



AICTE Sponsored Short Term Course
on

“Materials Characterization for Engineers”

June 17 - 21, 2019

School of Materials Science & Technology
Indian Institute of Technology (BHU)
Varanasi, India



About the Course

Indian Institute of Technology, (Banaras Hindu University) is organizing a course on “**Materials Characterization for Engineers**” from 17.06.2019 to 21.06.2019. The course is open to teachers from AICTE recognized management and engineering colleges. Merit and availability of funds will be taken into consideration while selecting candidates. The complete application should reach to the given address latest by 10.06.2019. If your candidacy is being sponsored by the institution, a formal letter will be required.

The main focus of the course is making the engineers get familiarize with the characterization tools, their associated data analysis of the techniques being used as a primary characterization of materials. A likely beneficiary is a person working in associated materials research and teaching.

Course syllabus:

Characterization techniques for different level of structure. Optical microscopy techniques.

X-ray Diffraction: Basic fundamentals, Determination of Lattice constants and structural parameters.

TEM/SEM: Electron matter interaction. Image formation. contrast mechanism, Selected area diffraction patterns. Specimen preparation techniques. Description and Image formation of SEM. EDS and WDS. Electron probe microanalysis (EPMA).

Auger electron spectroscopy. XPS, XRF. UV-visible, IR (FTIR) and Raman Spectroscopy, Photo Luminescence (PL), Scanning probe microscopy (STM and AFM)

Course coordinators

Dr. Chandan Upadhyay (Convener)
Dr. Akhilesh Kumar Singh (Co-Convener)
Dr. Praveen C. Pandey (Co-Convener)

Dates to remember

Last date for receiving applications: **June 10, 2019**
Commencement of the course: **June 17, 2019**

Address for sending application & contact

Dr. Chandan Upadhyay
Convener, QIP-STC
School of Materials Science and Technology
IIT(BHU), Varanasi, India. 221005
Email: cupadhyay.mst@iitbhu.ac.in

Dr. Akhilesh Kumar Singh
Co-Convener, QIP-STC
School of Materials Science and Technology
IIT(BHU), Varanasi, India. 221005
Email: aksingh.mst@iitbhu.ac.in

Dr. Praveen C. Pandey
Co-Convener, QIP-STC
Department of Physics, IIT(BHU), Varanasi,
India. 221005
Email: pcpandey.app.mst@iitbhu.ac.in

**QIP SHORT TERM COURSE
ON
“Materials Characterization for
Engineers”**

17-21 June, 2019

Application Form

1. Name (block letters):

2. Designation & pay scale:

3. Organization:

4. Address for communication:

Pin code:

Ph. No.:

Fax No.

E-mail:

5. Highest Academic Qualification:

6. Specialization:

7. Experience (in years):

(a) Teaching:

(b) Industrial:

8. Amount of TA required as per entitlement mentioned in the brochure (only for AICTE approved college teachers):

Please register me for the course on Geometrical & **Materials Characterization for Engineers** to be held at IIT (BHU) Varanasi.

Place:

Date:

Signature of the applicant

SPONSORSHIP

Prof./Dr./Mr./Ms./Mrs./_____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course “**Materials Characterization for Engineers**” at IIT (BHU) Varanasi during 17-21 June, if selected.

Date: _____ Signature of Sponsoring Authority

Designation: _____ Official Seal:

Refundable Security Deposit Details:

DD No. _____

Date: _____

Bank: _____

Amount: ₹ 2000/-

Signature of the Applicant

Accommodation

Candidates admitted will be provided free lodging and boarding. The boarding and lodging arrangement for all the participants is made in Gandhi Alumni Technology Center (IIT-Guest House) on twin sharing basis. Family accommodation is not available on campus. However, one may make his/her own arrangement in city hotels at his/her own expense. While boarding and lodging is given free, priority in admission will be given to participants who will bear TA on their own or charge the same to their respective institutes. If so, please mention the same in the application form.

About the city

Varanasi, also known as Kashi or Benares or Banaras, is one of world's oldest living cities. It is regarded as the religious capital of India. The city is located on the left bank of the holy river Ganga (Ganges), and is one of the seven sacred pilgrimage cities for Hindus. In the words of Mark Twain, the famous English author and littérateur: "Benaras is older than history, older than tradition, older even than legend and looks twice as old as all of them put together". Lord Budha gave his first set of sermons at Sarnath, located in the outskirts of Varanasi, