bajpai, Vandana Srivastava,&Sundaram Singh (2015) Nano Zirconia Catalysed One Pot Synthesis of Some Novel Substituted Imidazoles under Solvent Free Conditions. RSC Advances, 5 28163.
38. Sundaram Singh and Krishna Nand Singh (2015) Superoxide Organic Chemistry: Retrospect and Prospects. Indian Journal of Chemistry, Section B Accepted
39. Shivam Bajpai, Vandana Srivastava,&Sundaram Singh (2015) Rutile phase nano TiO2 as an effective heterogeneous catalyst for condensation reaction of isatin derivatives with 1, 2-diaminobenzene under solvent free conditions: a greener "NOSE"approach. Arabian Journal of Chemistry, In press
40. S. Gupta, P. Chaudhary, L. Seva, S.Sabiah and J.Kandasamy,(2015) Bio-based green solvent for the catalyst free oxidation of arylboronic acids into phenols, RSC Adv., 5, 89133–89138 (IF: 3.84)
41. P. Chaudhary, S. Gupta, N. Muniyappan, S. Sabiah and J. Kandasamy, (2016) An efficient synthesis of N-nitrosamines under solvent, metal and acid free conditions using tert-butyl nitrite, Green Chem., 18, 2323. (IF: 8.02)
42. Punita Mourya, Praveen Singh, R. B. Rastogi and M. M. Singh, Inhibition of mild steel corrosion by 1,4,6-trimethyl-2-oxo-1,2-dihydreopyridine-3-carbonitrile and synergistic effect of halide ion in 0.5M H_2SO_4, App. Surf. Sci. (2016) http://dx.doi.org/10.1016/j.apsusc.2016.01.263
43. Punita Mourya, R. B. Rastogi and M. M. Singh, Synergistic inhibitive effect and related quantum chemical paramaters of 2-ethoxy-4,6-dimethylnicotinonitrile and iodide ions on corrosion of mild steel in sulfuric acid, J. Material Sci. Eng. (2015) http://dx.doi.org/10.4172/2169-0022.C1.029.
44. PunitaMourya, Praveen Singh, A. K. Tewari, R. B. Rastogi and M. M. Singh, Relationship between structure and inhibition behaviour of quinolinium salts for mild steel corrosion: Experimental and theoretical approach, Corros. Sci. 95 (2015) 71-87.
45. Punita Mourya, Savita, Namrata Chaubey, V.K. Singh and M.M. Singh, "Eco-friendly inhibitors for copper corrosion in nitric acid : Experimental and Theoretical evaluation, Metallurgical and Materials Transactions B 47B (2015) 47-57.
46. Savita. Namrata Chaubey, Punita Mourya, V.K. Singh and M.M. Singh, Fruit extract as a green inhibitor for copper corrosion in nitric acid solution, International Journal of Innovative research in Science, Engineering and Technology, 4 (2015) 4545- 4553.

Refereed National Journal

1. V. Jaiswal, Kalyani, R.B. Rastogi and R. Kumar (2015) Theoretical and experimental studies on the tribological behavior of SAPS-free salicylaldehyde propanoylhydrazone Schiff base and its Cu (ll) complex in paraffin oil for steel-steel contact. Indian Journal of Tribology 7, 26-32.

2. Srivastava S., Gupta G.N., Sinha A., Srivastava V. and Srivastava A (2015). Physico-chemical properties of Jatropha curcas oil during storage. Indian Journal of Agricultural Biochemistry.28(1):90-93.

Proceedings of International Conferences

1. Kalyani, V. Jaiswal, R.B. Rastogi and D. Kumar. 2015. Tribological studies of Schiff base derived from indole-3-carbaldehyde and 4-aminotriazole as highly effective antiwear additive. International Conference on Multifunctional Materials for Future Applications (ICMFA 2015), Department of Chemistry, IIT (BHU) Varanasi, 27-29 October, 2015.
2. P. Mourya, R.B. Rastogi and M. M. Singh (2015) Structural correlation of 1-(3-(1,3-Dioxoisoindolin-2-yl)Propyl)quinolinium bromide with its inhibitive properties on mild steel corrosion. International Conference on Multifunctional Materials for Future Applications (ICMFA 2015), Department of Chemistry, IIT (BHU) Varanasi, 27-29 October, 2015.
3. V. Jaiswal, Kalyani, R.B. Rastogi and R. Kumar. 2015. Tribological Applications of TiO_2-Reinforced Reduced Graphene Oxide Nanocomposites as Energy Efficient Lubricant Additives. International Conference on Advanced Nanomaterials & Nanotechnology (ICANN-2015), Department of Chemistry, IIT Guwahati, 8-11 December, 2015.
4. Kalyani, V. Jaiswal, R.B. Rastogi and D. Kumar. 2015. The investigation on the tribological behavior of Calcium-doped zinc oxide ($Zn_{0.92}Ca_{0.08}O$) nanoparticles in paraffin oil. International Conference on Advanced Nanomaterials & Nanotechnology (ICANN-2015), Department of Chemistry, IIT Guwahati, 8-11 December, 2015.
5. P. Mourya, R.B. Rastogi and M. M. Singh. 2015. Inhibition of mild steel corrosion by 1,4,6-trimethyl-2-oxo-1,2-dihydropyridine-3-carbonitrile and synergistic effect of halide ion in 0.5 M H_2SO_4. [NANO - 142] at Manchester Conference Centre, Manchester, United Kingdom, 13-16 September 2015.
6. Kalyani, V. Jaiswal, S. Gupta, R.B. Rastogi and D. Kumar. 2016. Tribological properties of Manganese-doped-Zinc Oxide ($Zn_{0.92}Mn_{0.08}O$) nanoparticles on the antiwear lubrication behavior of paraffin oil. International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016) Jaipur National University, Jaipur, 17-19 March, 2016.
7. V. Jaiswal, Kalyani, R.B. Rastogi and D. Kumar. 2016. Tribological applications of rGO/CuO nanocomposite as energy efficient antiwear lubricant additive. International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016) Jaipur National University, Jaipur, 17-19 March, 2016.
8. P. Mourya, P. Singh, R.B. Rastogi, M.M. Singh. 2016. Synergistic effect of iodide ions on improving corrosion inhibition behaviour of nitrile derivative on mild steel in 0.5M H_2SO_4 medium. International Conference on Materials Science & Technology 2016 Conference Centre, University of Delhi, India, 01-04 March, 2016.
9. P. Mourya, R.B. Rastogi and M. M. Singh. 2015. Synergistic inhibitive effect and related quantum chemical paramaters of 2-ethoxy-4,6-dimethylnicotinonitrile and iodide ions on corrosion of mild steel in sulfuric acid. 4th International Conference and Exhibition on Materials Science & Engineering in Florida, USA, 14-16 September 2015.
10. Ankush Mishra, S. Singh, Vandana Srivastava 2016. Green and Efficient Synthesis of Indeno Derivatives of Ninhydrin on Water, International Conference on Advances in Recent Analytical Science, Department of Chemistry, Indian Institute of Technology (BHU), Varanasi, pp. 164, 7-9 April.

Proceedings of National Conferences

1. Vandana Srivastava and Shweta Srivastava (2016). Microwave Assisted Stereoselective Green Synthesis of Diels-Alder products and its Configurational Assignment: b- Naphthol - Maleic Adduct; 103rdIndian Science Congress, University of Mysore, Mysuru, India,3-7.
2. Jeyakumar Kandasamy (2015) Technology Associated Synthesis of Carbohydrates: Automated Synthesis of Glycosaminoglycans, Carbo-XXX, organised by Pondicherry University, Pondicherry, 29-31 Dec-2015.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

Sl. No	Title, Author and Journal	Cited by	Year
1.	Effect of Cefazolin on the corrosion of mild steel in HCl solution; AK Singh, MA Quraishi; Corrosion Science 52 (1), 152-160	280	2010
2.	Adsorption and inhibitive properties of some new Mannich bases of Isatin derivatives on corrosion of mild steel in acidic media; I Ahamad, R Prasad, MA Quraishi; Corrosion Science 52 (4), 1472-1481	230	2010
3.	Green approach to corrosion inhibition of mild steel in hydrochloric acid and sulphuric acid solutions by the extract ofMurraya koenigii leaves; MA Quraishi, A Singh, VK Singh, DK Yadav, AK Singh; Materials Chemistry and Physics 122 (1), 114-122	227	2010
4.	Thermodynamic, electrochemical and quantum chemical investigation of some Schiff bases as corrosion inhibitors for mild steel in hydrochloric acid solutions; I Ahamad, R Prasad, MA Quraishi; Corrosion Science 52 (3), 933-942	205	2010
5.	Mebendazole: new and efficient corrosion inhibitor for mild steel in acid medium; I Ahamad, MA Quraishi; Corrosion Science 52 (2), 651-656	127	2010
6.	Inhibition of mild steel corrosion in acid solution by Pheniramine drug: Experimental and theoretical study; I Ahamad, R Prasad, MA Quraishi; Corrosion Science 52 (9), 3033-3041	133	2010
7.	Electrochemical and quantum chemical studies of 3, 4-dihydropyrimidin-2 (1H)-ones as corrosion inhibitors for mild steel in hydrochloric acid solution; DK Yadav, B Maiti, MA Quraishi; Corrosion Science 52 (11), 3586-3598	119	2010
8.	The effect of some bis-thiadiazole derivatives on the corrosion of mild steel in hydrochloric acid; AK Singh, MA Quraishi; Corrosion Science 52 (4), 1373-1385	116	2010
9.	Investigation of the effect of disulfiram on corrosion of mild steel in hydrochloric acid solution; AK Singh, MA Quraishi; Corrosion Science 53 (4), 1288-1297	91	2011
10.	Inhibition effect of some benzylidenes on mild steel in 1M HCl: an experimental and theoretical correlation; DK Yadav, MA Quraishi, B Maiti; Corrosion Science 55, 254-266	89	2012
11.	Schiff's base of pyridyl substituted triazoles as new and effective corrosion inhibitors for mild steel in hydrochloric acid solution; KR Ansari, MA Quraishi, A Singh; Corrosion Science 79, 5-15	64	2014
12.	Electrochemical and theoretical investigation of triazole derivatives on corrosion inhibition behavior of copper in hydrochloric acid medium; MA Quraishi; Corrosion Science 70, 161-169	42	2013

Indian Faculty visits in the Department

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	M.A. Quraishi	Invited Speaker	International Conference Green & Sustainable Chemistry, Berlin, Germany 3-6 April 2016
2.	M.A. Quraishi	Invited Speaker	International Conference on Oil Country Tubular Goods (OCTG) and metal materials from 18th to 20th December 2015 at Southwest Petroleum University, China.
3.	M.A. Quraishi	Invited Speaker	International Science Congress Association is organizing 5th International Science Congress on 8th-9th Dec. 2015 at Tribhuvan University, Kathmandu, Nepal.
4.	M.A. Quraishi	Invited Speaker	Birmingham University, U.K. on 25 September 2015.
5.	M.A. Quraishi	Plenary lecture	European Congress on Corrosion & Surface Treatment in Industry held at Sept 30 –Oct 02, 2015 at Slovakia.

Foreign Faculty Visits in the Department

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. Frank Marken	Invited	28th March, 2016

other Information

P. Mourya, P. Singh, R.B. Rastogi, M.M. Singh. 2016. Synergistic effect of iodide ions on improving corrosion inhibition behaviour of nitrile derivative on mild steel in 0.5M H_2SO_4 medium. International Conference on Materials Science & Technology 2016 01^{st} - 04^{th} March, 2016, Conference Centre, University of Delhi, India.

Head of the Department: Dr. Debaprasad Giri

Brief Introduction of the Department :

Department of Physics (formerly Department of Applied Physics, IT, BHU / Applied Physics Section, 1968) established in 1985, is a center of excellence for quality research and teaching in Physics & Applied Physics. Faculties of the department have been pursuing front line research in various areas and in collaboration with prestigious national and international institutes. The department also offers an excellent research programme in the field of Space Science, Solar Physics, Plasma Physics, Fibre Optics, Photonics & Optoelectronics, Condensed Matter & Materials Physics, Energy Studies, Remote Sensing, Bio-physics and Nano-Technology.

Major areas of Research

The Department offers research programmes in the field of Solar & Space Plasma Physics, Fibre Optics, Photonics & Optoelectronics, Condensed Matter & Materials Physics, Microwave Remote Sensing, Energy Studies, Bio-physics, Quantum Information, and Composite Materials.

The department has a rich heritage and history of scientific research in space physics including theoretical study of the planetary atmosphere. In the mid 1970s, the whistler wave at low latitude were recorded for the first time and published in the prestigious "Nature" by the group of our department. Solar & Space Plasma Physics Research Group (SP^2RG) has been making significant contributions to the theory and modelling of solar plasma in optical, ultraviolet, X-ray, gamma-ray, and in the atomic spectroscopy – especially in the field of diagnostics of electron and proton beams and of the plasmas they heat. This group has been making seminal contributions in the areas of 'MHD waves and transients in the solar atmosphere' and also in 'science communication'. Theoretical calculations related to pitch-angle, cross-sections, scattering are also being carried out. The Solar & Space Plasma Physics Research Group (SP^2RG) has equipped with VLF-Antenna for upper Earth atmospheric measurements; Advanced Solar Computation and Analyses Laboratory (ASCAL) to analyse the large-scale solar observational data and model its magnetic atmosphere. Solar & Space Plasma Physics Research Group (SP^2RG) has global collaborations (e.g., UK, Poland, Russia, China, Austria, Spain, USA, Belgium, etc) as well as participation in international (e.g., Royal Society; Polish National Science Foundation etc.), and national (e.g., 2m- National Large Solar Telescope; Aditya-I) projects.

The Department carries out a wide range of frontier research activities related to magnetism and superconductivity and semiconductors, nanostructures, thin films and nano-materials and is backed by many sophisticated equipment and measurement techniques. Though the main emphasis of these works is on fundamental aspects, many of the results have a potential for application in industries. In the materials science, we study the electronic, physical, mechanical, optical, and chemical properties of materials, most often in relation to their structure, and use this knowledge to understand and optimize their properties and create new, improved materials and devices. Work in Soft Condensed Matter and Bio-physics is also a front-line research area of the department. "Soft" condensed matter research explores areas like adhesion, friction, wetting, the movement of fluids in porous media, understanding recent single molecule force spectroscopy experiments on biopolymers, Polymers under shear flow, etc. Biophysics group study the protein/peptide folding and, misfolding, self assembly into higher order nano- and micro- structures, and there interaction with Graphene Oxide for biomedical, environmental and nanotechnology applications using various experimental techniques and computational methods.

Photonics and Fiber optics is emerging new field of research in our country. We establish a research lab with essential facilities to pursue the theoretical and experimental researches in the field of Photonics. We are engaged in the theoretical analysis of photonic crystals and quasi photonic crystals composed of graded, dispersive and negative index materials. These works would be useful in study of the photonic crystals having such type of materials for various applications. It will open new window to design several photonic crystal devices like sensors, reflectors, switches etc.

Many projects have been sanctioned in the department to different research groups. The Department has facilities for materials synthesis, measurements, Thin-film growth etc. Characterization tools range from optical spectroscopies, such as photoluminescence is available. Structural property is determined using x-ray diffraction measurements in the department. For measurements of magnetic properties at low temperature (~10K) ac-susceptometer is installed, while set-up for transport properties measurement at low temperature is also available. For thermal properties study we have DTA-TGA. For electrical properties study we have Impedance analyzer and as well as LCR meter. For sample preparation we have high temperature furnaces. We also have ball-milling units.

Research on remote sensing is also one of the frontline research areas in the Department. In this field, the growth of agricultural crops are monitored, classification of crops and the recognition of shape/size of buried objects are done by scatterometer measurements and satellite image analysis. Such studies are useful in designing of sensors, urban planning, crop classification, crop-yield and soil moisture estimation for agricultural planning. Moreover, one of the group is actively engaged in different types of luminescent materials, particularly inorganic nanostructures/phosphors having potential applications in the area of energy harvesting, bio-imaging and for advance lighting applications, etc. Composite material studies are also pursued at the Department and the lab for such studies is in development. The energy studies explore the various fuel cells, materials, etc to optimize the renewable energy sources, and related research is being conducted in the Department.

Area of the Department/School (in square meters): 1844 Square Meters

Infrastructure

S. No.	Particulars	Number
1.	No. of Classrooms	01
2.	No. of Lecture Halls	01
3.	No. of Laboratory	12
4.	No. of Computers available for students in the Department	15

Unique Achievement / Preposition of the Department

Department's vision is to promote new ideas and innovations in physical sciences. Our mission is to offer world class education, research guidance and also leadership in physical sciences. Our aim is to become a high ranking in Physics Department globally in terms of teaching quality, research contributions and academic leadership.

Under new curriculum review process (which Institute has started in 2014), Department offers two physics courses at B.Tech-Part-I level as an institute science course, and two physics courses to preparatory students. We have also offered several electives and open electives under this new curriculum. Our 5-year Integrated M. Tech. programme in Engineering Physics which started in 2005 is running successfully. Main objective of this course is to impart knowledge of various core technical disciplines without compromising on the basic physics and mathematics courses. The course gives an insight to the disciplines of engineering as well as science, and practical working experience through industrial training / summer internship, project / dissertation work to enhance the working skills of the students.

Students of Engineering physics are awarded with several fellowships to go abroad to pursue higher studies, involved in several project works in both science and technology, present their research works in different workshop/conference/symposia. They also pursue summer internship in industries and reputed institutions/universities in India and abroad. Many of these students are also recruited by reputed national and multinational companies.

Department has a strong Ph. D. programme in the above mentioned specializations and about 85 Ph.D students received their degree so far. Many of our alumni are well placed in reputed Institutes / University in India and abroad.

Department has also a strong component to deliver popular science lecture and publish articles in magazines line Scientific American and news papers.

Faculty members in the Department working in the frontier areas of research have published in International journals of high impact factor (e.g. Nature Communication, JACS, RSC Advances, JCP, New J. Of Physics, Phy. Rev. etc.). We have successfully organized three events during this period [Annual Student Convention Jigyasa'16 (9 -10th January, 2016), THERMANS-2016 (Symposium & Workshop on Thermal Physics, 18-22nd January, 2016) in collaboration with DAE-BRNS, and International Conference "Dynamic Sun-I" (22-26 February, 2016) in collaboration with Sheffield University].

Our Departmental proposal under FIST Program-2015 has been identified for support in Level -I by FIST Advisory Board of DST, New Delhi.

Six new faculty members (Assistant Professor) have joined the Department during September to December, 2015. Three Assistant Professor (internal) & four Associate Professor (internal) have been appointed as Associate Professor and Professor respectively.

Academic Programmes offered

New Courses Introduced

S. No.	Course Code	Course Name	Course credit
1.	PHY 201	Quantum Physics	11
2.	EO 207	Semiconductor Physics & Devices	10
3.	EO 237	Fibre Optics	9
4.	EP 201	Instrumentation, Measurement & Analysis	6
5.	EP 211	Solar & Space Plasma Physics	9
6.	EP 221	Condensed Matter Physics	9
7.	EP 291	Exploratory Project	5

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	N.A.	N.A.	N.A.	N.A.	N.A.
2.	Dual Degree	N.A.	N.A.	N.A.	N.A.	N.A.
3.	M. Tech / M. Pharm	21	13	11	14	13
4.	Ph. D (Under Institute Fellowship)	8	4	05	6	4
5.	Ph. D (Under Sponsored Category/ National Fellowship)	2	N.A.	1	N.A.	N.A.

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Nandini Sahu	12410EN012	DAE-BRNS symposium on nuclear physics	7-11 December 2015 Prashanthi Nilayam A.P.	self

2.	Nandini Sahu	12410EN012	IIST Astronomy and Astrophysics school	7-16 December 2015 IIST Trivandrum Kerala	IIST
3.	Achyutesh Dixit	13171002	International Conference of Light Quanta and Modern Perspective Applications Allahabad	December 14-16, 2015 Physics Dept. Univ. of Allahabad, Allahabad	Student Travel Grant Support (STGS) Non-plan fund
			International Conference on Innovative Trends in Engineering, Science and Technology Uttaranchal Institute of Technology, Uttaranchal University	Uttaranchal University, Dehradun (India)	No financial support
4.	Pawan Kumar	13171002	International conference on advances in light technologies and spectroscopy of materials (ICALTSM -2016),	University of Lucknow, Lucknow, India, January (2016).	
5.	Ashishkumar Yadav	15171001	Renewable Energy Materials and Technology	2-4 March, 2016	self
6.	Ritika Solanki	15171009	10th Winter School on Astroparticle Physics (WAPP 2015)	21-29 Dec. 2015 Bose Institute, Mayapuri, Darjeeling	Bose Institute, Darjeeling
ABROAD					
1.	D.K. Gupta	15171009	17th International conference on Remote Sensing conducted by world Academy of science and Technology	8-10 Oct. 2015	Osaka, Japan

Names of students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize
1.	Debasmita Mukherjee	11410EN004	(i) Awarded Mitacs Globalink Research Award 2015 (ii) Amateur photographer-photographs published in magazines the Professionals

Names of scholars/students who won Convocation/Institute Day prizes

Sl. No	Name of Student	Roll No.	Name of Prize	Prize of awarded by
1.	Sambit Kumar Giri	10410EN005	Gold Medal	IIT (BHU) Convocation

Names of Students/Scholars who went for foreign Internship

Note: Individual faculty members should provide the data

Sl. No	Name of Student	Roll No.	Name of Organization	Place of Internship	Country	Duration
1.	Debasmita Mukherjee	11410EN004	TRIUMF	Vancouver	Canada	3 months (May-July)
2.	Talwinder Singh	11410EN001	Research Group SP2RC	University of Sheffield	UK	2 months(July-August)

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Prof. Debaprasad Giri	Statistical Physics; Soft Condensed Matter Physics; Computational Bio-Physics
2.	Prof. Prabhakar Singh	Experimental Materials Science (Ion Conducting Glasses; Electrolyte Materials for Fuel Cells and Electro-ceramics and Solar cells
3.	Prof. Sandip Chatterjee	Experimental Condensed Matter Physics; Topological Insulators, Superconductivity, Multiferroic Materials
4.	Prof. Rajendra Prasad	Microwave Remote Sensing; Satellite Image Analysis for Crop Monitoring, Shape and Size Detection of Buried Objects
ASSOCIATE PROFESSORS		
1.	Dr. (Mrs.) Anita Mohan	Physics and Diagnostics of Solar, EUV and X-Ray Emission Processes; Synthesis of composites; Tribology
2.	Dr. Praveen Chandra Pandey	Fiber Optics; Photonics; Non linear Optics; PBG and Metamaterials
3.	Dr. (Mrs.) Shail Upadhyay	Materials Science; Electronic Ceramics
ASSISTANT PROFESSORS		
1.	Dr. A.K. Srivastava	Physics of Solar Transients; MHD Waves; Coronal and Stellar Seismology
2.	Dr. S.K. Mishra	Quantum Dynamics of Spin Chains, Quantum Entanglement, Frustrated Magnets, Nanomagnetism
3.	Dr. A.S. Parmar	Biophysics, Bio-nanotechnology, Protein Design and Engineering, Soft Condensed Matter
4.	Dr. Saurabh Tripathi	Structural Phase Transitions in ferroics, Broadly modeling of short, medium and long range ordered structures with real space and reciprocal space data using Pair distribution function and Rietveld analysis, for bulk and nanomaterials.
5.	Dr. Swapnil Patil	ARPES studies of correlated electron phenomena -heavy fermion/Kondo phenonmenon, superconductors, semiconductors etc.
6.	Dr. (Mrs.) Shradha Mishra	Condensed matter theory, equilibrium and nonequilibrium statistical physics, soft condensed matter theory.
6.	Dr. Prasun Dutta	Structures and dynamics of Interstellar medium, radio interferometric techniques, nova and supernovae, cellular automaton
INSPIRE FACULTY		
1.	Dr. Sunil Kumar Singh	Florescence and Laser Spectroscopy; Time Resolved Spectroscopy of Rare Earth Doped Micro/Nano Structures
2.	Dr. Neha Agnihotri	Photophysics, Computational Modelling of Light Harvesting Systems; Density Functional

Senior Research Officer		
1.	Dr. U.N. Singh	Fiber Optics; Optoelectronics; Photoonics
Institute Professors		
1.	Prof. B.N. Dwivedi	Physics and Diagnostics of Solar EUV and X-ray Emission Processes; MHD Waves and Oscillations in the Solar Atmosphere; Science Communication
2.	Prof. O.N. Singh	Spectroscopy, Fiber Optics
Emeritus Professor		
1.	Dr. R.P. Singhal	Planetary and Space Physics; Plasma Physics; X-ray; Nuclear Physics; Atomic Collisions Physics

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members

Sl. No	Cordinator	Title	Period
1.	Prof. S. Chatterjee (Convener) Dr. P.C. Pandey(Secretary)Dr. S.K. Mishra(Treasurer) Mr. Harshit Verma (Student Convener)	Jigyasa'16	9^{th}-10^{th} January, 2016
2.	Prof. D. Giri (Chairperson) Prof. Prabhakar Singh (Convener) Prof. S. Chatterjee (Secretary) Dr. P.C. Pandey (Treasurer)	THERMANS-2016 (Symposium & Workshop on Thermal Physics) in collaboration with DAE-BRNS.	January 18-20, 2016 (Symposium) January 21-22, 2016 (Workshop)
3.	Dr. A.K. Srivastava Co-chair (SOC), Chair (LOC) Dr. (Mrs.) Anita Mohan (Organizing Secretary)	International Conference "Dynamic Sun 1", at IIT(BHU), Varanasi 22-26 February 2016	22^{nd}-26^{th} February, 2016

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Dr Anita Mohan Presented research paper in International Conference, MITC-15 at Penang, Malaysia.	Synthesis and tribological properties of AA5052 base insitucomposites	16-17 November 2015 Penang, Malaysia
2.	Dr Anita Mohan Presented a Poster at International Conference "Dynamic Sun",	Physics of the Sun's Hot Atmosphere through Ionized Atoms	22- 26 February 2016 Varanasi, India
3.	Dr. Avanish Singh Parmar	3rdInternational Conference on Biotechnology & Bioinformatics	5th-7th February 2016 Pune, Maharashtra, India
Meetings	**1**		

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution	Date
1.	Prof. Prabhakar Singh	Ion dynamics of Crystalline and amorphous material	Department of Chemical engg. and Technology, IIT (BHU) Varanasi	12th June 2015
		Ion dynamics in crystalline and amorphous materials investigated by their scaling behaviour	Department of Ceramic Engineering, IIT (BHU) Varanasi	5th December 2015
2.	Prof. S. Chatterjee	Topological Insulators	Department of Physics, BHU	2-8 Nov., 2015
		On Topological Insulators and their interesting behaviors	Department of Physics, Kalyani University, West Bengal	18 March, 2016
3.	Dr. A.K. Srivastava	On Synthesizingthe Spectral Signature of Alfvén Waves in Polar Corona	Sheffield Univerity	18 May 2015
		On the synthesis of the spectral signature of transverse waves in the solar atmosphere	Debrecen Heliospheric Observatory, Hungary	22 May 2015
		Alfvén waves in coronal jets	BUKS-2015 Meeting at Budapest, Hungary	25 May 2015
		Possible evidence of co-existing various MHD modes in magnetic pores	Ruderman Honorary Meeting, Budapest, Hungary	28 May 2015
		Coupling of Solar Atmosphere through Waves and Plasma Dynamics	Aditya/SUIT Science Team Meeting	16-17 Dec. 2015
4.	Dr. S.K. Mishra	Generating multipartite maximally entangled states and random states in a kicked Ising model	Department of Physics, Indian Institute of Technology, Indore (M.P.)	May 27, 2015
5.	Dr. A.S. Parmar	Probing and Tuning Protein/ Peptide Interactions for Biomedical and Nanotechnology Applications	Department of Physics, Banaras Hindu University, Varanasi-221005	08th November, 2015
6.	Dr. Swapnil Patil	Angle Resolved Photoemission Spectroscopy (ARPES): Fundamentals and Applications	Department of Physics, Banaras Hindu University, Varanasi-221005	278th November, 2015
7.	Dr. P. Dutta	Introduction to gravitational waves and its detection	Department of Physics, BHU, Varanasi	Feb 24-29, 2016
8.	Dr. S. Singh	Lanthanide doped magneto-luminescent nanostructures for upconversion microscopy	HLMMD-IYL 2015, H. S. Gour Central University Sagar, MP 470003, India	Dec. 18-19, 2015

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Prabhakar Singh	USA	12.06.2015	20.06.2015	Presenting paper in SSI-20	DST and CPDA
1.	Dr. Anita Mohan	Malaysia	13.11.2015	19.11.2015	Topresent Research Paper in International Conference	CPDA

Honours and awards

Sl. No	Name of Faculty Member	Details of Award
1.	Dr. A.K. Srivastava	1. Life-time Member, International Astronomical Union (IAU) ; Elected in 2015 in the XXIXth General Assembly at Honolulu.
1.	Dr. Avanish Singh Parmar	Awarded Ramanujan Fellowship by DST-SERB

Books published/ Book Chapter:

1. Dileep Kumar Gupta, Rajendra Prasad, Prashant K. Srivastava, Tanvir Islam and Manika Gupta (2015). Fuzzy logic for the Retrieval of Soil Moisture using Bistatic Scatterometer data. Geospatial Technology for Water Resource Applications CRC Press, Taylor and Francis, USA, Chapter 17, pp. 272-288.
2. D. K. Gupta, R. Prasad, P.K. Srivastava and T. Islam (2015). Nonparametric model for the retrieval of soil moisture by microwave remote sensing. Satellite soil Moisture Retrieval. Academic Press, Elsevier, USA, Chapter 08, pp. 1-10.
3. P.K. Srivastava, T. Islam, S.K Singh, M. Gupta, D.K Gupta, W.Z. Wan Jaafar and R. Prasad (2015). Soil moisture deficit estimation through SMOS soil moisture and MODIS land surface temperature. Academic Press, Elsevier, USA, Chapter 17, pp. 1-15.
4. Bipin K. Singh and Praveen C Pandey, "Photonic and Omni-directional band gaps in One-dimensional Exponentially Graded index Photonic Crystals", Chapter 8, Springer Proceedings in Physics 181, DOI 10.1007/978-3-319-30137-2_8 (2016).
5. R. P. Singhal, One chapter (Chapter 12) 'Diffuse Aurora' has been edited in the book 'Elements of Space Physics' in second edition. (June 2015).
6. Sunil Mohan and Anita Mohan,'Wear, Friction and Prevention of Tribo-Surfaces by Coatings/Nanocoatings' in Anti-Abrasive Nanocoatings: Current and Future Applications, Elsevier pp. 3-22 (2015).
7. Sunil Mohan, Rakesh Kr. Gautam and Anita Mohan 'Tribology and Aluminium Matrix Composites', in Processing Techniques and Tribological Behavior of Composite Materials, IGI Global, USA, pp.126-48 (2015).

Editorial boards of journals

Sl. No	Name of Faculty Member	Details of Award	Details of Award
1.	Dr. A.K. Srivastava	Appointed to serve on Editorial Board as an "Editor" during 1 January 2016 to 31 December 2018	Journal of Astrophysics & Astronomy (Indian Academy of Sciences) published by SPRINGER (Impact Factor : 0.711)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1.	Eppendorf Centrifuge 5804 with accessories	7 Lakh
2.	Digital Storage Oscilloscope	1,31,040/-
3.	High Accuracy Digital Semi Micro Analytical Balance	1,47,000/-
4.	Plank Constantsetup	1,00,980/-
5.	Star Tracker Night Watch 6 inch Debasonian	49,376/-
6.	HP DL 360 Ge Server (4 nos.)	8,52,957/-
7.	Sico Microwave Transmission	1,88,467/-
8.	Silvaco TCAD Software (Omni Bundle pack)	14,70,000/-

Research and Consultancy

Sponsored research projects (Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Development of new electrolyte materials with optimized electrical / ionic conductivity for Solid Oxide Fuel Cells	2013-2016	Naval Research Board (NRB) DRDO	24,72,360/-	Prof. Prabhakar Singh (PI)
2.	Dynamics of Ions in Tellurite Glasses of Variable Composition	2013-2016	HRDG-CSIR	20,64,250/-	Prof. Prabhakar Singh (PI)
3.	Development of SrTiO3 based anode materials for Intermediate Temperature Solid Oxide Fuel Cells	2015-2018	BRNS	29,74,400/-	Prof. Prabhakar Singh (PI)
4.	Magnetization dynamics of antiferromagnetic nanoparticles arranged on geometrically frustrated arrays	2013-2018	DST	35 Lakh	Sunil Kumar Mishra
5.	Ramanujan Fellowship, DST-SERB, India	2016-2021	DST-SERB	38 Lakh	Dr. Avanish Singh Parmar
	Dissecting the role of intramolecular and intermolecular protein-protein interactions for the formation of Amyloid Fibrils	2015-2018	DST-SERB	25.32 Lakh	Dr. Avanish Singh Parmar
6.	Rare-earth doped luminescent nanostructures for bio-imaging and photovoltaic applications	2013-2018	DST	35 Lakh	Dr. S.K Singh
7.	Study of MHD waves in localized solar jets	2014-2016	Royal Society International Exchange Scheme with Prof. R. Erdelyi and his group, Sheffield University, U.K	Approx. 12.00 lakhs	Dr. A.K. Srivastava

8.	Study of waves and eruptive phenomina in the solar atmosphere	2013-2016	Indo- Bulgarian Project with Prof. Ivan Zhelyazkov, Sofia University, Bulgaria. India PI : Prof. R. Chandra, KU, Nainital	Approx. 13.5 lakhs	Dr. A.K. Srivastava (Co-PI)
9.		2015-2018	An international project grant by Polish Science Foundation; PI : Prof. K. Murawski, UMCS, Lublin, Poland; Co-Is : Prof. Z.E. Musielak (Texas University USA); 2.5-Year Postdoctoral fellow position is advertised in this project		Dr. A.K. Srivastava (Co-Is)
10.	VLF-Global-Network	2014-2019	VLF-Global-Network Project (5-year duly approved project as per Letter # IIT(BHU)/R&D/ 2014-15/886/L Dated 16-Jan-2015) without any financial commitment except infrastructure logistics by the Dept/ Institute. The VLF receiver is fully operational at the Department of Physics, IIT (BHU) and returning uninterrupted data of great scientific value. This is an International Project (http://vlf-data.ifz.ru/index.html).	International Grant from interred equipments	Dr. A.K. Srivastava (Co-I)
11.	Observation and modelling of solar transients and space whether candidates	2015-2018	SERB-DST Project under Young Scientist Scheme; 2015	1st year budget 2016-17 5.92 lakhs	Dr. A.K. Srivastava (PI)
12.	MHD waves in the solar atmosphere and refined magneto seismology		RESPOND/ISRO Project - "MHD Waves in the Solar Atmosphere and Refined Magneto-seismology" (for a period of 3-years with a total outlay of 24.23 Lakhs sanctioned as per Letter # ISRO/RES/2/403/15-16 dated 09-December-2015 from Dr K Ganesha Raj, Dy. Director, RESPOND/ISRO).	24.23 lakhs	Dr. A.K. Srivastava (PI)
13.	Study of magnetospheric wave-particle interaction, aurora, airglow and conductivities on planets and their satellites	2015-2018	ISRO	38.03 lakhs	Prof. R. P. Singhal (Co-Prof. R. P. Singhal (Co-PI), Prof. O. N. Singh (Co-PI) & Prof. D. Giri (PI)

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	1
2.	Total Number of Papers Published in Refereed International Journals	69
3.	Total Number of Papers Presented in National Conferences	5
4.	Total Number of Papers Presented in International Conferences	11

Refereed International Journals

1. Avanish S. Parmar, Jose K. James, Daniel R. Grisham, Douglas H. Pike, and Vikas Nanda, Dissecting Electrostatic Contributions to Folding and Self-Assembly Using Designed Multicomponent Peptide Systems, Journal of American Chemical Society, 138, 4362–4367 (2016).
2. Avanish S. Parmar, Fei Xu, Douglas Pike, Sandeep Belure, Nida Hasan, Kaatryn E. Drzewiecki, David I. Shreiber, and Vikas Nanda, Metal Stabilization of Collagen and de Novo Mimetic Peptides, Biochemistry, 54, 4987-4997 (2015).
3. R. Falewicz, P. Rudawy, K. Murawski, A.K. Srivastava, 2D MHD and 1D HD Models of a Solar Flare—a Comprehensive Comparison of the Results, The Astrophysical Journal, Volume 813, Issue 1, article id. 70 (2015).
4. P. Kayshap, D. Banerjee, A.K. Srivastava, Diagnostics of a Coronal Hole and the Adjacent Quiet Sun by The Hinode/EUV Imaging Spectrometer (EIS), Solar Physics, 290, 2889-2908 (2015).
5. L. Ofman, M. Parisi, A.K. Srivastava, Three-dimensional MHD modeling of vertical kink oscillations in an active region plasma curtain, Astronomy & Astrophysics, Volume 582, id.A75 (2015).
6. P. Jelínek, A.K. Srivastava, K. Murawski, P. Kayshap, B.N. Dwivedi, Spectroscopic observations and modelling of impulsive Alfvén waves along a polar coronal jet, Astronomy & Astrophysics, Volume 581, id.A131 (2015).
7. B. Filippov, A.K. Srivastava, B.N. Dwivedi, S. Masson, G. Aulanier, N.C. Joshi, W. Uddin, Formation of a rotating jet during the filament eruption on 2013 April 10-11, Monthly Notices of the Royal Astronomical Society, Volume 451, Issue 1, p.1117-1129 (2015).
8. K. Murawski, A.K. Srivastava, Z.E. Musielak, B.N. Dwivedi, Multi-shell Magnetic Twisters as a New Mechanism for Coronal Heating and Solar Wind Acceleration, The Astrophysical Journal, Volume 808, Issue 1, article id. 5 (2015).
9. K. Murawski, A. Solov'ev, Z.E. Musielak, A.K. Srivastava, J. Kraskiewicz, Torsional Alfvén waves in solar magnetic flux tubes of axial symmetry, Astronomy & Astrophysics, Volume 577, id.A126 (2015).
10. K. Murawski, A. Solov'ev, J. Kraskiewicz, A.K. Srivastava, New analytical and numerical models of a solar coronal loop. I. Application to forced vertical kink oscillations, Astronomy & Astrophysics, Volume 576, id.A22 (2015).
11. I. Zhelyazkov, R. Chandra, A.K. Srivastava, T. Mishonov, Kelvin-Helmholtz instability of magnetohydrodynamic waves propagating on solar surges, Astrophysics and Space Science, Volume 356, Issue 2, pp.231-240 (2015).
12. Vaibhav Pant, Abhishek K. Srivastava, Dipankar Banerjee, Marcel Goossens, Peng-Fei Chen, Navin Chandra Joshi, Yu-Hao Zhou, MHD Seismology of a loop-like filament tube by observed kink waves, Research in Astronomy and Astrophysics, Volume 15, Issue 10, article id. 1713 (2015).
13. Partha Chowdhury, A.K. Srivastava, B.N. Dwivedi, Robert Sych, Y-J. Moon, Study of multi-periodic coronal pulsations during an X-class solar flare, AdSpR, 56, 2769 (2015).
14. I. Zhelyazkov, T.V. Zaqarashvili, R. Chandra, A.K. Srivastava, T. Mishonov, Kelvin-Helmholtz instability in solar H-alpha surges, AdSpR, 56, 2727 (2015).
15. I. Zhelyazkov, R. Chandra, A.K. Srivastava, Kelvin-Helmholtz instability in an active region jet observed with Hinode, Ap&SS, 361, 51 (2016).

16. J. Kraskiewicz, K. Murawski, A. Solov'ev, A.K. Srivastava, the Asymmetric Longitudinal Oscillations of a Pikelner's Model Prominence, 291, 429 (2016).
17. K. Wilhelm and B.N. Dwivedi, Anomalous Earth flybys of spacecraft, Astrophysics and Space Science 358:18, 8 pages (2015).
18. R. K. Mishra, T. Modi, D. Giri, and S. Kumar (2015), On the rupture of DNA molecule J. Chem. Phys. 142, 174910.
19. Sanjiv Kumar, Damien P Foster, D. Giri, and S. Kumar (2016), Grafted polymer under shear flow, J. Stat. Mech.: Theory & Experiment, 043203.
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Refereed National Journal

1. N. Kumar, G. Gautam, R. K. Gautam, A. Mohan, S. Mohan (2015) "Synthesis and Characterization of TiB_2 Reinforced Aluminium Matrix composites: A Review". Journal of the Institution of Engineers (India) - Series D, pp 1-21.

Proceedings of International Conferences

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2. V.N. Mishra, R. Prasad, P. Kumar, D.K. Gupta, P.K.S. Dikshit, S.B. Dwivedi, A. Ohri,. Evaluating the effects of spatial resolution on land use and land cover classification accuracy. International conference on microwave, optical and communication engineering (ICMOCE-2015) organized by IIT Bhubaneswar, Odisha India during December18-20. Accepted for publication in IEEE Xplore digital library (2015).
3. D.K. Gupta, R. Prasad, P. Kumar, V.N. Mishra, A.K. Vishwakarma, R.S. Singh, V. Srivastava, Spatial modelling of SPAD values for different type of crops using LISS-IV satellite imagery. International conference on microwave, optical and communication engineering (ICMOCE-2015) organized by IIT Bhubaneswar, Odisha, India during December18-20. Accepted for publication in IEEE Xplore digital library (2015).
4. D.K. Gupta, R. Prasad, P. Kumar, V.N. Mishra, P.K.S. Dikshit, S.B. Dwivedi, A. Ohri, R.S. Singh, V. Srivastava, P.K. Srivastava, Crop variables estimation by adaptive neuro-fuzzy inference system using bistatic scatterometer data. II International conference on microwave and photonics (ICMAP-2015) organized by ISM Dhanbad, India during December11-13. Accepted for publication in IEEE Xplore digital library (2015).
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6. Gaurav Gautam, Narendra Kumar, Anita Mohan, Sunil Mohan and R. K. Gautam, Synthesis and tribological properties of AA5052 base insitu composites, Proceeding of Malaysian International Tribology Conference 2015, Organized by Malaysian Tribology Society (MYTRIBOS), Department of Mechanical Engineering, Faculty of Engineering, University of Malaya, Kuala Lampur, Malaysia, 117-119, 16-17 November 2015, ISBN 978-967-13625-0-1 (2015).
7. S. Mohan, Gaurav Gautam, Narendra Kumar, R. K. Gautam, A. Mohan, Ashish Kr. Jaiswal, Dry sliding wear behavior of Al-SiO_2 composites, Proceeding of Malaysian International Tribology Conference 2015, Organized, by Malaysian Tribology Society (MYTRIBOS), Department of Mechanical Engineering, Faculty of Engineering, University of Malaya, Kuala Lampur, Malaysia, 115-116, 16-17 November 2015, ISBN 978-967-13625-0-1 (2015).
8. Pawan Kumar, Bipin K Singh and Praveen C Pandey, Transparent Nano-crystalline cobalt doped ZnO thin films prepared by spin coating, (Presented by Pawan Kumar) International conference on advances in light technologies and spectroscopy of materials (ICALTSM - 2016) during January 16-18, 2016 at University of Lucknow, Lucknow, India (2016)..
9. Achyutesh Dixit, Subhashish Tiwari and Praveen C Pandey, Band Structure and Reflectance Spectra of

One Dimensional Plasma Photonic Crystal, (Presented by Achyutesh Dixit) International Conference of Light Quanta and Modern Perspective Applications, Allahabad, Jan-2016.

10. Md Jawed Ansaree, Upendra Kumar and Shail Upadhyay, Phase evaluation and electrical studies of multifunctional system $BaTi_{1-x}Sn_xO_3$, International Conferences on Multifunctional Materials for future Application (ICMFA)-2015,Oct 27-29 2015, IIT(BHU) Varansai-221005.
11. A.S. Parmar, Metal Stabilization of Denovo Designed Collagen Mimetic Peptides for Biomedical Applications, Presented at "3rd International Conference on Biotechnology & Bioinformatics" held at Pune, Maharashtra, India from 5th-7th February 2016.
12. Bipin K. Singh and Praveen C Pandey, "Tunable Mirror and Multi-channel Filter Based on One-dimensional Exponentially Graded Photonic Crystals", In Proceedings ofthe3rdInternational Conferenceon Photonics, Opticsand Laser Technology (PHOTOPTICS-2015), pages 22-33 (2015), Berlin, Germany.

Proceedings of National Conferences

1. V.N. Mishra, R. Prasad, P. Kumar, D.K. Gupta, P.K.S. Dikshit, S.B. Dwivedi, R.S. Singh, V. Srivastava. Supervised algorithms for classification of remotely sensed satellite image using open source support. Published in Proceedings of National Conference on Open Source GIS: Opportunities and Challenges, Department of Civil Engineering, IIT (BHU), Varanasi October 9-10. ISBN: 978-81-931-2500-7 (2015).
2. Atul Kumar Verma, Md Jawed Ansaree, Upendra Kumar and Shail Upadhyay, Low Temperature synthesis and characterization of Nikil doped Barium Stannate, Work shop on Advance Ceramics and Nanotechnology (Theme Electro ceramics), Dec 2015 Dept of Ceramic IIT (BHU) Varanasi-221005
3. Md Jawed Ansaree, Upendra Kumar and Shail Upadhyay, Thermal analysis of formation of nano-crystalline $BaTiO_3$using $Ba(NO_3)_2$ and TiO_2, 20ThSymposium and Workshop on Thermal Analysis (THERMANS-2016),18-22rdJanuary 2016, Dept. Of Physics IIT(BHU) Varanasi-221005.
4. Upendra Kumar, Md Jawed Ansaree, Shail Upadhyay, Synthesis and Characterization of $BaSnO_3$ powder prepared by Sol-gel method, 20Th Symposium and Workshop on Thermal Analysis (THERMANS-2016), 18-22rd January 2016, Dept. Of Physics IIT(BHU) Varanasi-221005
5. A. Kumar and S. Chatterjee, 'Existance of Griffith phase in $Tb_{1-x}Ce_x MnO_3$' Paper presented in the DAE Solid State Physics Symposium on December, 2015 in Amity University.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. On the Relationship Between a Hot-channel-like Solar Magnetic Flux Rope and its Embedded Prominence , Cheng, X.; Ding, M. D.; Zhang, J.; Srivastava, A. K.; Guo, Y.; Chen, P. F.; Sun, J. Q., (2014), Astrophysical Journal, , Vol. 789, L35. Citation : 16
2. Confined Partial Filament Eruption and its Reformation within a Stable Magnetic Flux Rope, Joshi, Navin Chandra; Srivastava, Abhishek K.; Filippov, Boris; Kayshap, Pradeep; Uddin, Wahab; Chandra, Ramesh; Prasad Choudhary, Debi; Dwivedi, B. N., 2014, Astrophysical Journal, Vol. 787, p. 11. Citation : 15
3. Red and near infrared persistent luminescence nano-probes for bioimaging and targeting applications, S K Singh, (20) RSC Advances 4, 58674-58698, Citation: 21
4. Role of loop entropy in the force induced melting of DNA hairpin, G. Mishra, D. Giri, M. S. Li, S. Kumar, (2011), J. Chem. Phys. 135, 035102; Citation: 10
5. Quantum Otto heat engine based on a multiferroic chain working substance, M. Azimi, L. Chotorlishvili, S. K. Mishra, T. Vekua, W. Hbner, J. Berakdar, New Journal of Physics 16, 063018 (2014). Citations: 14
6. Structural and optical properties of sol-gel derived nanocrystalline Fe-doped ZnO, S Kumar, S Mukherjee, R K Singh, S Chatterjee, AK Ghosh Journal of Applied Physics 110 (10), 103508 (2011) : Citation:27

Distinguished Visitors

Sl. No	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Prof. Ajoy Ghatak, Professor (Retd), IIT, Delhi	09-01-2016	Invited Speaker Jigyasa'16
2.	Dr. J.N. Goswami, Professor &Former Director, PRL, Amhedabad	09-01-2016	Invited Speaker Jigyasa'16
3.	Prof. Sunil Mukhi, Professor, IISER, Pune.	09-01-2016	Invited Speaker Jigyasa'16
4.	Dr. Anand Sengupta, Assistant Professor, IIT, Gandhinagar	09-01-2016	Invited Speaker Jigyasa'16
5.	Prof. S.A. Ramakrishna, Professor, IIT, Kanpur	09-01-2016	Invited Speaker Jigyasa'16
6.	Prof. Ashok Ganguly, Professor, IIT, Delhi	09-01-2016	Invited Speaker Jigyasa'16
7.	Prof. Robert Erdelyi, Sheffield University, UK	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
8.	Prof. Victor Fedul, Sheffield University, UK	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
9.	Dr. V Venugopal, Ex-Director, IGCAR, Kalpakkam	BARC, Mumbai	Invited Speaker Thermans-2016
10.	Dr. B. N. Jagatap, Director, Chemistry Division	BARC, Mumbai	Invited Speaker Thermans-2016
11.	Dr. S. R. Dharwadkar, Distinguished Scientist	Mumbai University	Invited Speaker Thermans-2016
12.	Dr. K. L. Ramakumar, Ex Director, Chemistry Division, BARC	BARC, Mumbai	Invited Speaker Thermans-2016
13.	Dr. T. Gnanasekaran, Distinguished Scientist	IGCAR, Kalpakkam	Invited Speaker Thermans-2016
14.	Dr. K. Nagarajan, Distinguished Scientist	IGCAR, Kalpakkam	Invited Speaker Thermans-2016
15.	Dr. D Das, Distinguished Scientist	BARC, Mumbai	Invited Speaker Thermans-2016
16.	Professor A. Ghosh, J.C. Bose National Fellow, Senior Professor, Department of Solid State Physics, IACS, Kolkata	15-16th April, 2015	As Examiner & Deliver seminar in the Department

Other activities

International collaboration/achievements by the Department

VLF-Global-Network Project without any financial commitment except infrastructure logistics by the Dept/Institute. The VLF receiver is fully operational at the Dept and returning uninterrupted data of great scientific value. This is an International Project with global visibility (http://vlf-data.ifz.ru/index.html).
99999

Indian Faculty visits in the Department

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Dr. Snigdha Thakur, IISER-Bhopal	Collaboration with Dr. Avanish Singh Parmar and gave Seminar in Department of Physics, IIT (BHU)	17th-19th March 2016, Department of Physics. IIT (BHU) Varanasi
2.	Dr. S. R. Bharadwaj, BARC, Mumbai	Organising Chairman & Invited speaker for Thermans-2016	January 18-20, 2016 (Symposium), January 21-22, 2016 (Workshop) Department of Physics. IIT (BHU) Varanasi
3.	Dr. G. Suresh Kumar, CSIR-IICB, Kolkatta	Invited speaker for Thermans -2016	January 18-20, 2016 (Symposium), January 21-22, 2016 (Workshop) Department of Physics. IIT (BHU) Varanasi
4.	Dr. Salil Verma, BARC, Mumbai	Organising Convener of Thermans -2016, collaboration work .	Janary 18-20, 2016 (Symposium) January 21-22, 2016 (Workshop) Department of Physics. IIT (BHU) Varanasi

Foreign Faculty Visits in the Department

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. Paul Cally, Monash University, Australia	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
2.	Prof. K. Ichimoto, Kyoto University, Japan	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
3.	Dr. P. Kumar, KASI, Korea	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
4.	Dr. Y. Zhou, Nanjing University, China	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
5.	Prof. J.-L. Ballester, Universitat Illes Balears, Spain	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
6.	Prof. S.K. Solanki; Director, MPS Gottingen, Germany	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
7.	Prof. Leon Ofman, NASA-GSFC, USA	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
8.	Prof. Mats Carlsson; University of Oslo, Norway	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
9.	Prof. M. Goossens, KU, Leuven, Belgium	22-26 Feb., 2016	Invited Speaker Dynamic Sun:I
10.	Dr. Rada Novakovic, CNR-IENI, Genoa, Italy	18-22ndJanuary, 2016	Invited Speaker Thermans-2016

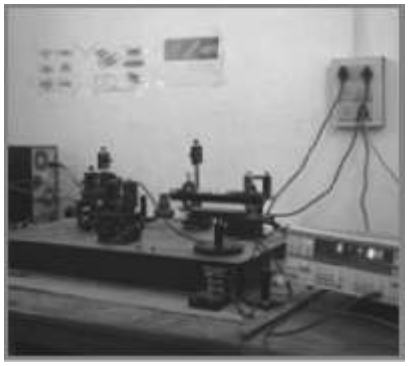
First Year Physics Lab (Both Mechanics, Optics & Electricity Lab)

X-ray Diffraction

DTA-TGA

PL

Green Energy Lab



Fibre Optics

LabRemote Sensing

LabVLF Antenna

1. First Year Physics Lab (Both Mechanics, Optics & Electricity Lab)
2. X-ray Diffraction, DTA-TGA, PL (combined)
3. Green energy Lab
4. Fibre Optics Lab
5. Remote Sensing Lab
6. VLF Antenna

Head of the Department : Prof. Lal Pratap Singh

Brief Introduction of the Department :

Department of Mathematical Sciences began its journey as a section to assist engineering departments of the institute which, in the true sense, pioneered engineering education in thenation. It soon acquired the status of a full-fledged department in 1985.The department aims to give emphasis to research in analysis, algebra, topology, mathematical modelling and other applied areas of mathematics. Be it functional analysis, fluid dynamics, biomechanics, fracture mechanics, solid mechanics, digital image processing, generalised thermo-elasticity, heat and mass transfer, cryptology and many more fields of applied nature, department's contribution is enormous in terms of numerous research papers published in reputed international journals over the past few decades. Computing is the glamour of the department. It annexes several dimensions in terms of new and growing areas of research and further facilitates simulation of mathematical models constructed for interdisciplinary areas.

The department caters to the needs of the undergraduate as well as post-graduate students of the Institute. It runs a 5 years' integrated M Tech programme which is one of the most sought courses offered by the institute. The top jobs in terms of annual package are offered for this course, which is a strong indication how popular and useful the course is for the industrial growth in general and software industry in particular under present circumstances.

Major areas of Research:

Bio-Transport Processes, Biomechanics, Computational Fluid Dynamics, Digital Image Processing, Fluid mechanics, Free Boundary Problems, Fractional Calculus, Fracture Mechanics, Functional Analysis, Fuzzy & Soft Set Theory, Fuzzy Topology, Heat and Mass Transfer, Mathematical Modelling, Nonlinear Waves, Nonlinear Dynamics, Optimization Theory, Pseudo-Differential Operators, Theory of Thermo Elasticity and Wavelet Analysis and Distributions.

Area of the Department (in square meters): 1665 sq-meter
New Building = 1080 Sq-meter
Old Building = 585 Sq-meter

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	02
2.	No. of Lecture Halls	02
3.	No. of Computers available for students in the	02
4.	Department/School/School	80

Unique Achievement / Preposition of the Department/School

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course name	Course credit
1.	MA-104	Information Technology and Computing Workshop	3
2.	MA-202	Probability and Statistics	11
3.	CSM-291	Exploratory Project	5

Students on Roll

Sl. No	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	M. Tech / M. Pharm	19	21	23	20	15
2.	Ph. D (Under Institute Fellowship)	1	Nil	10	6	4
3.	Ph. D (Under UGC/CSIR Fellowship)	NA		8	6	

students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Vandana Tiwari	12612EN001	International Conference on Recent Trends in Mathematics (ICRTM)-2016	10-12 July, 2015, Allahabad University	UGC-Contingency
2.	Reshma Singh	12612EN009	International Conference on Recent Trends in Mathematics	10-12 July, 2015, Allahabad University	IIT (BHU)
3.	Seema Mishra	12612EN004	Annual Foundation School-I	Nov 30-Dec 26, 2015 JECRC Univ; Jaipu	CSIR
4.	Reshma Singh	12612EN009	Workshop on Integral Transformations, Distribution and Wavelet Analysis	December 14-18,2015, ISM Dhanbad	IIT (BHU)
5.	Vandana Tiwari	12612EN001	CONIAPS -XVIII	22-24 Dec, 2015, Allahabad University	IIT (BHU)
6.	Reshma Singh	12612EN009	18th International Conference of International Academy of Physical Sciences (CONIAPS XVIII)	22-24 Dec, 2015, Allahabad University	IIT (BHU)
7.	Reshma Singh	12612EN009	National Conference on Analysis and Applications	February 5-7, 2016 B.H.U.	IIT (BHU)
8.	Vijay Kumar Yadav	13121001	An International Workshop on "Nonlinear Complex Dynamical Systems"	February 19-20, 2016, ISI Kolkata	Self
9.	Prashant Kumar Mishra	13121002	National conference on Analysis and Applications-2016	Feb. 5-7, 2016, BHU, Varanasi	IIT (BHU)
10.	Prashant Kumar Mishra	13121002	National Conference on Emerging Trends in Physics of Fluids & Solids-2016	March 3-4, 2016 Jadavpur Univ. Kolkata	IIT (BHU)
11.	Raj Kumar Gupta	12612EN003	National Conference on Mathematical and Statistical Techniques and their Applications to Science and Engineering	Nov. 20-21, 2015 DIT Univ. Dehradun	IIT (BHU)

Students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date of Venue	Prize awarded by
1.	Nripesh Trivedi	11412EN001	Scholarship	12th May, 2015 Ohio, USA	Ohio Centre of Excellence in Knowledge Enabled Computing
2.	Nripesh Trivedi	11412EN001	Scholarship	1st Feb 2016, Lausanne, Switzerland	Ecole polytechnique fédéralede lausanne

Students/Scholars who went for foreign Internship

Sl. No	Name of Student	Roll No.	Name of Organization	Place of Internship	Country	Duration
1.	Nripesh Trivedi	11412EN001	Ohio Centre of Excellence in Knowledge Enabled Computing	Ohio Centre of Excellence in Knowledge Enabled Computing, Ohio, USA	U.S.A.	May 1st to July 15th, 2015 (10 weeks)
2.	Abhinav	11412EN007	Institute for Software Research, Carnegie Mellon University, Pittsburgh, USA	Pittsburgh, Pennsylvania	U.S.A.	27th May, 2015 to 24th July, 2015 (9 weeks)
3.	Abhinav	11412EN007	School of Computing Sciences, University of Glasgow, Glasgow, Scotland, UK	Glasgow	Scotland, UK	1st Feb, 2016 to 18th March, 2016 (7 weeks)

Faculty & their Activities

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
Example	**Michael Gromiha**	**Protein Bioinformatics**
PROFESSORS		
1.	Dr. Tanmoy Som	Functional Analysis, Fuzzy & Soft Set Theory, Mathematical & OR Modeling
2.	Dr.(Mrs.) Rekha Srivastava	Fuzzy Topology
3.	Dr. L.P. Singh	Fluid Dynamics , Gas Dynamics
4.	Dr. S.K. Pandey	Fluid Dynamics, Biomechanics, Mathematical Modeling
ASSOCIATE PROFESSORS		
1.	Dr.(Mrs.) S. Mukhopadhyay	Mathematical Modeling on Coupled Thermo mechanics
2.	Dr. Subir Das	Mathematical Modeling, Fracture Mechanics, Fractional Calculus Dynamical System
3.	Dr. S.K. Upadhyay	Pseudo-Diff. Operators , Distribution Theory , Wavelet Analysis
ASSISTANT PROFESSORS		
1.	Dr. Ashok Ji Gupta	Theory of Rings and Modules
2.	Dr. Rajeev	Mathematical Modeling and moving boundary problems
3.	Dr. Vineet Kumar Singh	Numerical Method , Integral Differential Equation
4.	Dr. (Ms.) Anuradha Banerjee	Stochastic Modeling in Queueing Theory
5.	Dr. Rajesh Kumar Pandey	Integral Equations & Spectral Methods, Wavelets & its Applications, Image Processing.

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

S. No.	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Prof. T Som	International Conference on Recent Advances in Mathematical Biology, Analysis and Application	June 4-6, 2015, AMU, Aligarh
2.	Prof. T Som	3rd IEEE International Conference on Recent Advances in Information Technology	March 3-5, 2016, ISM, Dhanbad
3.	Prof. T Som	National Seminar on ANALYSIS and APPLICATIONS	March 10-11, 2016, WBSU, Barasat (WB)
4.	Prof. L P singh	1st International Conference of Vijnana Parishad of India on "Computational and Integrative Sciences &International Symposium on Computational Biology"	Dec. 11-14, 2015, MANIT, Bhopal
5.	Dr. S. Das	International Conference of Physics and Mathematics of Nonlinear Phenomena(PMNP 2015)	June 20-27, 2015, Gallipoli, Italy
6.	Dr. S. Das	19th Ramanujan Symposium on Recent trends in Nonlinear partial and Fractional differential equations	March 2 -4, 2016, Ramanujan Institute, Univ. of Madras
7.	Dr. S K Upadhyay	17th International Conference of Physical Sciences on Recent Trends in Physical Sciences,	January 16-18, 2015, Rajasthan Univ., Jaipur
8.	Dr. S K Upadhyay	Short Term Advanced Training Programme on Integral Transformations, Distributions and Wavelet Analysis	Dec.14-18, 2015 ISM, Dhanbad
9.	Ashok Ji Gupta	The seventh China-Japan-Korea International Conference on Ring Theory	1-7 July 2015, Zhejiang University of Technology, Hangzhou, China
10.	Ashok Ji Gupta	International Conference on Recent Trends in Mathematics	July 10-12, 2015 Department of Mathematics, University of Allahabad
11.	Ashok Ji Gupta	18th International Conference of International Academy of Physical Sciences on recent trends in Mathematics	Dec 22-24, 2015 Faculty of Science, Univ. of Allahabad, in collaboration with United Group of institutions Allahabad
12.	Rajeev	17th International Conference on Mathematical sciences, Engineering and Applications (ICMSEA).	July 4-5, 2015, Singapore.
13.	Dr. R K Pandey	ASME 2015 International Design & Engineering Technical Conferences & Computers and Information in Engineering Conference	August 2-5, 2015, Boston, MA, USA,

Special lectures delivered by faculty members in other institutions

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Dr. S. Das	Fractional Calculas	University of Malaya	During
2.	Dr. S. Das	Dynamical System	University of Malaya	July 12-22, 2015

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Dr. S Das	Malaysia, Institute of Mathematical Science, University of Malaya	July 11, 2015	July 23, 2015	Academic Visitor	University of Malaya

Books, monographs authored/co-authored

Sl. No	Name of Author/ Co -Author	Title	Publisher
1.	D. K. Patel, T. Som and M. K. Singh	Wavelet Based Recognition of Handwritten Characters using Artificial Neural Network in the Edited book "Generalized and Hybrid Set Structures and Applications for Soft Computing", 2016, 473-489.	IGI Global, USA

Editorial boards of journals

Sl. No	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1.	Prof. T. Som	Editor Member, Editorial Board	(i) International Jour of Fuzzy Computation and Modelling (ii) Indian Academy of Mathematics
2.	Prof. T. Som	Reviewer	Springer Plus : (i) Mathematics and (ii) Computer Science (iii) Neural Computing and Applications and few other reputed journals
3.	Prof. L. P. Singh	Reviewer	many Internationally reputed Journals
4.	Dr. S. Mukhopadhyay	Editor/Associate Editor	(i) Computational Methods in Science and Technology (ii) Mathematics and Mechanics of Solids & (iii) International Journal of Thermoelasticity
5.	Dr. S. Mukhopadhyay	Reviewer	Mathematical Reviews (AMS)
6.	Dr. S. Mukhopadhyay	Reviewer	(i) Applied Mathematical Modelling (ii) International Journal of Engg. Scs. (iii) Computational Methods in Sci. and Tech. (iv) Mathematics and Mechanics of Solids & v) Acta Mechanica
7.	Dr. S. Das	Reviewer	Several Internationally reputed Journals
8.	Dr. S. K. Upadhyay	Reviewer	many Internationally reputed Journals

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Fractional calculus approached solutions for two dimensional ground water contaminations in unsaturated media	2014-17	Board of Nuclear Science (BRNS), BARC, Govt. of India	22.9575	Dr. S. Das(PI), Prof. T. Som (Co-PI)
2.	Study and Analysis of Mathematical Models of Nonlinear Fractional order Diffusion Equations	2015- 18	SERB, Dept of Science & Technology, Govt. of India	16.92	Dr. S. Das (PI)
3.	Study of Some Engineering problems in Fractional order Dynamical Systems	2015- 16	Institute Research Project	4.025	Dr. S. Das (PI)

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed National Journals	2
2.	Total Number of Papers Published in Refereed International Journals	36
3.	Total Number of Papers Presented in National Conferences	1
4.	Total Number of Papers Presented in International Conferences	10

Refereed International Journals

1. A. Banerjee, U. C. Gupta, S. R. Chakravarthy (2015) Analysis of a finite-buffer bulk-service queue under Markovian arrival process with batch-size-dependent service, Computers & Operations Research (Elsevier) 60, 138 – 149.
2. Amalendu Choudhury and T Som (2016)Fixed points for quasi contraction maps on complete metric spaces (with AC), Jour. Math. & Comp. Sci. 16(1), 26-32.
3. A. K. Singh, V. K. Yadav and S Das (2016) Synchronization between fractional order complex chaotic systems, International Journal of Dynamics and Control (Springer), 1-15.
4. Anil Kumar, Shashi Kant and Santwana Mukhopadhyay (Nov 2015) An investigation on plane harmonic waves under two-temperature thermoelasticity with two relaxation parameters, Mathematics and Mechanics of Solids, DOI:1081286515612528.
5. Anil Kumar and Santwana Mukhopadhyay (March 2016) An Investigation on Thermoelastic Interactions under an Exact Heat Conduction Model with a Delay term, Journal of Thermal Stresses.
6. Bharti Kumari and S. Mukhopadhyay (Jan 2016) Some theorems on linear theory of thermoelasticity for an anisotropic medium under an exact heat conduction model with a delay, Mathematics and Mechanics of Solids, Doi. 1081286515620263.
7. Bharti Kumari and Santwana Mukhopadhyay (Feb 2016) A Domain of Influence Theoremfor a Natural Stress-heat-flux Disturbance in Thermoelasticity of Type- II, Journal of Thermal Stresses.
8. E. B. Postnikov and V. K. Singh (2015), Continuous wavelet transform with the Shannon wavelet from the point of view of hyperbolic partial differential equations, Analysis Mathematica, 41: 199-206
9. Hitesh Rajput, Tanmoy Som and Soumitra Kar (August 2015) An Automated Vehicle License Plate Recognition System, IEEE Computers , 66-71.
10. Hitesh Rajput, Tanmoy Som and SoumitraKar (Jan 2016)Skewed Vehicular Number Plate Detection and Recognition, IEEE Computers, 59-65.
11. Jitendra Kumar Dubey, Anuj Kumar and S.K.Upadhyay (2015) Pseudo Differential Operators and Localization Operators on Space Involving Fractional Fourier Transform, Novi Sad J. Math. , 45(1), 285-301.
12. J.N. Pandey and S.K.Upadhyay (2015) The Continuous Wavelet Transform and Window Functions, Proceedings of the American Mathematical Society, 143(11), 4759-4773, 2015.
13. K. K. Singh, M. K. Bajpayee, R. K. Pandey and P. Munshi (Feb 2016) A novel non-invasive method for extraction of geometrical and texture features of wood, Research in Nondestructive Evaluation, DOI: 10.1080/09349847.2016.1148214
14. K. Vishal, S.K. Agrawal and S. Das (2015) Hyperchaos control and adaptive synchronization with uncertain parameters for fractional order Mathieu-Van der Pol systems, Pramana - Journal of Physics, Springer, V. 86, 59-75.
15. L. P. Singh, R. K. Gupta and T. Nath (2015) On the decay of a sawtooth profile in non ideal magnetogasdynamics Ain Shams Engineering Journal (Elsevier) 6, 599-604.
16. L. P. Singh, D. B. Singh, S. D. Ram (2016) Growth and Decay of Weak Shock Waves in Magnetogasdynamics, Shock Waves (Springer)DOI: 10.1007/s00193-015-0607-y.
17. Lokesh Kumar and T. Som, Existence of best proximity points in regular cone metric spaces (2015)

Azerbaijan Journal of Mathematics, 5(1), 44-53.
18. Piush Singh, T. Som and K. Vishal (June 2015) Solution of fractional Drinfeld-Sokolov-Wilson equation using homotopy perturbation transforms method, Application and Applied Mathematics, 10(1),460-472.
19. P. K. Mishra, S. Das and M. Gupta (Jan 2016) Interaction between interfacial and sub-interfacial cracks in a composite media, ZAMM. Z. Angrew. Math. Mech.,Wiley, DOI: 10.1002/zamm.201500102.
20. Rakhi Tiwari and Santwana Mukhopadhyay (Nov, 2015) On harmonic plane wave propagation under fractional order thermo elasticity: an analysis of fractional order heat conduction equation", Mathematics and Mechanics of Solids, DOI: 10.1177/1081286515612528.
21. R. Singh, L. P. Singh (2016) Growth and Decay Behaviour of a Sawtooth Profile in Non-Ideal Gas Int. J. Appl. Comput. Math (Springer) 2, 203-212.DOI 10.1007/s40819-015-0055-5.
22. R. S. Pathak and S. K. Upadhyay, (2015) Cauchy Wavelet transform of ultra –distributions in tube domains, Complex variables and Elliptic Equations , 60 (11), 1553-1566.
23. S. Das, P. Kar and V. Mishra, (2015) Solution of Nonlinear Fractional diffusion equation using similarity transform and homotopy analysis method, International Review of Chemical Engineering.
24. S. Das and V. K. Yadav (2015)Chaos control and function projective synchronization of fractional order systems through backstepping method, Theoretical and Mathematical Physics, Springer.
25. S. K. Upadhyay, AlokTripathiand Anuj Kumar(2015)Approximation in Watson wavelet Transform, Southeast Asian Bulletin of Mathematics, 39,149-162.
26. S.K. Upadhyay and Anuj Kumar (2015)Characterization of Wp-type of spaces involving fractional Fourier transform, Journal of Inequalities and Applications, DOI: 10.1186/s13660-014-0544-9.
27. S.K. Upadhyay and Jitendra Kumar Dubey (2015) Pseudo–differential operators of infinite order on space involving fractional Fourier transform, J. Pseudo-Differ. Oper. Appl., 6(1), 113-133.
28. S.K. Upadhyay and Reshma Singh, (2015) Integrability of the continuum Bessel wavelet kernel, International Journal of Wavelets, Multiresolution and Information Processing, 13(5), DOI: 101142/S0219691315500320.
29. S. Mukhopadhyay, R. Picard, S. Trostorff, M. Waurick (Dec, 2015) A Note on a Two-Temperature Model in Linear Thermo-Elasticity, Mathematics and Mechanics of Solids, DOI. 1081286515611947.
30. S. P. Ansari, S. K. Agrawal and S. Das (2015),Stability Analysis of fractional order Generalized Chaotic SIR epidemic model and Its Synchronization using Active Control Method, Pramana - Journal of Physics, Springer, V.84, 23-32.
31. S. P. Ansari and S. Das (2015) Projective synchronization of time delayed chaotic systems with u n k n o w n parameters using adaptive control method, Mathematical Methods in the Applied Sciences, 38, 726-737.
32. Seema Mishra and Rekha Srivastava (2015) On T_0 and T_1 fuzzy soft topological spaces, Annals of Fuzzy Mathematics and Informatics, 10(4), 591-605.
33. Somveer Singh, Vijay Kumar Patel and Vineet Kumar Singh (2016), Operational matrix approach for the solution of partial integro-differential equation, Applied Mathematics and Computation, 283: 195-207.
34. Vandana Tripathi and T. Som (May 2015) Thecountability aspects of fuzzy soft topological spaces, Annals of Fuzzy Mathematics and Informatics, 9(5), 835-842.
35. V. K. Yadav, S. K. Agrawal, M. Srivastava and S. Das (2015) Phase and anti-phase synchronizations of fractional order hyperchaotic systems with uncertainties and external disturbances using nonlinear Active control method, International Journal of Dynamics and Control, Springer, 1-10.
36. V. Mishra, S. Das, H. Jafari and S. H. Ong, (2016) Study of fractional order Van der Pol Equation, Journal of King Saud University-Science (Elsevier), V. 28, 55–60.

Refereed National Journal

1. Amalendu Choudhury and T Som (2015) Common fixed point results for weakly commuting maps by alternating distances, South East Asian J. of Math. & Math. Sci.11(2), 123-132.

S.K. Upadhyay, AlokTripathi (2015) Calderon's Reproducing Formula for Watson Wavelet Transform, Indian J. Pure Appl. Math., 46(3), 269-277.

Proceedings of International Conferences

1. T. Bakshi, T. Som and B Sarkar, A novel soft theoretic AHP model for project management in multi-criteria decision making Problem in the Springer Proceedings of the "International Conference on Facets of Uncertainties and Applications (ICFUA 2013), Kolkata, India, December 5-7, 2013" (Editors: M. K. Chakraborty, A. Skowron, M. Maiti and S. Kar), published in 2015, 201-213.
2. R. K. Pandey and O. P. Agrawal, Comparison of Four Numerical Schemes for Isoperimetric Constraint Fractional Variational Problems with A-Operator, ASME 2015 International Design & Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE2015), Boston, MA, USA, August 2-5, 2015, pp. V009T07A025; 10 pages, doi:10.1115/DETC2015-46570.
3. Srishti Arora, Prabhjot Singh, Ashok Ji Gupta, "Adaptive Selection of Cryptographic Protocols in Wireless Sensor Networks using Evolutionary Game Theory" Procedia Computer Science, Vol 78, 2016, Pages 358-366.

Brief Details of 5 Articles from the Department with maximum no. of Citations in last 5 years: (As per Google Scholar Citation in few areas of Applied Mathematics and Computing)

Paper title, authors, journal,	citations	year
Synchronization of fractional order chaotic systems using active control method SK Agrawal, M Srivastava, S Das Chaos, Solitons & Fractals 45 (6), 737-752.	57	2012
A mathematical model on fractional Lotka–Volterra equations S Das, PK Gupta Journal of Theoretical Biology 277 (1), 1-6.	35	2011
Handwritten Character Recognition Using Multiresolution Technique and Euclidean Distance Metric DK Patel, T Som, SK Yadav, MK Singh Scientific Research Publishing	12	2012
Homotopy perturbation method for a limit case Stefan problem governed by fractional diffusion equation Rajeev, M.S. Kushwaha, Applied Mathematical Modelling 37 (2013) 3589–3599.	14	2013
A self-similar solution of exponential shock waves in non-ideal magnetogasdynamics LP Singh, A Husain, M Singh Meccanica 46 (2), 437-445.	16	2011
A problem on elastic half space under fractional order theory of thermoelasticity S Kothari, S Mukhopadhyay Journal of Thermal Stresses 34 (7), 724-739.	14	2011
An analytic algorithm for the space–time fractional advection–dispersion equation RK Pandey, OP Singh, VK Baranwal Computer physics communications 182 (5), 1134-1144.	33	2011
Peristaltic transport of a generalized Burgers' fluid: application to the movement of chyme in small intestine D Tripathi, SK Pandey, S Das Acta Astronautica 69 (1), 30-38.	38	2011
Peristaltic flow of a micropolar fluid through a porous medium in the presence of an external magnetic field SK Pandey, MK Chaube Nonlinear Science and Numerical Simulation, 2011 - Elsevier	39	2011

A new numerical algorithm to solve fractional differential equations based on operational matrix of generalized hat functions MP Tripathi, VK Baranwal, RK Pandey, OP Singh Communications in Nonlinear Science and Numerical Simulation 18 (6), 1327-1340.	21	2013
Reducing congestion in bulk-service finite-buffer queueing system using batch-size-dependent service A Banerjee, UC Gupta Performance Evaluation 69 (1), 53-70.	18	2012

Indian Faculty visits in the Department/School

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. K. Chandrasekaran, NIT, Surathkal	Conduct Ph. D. viva-voce exam and deliver an invited talk	23.7.2015, Dept. of Mathematical Sciences

Coordinator of the School : Prof. S.K. Srivastava

Brief Introduction of the School :

The School was established for achieving several benchmarks in teaching and research in the modern field of Bioengineering. It has kept on modernizing its programmes to impart education in upcoming areas of Biochemical engineering. .

The School presently offers courses leading to IDD, M. Tech. and Ph. D. degrees in Biochemical Engineering. The School also offers courses to undergraduate students of Department of Chemical Engineering., Department of Pharmaceutics, and postgraduate students of School of Materials Science & Technology, School of Biomedical Engg, Department of Civil Engg, Department of Food Sc & Tech, IAgSc, and School of Biotechnology, Faculty of Science. In the new undergraduate curriculum, the School has been entrusted to offer a number of institute level courses either independently or jointly with other departments. The research facilities of the School are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories. The faculty also guides inter departmental / interdisciplinary projects and dissertations.

Major areas of Research

1. BioProcess and Bioreactor Engg
2. Enzyme Engineering & Tissue Engineering
3. Molecular Biology and Genetic Engg.

Area of the Department/School (in square meters)

The School has been functioning the premise of Dept of Chemical Engineering since its inception. However, the school developed two dedicated laboratories in the Dept of Biochemical Engineering, IIT(BHU), subsequently has also developed its own building adjacent to the Dept of Chemical Engg (Total Area about 5,000 sq ft). Recently the school has a new building, three storied which includes all teaching and Laboratories. The floor area of the new building of School is 10,000 sq. feet.(Total 30,000sq ft).

Infrastructure

The School has 12 laboratories, 06 lecture theatres, a 100 seat conference room, a small library with textbook bank and internet facility. The School also has a seminar room and a few instruction rooms and rooms for its faculty. The School enjoys an excellent professional interaction with various industrial organisations, Experts and consultants. Faculty members are engaged in high level research collaborations and consultancy work in industry, where as some others have projects funded by the industry. Besides these, the School also provides know-how for process improvement/ development, raw materials and products analysis, microbiological testing , etc to the industries in and around Varanasi

Sl. No	Particulars	Number
1.	No. of Classrooms	06
2.	No. of Lecture Halls	01
3.	No. of Laboratory	12
4.	No. of Computers available for students in the Department/School/School	20

Unique Achievement / Preposition of the Department/School

- 1986 : M Tech Degree course & PhD degree
  2006 : Five Year Integrated Dual Degree Course in Bio-chemical Engineering & Biotechnology
- In addition, School offers theory and laboratory courses to the students of M. Sc. (Food Sc& Tech) and M. Sc.(Biotechnology) programmes of the Banaras Hindu University.
- The School offers Ph. D. Degree in Biochemical Engineering. The yearly intake varies between 10 and 20.

Students with Biochemical engineering degree or allied disciplines (as listed in the ordinances) join the Ph. D. programme. The School also offers joint research programmes with other Schools of the Institute or other academic institution/ R & D organizations.

Academic Programmes offered

New Courses Introduced

Streams in Biochemical Engg :

1. BRE X1X Bioprocess and Bioreactor Engg
2. ETE X2X Enzyme & Tissue Engg
3. MBG X3X Molecular Biol & Genetic Engg

IDD- Sem V

	Course Code	Subjectss	L-T-P	Credits
DC	BC 311	Microbial Engineering	3-1-0	11
DC	BC 331	Waste WaterEngg	2-0-2	08
DC	BC 312	Bioprocess Technol	3-0-0	09
DE I	BC	Enzyme Engineering (Common Elective)	3-1-0	11
OE-I		(From Chem Engg/ Chemistry/ Pharmacy)	3-0-0	9
HU			1-2-0	5
	BC391	Stream Project	0-0-10	10
			Total :	63

IDD SEM VI

	Course Code	Subjectss	L-T-P	Credits
DC	BC 314	Bio Reactor Design	3-0-2	11
DC	BC 301	Waste WaterEngg	3-0-0	09
DC	BC 332	Mol Biol & GE	3-0-2	11
DE-II	BC 3	Adv Ferment. Tech (315) / Adv Enzyme Engg (323)/ Structural Biology(333)	3-0-0	9
OE-II	AC	Anal Tech in Chem (Preferred OE)	3-0-0	9
	HU	Humanities	2-0-0	6
HU	BC392	Stream/ UG Project	0-0-10	10
			Total :	65

IDD SEM VII

	Course Code	Subjectss	L-T-P	Credits
DC	BC 401	Downstream Processing	3-0-0	9
DC	BC 402	Food Engg & Biotechnol	3-0-2	11
DE III	BC 4	Intro Bioinformat (434) / Animal Cell Culture (424) /Adv BRD (416)	3-0-0	9
OE III		From Other Departments	3-0-0	9

BC	BC491	Stream/UG Project	0-0-10	10
HU	IH	Humanities	3-0-0	9
			Total :	63

IDD SEM VIII

	Course Code	Subjectss	L-T-P	Credits
DC	BC 403	Bio-Process Plant Design	3-0-0	9
DE IV	BC 4	Biopro Simula & Control(417)/Cell & Tissue Engg (425)/ rDNA Tech(435)	3-0-0	9
OE V		From Other Departments	3-0-0	9
OE VI		From Other Departments	3-0-0	9
HU			1/2/2000	8
DP	BC 492	PG Project/Thesis	0-0-10	10
			Total :	54

IDD- SEM IX

	Course Code	Subjectss	L-T-P	Credits
DC	BC 501	Bio Business Planning & Management	3-0-0	9
DE VII (PG Open)	BC	Protein Engg(536)/ Metabolic Engg(526)/ Biosensor (516)	3-0-0	9
HU	IH		3-0-0	9
DP	BC 591	Project Dissertation	0-0-20	20
PE				
			Total :	47

IDD X

	Course Code	Subjectss	L-T-P	Credits
DC	BC 592	Dissertation	0-0-50	50

Total 576

Stream Electives

Stream I BRD

1. Advance Fermentation Technology
2. Advance Bio Reactor Design
3. Bioprocess Simulation & Control
4. Biosensors

Stream II ETE

1. Adv Enzyme Engg
2. Animal Cell Culture
3. Cell & Tissue Engg
4. Metabolic Engg

Stream III MBG

1. Structural Biology
2. Intro to Bioinformatics
3. rDNA Technology
4. Protein Engg

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm					
2.	Dual Degree	14	11	12	12	14
3.	M. Tech / M. Pharm	08	08			
4.	Ph. D (Under Institute Fellowship)	03	18			
5.	Ph. D (Under Project Fellowship)	NIL	01	01	NIL	NIL
6.	Ph. D (Under Sponsored Category)	NIL	NIL	NIL	NIL	NIL

Students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA				
1.	Shankar khade	Poster presentation on studies on production and optimization of uricase enzyme from Bacillus cereus at Bioprocessing India-2015 at IIT, Madras.		IIT(BHU)
2.	Shankar khade	Poster presentation on "Effect of surfactant and inducers on increased uricase production by Bacillus cereus under submerged fermentations at International conference at Recent advances in Food Processing and Biotechnology at Banaras Hindu University.		
3.	Deepti Chandra	Poster presentation on "Studies on Inulinase production from fungal strains" at Cell Factories" at IIT, Bombay.		IIT(BHU)
4.	Reena Vishvakarma	Production of a serine protease from Coriolus versicolor International Conference on Translational Biotechnology (Biosangam 2016)	Feb 4-6th 2016, 112.	IIT(BHU)
5.	Reena Vishvakarma	Poster presentation on Production of a protease inhibitor from Agaricus bisporus, Indo-US Workshop on Cell Factories-2016, IIT Bombay	March 18-20th (2016); 52.	IIT (BHU)
6.	Kushagri Singh	Preparation and in vitro characterization of chitosan nanoparticle containing amphotericin as drug delivery system, International conference on multifunctional materials for future applications,	Oct 27-29, 2015, Varanasi	
7.	Dhiraj Kumar Choudhary	Studies on interaction of Vicia faba crude seed extract with pancreatic alpha-amylase poster presented in International conference on Translational Biotechnolgy (Biosangam 2016), organized by Department of Biotechnology , Motilal Nehru National institute of Technology Allahabad	MNNIT Feb 4th-6th, 2016	

8.	Dhiraj Kumar	Phyochemical analysis of Vicia faba seed extract and its antibacterial application, poster presented in the international conference on new horizon in Biotechnology (NHBT), organized by Biotech society ,India and CSIR -National Insitute for Interdisciplinary Science and Technology ,	Thruvanant-hapuam during November 22-25 ,2015	
ABROAD				
1.	Shankar khade	Poster presentation on "Studies on production and assay of uric acid induced enzyme from Bacillus cereus" at International Conference on Biomolecular Engineering (ICBE-2016) at Singapore.	4-6 Jan 2016, Singa-pore.	IIT (BHU)

Names of Students/Scholars who went for foreign Internship

Sl. No	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1.	Amar Suryavanshi	IDD part V	15.12.2015	19.12.2015	Australia	03Months

Faculty & their Activity
Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Prof. Subir Kundu	BioReactor Design & Scale Up, Probiotics,Cell Bio-processesing
2.	Prof. SK Srivastava	Enzyme Engineering, Plant Design, Food Technology & Engineering
3.	Prof. Mira Debnath (Das)	Genetic Engg. Microbial Engg., Fermentation Technology
4.	Prof. RM Banik	Bio Process Technology, Enzyme Engg.
ASSOCIATE PROFESSORS		
1.	Dr. Pradeep Srivastava	Reactor Design, Secondary mertabolites, Tissue Engineering,
ASSISTANT PROFESSORS		
1.	Abha Mishra	Bioinformatics, Protein & Genetic Engg, IPR

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Abha Mishra	Next Generation Sequencing, Bionivid Banagalore	22-23June, Taj Gateway, Varanasi

Special lectures delivered by faculty members in other institutions

Sl. No	Name of Faculty Member	Topic of Lecture	Institution
1.	Prof. SKSrivastava	"Applications of enzymes in food industries"	Genesis-2016, at HBTI, Kanpur
2.	Prof. SK Srivastava	Enzyme-infusions in food industries at Recent advances in Food Processing and Biotechnology	Banaras Hindu University.

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Dr.Pradeep Srivastava	Patent Application no. 201611004556, 2016 for "Lingual bracket positioning device for indirect bonding with teeth"
2.	Sarda Prasanna Mallick, Amit Rastogi & Pradeep Srivastava	A cartilage repair product and its method of production using a novel air lift bioreactor.,2 DEL/ 2016/ 4018,

Research and Consultancy
Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1.	Technology Gap Analysis Study for Saree Sector, TIFAC, GOI	03	TIFAC	12.00	Dr. Pradeep Srivastava
2.	Development of a bilayer Wound healing Patch,	03	DRDO, GOI (2014-2017)	35.00	Dr. Pradeep Srivastava

Industrial consultancy projects

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Dr. Pradeep Srivastava	03	Stem Cure (P) Ltd, Ahemdabad	12.00

Research Publications
Publications:

1. Shankar khade, SK Srivastava, (2016), Effect of surfactant and inducers on increased uricase production by Bacillus cereus under submerged fermentations. Preparative biochemistry and biotechnology. DOI:10.1080/10826068.2016.1168842
2. Shankar khade, SK Srivastava, (2015), Uricase and its clinical applications: A review. Int J Biol Med Res.2015;6(3):5211-5215.
3. Bone Tissue Engineering: A Review, J of Pharmacy and Biological Sciences, IOSR, 2015,10, Issue 1, 37-54.
4. Molecular Docking studies of Myricetin and its analogues against Human PDK1 Kinase as candidate Drugs for Cancer, in Computational Medicine Biosciences, 2015,5, 20-33.
5. Shruti Bajpai1 , Shalini Singh1, Rupika Sinha1 & Pradeep Srivastava, ANN-GA hybrid methodology based optimization study for microbial production of CoQ10, International Journal of Pharma Sciences and Research (IJPSR),6, (1), 2015,100-108, ISSN, 0975-9492.
6. Pradeep Srivastava et al., Evaluation of Polylactide and chitosan composite scaffolds for cartilage tissue regeneration, Designed Monomers and Polymers, 2016.
7. Kushagri Singh Abha Mishra, Chitosan Nanoparticulate And Their Applications: A Review, Ijpbs,6(2) 557-566,2015.

Conferences:

1. S K Srivastava, Abhishek Dutt Tripathi, (2016). Invited lecture on "Applications of enzymes in food industries" at Genesis-2016, at HBTI, Kanpur.
2. S K Srivastava, Abhishek Dutt Tripathi, Shankar khade, (2016). Invited lecture on Enzyme-infusions in food industries at Recent advances in Food Processing and Biotechnology at Banaras Hindu University.
3. Shankar khade, SK Srivastava, (2016). Poster presentation on "Effect of surfactant and inducers on

increased uricase production by Bacillus cereus under submerged fermentations at International conference at Recent advances in Food Processing and Biotechnology at Banaras Hindu University.

4. Shankar khade, SK Srivastava, (2016). Poster presentation on "Studies on production and assay of uric acid induced enzyme from Bacillus cereus" at International Conference on Biomolecular Engineering (ICBE-2016) at Singapore.
5. Deepti Chandra, Shankar khade, SK Srivastava (2016). Poster presentation on "Studies on Inulinase production from fungal strains" at Cell Factories" at IIT, Bombay.
6. Shankar khade, SK Srivastava, (2015). Poster presentation on studies on production and optimization of uricase enzyme from Bacillus cereus at Bioprocessing India-2015 at IIT, Madras.
7. Reena Vishvakarma, Abha Mishra, Production of a serine protease from Coriolus versicolor. International Conference on Translational Biotechnology (Biosangam 2016) (Feb 4 -6th 2016),112.
8. Reena Vishvakarma, Abha Mishra. Poster presentation on Production of a protease inhibitor from Agaricus bisporus, Indo-US Workshop on Cell Factories-2016, IIT Bombay (March 18-20th 2016);52.
9. Kushagri Singh, Abha Mishra, Preparation and in vitro characterization of chitosan nanoparticle containing amphotericin as drug delivery system, International conference on multifunctional materials for future applications, Oct 27-29, 2015, Varanasi.
10. Dhiraj Kumar Choudhary, Abha Mishra. Phyochemical analysis of Vicia faba seed extract and its antibacterial application, poster presented in the international conference on new horizon in Biotechnology (NHBT), organized by Biotech society ,India and CSIR -National Insitute for Interdisciplinary Science and Technology , Thruvananthapuam during November 22-25 ,2015
11. Dhiraj Kumar Choudhary , Abha Mishra. Studies on interaction of Vicia faba crude seed extract with pancreatic alpha -amylase poster presented in International conference on Translational Biotechnolgy (Biosangam 2016), organized by Department of Biotechnology , Motilal Nehru National institute of Technology Allahabad (MNNIT),India from February 4th-6th,2016.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Gallic acid: molecular rival of cancer Citations 50 S Verma, A Singh, A Mishra, Environmental toxicology and pharmacology 35 (3), 473-485 2013
2. Review on production and medical applications of ? -polylysine Citations 34 SC Shukla, A Singh, AK Pandey, A Mishra, Biochemical Engineering Journal 65, 70-81 2012
3. Laccase production and simultaneous decolorization of synthetic dyes in unique inexpensive medium by new isolates of white rot fungus, Citations 25 A Mishra, S Kumar, AK Pandey International Biodeterioration & Biodegradation 65 (3), 487-493,2011

Equipments :

Bioreactor

Lyophilizer

HPLC

FTIR

GC

Coordinator : Dr. Neeraj Sharma

Introduction to the School

The School of Biomedical Engineering is involved in Teaching and Research in collaboration with IMS, BHU, Institute of Science, BHU and also with other Departments of IIT(BHU). The School follows a constant path of progress and diversification to be in pace with the time of change. The School runs the Integrated Dual Degree (IDD) program that offers B. Tech in Bioengineering and M. Tech in Biomedical Technology, besides there is also a two year M.Tech program in Biomedical Engineering. The main objective of the School is to develop proper skilled resources for R&D work in the area of Biomedical Engineering. Our students are also placed in various industries. The research credentials of the School is multifarious and interdisciplinary so as to integrate all the thematic of the field in one common pool and thereby achieve progress is unison.

Major areas of Research

- Biomedical signal and image processing.
- Brain Circulation, Autoregulation, Its Disturbance and Neuroprotection.
- Bio-effects of electromagnetic radiation, specially the biohazards of Microwave radiation.
- Design and fabrication of low cost diagnostic and therapeutic instruments.
- Development and characterization of functionally graded materials & conducting IPN composites and their medical application.
- Control system modelling, analysis and simulation in health and Diseases.
- Molecular pathogenesis of Infectious diseases and Nanomedicine based therapeutics for infectious diseases.
- Tissue Engineering and Biomicrofluidics, nanotoxicology.

Area of the Department/School (in square meters) : 1874sqm.

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	2
2.	No. of Laboratory	8
3.	No. of Computers available for students in the Department/School/School	16

Unique Achievement / Preposition of the Department/School

The school received funding under the MODROBS scheme of MHRD. Projects from DST, DAE and CoirBoard were also obtained.The school was also funded under the DST-FIST program. Currently all faculty members are engaged in research. The school developed well equipped laboratories with financial assistance from various agencies. MoU's have been signed with medical device making companies and consultancy work are also done by the faculties.

Academic Programmes offered

New Courses Introduced

Sl. No	Course Code	Course Name	Course Credit
1.	BM 203	Cell Mechanobiology	11
2.	BM 205	Analytical Techniques	11
3.	BM 521	Nanomaterials	11
4.	BM 523	Bioinformatics	11
5.	BM 514	Sports Biomechanics	09

6.	BM 513	Biomedical instrumentation system design, safety and reliability aspect	11
7.	BM 322	Speciality Polymer	09
8.	BM 401	BioMEMs and Biosensors	09

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm					
2.	Dual Degree	15	10	10	13	14
3.	M. Tech / M. Pharm	6	5			
4.	Ph.D. (Under Institute Fellowship)	21				
5.	Ph.D. (Under Project Fellowship)	02				
6.	Ph. D (Under Sponsored Category)					

Students/scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Ms. Anuranjeeta	10614EN052	Presented a poster entitled "Interdependence of histopathological status and malondialdehyde(MDA) in breast cancer patients" in ICRH-ISSRF 2016, Ahmedabad, India	International Conference on ICRH,,-ISSRF-2016,NIOH-Ahmedabad18-20 Feb,2016	IIT(BHU)
2.	Ms. M. Bala	11414EN003	Presented a poster entitled "SOCS1 mediated inhibition of STAT1 phosphorylation in Mycobacterium tuberculosis infectedmacrophages: an in-silico analysis" in ICBB-2016, Pune, India	International Conference on Biotechnology and Bioinformatics, ICBB-2016, Pune 5-7 Feb, 2016	IIT(BHU)
3.	Mr. Nishant Kumar Singh	11614EN003	INS National Workshop on application of Finite Element Technique in Industrial Problems	Conducted by Indian Nuclear Society, Bhabha Institute Atomic Research Centre, Trombay, Mumbai- 85 20 to 24 April, 2015	
4.	Mr. Chandan Kumar	13021004	18th workshop on Physics of semiconductor Devices	7-9 Dec. 2015, IISc Banglore	Self
5.	Ms. Hemlata Shakya	13021005	Conference	(17/03/2016 to 19/03/2016) Jaipur National University, Jaipur	IIT (BHU)
6.	Mr. Kiran Vajanthri	14021004	1. Two days course on "Advanced Microscopy and Imaging Techniques" 2. Short Term Course on "Research Methods and Skills"	Organized by DSS Imagetech Pvt. Ltd., Olympus Medical Systems India Pvt. Ltd. And Photometrics (USA) along with IIT, BHU from 7-8 August 2015. Dec. 4-5, 2015 at IIT (BHU), Varanasi (U.P.), India.	Sponsered by DSS Imagetech Pvt. Ltd. IIT (BHU)

7.	Ms. Anjali	14022001	Participated in workshop on short term course on "Research methods & skills" organized by TLC, IIT (BHU), IIT Kanpur Participated in INUP Hands on training workshop on PDMS microfluidics and micro and nano characterization techniques conducted at CENSE, IISc, Bangalore.	4-5 Dec, 2015 2-10 July, 2015	
8.	Ms. Garima Singh	14022002	Conference	(25/03/2016 to 26/03/2016) Institute of Engineering Research, Tamilnadu	Self
9.	Ms. Manisha Singh	14022004	Conference	(25/03/2016 to 26/03/2016) Institute of Engineering Research, Tamilnadu	Self
10.	Ms. Rati	15021001	Global Initiative for academic networks (GIAN) Orthopaedic biomechanics: Implants and Biomaterials.	13 Nov to 11 Dec 2015 Deptt. of Mechanical Engineering, IIT, Kharagpur.	
11.	Ms. Suruchi Poddar	15021007	International workshop on Challenges & Opportunities in Bioengineering,Biomedical devices Platforms	National Design and Research Forum & The Institution of Engineers (India) under the aegis of Indian Technology Congress.29-30 July, 2015 NIMHANS convention centre, Bengaluru, India	IIT (BHU)
12.	Ms. Shreya Gupta	11414EN011	Presented a poster entitled "Development of Blood Brain Barrier" in Student symposium held by Indo-US science and Technology forum at Delhi	22 August, 2015, Delhi	Indo-US science and Technology forum
ABROAD					
1.	Ms. M. Bala	11414EN003	Presented a poster on "Characterization of the novel Topoisomerase IA of Leishmania for use as a unique anti-leishmanial drug target"	Nepal, December 15-18, 2015	

Students/scholars who got prizes and awards outside the Institute

Sl. No	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1.	Ms. M. Bala Tripura Sundari Annapurna	11414EN003	Best Poster	December 15-18, 2015, Kathmandu, Nepal	ICIDN-2015, Kathmandu, Nepal.
2.	Ms. Suruchi Poddar	15021007	FIRST PLACE	29-30 July, 2015 NIMHANS convention centre, Bengaluru, India	National Design and Research Forum & The Institution of Engineers (India) under the aegis of Indian Technology Congress.

Students/Scholars who went for foreign Internship

Sl. No	Name of Student	Roll No.	Name of Organization	Place of Internship	Country	Duration
1.	Mr. Baheti Chirag Radheshyam	11414EN001	Centre for Advanced Imaging	University of Queensland	Australia	04-01-16 to 28-02-16
2.	Ms. Rituja Chhajed	11414EN009	Human Informatics Research Institute	AIST	Japan	20.01.15 to 15.04.15
3.	Mr. Gagan Sharma	11414EN010	Centre for Advanced Imaging	University of Queensland	Australia	16-06-15 to 28-07-15 and 4-01-16 to 23-03-16
4.	Ms. Shreya Gupta	11414EN011	UT	Austin	USA	20.05.15 to 07.08.15
5.	Mr. Shubham Mahwar	12414EN005	Symonda Street Private BAG 90219	Aucklund	New Zealand	22.07.15 to 31.07.15

Faculty & their Activity

Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Prof.Amit K Ray	Physiology
2.	Prof. Nira Misra	Polymer Engineering, Scaffold, Hydrogel, Polymer Composite & Block Copolymer
3.	Prof. Ranjana Patnaik	Neurophysiology and Electrophysiology
ASSOCIATE PROFESSORS		
1.	Dr Neeraj Sharma	Bioinstrumentation, Signal and Image Processing
ASSISTANT PROFESSORS		
1.	Dr. Shiru Sharma	Biological control system analysis,Mathematical Modelling of physiological system, Bio Instrumentation
2.	Dr. Sanjay Kumar Rai	Biomechanics
3.	Dr. Somdeb BoseDasgupta	Molecular Biology and Biochemistry
4.	Dr.Sanjeev Kumar Mahto	Cell and Tissue Engineering, Biomicrofluidics, Nanotoxicology

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Dr. Neeraj Sharma	Physiology	
2.	Dr. Sanjay Kumar Rai	INS National Workshop on application of Finite Element Technique in Industrial Problems	Conducted by Indian Nuclear Society , Bhabha Institute Atomic Research Centre, Trombay, Mumbai-85. 20 to 24 April, 2015
3.	Dr. S BoseDasgupta	6th World congress on Biotechnology	5-7th Oct, 2015, Hotel Crown Plaza, New Delhi
		International NGBT Conference, HICC, Hyderabad	1-3rd Oct, 2015, HICC, Hyderabad

		Application of microscopic techniques in studying infection biology	Two day workshop on "Advanced Microscopy and Imaging Techniques" Jointly organized by DSS Imagetech Pvt. Ltd., Olympus Medical Systems India Pvt. Ltd. And Photometrics (USA) along with IIT, BHU from 7-8 August 2015 at CIFC, IIT (BHU).
4.	Dr. Sanjeev Kumar Mahto	Fabrication of Microfluidic-based Neuromuscular Junctions	International workshop on challenges & opportunities in bioengineering, biomedical devices and platforms, 29-30 July, 2015 NIMHANS convention centre, Bengaluru, India
		Microfluidic tools for cellular analysis at physiological scale	6th world congress on biotechnology, 05-07 Oct., 2015, New Delhi, India
		Microfluidic tools for cytotoxicity testing at physiological scale	Two days course on "Advanced Microscopy and Imaging Techniques" Jointly organized by DSS Imagetech Pvt. Ltd., Olympus Medical Systems India Pvt. Ltd. And Photometrics (USA) along with IIT, BHU from 7-8 August 2015at CIFC, IIT (BHU).

Special lectures delivered by faculty members in other institutions

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Dr Neeraj Sharma	Design criterion, safety, reliability aspects of Biomedical equipment" at Challenges in Product Development of Medical Implants and Devices.	Indian Institute of Science and Technology, Shibpur	18 Dec 2015
		Dealing with the artefact of Medical Image	Indian Institute of Science and Technology, Shibpur	19 Dec 2015
2.	S. BoseDasgupta	Role for Coronin 1 in regulating Cognition and Behaviour through Neuronal cAMP/Protein kinase A signaling	6th world congress on biotechnology, Crowne Plaza, New Delhi	5th Oct., 2015
		Metabolic adaptations leading to Chemoresistance in Leishmania	DBT, New Delhi, India	April, 2015
		Bioinformatic approaches in studying host-parasite interaction	International NGBT Conference, HICC, Hyderabad	2nd October 2015
		Studies on Leishmania parasite biology and Mycobacteria-Macrophage interactions	CSIR-IICB, Kolkata	9th June 2015
		Macrophage activation in context host-pathogen interaction and strategies of host targeted therapeutics	IIT-KGP, Kharagpur	27th October 2015
		Current perspective of tuberculosis in the Indian sub-continent	Ashoka Institute of Technology, Varanasi	17th Nov, 2015
3.	Sanjeev Kumar Mahto	Microfluidic tools for cellular analysis at physiological scale	6th world congress on biotechnology, Crowne Plaza, New Delhi	5th Oct., 2015

Honours and Awards

Sl. No	Name of faculty Member	Details of Award
1.	S BoseDasgupta	DBT-Ramalingaswamy fellowship 2015
		DST-Fast Track Grant for Young Scientist

Editorial boards of journals

Sl. No	Name of faculty Member	Position (Editor/member)	Name of Journal
1.	Sanjeev Kumar Mahto	Editorial board member	American Journal of Bioscience and Bioengineering

Design and Development Activities

Sl. No	Details (Infrastructure, Equipments, etc.)	Value (in Rupees)
1.	Eppendorf Galaxy 170S CO2 incubator with heat streilization	4,00,000
2.	Eppendorf Refrigerated centrifuge 5430R with multiple rotors	4,20,000
3.	BioSpectrophotometer with ucuvette (Eppendorf)	4,00,000
4.	ELGA Ultrapure Laboratory Water Purification System	3,97,000
5.	Inverted Phase Contrast Fluorescence Microscope-QUASMO	4,67,000
6.	Nuaire Labguard Type II, Class A2 Biosafety cabinet	4,11,200
7.	Clean Air Systems Type II, Class A2 Biosafety cabinet	2,50,000
8.	Ice Flaking Machine-Wensar	90,000
9.	Biomedical Freezer (-25degC)-CellFrost Professional	99,970
10.	Biomedical Refrigerator (2degC)- CellFrost Professional	99,950
11.	Vertical Gel Electrophoresis System-BioRad	85,000
12.	UV and White light Transilluminator-Medox Bio	40,000
13.	Cryogenic Cell Storage tank D4000 with transport container and low level alarm-CBS	0000000
14.	Advanced Probe Sonicator with sound isolation unit-PCI Analytics	1,50,000
15.	Dry Bath-Merck	24,000
16.	Gel Rocker-Lead Instruments	40,000
17.	Western Blotting Wet Transfer module-Genetix	30,000
18.	Advanced Inverted Trinocular Tissue Culture Microscope.	31,237.00
19.	Single Channel Peristaltic Pump Panel	25,157.00
20.	Hot Air Oven	14,900.00
21.	Syringe Pump	1,34,128.00
22.	Universal Testing Machine	2,19,175.00
23.	Spin Coater	5,80,190.00
24.	Inverted DIC/Fluorescence Microscope-Nikon	16,17,545.00
25.	Liquid Nitrogen Container	31,730.00

26.	Mimics Innovation Suite 18	10,250.00 USD
27.	Anybody Modeling System	4,600.00 EUR
28.	Work Station Dell Precision T7810	4,28,500.00
29.	Miniature Shaker with Data acquisition system	11,42,000.00
30.	4 channel wireless EMG Sensors AD Instruments*	11 lakhs,
31.	Reflow soldering Station	30,000/
32.	Signal conditioner trainer	65,000/
33.	Transducer and Instrumentation trainer	77,000/-
34.	Hand held multi meter	9,000/-
35.	Hand held CRO with USB interface	55,000/
36.	Data acquisition system interface with PC	76,000/
37.	Bread board system	76,000/
38.	Lab view along with hard ware modules*	22 lakhs

Research and Consultancy

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1.	Delineating the molecular interactome of Calcineurin, post phagosome formation in mycobacterial pathogenesis	Jan 2016-Dec-2018	SERB-DST	22.38	S Bose Dasgupta
2.	Identifying the host substrate/s for the mycobacterial virulence factor Protein kinase G, its functional characterization in context of mycobacterial survival	April 2016-March 2021	DBT-Ramalingaswamy	32.5	S Bose Dasgupta
3.	Development of Microfluidic Tools for Neuromuscular Synaptogenesis and Nanotoxicological Studies	July, 2014 – June, 2019	DST-INSPIRE Faculty	35	Sanjeev Kumar Mahto

Faculty members' participation with other universities under MoUs

Dr. Neeraj Sharma, Principal Investigator of joint collaboration of SBME, IIT (BHU), Varanasi with Pravartan Technologies Private Limited, Gurgaon – Haryana, India as for the development of:

- Wearable biomedical device for stress management ("LesStress")
- Non-invasive glucometer

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed International Journals	34
2.	Total Number of Papers Presented in National Conferences	01
3.	Total Number of Papers Presented in International Conferences	08

Refereed International Journals

1. Liu X, BoseDasgupta S, Jayachandran R, Studer V, Rühl S, Stiess M, Pieters J, (2016) Activation of the cAMP/protein kinase A signalling pathway by coronin 1 is regulated by cyclin-dependent kinase 5 activity.FEBS Lett. Jan; 590 (2) :279-87
2. BoseDasgupta S, Moes S, Jenoe P, PietersJ(2015) Cytokine-Induced Macropinocytosis in Macrophages is regulatedby 14-3-3 through its Interaction with Serine-Phosphorylated Coronin FEBS. J, Apr;282(7):1167-81.
3. Mukherjee S and BoseDasgupta S (2015) Old Wine in a New Bottle: Harnessing the Therapeutic Properties of Emodin DerivativesJ Biomed Eng Med Devic 1:101
4. J Pieters, S BoseDasgupta, B Bolinger, A Gumienny, R Jayachandran (2016) Activation of macrophage and T cells-A question of survival. Molecular Immunology. 68 (2), 140
5. M. Cao, S. K. Mahto and O. Yadid-Pecht (2015) Real-Time Optical pH Sensor with CMOS Contact Imaging and Microfluidics.IEEE Sensors Journal, 1: 99.
6. Monika, S. K. Mahto, S. Das, S. K. Singh; P. Roy and N. Misra (2015) Chemical Modification of Poly(vinyl chloride) for Blood and Cellular Biocompatiblity. RSC Advances, 5: 45231-45238.
7. A. Marom*, S. K. Mahto*, E. Shor, J.Tenenbaum-Katan, J.Sznitman and S. Shoham (2015)Microfluidic Chip for Site-specific Neuropharmacological Treatment & Activity Probing of 3D Neuronal 'Optonet' Cultures.Advanced Healthcare Materials 4(10): 1478-83. *Equal contribution.
8. Nishant Kumar Singh, A Sarkar, Anandita Deo, Kirti Gautam, SK Rai (2016) Estimation of Suitable Methodology for Determining Weibull Parameters for the Vortex Shedding Analysis of Synovial Fluid. J Biomed Eng Res. Korea Science, 37(1):21-30.
9. Gabriel OladejiBolarinwa, Nishant Kumar Singh, Sanjay Kumar Rai (2015) Development of Elastic Modulus Density Chart for a Typical Femur Bone Model. InternaSrivastava, A., Chowdhury, M.K., Sharma, S., Sharma, N (2016), In-vitro Measurement of Glucose Concentration in Human Blood Plasma Mixed Intralipid Phantom Samples by Using Modulated Ultrasound and Infrared Light, British Biotechnology Journal, 13(1): 1-14, , Article no.BBJ.24861.
10. Saxena S., Sharma N., Sharma S. (2016), Parallel Image Processing Techniques, Benefits and Limitations, Research Journal of Applied Science, Engineering & Technology, 12(2), 223- 238,
11. Saxena S., Sharma S., Sharma N., Verma A. (2016), An Automated System for Atlas Based Multiple Organ Segmentation of Abdominal CT images, British Journal of Mathematics and Computer Science, 12(1), 1-14,
12. Saxena S., Sharma S., Sharma N., Verma A. (2016), An Intelligent Parallel System for Segmenting abdominal CT images using atlas based allocation from Spine, European Journal of Scientific Research, 137(3),.
13. Saxena S., Sharma N., Sharma S. (2016), GPU Constructed Image Segmentation using First order Edge detection operators in CUDA Environment, Journal of Chemical and Pharmaceutical Research, 8(2), 379-387,
14. Munendra Singh, Neeraj Sharma, AshishVerma, Shiru Sharma,(2016) "Dynamic Stochastic Resonance based diffusion-weighted MR image enhancement using multi-objective PSO" Journal of Medical and Biological Engineering, Springer, (Accepted).
15. PrajktaKallurkar, KalpeshPatil, Sharma, S, Sharma, N (2015), Nadi Diagnosis Techniques, IJPMN, Volume 2 (1)
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28. Vijay Kumar Patel, Niraj Kumar Vishwakarma, Shikha Singh, Kheyanath Mitra, K. Ramesh, Nira Misra, Biswajit Ray. Synthesis of Fluorescence Poly(N-Vinylpyrrolidone) via Click Chemistry Using Azide-terminated Xanthate Mediator (S)-2-(4-azidobutyl propionate)-(O-ethyl xanthate), International Journal of Polymeric Materials and Polymeric Biomaterials, 65, 269-276, 2016.
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32. Sumit Kumar, Kalyan Ramesh, Uttam Gupta, Kheyanath Mitra, Nira Misra, Biswajit Ray, Partha Pratim Manna. Methotrexate-Loaded Four-Arm Star Amphiphilic Block Copolymer Elicits CD8+T cell Response against a Highly Aggressive and Metastatic Experimental Lymphoma. ACS Appl. Mater. Interfaces, 7, 20021-20033, 2015.
33. Niraj Kumar Vishwakarma, Vijay Kumar Patel, Sumit Kumar Hira, K. Ramesh, Prateek Srivastava, Kheyanath Mitra, Shikha Singh, Dipankar Chattopadhyay, Pralay Maiti, Nira Misra, Partha Pratim Manna, Biswajit Ray. Tadpole-shaped ß-Cyclodextrin-tagged Poly(N-Vinylpyrroli done): Synthesis, Characterization and Studies of Its Complexation with Phenolphthalein and Anti-Tumor Activities. RSC Adv., 5, 15547–15558, 2015.
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Book Chapters

35. Sharma HS, Muresanu DF, Patnaik R, Tian ZR, Moessler H, Sharma A. Nano Drug delivery by Single-wall carbon nanotubes (SWCNTs) in the Central nervous system induces neurotoxicity. Potential neuroprotective effects of Cerebrolysin. une. 2016 May 22;13:15.
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Proceedings of International Conferences

1. BoseDsagupta S (2015) Role for Coronin 1 in regulating Cognition and Behaviour through Neuronal cAMP/Protein kinase A signaling, 6th World Congress on Biotechnology, New Delhi, India
2. BoseDasgupta S (2015) Turning friends into foes: elucidating the role of Coronin 1 in cytokine activated macrophages in context of mycobacterial pathogenesis.10th World Congress on Infectious Diseases, London, UK.
3. M. Bala, Mukherjee S, BoseDasgupta S (2015) Characterization of thenovel Topoisomerase IA of Leishmania for use as a unique anti-leishmanial drug target. 2nd International Conference on Infectious Disease and Nanomedicine, ICIDN-2015, Khatmandu, Nepal, December 15-18, 2015
4. M. Bala, Mukherjee S, Sharma A (2016) SOCS1 mediated inhibition of STAT1 phosphorylation in Mycobacterium tuberculosis infected macrophages: an in-silico analysis" in ICBB-2016, Pune, India
5. S. K.Mahto. 2015.Microfluidic Tools for Cellular Analysis at Physiological Scale.Journal of Biotechnology and Biomaterials 5:6, 6th World Congress on Biotechnology, New Delhi, India, 2015.
6. S.Poddar, A.Chaudhary, U. V.Pancholi, K. Y.Vajanthri and S. K. Mahto. 2015. Fabrication of Microfluidic-based Neuromuscular Junctions.International Workshop on Challenges and Opportunities in Bioengineering Biomedical Devices Platforms, Indian Technology Congress, Bangalore, India, 2015.
7. Ankitkajaria, Neeraj Sharma, Shiru Sharma, SatyajitPradhan, Lalit.M.Aggarwal"MonteCarlo simulation model for Telecobalt machine Treatment head" was presented in International Conference on Medical Physics Radiation Protection andRadiobiology "ICMPRPR- 2K15" organised by Department of Radiological Physics, SMS Medical College, Jaipur (Raj.) and AMPI-NC.
8. PrajktaKallurkar, KalpeshPatil, Gagan Sharma, Sharma, S, Sharma, N, Analysis of Tridosha in Various Physiological Conditions, IEEE Conference 2015.

Proceedings of National Conferences

1. Lalit.M.Aggarwal, Ankitkajaria, Satyajit Pradhan, Shiru Sharma, Neeraj Sharma "Monte Carlo Simulation in Treatment Planning for Radiation Oncology" was communicated to"Medical Physics - Expanding the Vision, Enhancing the Capabilities"36th Annual Conference of the Association of Medical Physicists of India (AMPI) - AMPICON 2015

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Srivastava, A., Chowdhury, M.K., Sharma, S., Sharma, N., 'Blood Glucose Monitoring Using Non Invasive Optical Method: Design Limitations and Challenges', International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE),Vol. 2, Issue 1, Jan 2013, pp.615-620. Citation 17
2. Chowdhury, M.K., Srivastava, A., Sharma, N., Sharma, S., 'Challenges & Countermeasures in Optical Noninvasive Blood Glucose Detection', International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Vol.2, Issue 1, Jan, 2013., pp.324-329. Citation 14
3. Sanjay Saxena, Neeraj Sharma, Shiru Sharma, "Image processing tasks using parallel computing in multicore architecture & its application in medical imaging " in international journal of advance research in computer and communication in engineering(IJARCCE), Vol. 2, issue 4, April 2013. Citation 11

Distinguished Visitors

Sl. No	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1.	Prof. P. K. Roy		
2.	Dr. S. Sarbadhikari		

Other activities

Indian Faculty visits in the Department/School/School

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. Niranjan Karak	Oral Exam Mr. K. Ramesh	19.02.2016, Seminar hall SBME, IIT(BHU)
2.	Dr. Ravish Garg	Oral Exam Mr. Koushik Chowdhury	18.04.2016, Seminar hall SBME, IIT(BHU)
3.	Dr. Tushar Jana	Oral Exam Ms. Monika	29.04.2016, Seminar hall, SBMEIIT, (BHU)

Foreign Students Visits in the Department/School/School

Sl. No	Name of Student	Purpose of Visit	Date and Venue
1.	Mr. Bolarinwa Gabriel Oladeji (Nigeria)	Research Training Fellow under RTF-DCS	05-05-2015 to 23-10-2015 Biomechanics Lab, SBME, IIT (BHU)

Coordinator : Prof. Rajiv Prakash

Brief Introduction of the Department/School:

The School of Materials Science and Technology is an internationally renowned Centre of Materials Research and Education. It was established in 1978 following the recommendations of the V Plan Visiting Committee of the UGC. It serves as Institute's nodal center for fostering interdisciplinary teaching and research in the field of materials science and technology. School runs successful Ph.D., M.Tech. and Integrated Dual Degree programmes since 1982, 1984 and 2005, respectively. All these students are gainfully employed, several of them in premier R & D organizations, industry and teaching institutions. The syllabi are revised periodically to include topics of current significance in the field. Five year dual degree programme leading to B.Tech. and M.Tech. degrees together has been initiated from the session 2005-06 with an annual intake of 19 students through JEE.

The School has a modest building of about 10,000 sq. ft. floor area and recently two more wings with ~6000 sq.ft area have been added. The laboratories are equipped with modern and sophisticated equipment for materials preparation, characterization, processing and phase transformation studies. Working in these frontiers areas the faculty members of the School have generated nearly Rs. 9.0 crores during the last five years through various projects/schemes funded by agencies like DST, SERB, DBT, DIT, DRDO, UGC-DAE-CSR, IUAC etc. and hve published more than 200 research papers in reputed journals such as Phys. Rev. Lett., Appl. Phys. Lett., Phys. Rev. B, J. Phys. Cond. Matter, J. Appl. Phys., Acta Materialia, Macromolecules, Dalton Trans., J. Controlled Release, J. Mater. Chem, J. Phys Chem., Nanoscale, RSC Advances, Polymer, Electroanalysis, Langmuir, Sensors and Actuators B. etc.

Major areas of Research

Functional Materials,
Ferroics and Multiferroics,
X-ray and Neutron Crystallography
Polymer Nanocomposites,
Biomaterials and Biodegradable polymer
Self-assembly,
Conducting Polymer and Composites
Organic Devices
Sensors and Biosensors
Nanomagnetics and Magnetism in Low Dimensional System
Dilute Magnetic Semiconductors
Semiconducting Nanostructured Materials
Structural Phase Transitions,
Low voltage-low power electronics,
Collidal nanocrystal quantum dot and sol-gel metal oxides and
Synthesis and Characterization of Advanced Ceramics

Area of the School (in square meters):

The School has a modest building of about 10,000 sq. ft. floor area and recently two more wings with ~6000 sq.ft area have been added.

Infrastructure

Sl. No	Particulars	Number
1.	No. of Classrooms	1
2.	No. of Lecture Halls	1
3.	No. of Laboratory	19
3.	No. of Computers available for students in the Department/School/School	35

Unique Achievement / Preposition of the Department/School

The School has established unique facility of physical property measurement system (PPMS) for characterizing materials.

Academic Activities

New Courses Introduced

The complete course structure of the undergraduate program is under revision and several new courses are being introduced.

Students on Roll

Sl. No	Course Code	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	NA	NA	NA	NA	NA
2.	Dual Degree	16	11	15	17	14
3.	M. Tech / M. Pharm	13	11			
4.	Ph. D (Under Institute Fellowship)	28				
5.	Ph. D (Under Project Fellowship)	1				
6.	Ph. D (Under Sponsored Category)	1				
6.	Ph. D (Under UGC-CSIR JRF/SRF)	18				

Students/Scholars who attended conferences/workshops/seminars and symposia abroad or in India

Sl. No	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
INDIA					
1.	Keshav Kumar	14111005	SERC School	September 2-22 2015	SSN college of Engg. Chennai
2.	Pinki Singh	13111006	National School on NMR Spectroscopy	September 18-21, 2015	IIT (BHU)
3.	Anand Sharma	14111001	INUP Familiarization Workshop	October 07, 2015	IIT (BHU)
4.	Satya Veer Singh	14111013	INUP Familiarization Workshop	October 07, 2015	IIT (BHU)
5.	Anupama Gaur	14111002	Conference on Advancements in polymer science and Technology	October 29-31, 2015	IIT (BHU)
6.	Dinesh Kumar Patel	11615 EN004	Conference on Advancements in polymer science and Technology	October 29-31, 2015	IIT (BHU)
7.	B. Bharati	14111004	Conference on ICNIB-2015	November 23-25, 2015	IIT (BHU)
8.	Satya Veer Singh	14111013	INUP hand on training	November 19-27, 2015	IIT (BHU)
9.	Pragya Singh	15111007	National workshop on High P-T techniques for material synthesis and Characterization	November 23-29, 2015	IIT (BHU)
10.	Chandra Bhal Singh	13111503	International conference on advances in energy research 2015	December 15-17, 2015	IIT (BHU)
11.	Ashutosh Upadhyay	11615 EN003	60th DAE Solid state physics symposium-2015	December 21-25 2015	IIT (BHU)
12.	Arun Kumar Mahanta	12615 EN001	11th IUPAC Conference on polymer-solvent complex	January 27-30, 2016	IIT (BHU)

13.	Madhu Tiwari	12615 EN003	Conference on CRSI-2016	February 2-10, 2016	IIT (BHU)
14.	Monika Singh	15111004	National Workshop on High P-T Technique for material synthesis and characterization	February 16-22, 2016	IIT (BHU)
15.	Pragya Singh	15111007	National Workshop on High P-T Technique for material synthesis and characterization	February 16-22, 2016	IIT (BHU)
16.	Chandra Bhal Singh	13111503	Conference on ICONSAT-2016	February 29 to March 2 2016	IIT (BHU)
17.	Dinesh Kumar	13111504	Conference on ICONSAT-2016	February 29 to March 2 2016	IIT (BHU)

Faculty & their Activity
Faculty and their areas of specialisation

Sl. No	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS		
1.	Dhananjai Pandey	Ferroics and Multiferroics, Functional Materials, X-ray and Neutron Crystallography
2.	Rajiv Prakash	Materials Chemistry and Nanotechnology Conducting Polymer and Composites, Sensors and Biosensors and Organic Devices
3.	Pralay Maiti	Polymer Nanocomposites, Biomaterials, and Biodegradable polymer, Polymer for renewable resource and Fuel cell membrane
ASSOCIATE PROFESSORS		
1.	Mrs. Chandana Rath	Nanomagnetics, Dilute Magnetic Semiconductors, Semiconducting Nanostructured Materials
2.	Akhilesh Kumar Singh	Smart Materials, Structural Phase Transitions, Synthesis and Characterization of Advanced Ceramics
3.	Chandan Upadhyay	Ferroic and Multiferroic Materials, Magnetism in Low Dimensional System, Self assembly and Organic Electronics
ASSISTANT PROFESSORS		
1.	Bhola Nath Pal	Optoelectronics and organic devices, Low voltage-low power electronics, Collidal nanocrystal quantum dot and sol-gel metal oxide
2.	Ashish Kumar Mishra	Design of carbon & 2D nanostructures, Electron microscopy & Raman spectroscopy analysis, Energy and Environmental application of nanostructures

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings

Sl. No	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Dhananjai Pandey	Science using X-ray free electron laser and users	Jawaharlal Nehru centre for advanced scientific research, Bangaluru	February 25-26, 2016
2.	Rajiv Prakash	Lecture on sensor & biosensor devices	JNU, Delhi	December 03, 2015
3.	Rajiv Prakash	Invited talk at applied Materials	IISc, Bangalore	December 12, 2015

4.	Rajiv Prakash	Smart materials in Drug Delivery	United Institute of Pharmacy, Allahabad	January 21, 2016
5.	Rajiv Prakash	Invited Talk	MNIT Allahabad	February 4-5, 2016
6.	Rajiv Prakash	INDO POLISH Seminar	Allahabad University	February 5, 2016
7.	Pralay Maiti	Indo Franch workshop	New Delhi	May 11-16, 2015
8.	Pralay Maiti	Environment Friendly Biode	West Bengal	September 09-10, 2015
9.	Pralay Maiti	Future direction in Ion beam in materials engg. and characterization	IUAC Delhi	December 30, 2015
10.	Pralay Maiti	Polymer-Solvent complex and Intercalates	IUPAC Kolkata, West Bengal	January 26-29, 2016
11.	Pralay Maiti	Workshop on Advanced polymeric Materials	CPSE, IIT Delhi	January 29, 2016
12.	Pralay Maiti	Seminar on chemist Recent Trends	West Bengal State University	March 30-31, 2016
13.	Chandana Rath	Solid state chemistry and allied areas-2015	University of Delhi	May 8-10, 2015
14.	Chandana Rath	Activities at the low energy ion beam facilities	IUAC New Delhi	November 2-11, 2015
15.	Chandana Rath	8th National conference on thermophysical properties-2015	MNIT Jaipur	December 14-16, 2015

Special lectures delivered by faculty members in other institutions

Visits abroad by faculty members

Sl. No	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1.	Dhananjai Pandey	Germany	May 19, 2015	Jun 12, 2015	To conduct experiments	IIT (BHU)
2.	Dhananjai Pandey	Spain	August 30, 2015	September 13, 2015	Invited Talk	IIT (BHU)
3.	Dhananjai Pandey	France	October 12, 2015	October 26, 2015	To conduct experiments	IIT (BHU)
4.	Rajiv Prakash	Switzerland	May 29, 2015	June 11, 2015	For collaboration	IIT (BHU)

Design and Development Activities

New facilities added

Sl. No	Details (Infrastructure, Equipment, etc.)	Value (in Lakhs of Rupees)
1.	9T Cryogen Free PPMS Base system alongwith accessories	~385.00
2.	Semiconductor parameter Analyser	~22.00
3.	Planetary Ball Mill PM 440 MA alongwith accessories	18.12
4.	1500 °C High Temp. Muffle Furnace with MoSi2 heating element	4.12
5.	Closed Loop Chilled Water-Circulating Plant	3.09
6.	High Precision LCR Meter	1.46
7.	Viscometer and Circulating Temp. bath	6.40

Patents filed

Sl. No	Name of Faculty Member	Title of Patent
1.	Chandana Rath	A Novel Method To Prepare TiO_2 Nanoparticles Through a Hydrothermal Route

Sponsored research projects

Sl. No	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1.	J.C. Bose Fellowship	2012-2017	SERB	68.00 Lakhs	Dhananjai Pandey
2.	Synthesis and characterization of novel segmented polyurethane-graphene nanocomposites for biomedical applications	2013-2016	DBT-Ramalingaswamy	22.00 lakhs	Pralay Maiti
3.	Polymeric Nanobiohybrids for Tissue Engineering and Drug Delivery	2016-2019	SERB	25.00 lakhs	Pralay Maiti
4.	Development of Ferroelectric and Rare Earth Manganite Based Radar Absorbing Materials for Stealth Applications	2012-2016	DRDO	25.00 lakhs	Akhilesh Kr. Singh
5.	DNA Based Molecular Electronics	2013-Ongoing	Department of Bio-Technology	38.00 Lakhs	Rajiv Prakash & Chandan Upadhyay
6.	Graphene-polymer based materials for coating and packaging applications	2014-2015	Max- Specialty Films, Max India Pvt. Ltd. consultancy	10.00 Lakhs	Rajiv Prakash
7.	Development of Azidothymidine (Anti HIV drug) and its Reactive Phase-I Metabolite Electrochemical Sensor based on Low Cost Screen Printed Electrodes	2013-2015	DST	41.00 Lakhs	Rajiv Prakash
8.	Sponsored projecton “A Strategic Approach to Develop “Ideal” O2 Sensor Platforms Based on Doped Ormosils” PI: Dr. I Tiwari, Chemistry, BHU.	2012-2015	DBT	30.00 Lakhs	Rajiv Prakash (Co-PI)
9.	Neutron diffraction studies on Nanoparticles of Cobalt Chromite by A/B site mixing	2015	UGC-DAE, CSR, Mumbai	12.30 Lakhs	Chandana Rath
10.	Cation distribution in A and B sites of Fe substituted CoCr 2 O 4 multiferroi by EXAFS	2015	UGC-DAE, CSR, Indore	1.50 Lakhs	Chandana Rath
11.	Growth of Nanowires and Nanotubes of Transition Metal Doped TiO_2: Structure, Properties and Photocatalytic Application	2012-2015	University Grant Commission, New Delhi	11.50 Lakhs	Chandana Rath
12.	Cation distribution in A and B sites of Fe substituted $CoCr_2O_4$ multiferroi by EXAFS	2015	UGC-DAE Consortium for Scientific Research, Indore	1.35 Lakhs	Chandana Rath

13.	Neutron diffraction studies on Nanoparticles of Cobalt Chromite by A/B site mixing	2015	UGC-DAE, CSR Mumbai	12.30 Lakhs	Chandana Rath
14.	Development of low-voltage, low-power, colloidal quantum dot light-emitting transistors for next generation display technology	2015	SERB	50.00 Lakhs	Bhola Nath Pal
15.	CO_2 Capture in Carbon based nanocomposites	2015	DST Inspire	35.00 Lakhs	Ashish Kumar Mishra

Industrial consultancy projects

Sl. No	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1.	Rajiv Prakash	Development of advanced films based on nanofillers for coating and packaging	Max India Ltd., Maxmet Divisionn, Nawanshahr-144533	450192.00
2.	Rajiv Prakash	Failure Investigation of SWS-II Reboilers in Sulphur Block at HMEL Refinery	HPCL-Mittal Energ Ltd., Bhatinda-151301	135000.00
3.	Rajiv Prakash	Testing of natural draft cook stove (Jambo Stove JSI)	Green Grameen Infra Pvt. Ltd., Lower Parel, Mumbai-400013	45800.00
4.	Akhilesh Kumar Singh	Failure Investigation of Pipe "VGO Hydrotreater"	Cunningham Lindsey International Insurance Surveyors and Loss Assessors Pvt. Ltd.	180000.00

Faculty members' participation with other universities under MoUs

1. Prof Rajiv Prakash collaborating with Kyushu Institute of Technology, Kitakyushu, Japan on organic electronics.
2. Prof Rajiv Prakash collaborating with University of Applied Sciences, Russelsheim, Germany on environment and biosensors.
3. Dr. B.N. Pal collaborating with Ming Chi University of Technology on solution processed optoelectronic device fabrication and characterization including solar cell and light emitting device.

Research Publications

Sl. No		No.
1.	Total Number of Papers Published in Refereed International Journals	27
2.	Total Number of Papers Presented in National Conferences	02
3.	Total Number of Papers Presented in International Conferences	01

Refereed International Journals

1. MadhuTiwari, Ashish Kumar, Uma Shankar, Rajiv Prakash (2016) The nanocrystalline coordination polymer of AMT–Ag for an effective detection of ciprofloxacin hydrochloride in pharmaceutical formulation and biological fluid. Biosensors and Bioelectronics, 85: 529–535
2. MadhuTiwari, Ashish Kumar and Rajiv Prakash (2016) Nano-porous network of DMTD-Ag coordination polymer for the ultra trace detection of anticholinergic drug. Polymer DOI:

10.1016/j.polymer.2015.11.017

3. Sudipta Senapati, Ravi Thakur, Shiv P. Verma, Shivali Duggal, Durga P. Mishra, Parimal Das, T. Shripathi, Mohan Kumar, Dipak Rana, and Pralay Maiti (2016) Layered Double Hydroxides as Effective Carrier for Anticancer Drugs and Tailoring of Release Rate through Interlayer Anions. Journal of Controlled Release 224: 186–198
4. Karun Kumar Jana, Anshuman Srivastava, Om Parkash, Devesh K. Avasthi, Dipak Rana, Vinod K. Shahi and Pralay Maiti (2016) Nanoclay and Swift Heavy Ions Induced Piezoelectric and Conducting Nanochannel based Polymeric Membrane for Fuel Cell. Journal of Power Sources 301: 338–347
3. RK Pandey, SK Yadav, C Upadhyay, R Prakash, H Mishra (2015) Surface plasmon coupled metal enhanced spectral and charge transport properties of poly (3, 3'''-dialkylquarterthiophene) Langmuir Schaefer films. Nanoscale 7: 6083-6092
4. PreetiTiwari and Rajiv Prakash (2015) Electrochemical Detection of Azidothymidine on Modified Probes based on Chitosan Stabilised Silver Nanoparticles Hybrid Material. RSC Adv.: 590089 - 90097
5. Sandeep Gupta and Rajiv Prakash (2015)
Photochemically mediated synthesis of a gold colloid by dithizone and its application in the amperometric sensing of thiocyanate. RSC Adv., 5: 81660 - 81667
6. PrashantDubey, Ashish Kumar and Rajiv Prakash (2015) Non-covalent Functionalization of Graphene Oxide by Polyindole and Subsequent Incorporation of Ag Nanoparticles for Electro-chemical Applications. Applied Surface Science,: 355262-267
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25. Durgesh Kumar, Jagadish Galivarapu, Alok Banerjee, Kirill Nemkovski, Yixi Su and Chandana Rath (2016) Size dependent magnetic transitions in CoFe 0.1 Cr 1.9 O4 nanoparticles studied by magnetic and neutron polarisation analysis. Nanotechnology (accepted)
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Proceedings of International Conferences

1. 6th International Conference on Advancements in Polymeric materials (APM 2015) Indian Institute of Science, Bangalore during February 20-22, 2015, Controlled biodegradation of polymers using nanoparticles.
2. 11th International IUPAC Conference on "Polymer-solvent complexes and intercalates" held at IACS, Kolkata, January 27-30, 2016 Functionalization and nanoparticle induced controlled drug delivery in hydrogel.

Proceedings of National Conferences

1. National seminar on "Environment friendly biodegradable polymers: Present and future" from 9-10 September, 2015 sponsored by UGC, held at Mugberia College, West Bengal Nanoparticle induced controlled biodegradation of polymers.

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Inhibitive Effect of Argemone mexicana Plant Extract on Acid Corrosion of Mild Steel Ji, Gopal; Shukla, SK; Dwivedi, P. Dwivedi,; Sundaram, S Sundaram, Prakash, R INDUSTRIAL & ENGINEERING

CHEMISTRY RESEARCH Volume: 50 Issue: 21 Pages: 11954-11959 Published: NOV 2 2011 Times cited: 57

2. Probing a highly efficient dual mode: down-upconversion luminescence and temperature sensing performance of rare-earth oxide phosphors Singh, AK, Singh, SK, Gupta, BK, Prakash, R, Rai, SB DALTON TRANSACTIONS Volume: 42 Issue: 4 Pages: 1065-1072 Published: 2013 Times cited: 41
3. Poly-3-hexylthiophene based organic field-effect transistor: Detection of low concentration of ammonia Tiwari, S; Singh, AK; Joshi, L; Chakrabarti, P; Takashima, W; Kaneto, K; Prakash, R SENSORS AND ACTUATORS B-CHEMICAL Volume: 171 Pages: 962-968 Published: AUG-SEP 2012 Times cited: 31
4. Synthesis of nanorods and mixed shaped copper ferrite and their applications as liquefied petroleum gas sensor Singh, S; Yadav, BC; Prakash, R; Bajaj, B; Lee, JR APPLIED SURFACE SCIENCE Volume: 257 Issue: 24 Pages: 10763-10770 Published: OCT 1 2011 Times cited: 31
5. Chitosan Nanoparticles of 5-Fluorouracil for Ophthalmic Delivery: Characterization, in-Vitro and in-Vivo Study Nagarwal, RC; Singh, PN; Kant, S; Maiti, P; Pandit, JK CHEMICAL & PHARMACEUTICAL BULLETIN Volume: 59 Issue: 2 Pages: 272-278 Published: FEB 2011 Times cited: 31

Other activities

Foreign Faculty Visits in the School

Sl. No	Name of Faculty Member	Purpose of Visit	Date and Venue
1.	Prof. Peter Dannenmann	E-learning activities of RheinMain University of Applied Sciences-Massive open online course "Modelling and Simulation using Matlab and Simulink	26th September, 2015 SMST, IIT (BHU)
2.	Prof. Dr. Ing Jutta Kerpen	Research projects in the Laboratory of Process Design	26th September, 2015 SMST, IIT (BHU)
3.	Prof. Dr. Ursula Katharina Deister	Introduction to Rhein Main University of Applied Sciences	26th September, 2015 SMST, IIT (BHU)
4.	Dr. Shrawan Mishra	New twist in nano magnetism : A polarized soft X-rays view	31st January, 2015 SMST, IIT (BHU)
5.	Dr. Shane Kennedy	Opportunities for research in materials science using the neutrons at OPAL reactor	30th January, 2015 SMST, IIT (BHU)

Equipments:

Particle Size Analyser (PSA) is used to characterize the particle size of the nanomaterials.

Physical Property Measurement System (PPMS) is used forcharacterizing physical properties of materials.

Name of library : Main Library IIT (BHU)

Introduction:

The Indian Institute of Technology (Banaras Hindu University), Varanasi library system consists of a Main Library, and five departmental libraries, which collectively support teaching, research and extension programs of the institute. All Students, Faculty members and employees of the institute are entitled to make use of the library facilities on taking library membership. The library, besides having an excellent print collection of over 1,20,000 volumes of books, journals, theses, reports, standards, pamphlets, it also provide access to over 13,000 electronic journals, 60,000 standards (BS Euro code, AWWA and Indian standards) and more than 30,000 of electronic books and databases in science, engineering and technology.

Statistics Related to Library Information Services

ITEMS	**2015-16**
A. COLLECTION	
Books	89222
Thesis	269
Pamphlets & Reports	NA
Microfilms/fische	NA
Book Bank	18806
Current periodicals by subscription	31 Print,14000 Approx. online
Current Periodicals by exchange/gifts	338
Back volumes of periodicals	17738
Foreign Language collection	NA
CD-ROMs	654
Audio/Video cassettes	
e-Books	1,40,000 Approx.
TOTAL:	
B. MEMBERSHIP	
Staff Member	400
Faculty Members	260
Students	5000
TOTAL:	**5660**
C. CIRCULATION	
Number of books/journals issued	5800
Number of books issued-Book Bank (GS)	5900
Number of books issued-Book Bank (WS)	18000
Overdue and other charges collection (in Rupees)	14,530.00
Photocopy charges collected (in Rupees)	26795.00
Loss of Books (in Rupees)	33923.00
D. EXPENDITURE (in Lakhs of Rupee)	
Purchase of books	7.64.744.00
Subscription of journals	2,31,00,000.00
E. NEW JOURNALS/DATABASE ADDED	
AWWA Standard ,ASME Standard ,ICE Standard ,ACI Standard	

Major Initiatives

Equipment Added: Two servers and 10 Desktop Computers.

On-line Access to e-journals: YES

Extended Working Hours on Saturday and Sundays 10.00a.m-5.00p.m.

Systematic Re-shelving of Books Special Shelving of Books done on Regular Interval for proper arrangement of Books.

Library Automation

Library was using LIBSYS software and the same has been replace by the upgraded version LIBSYS 7 in 2015. Technical section, Circulation and Web OPAC is functional now.

Distinguished Visitors/Groups To The Main Library.

S.No	Name of Visitor and Designation	Date of Visit	Purpose
1.	LIBRARY SCIENCE STUDENT OF M.G.K.V.P VARANASI	02/05/2011	LIBRARY VISIT

Future Plans

1. Complete automation of Library house-keeping jobs using RFID Technology.
2. To provide 24x7 reading space of approx... 350 sitting capacity till January 2017 construction almostcompleted
3. Increase stack area, create additional reading space and re-arrangement of Ground flour sections.
4. Providing remote access facility and discovery service facility.
5. Enrich the Institutional Digital Repository.
6. Expedite the Shatabdi Granthagar Project.

IIT (BHU) has a vibrant student life, encompassing almost all possible aspects of students' activities under the guidance of Chief Counsellor of Gymkhana and the Student Parliament. The first ever Student Parliament came into existence in IIT (BHU) in January, 2015 through a democratic process of elections with the participation of about 5000 students. The Student Parliament represents a deliberative body discusses various issues affecting students' life. It has various standing committees headed by their respective Conveners which work towards improving the academic, extra-curricular and hostel life of the students.

The executive wing of the Parliament is represented by various General Secretaries and Secretaries who are appointed through a rigorous selection process as prescribed by the Students' Constitution. These secretaries guide the mass of students in organizing the multifarious activities of the Students' Gymkhana through the Clubs.

Gymkhana

The IIT (BHU) Gymkhana is housed in the Kings Pavilion, named after the founder principal of BENCO, Prof. Charles A. King. The Gymkhana has four councils.

1. Games & Sports Council
2. Cultural Council
3. Science & Technology Council
4. Film & Media Council

These councils are headed by their respective Counsellors, with the Dean of Student Affairs being also the Chief Counsellor of Gymkhana.

Games & Sports Council

It takes care of all games and sports events in the Institute. It organizes inter-hostel competitions in 16 games and also all-Institute open competitions. Students may enroll in any of these games by contacting the student General secretary and the respective captains. The highly popular Adil memorial Football tournament is generally held in the month of August every year. The Institute also sends its team to participate in outstation events and competitions of other IITs. Our Institute has been participating in the Inter-IIT Sports meet for the last two years and is all set to participate again in the upcoming meet at IIT, Madras in December.

The major festival organized by this council is “SPARDHA” in which many leading colleges participate.

The Institute has made it mandatory for first year students to participate in games and sports for at least fifty hours per semester as a non credit course. They should spend 4 hours a week on the ground in the games of their choice. There is also a gymnasium which opens in the morning and evening.

Cultural Council

The cultural council has clubs like Quiz, Literary, Theater, Debate, Dance, Fine Arts, Indian and Western Music etc. These clubs organize workshops in their respective areas for first year students. They also organize various cultural events and competitions during the first semester for the freshers and later IIT open competitions for all students. The major Inter Collegiate Festival organized by Cultural Council is “Kashi Yatra”.

The student's chapter of SPIC MACAY has also been added recently to the Cultural Council.

Science & Technology Council

This Council consists of major clubs like Aeronautical Club, Astronomy Club, Robotics Club, Automobile Club etc. They organize various workshops on above areas and also workshops on Hacking, Networking, C++, Java, Android etc.

The Major festival organized by this Council is the Techno Management Fest “Technex” in which students present technical models. Students are also sent to other IITs to participate in their Technical festivals.

Film & Media Council

This is a recently formed council and has Photography, Film, Animation, Design clubs etc. They organize

workshops and competitions round the year. They also bring out an Institute Magazine for students. The major Fest organized by them is a "Film Festival" in which critics also come and help students to learn the finer aspects of films.

Healthcare

The Institute has provision for a comprehensive Students Health Welfare Scheme through Students Health Care Complex of Banaras Hindu University (BHU), Varanasi. Indoor services are available at Sir Sunder Lal Hospital (superspeciality PG Hospital) and routine outdoor clinical service at University Students Health Care Complex centrally located in BHU Campus. To avail this facility a student has to get Health Diary issued from the University Students Centre Complex after completing the formalities as prescribed by Students Health Care Complex.

Every bonafide student of the Institute is covered under this scheme which covers the cost of investigations required in connection with the treatment done in S.S. Hospital, BHU or recommended by University Students Health Care Complex. In an emergency situation, tests done outside the S.S. Hospital on recommendations of the consultant I/C of the case will also be covered, provided a certificate from the Head of the Department of Radiology/Pathology is attached stating that the test required could not be done in that department. In such cases the rate of payment will be same as has been fixed for the S.S. Hospital.

Students should visit the Students Health Care Complex which will refer, if required, to a consultant at S.S. Hospital who in turn will advise for investigation. The investigations will be performed free of charge by the respective departments of the IMS/SSH like Radiology, Clinical Pathology, Immunology, Endocrinology etc.

Under this scheme the cost of Indoor Treatment of the students at S.S. Hospital will be free. This includes cost of all investigations, operation charges, anesthesia, etc. However the students will have to purchase medicines and claim reimbursement after being discharged from S.S. Hospital from the office of the Chief Medical Officer I/C, University Students Health Care Complex on the prescribed format.

Under no circumstances reimbursement will be made for medicines purchased for OPD treatment and room rent of Special Ward in S.S. Hospital, Banaras Hindu University.

Students are required to approach University students' health care Centre with their Registration Card and fill up the Health Diary registration Form available at University Students' Health Care Centre and submit the same to the Chief Medical Officer In-charge, University students' health care Centre.

Hostels

Indian Institute of Technology (BHU) Varanasi provides on-campus housing to students and research scholars. Students are required to live in one of the 16 hostels throughout their stay at the institute. There are 13 boys hostels and 3 girls hostels. All the hostels are equipped with common room and indoor game facilities like table tennis, badminton, volley ball etc. Inter-hostel competitions are organized for various games with the help of Gymkhana of the Institute. Integrated cultural programs are also arranged time to time. Hostels at IIT (BHU) are conceived to be a home away from home. Safety, security, comfortable stay, cultivation of good habits, and health of the students are the primary concerns of the IIT (BHU) team of hostel administration. The team of Council of Wardens at IIT (BHU) encourages students to create a clean, congenial and lively environment in the campus to nurture an individual to grow as a responsible person of the society with a trait of academic and research excellence.

Accommodation

Sl.No.	Name of Hostel
Boys Hostels	
1.	Vishwakarma Hostel
2.	Vivekanand Hostel
3.	Dr. S.C. De. Hostel
4.	Limbdi Hostel
5.	Rajputana Hostel
6.	Visvesvaraya Hostel
7.	Dhanrajgiri Hostel
8.	Morvi Hostel
9.	C.V. Raman Hostel
10.	A. S.N. Bose Hostel
11.	S. Ramanujan Hostel
12.	R.N. Tagore Hostel
13.	Aryabhatta Hostel
Girls Hostels	
14.	Gandhi Smiriti Girls Hostel (GSMC)
15.	Gandhi Smriiti Girls Hostel (GSMC-Extn.)
15.	I.I.T Girls' Hostel (Saluja) & IIT Girls' Hostel 2 (Limbdi Warden's Quarter)

Scholarship to B.Tech/B.Pharm Students

Sl. No.	Name of Scholarship		2012-13	2013-14	2014-15	2015-16
1.	Merit-cum-Means		228	229	227	244
2.	Central Sector	SC	10	10	10	10
3.		ST	05	05	05	05
4.	BENCO					01
5.	N.C. Jain Scholarship		--	--	--	06
6.	IPA Devinder Pal Scholarship		--	--	--	01
7.	IPA Ramanbhai Foundation Scholarship		--	--	--	01

Stipend to Students in M.Tech-I, M.Tech-II, M.Pharma, IDD/IMD in the session 2015-16

Name of Department	M.Tech/M.Pharma -I	M.Tech/M.Pharma -II	IDD/IMD	Total
Mechnical Engg	54	42	19	115
Chemical Engg.	42	37	0	79
Electronics Engg.	33	37	0	70
SMST	13	12	13	38
Bio -Chemical Engg.	8	6	14	28
Electrical Engg.	33	44	18	95
Metallurgical Engg.	30	11	16	57
Pharmaceutics	28	29	16	73
Civil Engg.	36	30	21	87
Ceramic Engg.	16	18	11	45
Mining Engg.	22	3	9	34
Bio -Medical Engg.	6	7	13	26
Physics	0	0	10	10
Mathematical Sciences	0	0	14	14
Chemistry	0	0	7	7
Computer Sciences & Engg.	0	0	15	15
Total	**321**	**276**	**196**	**793**

List of Ph.D. Scholars who are receiving Teaching Assistantship for the Session 2015-16 as per record available till 23/02/2016 (Approx.)

Name of Departments/Schools	JRF @Rs. 25,000/- p.m.	SRF @Rs. 28,000/- p.m.	Beyond 4th/5th year
Mechnical Engg	21		
Ceramic Engg.	7	5	1
Civil Engineering	21	8	
Bio-Chemical Engineering	3	18	1
Humanistic Studies	4		
Electronics Engineering	19	13	
Mechanical Engineering	44	21	1
Physics	14	15	1
Mathematical Sciences		18	
Electrical Engineering	27	18	
Materials Science & Technology	14	13	2
Chemical Engineering	30	22	13
Bio-Medical Engineering	10	10	5
Metallurgical Engineering	12	15	1
Pharmaceutics	21	15	4
Chemistry	18	20	
Computer Science & Technology	6	15	
Total	**271**	**226**	**16**

Introduction:

The Training and Placement Cell of the Indian Institute of Technology (BHU) was developed as a separate unit in the Institute as early as 1977-78. Since its inception, the Cell is coordinating placement of final year students in various industries and research organizations and making arrangements of summer internship for B.Tech./B.Pharm/IDD/IMD students every year as part of their academic curriculum. More than 16,000 students of B.Tech./B.Pharm., IDD/IMD and M.Tech./M.Pharm./ Ph.D. have been placed through this Cell with lucrative compensation package in leading industries in the country and abroad.

Placement Activities:

Large number of prestigious companies, both from public and private sector, have visited our institute and their number has greatly increased from mere 16 in 1977 to 129 in 2015-16. During the academic session, the recruitment process started on 1st December, 2015, large number of prestigious companies such as Google, Microsoft, GoldmanSachs, Oracle, Infosys, Ebay-Paypal, Flipkart, SnapDeal, Amazon, Texas, CISCO, nVidia, Samsung, Qualcomm, Walmart, Citrix, Coal India, L&T, etc., who had been our regular visitors to the Institute, continued to show their faith in our students' performance and made large number of recruitments. There had been the first time visitors to our institute which include companies like Practo, Edgeverve, Proptiger, PayTM, Ola Cabs, Oxigen etc.

This year a total of 759 job offers were received among 485 B.Tech/ B.Pharm students, 155 job offers for outgoing students of IDD/IMD programmes. A total of 63 job offers have been given to the postgraduate students and 07 Ph.D. scholars have also been placed. Further, 71 pre-placement offers have also been received for the students. As in the previous year, the Cell has also conducted placement activities for MCA and M.Sc. (Computer Science) students of BHU.

The highest pay package that is offered during this year is Rs. 227.00 Lakhs per annum which is from a multi-national software company.

Details of Placement	
Starting Date of Placements	01.12.2015
Total No. of Companies Visisted for Placements	129
Total Job Offers Made	759
Students Receiving 2 Offers	44
Students Receiving more than 2 offers	04
Students Receiving more than 3 offers	01
Pre-Placement Offers	71
Highest Placement Package Offered	Rs. 227.00 Lakhs/pa
Lowest Placement Package Offered	Rs. 4.00 Lakhs/pa
Average Package for Eligible Students	Rs. 10.90 Lakhs/pa

Total Eligible Students for Placements:

Name of Dept./School	**B.Tech.**	**IDD**	**IMD**	**M.Tech.**	**B.Pharma**	**M.Pharma**	**Ph.D.**
Ceramic Engineering	51	11	—	17			1
Chemical Engineering	101	—	—	35			14
Civil Engineering	70	21	—	28			1

Computer Engineering	65	15	—	—			13
Electrical Engineering	79	21	—	41			4
Electronics Engineering	81	—	—	38			12
Mechanical Engineering	101	20	—	46			9
Metallurgical Engineering	52	16	—	10			3
Mining Engineering	87	11	—	3			—
Pharmaceutics	—	19	—	—	9	29	8
Biochemical Engineering	—	14	—	5			20
Biomedical Engineering	—	13	—	5			3
Material Science & Tech.	—	14	—	11			1
Chemistry	—	—	10	—			9
Mathematics	—	—	15	—			4
Physics	—	—	13	—			—
Total	**687**	**175**	**38**	**239**	**9**		**102**

Details of the students placed during 2015-16

Name of Dept./School	**B.Tech.**	**IDD**	**IMD**	**M.Tech.**	**B.Pharma**	**M.Pharma**	**Ph.D.**
Ceramic Engineering	31	8	—	5			1
Chemical Engineering	59	—	—	4			—
Civil Engineering	38	13	—	9			—
Computer Engineering	59	15	—	—			—
Electrical Engineering	65	16	—	7			—
Electronics Engineering	67	—	—	9			2
Mechanical Engineering	76	13	—	8			—
Metallurgical Engineering	40	12	—	4			1
Mining Engineering	47	11	—	—			—
Pharmaceutics	—	10	—	—	3	15	1
Biochemical Engineering	—	12	—	1			—
Biomedical Engineering	—	7	—	1			—
Material Science & Tech.	—	10	—	—			—
Chemistry	—	7	7	—			1
Mathematics	—	—	14	—			—
Physics	—	—	11	—			1
Total	**482**	**123**	**32**	**48**	**3**	**15**	**7**

Introduction:

The Resource & Alumni office of the Institute works for the functions as delineated by the Director of the Institute (Vide letter No. IIT (BHU)/2014-15/504/L Dated 9th September 2014 and Subsequent modification. The following works/functions are carried out as

I. Planning, Allocation and Monitoring of existing infrastructure and reorganization.
II. Institute Works Committee related resource functions. (through Chair, IWC)
III. (a). Alumni Processes and Functions (through Alumni Committee)
IV. (b).Gandhi Technology Alumni Centre-Guest Houses Including GRTA. (through Coordinator, GTAC).
V. Local and Regional (Varanasi) Alumni Interaction. (NOC given to Beneras Alumni Association during the period).
VI. Seeking and Raising Endowments.
VII. (a) MoUs with other Academic Institutions.
VIII. (b) Newer Dimensions.
IX. Training & Placements functions (through TPO)
X. Green Cell (through Chair Green Committee).

Vision: The vision is to fuel academic and functional processes of the institute by galvanizing alumni activity and purposeful organization of resources. Our vision is also at involvement of alumni in such a manner so as to attract best of minds from India and abroad to work with us for achieving excellence in Research and Innovation driven Engineering Sciences Education.

Mission: We aim at involvement of Alumni in mentoring, evaluation and hand holding of students in Design and Innovation and Entrepreneurship activities of the Institute, apart from encouraging them to participate in the organization of academic processes.

We have the mission of involving our undergraduate, postgraduate students research personnel and faculty colleagues to put concerted efforts in processing and creation of knowledge, application of knowledge and development of solutions to problems for the purpose of addressing professional issues and concerns of society through innovative ways for sustainable and humanistic development.

Events:

a). 1st Alumni Meet of IIT (BHU),

b). 1979 Batch Reunion was held during November 2015. Some 45 to 50 alumni, mostly with family participated. Hon. Minister of State for Railways Shri Manoj Sinha ji (an alumnus of 1979 batch) was present on the first day.

C). Chalo Banaras (1990 Batch Reunion): Silver Jubliee Reunion of 1990 Batch was held during 26 to 28 December 2015. The alumni of 1990 pass out batch of Computer Science, Chemical, Civil, Electrical, Electronics, Mechanical, Metallurgy, Mining and Pharmacy branches widespread globally were assemble in this meet to share their experiences with faculty, students.

d). Dr. Sriniwas (Sri) Mirle, Director – IIT BHU Global Alumni Association (IBGAA) and alumnus 1981 Chemical Engineering batch, visited IIT (BHU) Varanasi on 23rd and 24th November 2015. The main agenda of his visit was to discuss upon and explore further on possibilities of financial contributions by alumni, more specifically on two projects which are:

- Shatabdi Granthagar (Centennial Library) and
- Establishing Research Park of Tier 2 type at IIT (BHU), an initiative by MHRD, GoI.

Also, his visit was aimed to further explore upon possibilities of support that alumni could render to IIT (BHU) in different areas.

A series of meetings took place on 23rd and 24th November 2015 which were as follows:

Date	Time	Venue	Details
23 November 2015	7:30 PM To 8:30 PM	IIT(BHU) Gandhi Alumni Centre	Meeting chaired by Prof. Rajeev Sangal, Hon. Director, IIT (BHU) attended by : Dr. Sri Mirle Prof. A.K. Tripathi, Dean Resource and Alumni Prof. P. K Mishra, Coordinator, Technology Business Incubator (TBI), MCIIE Prof. T. Som, Mathematical Sciences Prof. Devender Singh, Incharge, Design & Innovation Hub and Varanasi Project Prof. S. P. Tewari, Chairman Senate Library Commitee Dr. N. Upadhyay, Dy. Librarian, Main Library Sh. Arun Keshav, Manager, TBI, MCIIE
24 November 2015	10:00 AM To 11:00 AM	MCIIE, IIT (BHU)	Interaction and discussion of Dr. Mirle with Prof. P. K. Mishra, Coordinator, with incubates and officials of TBI, MCIIE. Meeting with Prof. Devender Singh, Incharge Varanasi Project and Design & Innovation Hub
24 November 2015	11:30 AM To 12:30 AM	Library, IIT (BHU)	Meeting with main library officials on project related to Shatabdi Granthagar
24 November 2015	02:30 PM To 03:15 AM	MCIIE, IIT (BHU)	Meeting to consolidate discussions held in all the aforesaid meetings, attended by: Dr. Sri Mirle Prof. P. K Mishra, Coordinator, Technology Business Incubator (TBI), MCIIE Dr. Pradeep Srivastava, Coordinator TBI Prof. T. Som, Mathematical Sciences Prof. S. P. Tewari, Chairman Senate Library Commitee Dr. N. Upadhyay, Dy. Librarian, Main Library Sh. Arun Keshav, Manager, TBI, MCIIE
24 November 2015	03:15 PM To 04:15 AM	MCIIE, IIT (BHU)	Interaction and discussion of Dr. Mirle with students of Dept. of Chemical Engg. & Technology

The summary points of mutually agreed upon decisions, as made during the aforementioned series of meetings, are as follows:

- In principle agreement made for mobilizing contribution of Rupees One Hundred and Fifty Crores Only (Rs. 150 Crores) towards setting up Shatabdi Granthagar (Centennial Library) at IIT (BHU). Two possible outcomes were foreseen in this regard:
  - Alumni will also attempt to vast fund for the purpose.
  - The deficit amount to be sourced by IIT (BHU), through government grants.
- A Letter of Intent to be issued by president IBGAA, for mobilizing a contribution of Rupees Seven Crores Only (Rs. 7 Crores), being the requisite alumni contribution, as per the MHRD, GoI guidelines, towards establishing Research Park of Tier 2 type at IIT(BHU) Varanasi. A letter in this regard has been received from President IBGAA.
- Alumnus travelling to India, to be requested through alumni association, to make a visit to TBI, MCIIE to share their expertise with the start-ups here. If required, MCIIE to bear the expenses of their logistics within India and arrange for their stay at Varanasi.
- Request made to alumni associations to create a Seed Fund Corpus at TBI, MCIIE for investing in start-ups

at TBI. The funds could directly be managed by alumni.

- Request made for creating a MCIIE website link at IBGAA website.
- A Google form to be created at MCIIE website for alumnus interested to register as Mentor for start-ups at TBI.
- An interactive platform to be created by TBI, where-in interested mentors and start-ups can interact and mentor-startup match could take place.

A website that hosts Alumni Meet registration apart from profile creation etc, is already in place : https://itbhualumni.net

E. There was also a 1969 Batch reunion here in the Institute around 28/02/2016. During the course of reunion Mr. Mohinder Sood (Representative of 1969 Batch) donated a sum of Rs. 5,20,000/- (By Cheque) for renovation and up-liftment of GTAC, IIT (BHU).

Distinguished Alumnus Award: Following Alumni was decorated with Distinguished Alumnus Award on the occasion of 1st Alumni Meet of Institute, held on December 30th 2015 to January01, 2016.

S No.	Name	Department/year	Category
1.	Dr. Anil Bhardwaj	Applied Physics (1992)	Research & Development
2.	Shri Brij N. Agrawal	Mechanical Engineering(1960-64)	Academic
3.	Shri Jay Choudhary	Electronics Engineering(1980)	Profession
4.	Shri Manoj Sinha	Civil Engineering (1979)	Public Life

Other Activities:

1. Meeting for DIH/Project Varanasi, Institute Repository, Research Park to be setup in future (Supported and funded by IBGAA), Cafeteria, IIT (BHU) were also held for making understanding and future plan in these areas.
2. One BHK 48 apartments have been constructed at GRTA, this is Block B of the existing GRTA Complex.

8. Endowment Created : During the period of FY-2015-16 (01/04/2015 to 31/03/2016)

S No.	Name of Person/Trust	In favor of	Type	Purpose
1.	Prof. B. Kishore	Registrar, IIT (BHU)	Endowment	for Sanjeev Memorial Gold Medal.
2.	Prof. B. Kishore	Registrar, IIT (BHU)	Endowment	S.K. Memorial Gold Medal
3.	Prof. Devendra Kumar and his Associates	Registrar, IIT (BHU)	Endowment	Harbans Gokul Memorial GoldMedal
4.	Prof. B. Kishore	Registrar, IIT (BHU)	Endowment	प्राचीन भारतीय विज्ञान एवं प्रौद्योगिकी
5.	Shri Mumtaz Ahmad Quraishi	Registrar, IIT (BHU)	Endowment	M. A. Quraishi Gold Medal
6.	1976 Batch, IIT (BHU)	Registrar, IIT (BHU)	Endowment	For 76'Batch Scholarship
7.	Shri Sachchida Nand Tripathi	Registrar, IIT (BHU)	Endowment	For 6 Medal to Girl Student of Institute.
8.	Ministry of Railways, Government of India.	Registrar, IIT (BHU)	Endowment	Regarding MOU named as "Malviya Chair"
9.	Sri J. N. Kapoor	Registrar, IIT (BHU)	Endowment	J. N. Kapoor Gold Medal
10.	Puroshottam Keswani	Registrar, IIT (BHU)	Endowment	Late Sundari Devi Gold Medal
11.	Prof. Amar Bahadur Singh	Registrar, IIT (BHU)	Endowment	For R.P. Singh, IRSE (RTD.) Gold Medal.

Year Wise funds and Donors

S No.	Total Funds from Alumnus (Lakhs of Rupees)	Total No. of Donors
2009-10	NA	NA
2010-11	NA	NA
2012-13	NA	NA
2013-14	Approximately 60 Lakhs	1 (IBGAA)
2015-16	Rs. 524.55 Lakhs	10

Report on work and progress of IIT (BHU) Cafeteria (Period: 1st April-14 to 31 March 15) reported by Prof. Sanjay Singh, Chairman, Cafeteria, IIT (BHU) on November 09, 2015.

IIT (BHU) Cafeteria is mainly established with aim to provide quality food and refreshment to the members, students and staff of Institution. The daily activity of Cafeteria is maintained by its own resources (i.e. sales). However, the manpower and other infrastructural facilities are supported by the Institute.

Cafeteria has 11 permanent and 6 daily wages staff to cater the need of nearly 7000 student and staff of the Institute. A management Committee is constituted by the Institute for maintaining the Cafeteria. However, the daily activities are supervised by the Manager, IIT Cafeteria.

The food and refreshment items have been increased in the cafeteria. The Lunch and other items are also prepared on the demand of its customers. The suggestions of the stakeholders are also taken for improving the services of the Cafeteria.

Television and Music system have been placed in the Cafeteria for recreation of the customers. C.C.T.V. Camera are also installed at different places of the cafeteria as safety measure.

For providing quality water a new Aqua Guard was installed in the Cafeteria. The water functioning systems are periodically serviced to maintain the water quality. To improve the cleanliness in the cafeteria, a floor cleaning machine was also procured. The overall ambience of the cafeteria has been improved by installing new water coolers, tables, chairs and curtains.

A cafeteria sub-committee was also formed to identify the Cafeteria system in the Institute. Committee has given its recommendation for further necessary action.

Institute Research Project (for Individual Faculty) granted in F.Y. 2015-16

S. No.	Name of Faculty	Designation	Departments	Amount Sanctioned	Topic of Research Proposal
1.	Prof. Rajiv Prakash	Professor	School of Materials Science & Technology, IIT (BHU).	15,00,000.00	Dye Sensitized Nanostructures based on Photon Upconversion Materials for Efficient Photo-voltaic Cells
2.	Dr. Yogesh Chandra Sharma	Professor	Department of Chemistry, IIT (BHU).	14,66,250.00	Synthesis and characterization of biodiesel produced from micoalgae
3.	Dr. Pralay Maiti	Professor	School of Material Science & Technology, IIT (BHU)	15,00,000.00	Chitosan Nanocomposite scaff olds for drug delivery and tissue engineering
4.	Prof. Ranjana Patnaik	Professor	School of Biomedical Engineering, IIT (BHU).	15,00,000.00	Stroke and Neuroprotection
5.	Prof. Devendra Kumar	Professor	Department of Ceramic Engg., IIT (BHU)	15,00,000.00	Development of Multifunctional Ceramic Materials
6.	Prof. S. Jit	Professor	Department of Electronics Engineering, IIT(BHU).	15,00,000.00	TCAD Simulation Based Perfor-mance Optimization of Junction-less Silicon Nanowire Gate-All-Around Tunnel FETs (JL-SNW-GAA-TFET) for Future Generation Sub - 20 nm CMOS Technology
7.	Prof. Sanjay Singh	Professor	Department of Pharmaceutics, IIT (BHU).	14,95,000.00	To Study the Effect of Anti-Platelet Agents on Vascular Inflammation for the Treatment of Atherosclerosis
8.	Prof. S.K. Singh	Professor	Department of Pharmaceutics, IIT (BHU).	14,66,250.00	Development of bioactive mole-cules as therapeutic agent for Alzheimer's disease & screening their toxicity
9.	Prof. B. Mishra	Professor	Department of Pharmaceutics, IIT (BHU).	15,00,000.00	Development of low cost phyto-nanoformulation for better treatment of breast and ovarian
10.	Prof. Sushant K. Shrivastava	Professor	Department of Pharmaceutics, IIT (BHU).	13,20,374.00	Design, synthesis, molecular modeling & evaluation of some novel heterocyclic compounds as potential anti-hyperglycemic agents
11.	Dr. Prabhakar Singh	Professor	Department of Physics, IIT(BHU), Varanasi.	14,66,250.00	Fabrication and characterization of the tape casted materials for intermediate temperature solid oxide fuel cells
12.	Dr. Subir Das	Associate Professor	Department of Mathematical Sciences	4,02,500.00	Study of some Engineering Problems in Fractional Order Dynamical System
13.	Dr. S. Hemalatha	Associate Professor	Department of Pharmaceutics, IIT(BHU).	15,00,000.00	Comprehensive Metabolomic Profile of some Anti diabetic Phytochemicals in Experimental Animals
14.	Dr. Sairam K.	Associate Professor	Department of Pharmaceutics, IIT(BHU).	15,00,000.00	Pharmacological evaluation of sertraline in alcohol preferring post-traumatic stress disorder rats

15.	Dr.(Mrs.) Chandana Rath	Associate Professor	School of Material Science & Technology, IIT(BHU).	15,00,000.00	Physical Properties of undoped and doped HfO2 thin films deposited by Physical Vapour Deposition Technique
16.	Dr. Vikas Kumar	Associate Professor	Department of Pharmaceutics, IIT(BHU)	15,00,000.00	Effect of some herbs and secondary metabolites on cytokines expression in rat's blood and brain samples
17.	Dr. Akhilesh Kumar Singh	Associate Professor	School of Material Science & Technology, IIT(BHU).	15,00,000.00	Development of New Lead Free Piezoelectric Materials and Investigation of their Relaxor Ferroelectric Behaviour
18.	Dr. Indrajit Sinha	Associate Professor	Department of Chemistry, IIT(BHU).	15,00,000.00	Ag, Cu and Ag-Cu nanoparticle catalyzed p-nitrophenol reduction reaction : Theoretical and experimental studies
19.	Dr. Kausik Chattopadhyay	Associate Professor	Department of Metallurgical Engineering, IIT(BHU).	14,90,000.00	Effect of severe plastic deformation via ultrasonic shot peening on corrosion and stress corrosion cracking behaviour of Al-alloy 7075
20.	Dr Rajnesh Tyagi	Associate Professor	Department of Mechanical Engineering	14,66,250.00	Synthesis and Tribological Characterization of Cu Based Composites Containing Solid Lubricants
21.	Dr. Manas Ranjan Majhi	Associate Professor	Department of Ceramic Engineering, IIT(BHU),	14,66,250.00	Development of Al2O3-ZrO2-SiO2 refractories for Glass Industries
22.	Dr. Sundaram Singh	Associate Professor	Department of Chemistry, IIT(BHU), Varanasi.	15,00,000.00	Nanoparticle Catalysed Multicomponent Synthesis of some Bio Active Heterocyclic Compounds
23.	Dr. Abhishek Kumar Srivastava	Assistant Professor	Department of Physics, IIT(BHU),	14,16,800.00	Study of MHD Waves and Dynamical Plasma Processes in the Localized Solar Chromosphere
24.	Dr. Jahar Sarkar	Assistant Professor	Department of Mechanical Engineering, IIT(BHU)	14,90,000.00	Heat Transfer and Flow Characteristics of Hybrid Nanofluids in Mini-Micro-Channels
25.	Dr. Abha Mishra	Assistant Professor	School of Biochemical Engineering, IIT(BHU)	14,60,500.00	Evaluation of anticancer activity of Genistein and resveratol and their combined effect on colon cancer cell line
26.	Dr. Sanjeev Kumar Mahto	Assistant Professor	School of Biomedical Engineering, IIT(BHU)	15,00,000.00	Fabrication of Microfluidic-based Neuromuscular Junctions on a Chip
27.	Dr. Somdeb Bose Dasgupta	Assistant Professor	School of Biomedical Engineering, IIT(BHU)	15,00,000.00	Functional characterization of a novel Topoisomerase IA from Leishmania and developing it as an effective therapeutic target against Leishmaniasis
28.	Dr. Shiru Sharma	Assistant Professor	School of Biomedical Engineering, IIT(BHU)	14,50,000.00	Electromyography Biofeedback for Backache Patient
29.	Dr. Bhola Nath Pal	Assistant Professor	School of Mat. Science & Technology, IIT(BHU)	13,80,000.00	Fabrication of low power-high brightness alternative current polymer electroluminescence device
30.	Dr. Meghanshu Vashista	Assistant Professor	Department of Mechanical Engineering, IIT(BHU).	15,00,000.00	Application of Barkhausen Noise Technique for Analsysis of Ground Steels

Post Doctoral Fellow sanctioned in Financial Year 2015-16

Sl. No.	Name of Faculty under whose Supervision PDF position is sanctioned	No. of Post Doctoral Fellow position sanctioned
1.	Prof. R.S. Singh Department of Chemical Engineering & Technology, IIT(BHU)	01
2.	Prof. P.K. Jain Department of Electronics Engineering, IIT(BHU)	01
3.	Prof. S. Jit Department of Electronics Engineering, IIT(BHU)	01
4.	Prof. Devendra Kumar Department of Ceramic Engineering, IIT(BHU)	01
5.	Prof. Sanjay Singh Department of Pharmaceutics, IIT(BHU).	01
6.	Prof. B. Mishra Department of Pharmaceutics, IIT(BHU).	01
7.	Prof. Sushant K Shrivastava Department of Pharmaceutics, IIT(BHU)	01
S.No.	**Name of the field** **Particulars**	**Date**
8.	Dr. Sandip Chaterjee Department of Physics, IIT(BHU)	01
9.	Dr. Subir Das Department of Mathematical Science, IIT(BHU)	01
10.	Dr. Akhilesh Kumar Singh School of Material Science & Technology, IIT(BHU)	01
11.	Dr. (Mrs.) Chandana Rath School of Material Science & Technology, IIT(BHU)	01
12.	Prof. Rajiv Prakash School of Material Science & Technology, IIT(BHU)	01
13.	Prof. Pralay Maiti School of Material Science & Technology, IIT(BHU)	01
14.	Professor-In-charge, Central Instrumental Facility Centre, IIT(BHU)	02
15.	Dr. Vinay Kumar Singh Department of Ceramic Engineering, IIT(BHU)	01
	Total Post Doctoral Fellow Position sanctioned	**16**

List of MoUs of the Financial Year 2015-16

1.	MoU	Hochschule Reinsman, Reinsman University of Applied Science Wiesbaden Russelsheim, Germany	24.09.2015
2.	MoU	The Regents of the University of California on Behalf of its Santa Cruz Campus	24.11.2015

National MoUs signed in F.Y. 2015-16

Sl. No.	Name of the field	Particulars	Date
1.	MoU	TIFAC MSME	26-05-2015
2.	MoU	Indian Railways "Malviya Chair" for Railway Technology	08-06-2015
3.	MoU	Patient Safety and Access Initiative (PSAI) of India Foundation	10-08-2015
4.	MoU	IIT-BHU, IIIT-Hyderabad and Expert Software Consultants Ltd., Dwaraka, New Delhi	21-08-2015
5.	MoU	Pravartan Technologies Private Limited, Gurgoan, Haryana	04-01-2016
6.	MoU	Tata Consultancy Services Ltd. (Mumbai) and Indian Institute of Technology	01-03-2016

Details of the funds earned under Testing/Consultancy Projects in the F.Y. 2015-16

Sl. No.	Name of Department	Testing	Consultancy	Total Amount Earned
1.	Mining Engg.	69,31,132.00	13,62,400.00	82,93,532.00
2.	Metallurgical Engg.	4,65,334.00	----------	4,65,334.00
3.	Civil Engg.	44,00,656.00	4,16,68,543.50	4,60,69,198.50
4.	Ceramic Engg.	10,000.00	----------	10,000.00
5.	Chemical Engg. & Tech.	6,81,583.00	----------	6,81,583.00
6.	SMST	----------	1,80,000.00	1,80,000.00
	Total	1,24,88,705.00	4,32,10,943.50	5,56,99,647.50

Details of Teaching Lab Grant Sanctioned in Financial Year 2015-16

Sl. No.	Name of Department/School	Amount sanctioned in Phase-I ( )`	Amount sanctioned in Phase-II (`)	Total Sanctioned ((`))
1.	Deptt. of Physics	50,00,000.00	50,00,000.00	1,00,00,000.00
2.	Deptt. of Chemistry	50,00,000.00	50,00,000.00	1,00,00,000.00
3.	Deptt. of Civil Engineering	75,00,000.00	------	75,00,000.00
4.	Deptt . of Electrical Engg.	75,00,000.00	75,00,000.00	1,50,00,000.00
5.	Deptt. of Electronics Engg.	75,00,000.00	55,00,000.00	1,30,00,000.00
6.	Deptt. of Mechanical Engg.	75,00,000.00	75,00,000.00	1,50,00,000.00
7.	Deptt. of Metallurgical Engineering	75,00,000.00	75,00,000.00	1,50,00,000.00
8.	Deptt. of Mining Engineering	75,00,000.00	75,00,000.00	1,50,00,000.00
9.	Deptt. of Ceramic Engineering	75,00,000.00	------	75,00,000.00
10.	Deptt. of Chemical Engg. & Tech.	75,00,000.00	75,00,000.00	1,50,00,000.00
11.	Deptt. of Pharmaceutics	75,00,000.00	75,00,000.00	1,50,00,000.00
12.	Deptt. of Computer Science & Engg.	75,00,000.00	20,00,000.00	95,00,000.00
13.	School of Bio-chemical Engg.	50,00,000.00	50,00,000.00	1,00,00,000.00
14.	School of Bio-Medical Engg.	50,00,000.00	50,00,000.00	1,00,00,000.00
15.	School of Material Science & Technology	50,00,000.00	27,00,000.00	77,00,000.00
16.	Main Workshop	50,00,000.00	50,00,000.00	1,00,00,000.00
		10,50,00,000.00	8,02,00,000.00	18,52,00,000.00

Sponsored Project during the session 2015-16

S. No.	Title of Project	Name of the PI/Co-PIs	Department	Name of the Funding Agency	Period of the Project Sanction
1.	Study of Magnetospheric Wave-Particle interaction, Aurora, Airglow and Conductivities on Planets and their Satellites	Dr. D. Giri/ R.P. Singhal/ O.N. Singh	Physics	ISRO	3 Years
2.	Design and Development of a smart Energy Grid Architecture with Energy storage	Prof. R.K. Pandey	Electrical Engg.	DST	3 Years
3.	Evaluation and Optimisation of Biodiesel Production from Microalgae	Prof. Yogesh Chandra Sharma	Chemistry	DST	3 Years
4.	Electromagnetic Analysis, Design and simulation of an X-band Gyro-Twystron Amplifier	Dr. M. Thottappan/ Prof. P.k. Jain	Electronics Engg.	SERB	3 Years
5.	Development of SrTiO3 based Anode Materials for Intermediate Temperature Solid Oxide Fuel Cells	Dr. Prabhakar Singh/ Prof. A.S.K. Sinha	Physics	BRNS	3 Years
6.	Study and Analysis of Mathematical Models of Nonlinear Fractional Order Diffusion Equations"	Dr. Subir Das	Mathematical Sciences	BRNS	3 Years
7.	NOx Removal from Diesel Exhaust by combined NOx storage Reduction and NH3 SCR System	Dr. Sweta	Chemical Engg.	SERB	3 Years
8.	Development of Electropulsing Facility for Synthesis of Bulk Nanostructured Materials	Dr. Rampada Manna Prof. G.V.S. Sastry/ Prof. R.K. Pandey/ Prof. S.N. Ojha	Metallurgical Engineering	BRNS	2 Years
9.	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	Dr. Jeyakumar Kandasamy	Chemistry	SERB	3 Years
10.	Delineating the molecular interactome of Calcineurin, post phagosome formation in mycobacterial pathogenesis	Dr. Somdeb Das Gupta	Biomedical Engg.	SERB-DST	3 Years
11.	MHD Waves in the Solar Atmosphere and Refined Magneto-seismology	Dr. Abhishek Kr. Srivastava/ Dr. Anita Mohan	Physics	ISRO	3 Years
12.	Development & Evaluation of Infrared Nanoparticles for Cellular-wide sensitive E-field Mapping	Dr. Manoj Kumar	Chemical Engg.	DST Nano Mission	3 Years
13.	Efficient Generation of a Query-Specific Extractive Summary on Multiple Documents – A Distributive Approach	Dr. Ravindranath Chowdary	Computer Science	SERB	3 Years
14.	Pyrolysis of Biomass for the Producation of Bio-oil: Experimental and Computational Study	Dr. J.P. Chakraborty	Chemical Engg.	DST	3 Years
15.	Observations and Modeling of solar transients & space weather candidates	Dr. Abhishek Kr. Srivastava	Physics	SERB	3 Years

List of of ongoing Sponsored Projects for the F.Y.2015-16

S. No.	Title of Project	Name of the PI/Co-PIs	Department	Name of the Funding Agency	Period of the Project Sanction
1.	Fractional Calculus approached for Two Dimensional Ground Water Contamination in Unsaturated Porous Media	Dr. Subir Das	Mathematical Sciences	BRNS, BARC, Mumbai	3 Years
2.	DST-INSPIRE Fellow	Dr. Bratindranath Mukherjee, P.I.	Metallurgical Engg.	DST	3 Years
3.	Effect of Mean Stress on High Cycle Fatigue (HCF) Properties of GTM-SU-718 Alloy	Prof. Vakil Singh, P.I/Dr. G.S. Mahobia, Co-P.I.	Metallurgical Engg.	DRDO	18 Months
4.	Exploring the Effect of Processing Parameters on the Corrosion Behavior of Iron-Alumina/Zirconia Metal Matrix Nanocomposites (MMNC)	Prof. Devender Kumar, P.I., Prof. Om Prakash -Co-PI, Prof. MM Singh, Co-PI	Ceramic Engg.	CSIR	3 Years
5.	Development of Microfluidic tools for neuromuscular synatogenesis and nanotoxicological studies	Dr. Sanjeev Kumar Mahto	Biomedical Engg.	DST	3 Years
6.	Development and evaluation of an innovative poly herbal Bi layer wound dressing material	Dr. Pradeep Srivastava	Biochemical Engg.	DRDO	3 Years
7.	Analysis, Design and Simulation of an S Band MILO	Prof. P.K. Jain, P.I./ Dr. M. Thottappan, Co-PI	Electronics Engg.	DRDO	3 Years
8.	A Versatile Bidirectional Optional Battery Charger	Dr. Rajeev Kumar Singh, PI, Prof. R.K. Mishra, Co-PI, Prof. D.Singh, Co-PI	Electrical Engg.	SERB	2 Years
9.	Design, Development and Performance Analysis of Silicon Carbide Converter for Aerospace Application	Dr. Santosh Kumar Singh, PI	Electrical Engg.	SERB	3 Years
10.	Development of Air Breathing Micro-fluidic Fuel Cell for the Direct Use of Ethanol as fuel for Power Generation	Dr. Hiralal Pramanik, P.I.	Chemical Engg. & Tech.	SERB	3 Years
11.	DAE-Raja Ramanna Fellow	Prof. S.N. Upadhyay (Emeritus Professor), P.I.	Chemical Engg. & Tech.	DAE	5 Years
12.	Development of technology for the generation of biological hydrogen: a second generation fuel	Mr. Neha Srivastava under guidance of Prof. P.K. Mishra	Chemical Engg. & Tech.	DST	3 Years
13.	DST/INSPIRE Faculty Award (IFA-12-PH-21)	Dr. S.K. Singh	Physics	DST	5 Years
14.	IFA-12-Ph-22 DST/Inspire Faculty Award/2012 Inpire Faculty Award	Shri Sunil Kumar Mishra	Physics	DST	5 Years
15.	Development of new Electrolyte materials with optimized electrical/ ionic/conductivity for Solid Oxide Fuel Cells	Dr. Prabhakar Singh	Physics	DRDO	3 Years

16.	A Systematic Study on the Correlation Between Structural, Magnetic and Electrical Properties of Multiferroric Cd1-xAxV2O4 and Bi (Mn1-xAx)o3 [A=Fe,Co,Ni]	Dr. Sandip Chatterjee	Physics	BRNS-DAE	3 Years
17.	Dynamic of Ions in Tellurite Glasses of Variable Composition	Dr. Prabhakar Singh (PI.)	Physics	CSIR	3 Years
18.	Study of Magnetospheric Wave-Particle interaction, Aurora, Airglow and Conductivities on Planets and their Satellites	Dr. D. Giri/ R.P. Singhal/ O.N. Singh	Physics	ISRO	3 Years
19.	Study of Tool Wear in Diamond Turn Mechining & Micro Machining Process	Prof. Sandeep Kumar, P.I., Dr. U.S. Rao, Co-PI, Dr. Amit Tyagi, Co-PI	Mechanical Engg.	Bhabha Atomic Research Centre, (BARC) Mumbai	2 Years
20.	Development of Sheet Hydro-forming Process for missile Components	Prof. Santosh Kumar, P.I.	Mechanical Engg.	Defence Research & Development Lab (DRDL), Hyderbad	2 Years
21.	Technology and Fabrication of Tabletop CNC Machine for Micro-Tubular Hydro forming Setup	Prof. Santosh Kumar, PI	Mechanical Engg.	BARC, Mumbai	2 Years
22.	Assessment of residual stress upon friction stir welding of steel	Dr. Mohd. Zaheer Khan Yusufzai	Mechanical Engg.	SERB	3 Years
23.	Quenching behavior of dry heated ord with nanofluid	Dr. Pradyumna Ghosh	Mechanical Engg.	BRNS	2 Years
24.	Synthesis and Characterization of Novel Segmented Polyurethane-Graphene Nanocomposites for Biomedical Applications	Prof. Pralay Maiti, P.I.	SMST	CSIR	3 Years
25.	Cognitive Linguistic study of perception verbs in Hindi and English: In the context of machine translation	Dr. Swasti Mishra	Humanities	DST (CSRI)	2 Years
26.	Design of High Temperature Facility for Graphite Dust Formation and Transport.	Dr. Prasant Shukla	Mechanical Engg.	BRNS (DAE)	2 Years
27.	Development & evaluation of nanocarrier for enhanced anti-microbai activity of anacrdic acid against human and plant pathogens	Dr. Sanjay Singh	Pharmaceutics	DST	3 Years
28.	Centre for Energy and Resources Development	Dr. S.K. Shukla	Mechanical Engg.	MHRD FAST Scheme	2 Years
29.	FIST Programme under the Head, Department of Chemical Engineering, IIT(BHU)	A.S.K. Sinha	Chemical Engg.	DST (INSPIRE & First Division)	5 Years
30.	J.C. Bose Fellowship	Prof. Dhananjay Pandey	SMST	SERB	5 Years
31.	Design and Synthesis of novel Matrix Metallo Proteinase (MMP-2 & 9) Inhibitors as therapeutic agents for Alzheimer's Disease	Dr. S.K. Singh	Pharmaceutics	Deptt. of Biotechnology	3 Years

32.	Wavelets and operational matrix based techniques for integral and differential equations	Dr. Rajesh Kumar pandey	Mathematical Sciences	SERB, New Delhi	3 Years
33.	INSPIRE Faculty Award	Dr. Neha Agnihotri	Physics	DST, New Delhi	5 Years
34.	Neutron Diffraction Studies on Nanoparticles of Cobalt Chromite by A/B Site Mixing	Dr. Chandana Rath	SMST	UGC, New Delhi	3 Years
35.	Design and Development of a smart Energy Grid Architecture with Energy storage	Prof. R.K. Pandey	Electrical Engg.	DST	3 Years
36.	Evaluation and Optimisation of Biodiesel Production from Microalgae	Prof. Yogesh Chandra Sharma	Chemistry	DST	3 Years
37.	Electromagnetic Analysis, Design and simulation of an X-band Gyro-Twystron Amplifier	Dr. M. Thottappan/ Prof. P.k. Jain	Electronics Engg.	SERB	3 Years
38.	Design Development and Fabrication of an Incremental Sheet Hydro forming Machine Setup	Dr. Santosh Kumar	Mechanical Engg.	SERB	3 Years
39.	Development of SrTiO3 based Anode Materials for Intermediate Temperature Solid Oxide Fuel Cells	Dr. Prabhakar Singh, Prof. A.S.K. Sinha	Physics	BRNS	3 Years
40.	Study and Analysis of Mathematical Models of Nonlinear Fractional Order Diffusion Equations"	Dr. Subir Das	Mathematical Sciences	SERB	3 Years
41.	NOx Removal from Diesel Exhaust by combined NOx storage Reduction and NH3 SCR System	Dr. Sweta	Chemical Engg.	SERB	3 Years
42.	Development of Electropulsing Facility for Synthesis of Bulk Nanostructured Materials	Dr. Rampada Manna Prof. G.V.S. Sastry/ Prof. R.K. Pandey/ Prof. S.N. Ojha	Metallurgical Engineering	BRNS	2 Years
43.	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	Dr. Jeyakumar Kandasamy	Chemistry	SERB	3 Years
44.	Delineating the molecular interactome of Calcineurin, post phagosome formation in mycobacterial pathogenesis	Dr. Somdeb Das Gupta	Biomedical Engg.	SERB-DST	3 Years
45.	MHD Waves in the Solar Atmosphere and Refined Magneto-seismology	Dr. Abhishek Kr. Srivastava/ Dr. Anita Mohan	Physics	ISRO	3 Years
46.	Development & Evaluation of Infrared Nanoparticles for Cellular-wide sensitive E-field Mapping	Dr. Manoj Kumar	Chemical Engg.	DST Nano Mission	3 Years
47.	Efficient Generation of a Query-Specific Extractive Summary on Multiple Documents – A Distributive Approach	Dr. Ravindranath Chowdary	Computer Science	SERB	3 Years
48.	Pyrolysis of Biomass for the Producation of Bio-oil: Experimental and Computational Study	Dr. J.P. Chakraborty	Chemical Engg.	DST	3 Years
49.	Observations and Modeling of solar transients & space weather candidates	Dr. Abhishek Kr. Srivastava	Physics	SERB	3 Years

The Institute Works Department, IIT(BHU) has been established recently, it is entrusted with the responsibility of construction and maintenance of hostel and administrative building and providing various services. This department also awards contracts in a transparent manner and in the best interest of the Institute by ensuring that all round integrity as well as the best possible standard are maintained, with adequate supervision.

Under the Institute Works Department the following works are in progress through CPWD during the period April 2015 to March 2016.

Major works in progress (Civil)

Sl.No.	Name of Work	Amount (in lacs of Rs.)
1.	C/o 3rd floor of IT-A hostel at IIT(BHU) at BHU, Varanasi	75.000
2.	C/o Dinning and kitchen block (G+1) of Visheshwarya Hostel at IIT-BHU, i/c providing E.I. & Pans	272.220
3.	C/o Providing and fixing seating arrangement in the Lecture Theatre for the Building of L.T. No-1 behind Applied Physics and Ceramic Engineering.	26.620
4.	Construction of Transit Married Hostel at BHU (Block B)	828.670
5.	Construction of Ground floor and complete construction of first floor of Girls Common Room of IIT (BHU) behind Director's Office at BHU, Varanasi and C/o 1st Floor over existing Library Building of IIT (BHU).	975.936
6.	Construction of Transit Married Hostel at BHU (Block C)	451.560
	Total Rs.	**2630.006**

Major works in progress (Electrical)

Sl.No.	Name of Work	Amount
1.	Power Improvement Project in IIT (BHU)	22,00,00,000.00
2.	Rewiring Works & Electrical work at ground floor in Department of Physics at IIT(BHU), Varanasi	8,99,340.00
3.	Rewiring Works & Electrical work at first floor in Department of Physics at IIT(BHU), Varanasi	8,77,931.00
4.	Rewiring work at 1st floor of C.V. Raman Hostel, IIT(BHU)	7,67,808.00
5.	Electrical work at 1st floor (Part A) of C.V. Raman Hostel, IIT(BHU) and rewiring work at ground floor (Part B) of C.V. Raman Hostel, IIT(BHU)	6,98,240.00
6.	Rewiring work & Electrical work at ground floor of C.V. Raman Hostel, IIT(BHU)	6,54,535.00
	Total Rs.	**22,38,97,854.00**

Introduction

The vision of the founder of Banaras Hindu University, Pt. Madan Mohan Malviyaji, regarding the engineering education in this university can be seen in his own Wordings as stated below.

"To advance and diffuse such scientific, technical and professional knowledge combined with necessary practical training as is best calculated to help in promoting indigenous industries and in developing the material resources of the country."

It is with this idea that Malviyaji went for a full scale Workshop in this engineering college, which was christened as Benaras Engineering College (BENCO).This workshop was used to produce every engineering item that was used in construction of producing machine tools – such as, Lathe and other product like electric fans, etc. This unit was providing technical assistance to Martin Burn Electricity Co. and also Diesel Locomotive Works for the maintenance and fabrication of their several items. It may kindly be noted that for a long time, this unit was a part of teaching department, i.e., the Mechanical Engineering Department. To make good use of the resources, both in terms of machines and manpower with the unit, it was providing technical and on the job technical training to less privileged section of the society. This was making extra manpower available to the University for producing useful products and taking various kinds of maintenance work, thereby saving enormous amount of money of the University. For example, the whole fleet of University vehicles was maintained by this workshop.

Activities (IIT-Main Workshop - 2016)

The Main Workshop of the Indian Institute of Technology (BHU) is offering the following services to the Institute/University/Outsiders.

At Institute Level

1. Training to B.Tech. Pt-I students of all branches and B.Tech. Pt-II Mech. Engg. Students to expose them to various manufacturing practice and processes.
2. Providing facilities for fabrication involved in project work to all the engineering students.
3. Helping students by way of fabricating the models and equipments for research.
4. Helping students by way of fabricating the models for Institutional Tech. Fest & Department fest like: Technex, Comet, etc.
5. Helping students in shaping the product that come out of their creative & innovative thinking.

At the University Level

1. Providing product such as furniture etc. (for IIT Hostels, Faculty Exchange Building, etc.); switch –boards to Electric & Water Supply Unit of the University, etc.
2. Providing maintenance services to the various units of the Institute and also of the University.
3. Providing technical and support services in purchase and maintenance of the University vehicles of all types.
4. Providing facilities and also the technical know-how for development of industrial and innovative products.

To Outsiders

1. Training to the students of other engineering colleges.
2. Providing processing and production facilities to outsiders.

Data of Staff Details (Name of Shop in - Charge)

S. No.	Emp. No.	Name of Employee	Designation	Shop/Lab. & In-charges
1.	18838	Dr. Santosh Kumar Mandal	Technical Officer	Office
2.	18828	Sri L.S. Rao	Technical Officer	Foundry Shop
3.	18836	Sri B. Rajak	Technical Officer	Machine shop
4.	11827	Sri R.K.Srivastava	Senior Asstt.	Office
5.	13603	Shri Akhilesh Kr. Pandey	Senior Asstt.	Office

6.	13620	Sri Madan Lal	Peon	Office
7.	13668	Sri G.K. Shukla	Senior Technician	I.D. Lab. & Office
8.	13608	Sri Kishun Prasad	Junior Technician	I.D. Lab. & Office
9.	13626	Sri Mahendra Kumar	Junior Technical Supdt.	Carpentry In-charge
10.	13628	Sri Shree Kumar	Junior Technical Supdt.	Carpentry
11.	13632	Sri Jagdish Prasad	Junior Technical Supdt.	Carpentry
12.	13633	Sri Vikrama Prasad	Junior Technical Supdt.	Carpentry
13.	18070	Sri Chandra Bhushan	Senior Technician	Carpentry
14.	18675	Sri Jagdish	Senior Technician	Carpentry
15.	13623	Sri L.B. Singh	Technical Supdt.	Black Smithy In-charge
16.	13637	Sri Haldhar Vishwakarma	Junior Technical Supdt.	Black Smithy
17.	18667	Sri Banarasi Rao	Senior Technician	Black Smithy
18.	18664	Sri BrIjesh Kumar Singh	Junior Technical Supdt.	Black Smithy
19.	19268	Sri Ravi Shankar Singh	Junior Technical Supdt.	IDC In-charge
20.	13631	Sri Lal Prakash Singh	Junior Technical Supdt.	IDC
21.	13999	Sri Yamuna Ram	Junior Technical Supdt.	IDC
22.	18032	Sri Sunil Kumar	Senior Technician	IDC
23.	18670	Sri Kunwar Bahadur	Senior Technician	IDC
24.	18671	Sri Dheelep Kumar B.	Senior Technician	IDC
25.	13630	Sri R.K. Sharma	Junior Technical Supdt.	Fitting In-charge
26.	13636	Sri Lallan Prasad	Junior Technical Supdt.	Fitting
27.	18665	Sri Bipin Kumar Rai	Senior Technician	Fitting

S. No.	**Emp. No.**	**Name of Employee**	**Designation**	**Shop/Lab. & In-charges**
1.	13605	Sri Baccha Lal	Technical Supdt.	Foundry In-charge
2.	11561	Sri Bhola Nath	Junior Technical Supdt.	Foundry
3.	16534	Sri Ram Bhaju Prasad	Senior Technician	Foundry
4.	18606	Sri Rajendra P. Vishwakarma	Senior Technician	Foundry
5.	19274	Sri Gopal Rana	Senior Technician	Foundry
6.	13642	Sri Ram Dular	Technical Supdt.	Machine In-charge
7.	13615	Sri K.N.A Choudhary	Technical Supdt.	Machine
8.	19266	Sri Bed Prakash Singh	Junior Technical Supdt.	Machine
9.	13627	Sri Raj Naraian	Junior Technical Supdt.	Machine
10.	13629	Sri Bechai Prasad	Junior Technical Supdt.	Machine
11.	13635	Sri Doodh Nath Singh	Junior Technical Supdt.	Machine
12.	18044	Sri Santosh Kumar Maurya	Senior Technician	Machine
13.	18607	Sri Karun Vishwakarma	Senior Technician	Machine
14.	18603	Sri Vijay Kumar Singh S/o Sri R.P.Singh	Senior Technician	Machine
15.	18602	Sri Ravindra Kumar	Senior Technician	Machine
16.	18605	Sri Ajay Kumar Yadav	Senior Technician	Machine
17.	13629	Sri Bechai Prasad	Junior Technical Supdt.	Machine
18.	18017	Sri Satya Prakash	Technical Supdt.	Welding In-charge
19.	18052	Sri Dilip Kumar Sharma	Senior Technician	Welding
20.	18040	Sri Vijay Kumar Singh S/o Sri Ram Alam Singh	Senior Technician	Fitting

21.	18666	Sri Billu Guria	Senior Technician	Welding
22.	18031	Sri Lakhmi Chand	Technical Supdt.	Auto Shop In-charge
23.	18051	Sri Vijay Kumar S/o Sri Sohan	Senior Technician	Auto
24.	18663	Sri Jitendra Kumar	Senior Technician	Auto
25.	18669	Sri Arvind Kumar Singh	Junior Technical Supdt.	CNC In-charge
26.	18676	Sri Ashwani Kumar Tiwari	Senior Technician	CNC
27.	18672	Sri Vinay Kumar Singh	Senior Technician	CNC
28.	19267	Sri Chandra Mohan Singh	Junior Technical Supdt.	Electroplating In-charge
29.	13634	Sri T.B. Singh	Junior Technical Supdt.	Electroplating
30.	18604	Sri Anil Kumar Vishwakarma	Senior Technician	Electroplating
31.	13619	Sri Munna Lal	Technical Supdt.	Sheet Metal In-charge
32.	18646	Sri Gopal Kumar Kharwar	Senior Technician	Sheet Metal

Library Facilities.

85 Nos. of Video CDs related to Power Hand Tools, Welding, CNC, Foundry, Carpentry, Mechanical Engineering manufacturing techniques & Safety are available in Workshop for instruction to the students of B. Tech during workshop practice classes.

Malaviya Centre for Innovation, Incubation and Entrepreneurship (MCIIE)

Malaviya Centre for Innovation Incubation and Entrepreneurship (MCIIE) was registered in the year 2008 as a not-for-profit society under India's society registration act of 1860. Till the year 2014-15 it remained largely supported by National Science and Technolog y Entrepreneurship Development Board (NSTEDB) under Department of Science & Technology (DST), Government of India. Onward, since 1 April 2015 the recurring expenditure of MCIIE is being met by fund provided by IIT (BHU) Varanasi.

Indian Institute of Technology (BHU) Varanasi

- *Registered since 2008, as not for profit society under society registration act 1860*
- *Governed through its own Governing body*
- *Office Bearers (As on date)*
  - *President:* *Prof. Rajeev Sangal, Director, IIT (BHU)*
  - *Secretary:* *Prof. P.K. Mishra*
  - *Treasurer:* *Dr. Pradeep Srivastava*

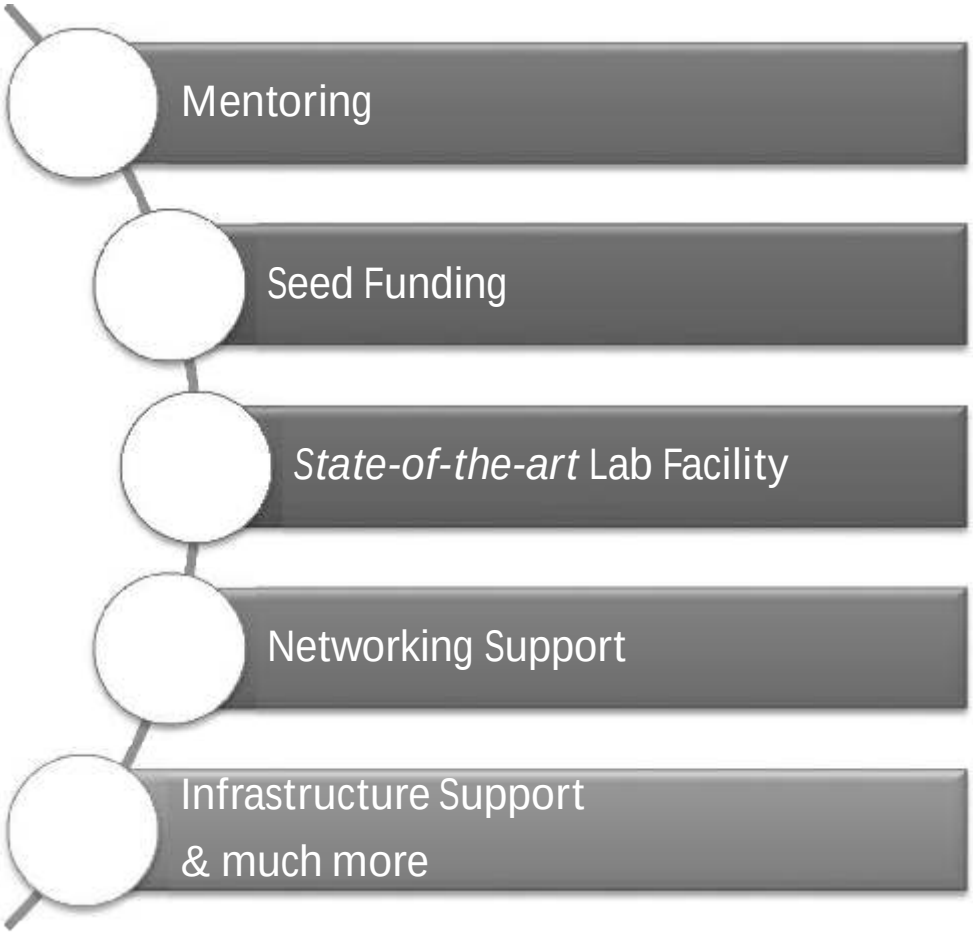
Partners

- NSTEDB, Department of Science & Technology, Govt. of India, New Delhi
- DSIR, Govt. of India, New Delhi
- TIFAC, New Delhi
- Ministry of MSME, Govt. of India
- EDII, Ahmedabad

About

The Malaviya Centre for Innovation and Incubation (MCIIE) at IIT (BHU) Varanasi is functional since 2011. The MCIIE aims to promote Techno-Entrepreneurship and enterprise creation. One of our key interventions is to provide Business Incubation to technology start-ups.

We nurture potential ideas through an ambit of support services and requisite infrastructure support and help them grow from idea to flourishing businesses. The support services offered to incubate have been depicted as under:



MCIIE also offers office infrastructure support including work space, shared office services, access to high speed internet, access to its laboratory and specialized equipment and value added services like mentoring, seed support, access to finance, technical assistance and networking support.

Objectives

MCIIE at IIT BHU aims to achieve the following:

- New Venture Creation through providing incubation and host of other support in the areas of Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors.

- Technology Commercialisation, targeted at providing a much needed platform for speedy commercialization of technologies developed in the academic and R& D institutions to reach the end users.

- Interfacing and Networking between academic, R & D institutions, industries and financial institutions.

- Value Addition through its services provided to its incubates as well as to the existing technology dominated SMEs, MCIIE aim at value addition.

- Creating value added jobs & services,

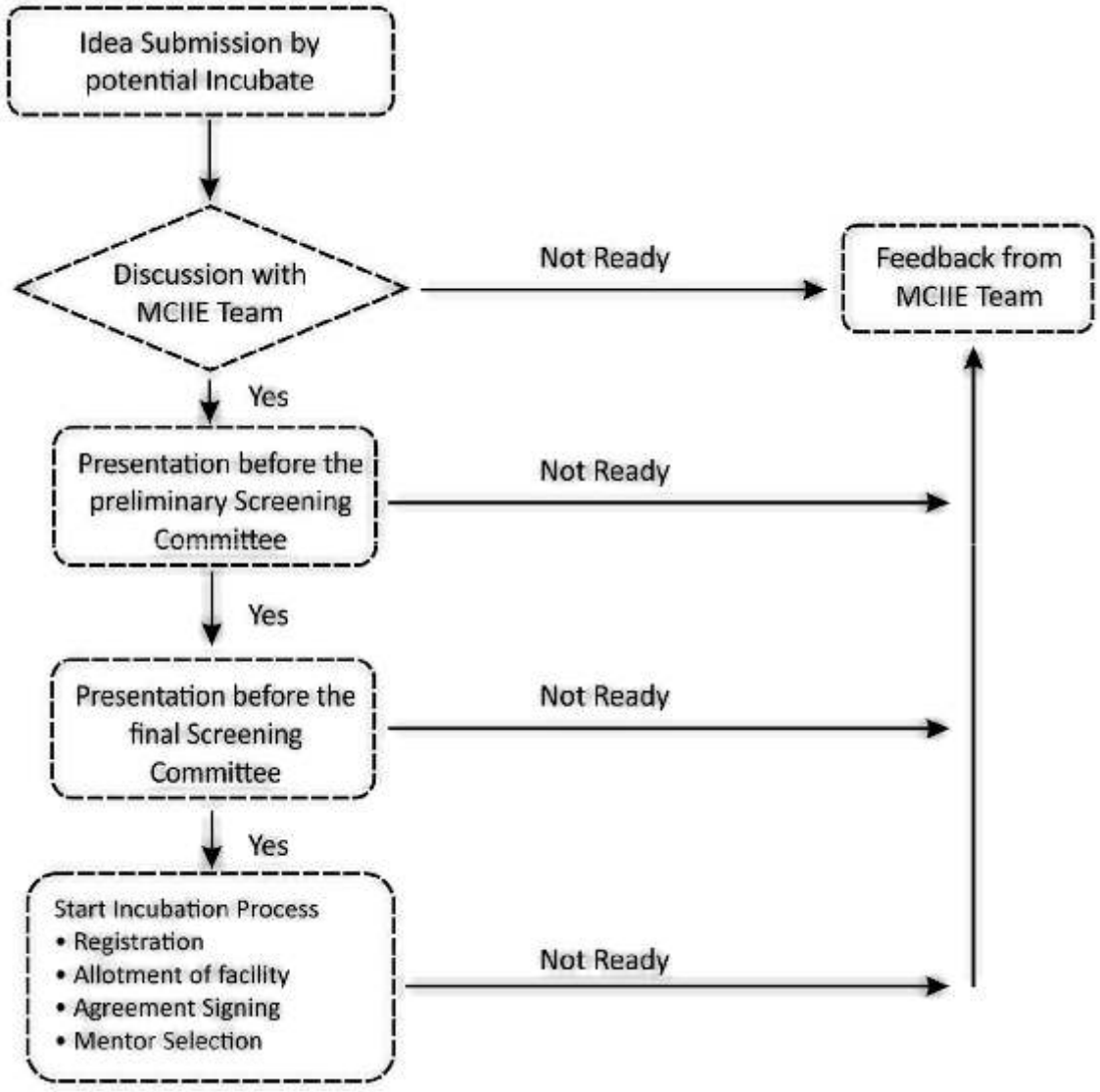
- Fostering the entrepreneurial spirit.

For Whom?

The admission to MCIIE is open to aspiring start-ups in the areas of, Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors, promoted by:

- Students and alumni of IIT (BHU).
- Faculty members (present or former) of IIT (BHU)
- R&D partners (sponsors of R&D and consultancy projects),

Howtogetincubated:



Proposals screened	Projects incubated	Graduated
• 62	• 14	• 2

IncubationStatus

Preent nd Grdute Incubte t TBI, IIT (BHU)

r. No	Nme of trtup	Promoter()	Product/ervice	Other Comment
1.	ठतपकहमकवजेज्मबीमतअपबमे च्अजण स्जकण ीजजचरूध्धूइतपकहमकवजेण्बव उइ	छपींत श्रंपद ख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए बैमउपबंस म्दहहण्य २००९, ज्दउंलचंद्कलं ख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए बैमउपबंस म्दहहण्य २००९, ।ींपींमाच्वककंत ख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए बैमउपबंस म्दहहयण २००८,	ज्मबीदवसवहल कमअमसवचमदज तमसंजमक जव बसमंदजमबीए च्वसलउमते दक ।कअंदबमक डंजमतपंसे	ॅपददमत व िबैज . स्वबाीममक डंतजपद ूतक २०१७ क्मअमसवचमक जमबीदवसवहपमे तमसंजमक जव म्गजतंबजपवद व िपसपबं ितवउ त्पबम भ्नो ीण ॅजमत त्मचमससमदज बवंजपदह वित छवदॅवअमद च् इंहे ब्वदेजतनबजपवद बैमउपबंसेण ष्द चतवबमेे व िहतंकनंजपदह वनज ीमेजंइसपीमक दि वपिबम पद वमसीपण
2.	डंहीनइच्अजण स्जकण ीजजचरूध्धूण्उंहीनइण्बव उइ	।उइतपी छपहंउ ख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए डमजंसस्नतहल म्दहहण य २०१०, ।दनहती ।हंतूंस ख्ठ ज्मबीए डज्मबी ष्ज ; ठभ्न्द्वए २०११,	व्दम ेजवच उंहंपदम वदसपदम चवतजंस	ॅपददमत व िजंतजनच २० २० बवउचमजपजपवद ंज प्प्ज्ए ीउमकंइंकण १००० चंपक ेनइेबतपइमतेण
3.	्रंतचं प्ैवसनजपवदे स्स्च ीजजचरूध्धूणंतचंण्इप्द	ैनतमी ैीनासं ख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए बैमउपबंस म्दहह २००० ठंजबी , ैवदंस ैीनासं ख् ठज्मबीण,	।कनसज बवदजमदज पिसजमते वित इतवूेमत ; च्ब्श्संचजवचद्ध	व्अमत १०० चंपक ेनइेबतपचजपवदेण डवइपसम अमतेपवद पद इमजं जमेजपदह चींमण
4.	पडपदठपजज्मबीष्दकपं च्अजण स्जकण ीजजचरूध्धूणंनअपवण्बवउइ	छंअममद ्रनउंतख्ठ ज्मबीए ष्ज ; ठभ्न्द्वए ब्पअपस म्दहहण य २०१४प्रि सजमते त्वीपज डपजजंस ख्ठ ज्मब-डज्मबीए ष्ज ; ठभ्न्द्वए ब्अपस म्दहहण य २०१७,	ॅजमत ेअपदह त्ू ॅजमत	च्जमदज चचसपमक च्तवकनबज संनदबीमक पद उंतामज
5.	ैतपउंसप व्तहंदपबे च्अजण स्जकण	।ींपरममज्ञ्नेींीूए डण्ज्मबीए बैमउण म्दहहण्ए ष्ज ; ठभ्न्द्व	ॅजमत ईमक कीमेपअम	च्तवकनबज ेजंदकंतकप्रंजपवद चींम
6.	।हंजप भ्मंसजी ब्तम च्अजण स्जक	डंउजं ैीतउं ख् चीकए ठपवबीमउपेजतलए ठभ्न ११९८,	छनजतंबमनजपबंस च्तवकनबजे ब्वसवेजतनउ ईमक च्तवकनबजे	ैहतममउमदज ेपहदमकय ैचंबम ेससवबंजमक जव इमहपद पजे ूवता ीवतजसल
7.	।दंहसवइ ज्मबीदवसवहल ैमतअपबमे च्अजण स्जकण ीजजचरूध्धूीनतन . ंतजण्बवउइ	ळंनतंअ्पूंतप ख्ठज्मबी, न्कपजंवीतनअ ख् ठंबीमसवत व िथपदम ।तजेए ठभ्न,	ैभ्न्ल।; त्वद्रन पे ंद वदसपदम चसंजवितउ वित ेमससपदह वतपहपदंस ंतज ूवता उंकम इल चतवमिेपवदंस अपेनंस ंतजे ेजनकमदजे ूीपबी बंद पिदंदबम ीपे मकनबंजपवद ंदक ब्वददमबज ंतज सवअमते जव वतपहपदंस ूवतो व िंतजण	च्तमेमदजसल ेमससपदह पजे चतवकनबजे
8.	्रीप भ्दकपबतंजि च्अजण स्जकण ीजजचरूध्धूवतंजिमउचवतपवण बवउ	च्तपदबम क्पूांत ैवैपकींदज ैवदअममत ैपदही ख्व्नतेनपदह ठ ज्मबीी तिवउ ष्ज ; ठभ्न्द्व,	ब्तंजि म्उचवतपव पे जव कव वदसपदम ेमससपदह व िींदक बतंजि उंकम इल पदकपहमदवने तजपेंदे ंदक बतंजिउमद व िप्दकपंण ष्ज इतपदहे वद ेबमदम जीम सवबंस कमेपहदमतेध्ंतजपेजे	च्तमेमदजसल ेमससपदह पजे चतवकनबजेण

r. No	Nme of trtup	Promoter()	Product/ervice	Other Comment
			तिवउ जीम ीपदजमतसंदक वि पदकपं जव ीवूवेम जीमपत जंसमदज जव इपहहमत ंकपमदबम	
9.	छइसपा	त्पींअ ैजलंउए ।ईपींमाल्कंअए डपदपदह म्दहपदममतपदहए प्ज ; ठभ्न्द्ध	छइसपापे ंद नचबवउपदह ैब्ब।स छम्ॅज्ज्ञप्छळ मइेपजम ूीमतम चमवचसम ूपजी ेपउपसंत पदजमतमेज ूपसस ीतम जीमपत प्दजमससमबज	चतमसपउपदंतल ेजंहम
10.	डंबीपदम ंदक डवतम	डतए ळंनतंअ ज्ञमकपं ।सनउदप बैमउए म्दहहए २००३ ठंजबी		छमूसल पदबनइंजमक
11.	च्तवहतंउउपदह च्जींसं	टपअमांदंदकं टपअमाए ज्तपींस ैदबीमजपए श्रमदपस श्रंपदए ।दपउमीं श्रंपदए छपजमीं ज्ञनउईीांतए तीनस ज्ञनउंतए डतपहंदा हंनतए ।दववच ळंतह ब्रै; प्टद्धए ब्रै; प्टद्धए ब्रै; प्टद्धए डम्ब्भ; प्टद्धए डम्ब्भ; प्टद्धए डम्ब्भ; प्टद्धए डैज; प्द्धए डप्छप्छळ; इंजबी वि २०१ध्द्ध तमेचमबजपअमसल	च्तवअपकपदह ंद मदक जव मदक ब्वउचनजमतध् चतवहतंउउपदह म्कनबंजपवद जव अंतपमजल वि नकपमदबम ेच जव मदतपबी जीमपत बंतममत ंदक निजनतम चतवेचमबजे; प्ब्द्ध	छमूसल पदबनइंजमक
12.	भैजंह ।के	डतए ैपेन क्तींदए ळंनतंअ स्वीपं - सं ीलं ठंकवव डपदपदहए ब्वउचनजमत ैबपमदबमए डमजजंसनतहल	पउचतवअपदह ुनंसपजल ंदक ेजंदकंतके वि के	छमूसल पदबनइंजमक

Compnie Grduted from TBI					
1.	म्कनसनजपवद ज्मबीदवसवहपमे स्स्च ीजजचरुध्ध्मजसंइेण्पदध्	x	त्हींअज्ञंदेंस ख्र ठ ज्मबीए प्ज ; ठभ्न्द्धए ब्पअपस म्दहहण्य २०११,	क्पहपजंस डंतामजपदह ैवसनजपवदे	टंतपवने ेमतअपबमे वाममितमक इल जीम बवउचंदल पदबसनकमे वदसपदम उमकपं इनलपदहए ेवबपंस उमकपं उंतामजपदहए ेमंतबी मदहपदम उंतामजपदहए उवइपसम उंतामजपदहए म बवउउमतबम ेवसनजपवदेए उवइपसम ंचसपबंजपवदे ंदक बवतचवतंजम इसवहहपदह ंउवदह वजीमतेण
2.	ैपहतपक म्कनबंजपवद ैमतअपबमे ंदक स्जक ीजजचरुध्ध्ेपहतपकमकनबंजपवदण्बवउध्	x	।ी झेंनदकींद बैमउए म्दहहण्ए २०११ए प्ज ; ठभ्न्द्ध	प्दकपं प्दजमससपहमदबम ज्मेज बवदजमदज. बतमंजपवद च्संजवितउ ैपहतपक छवजमे ण	स्ंनदबीमक द ।चच वित पजे ैपहतपक दवजमेण
3.	।तजमलैबजूंतमे ीजजचरुध्ध्ूमजमंबीण्बवण्पदध्	x	।रपज्डीमींतप ख्र ज्मबीए प्ज ; ठभ्न्द्धए ब्मतंउपब म्दहहण्य २००८,	। जमबीदवसवहल चसंजवितउ वित ब्बव बतमंजपवद वि उनसजप उमकपं मकनबंजपवदंस बवदजमदज पद द पदजनपजपअमए मेंल ंदक बवेज मिमिबजपअम उंददमत	डमतहमक ूपजी कमेपहदवउमकपं च्अजण स्जकण भ्ें वापिबम ंज छंहचनतण

Achievements

- ⇦ Bridgedots Techservices Pvt. Ltd.:
  - o Winner ET-POI award by Economic Times, DST and IIM A 2015. One of the top 15 companies out of 19,000 applicants to won INR 5 Lakh cash award and INR 20 Lakh seed funding offer.
  - o Senfinalists and one of the top six companies at Global Cleantech Innovation Program 2015 organized by Cleantech Open, USA, UNIDO (United Nations Industrial Development Organization) and MSME.
  - o One of the top 15 innovators selected from India by Royal Academy of Engineering, UK for Leaders in Innovation Fellowship 2016 in London.
  - o Winner and one of the top 10 innovations of selected in India Innovation Growth Program Award, 2015 by FICCI-DST and Lockheed Martin.
  - o One of the top 8 companies selected from India by Global commercialization group, IC2 Institute, University of Texas for International business development.
- ⇦ Kritika Polycorp Pvt. Ltd. winner of gold medal in India International Trade Fai r, Pragati Maidan, New Delhi
- ⇦ Bridgedots Techservices Pvt. Ltd. Semifinalist Maste rpreneur CNBC, first Season
- ⇦ ET Media Labs Pvt. Ltd., among Top 30 Start-ups of Global Student Entrepreneur Award
- ⇦ Magzhub Services Pvt. Ltd. winner of StartUp 20-20 Weekend Competition, at CIIE, IIM-Ahmedabad
- ⇦ FASKET among top 25 start-ups of TATA First Dot powered by NEN

Recognitionby MSME

MCIIE at IIT (BHU) Varanasi has been recognized by MSME, Govt. of India, for implementation of the scheme "Support for Entrepreneurial and Managerial Development of SMEs through Incubator".

Following proposals of the start-ups of MCIIE were screened by the Management Committee constituted by IIT (BHU) and forwarded to MSME, New Delhi:

Sr. No.	Applicant	Company	Title of the technology/ innovation
1.	Ambrish Nigam	Magzhub Media Services Pvt Ltd	Online digital library for school going students and preparing for competitive entrance exams at the level of schools
2.	Abhishek Poddar	Bridgedots Techservices Private Limited	Extraction of Highly Dispersible Silica fro Rice husk ash
3.	Naveen Kumar	iMinBit TechIndia Private Limited	Reverse Osmosis Potable Water System with Improved Yield
4.	Abhijeet	Shrimali Organic Private Limited	Synthesis of Water Born Adhesives (e.g. polymers / co-polymers)
5.	Suresh Shukla	Karpa IT Solutions LLP	iNetClean – Adult Content Filter
6.	Osho Siddhant	Kashi Handicrafts Private Limited	Development of an exclusive E-Comm platform for handicrafts and other handmade goods.

Events&Programs

Training Programs

- DST NIMAT Programs supported by NSTEDB, New Delhi & EDII, Ahmedabad

  Faculty Development Program

  Entrepreneurship Development Program

Entrepreneurship Awareness Camp

Technology Entrepreneurship Development Program

National & International Conferences

- InSPIRE-Varanasi, 2016

A Conclave cum exhibition on InSPIRE (Inclusion for Smart city Planning of India using Renewable energy and Energy efficiency) was organised by MCIIE, IIT (BHU), Varanasi along with Indian Institute of Management-Ahmadabad, Indian Biogas Association, New Delhi and Department of Chemistry, Institute of Science(BHU), Varanasi on 29th & 30th January,2016 at K N Udupa Auditorium, IMS(BHU).

- Kashi Katha

"Varanasi: Kal Aaj aur Kal" organized during 8th -9th February 2015 at K. N. Udappa Auditorium, Banaras Hindu University.

"Kashi Katha 2016: Kashi in 21st century" during 6th – 7th February 2016 at K. N. Udappa Auditorium, Banaras Hindu University.

Workshops & Forums

- Summer School cum Workshop on Water and Wastewater Treatment - organized at Indian Institute of Technology (BHU) Varanasi, UP, during May 21 – June 05, 2015, wherein, experts from IIT (BHU), BHU, IITs, NEERI, ISM and other reputed national academic institutions and organizations has delivered expert lectures on various topics.

⇦ Women Entrepreneurs' Forum - On 8th August 2015 Malaviya Centre for Innovation Incubation & Entrepreneurship (MCIIE), IIT (BHU) Varanasi along with FAB Women Foundation Trust organised a Women Entrepreneurs' Forum to promote women entrepreneurship .

⇦ Discussion Forum on Strategies to Save Ganges - On 04th October 2015 (Sunday) a 'Discussion Forum on Strategies to Save Ganges' was organized by Prof. G. D. Agrawal (Swami Saanand) at MCIIE, IIT (BHU) Varanasi at 03:00 PM.

⇦ Smart City Public Participation Workshop - A participatory workshop was organized on theme of *Varanasi Smart City Development* at Malaviya Centre for Innovation, Incubation and Entrepreneurship (MCIIE) at IIT (BHU) Varanasi on October 30, 2015.

⇦ China - India Youth Exchange Workshop - Shengwei Zhao, Founder-China India Youth Union, visited MCIIE to improve understanding between Chinese and Indian youths aims to facilitate partnerships in social sectors, business, academia, sport, arts, etc.

⇦ CommenceMINT Workshop - A Startup workshop was organized on theme of "Life of your STARTUP after Campus - 2016" at Malaviya Centre for Innovation, Incubation and Entrepreneurship (MCIIE) at IIT (BHU) Varanasi. Mr. Subash Dhar, Mr. Arun Singh, Mr. Sanjay Dutt Founders-CommenceMINT, co-organized the event.

Plan

(Figures in Crores of Rupee)

Opening Balance	Nil
Normal Plan Grant Sanctioned during 2015-16	100.66
Total Available	100.66
Capital Expenses during 2015-16	
Buildings & Constructions	47.80
Furniture & fixtures	1.00
Equipment	17.91
Books, journals & periodicals	00
Revenue expenditure: Scholarship payments	32.80
Other	8.69
Total (closing balance)	Nil

Non Plan

Grant Sanctioned during 2015- 61	100.00
Opening Balances	23.73
Tuition Fees	10.86
Hostel fees	1.41
Entrance Examination Fees	00
Administrative Income	00
Interest Income	1.19
Other Fees	1.65
Other Income	0.63
Total Available	139.47
Expenditure During 2015- 61	
Pay & Allowances	80.56
Service pension & family pension: Retirement benefits	9.44
Library Services	0.75
Health Services	1.00
Student Scholarship	00
Hall Subsidy	00
Administrative Expenses	1.07
Departmental/laboratory/workshop expenses	3.08
Transport subsidy	0.02
Student support activities	0.64
Computer facilities	0.00
Housekeeping & estate maintenance	2.80
Water/electricity charges	7.81
Examination expenses	0.33
Other Expenses	1.39
Total utilised	108.89

Endowment account balance as on 31 March 2016 : Rs. 5.27 Crore
Corpus account balance as on 31 March 2016 : Rs. 16.28 Crore

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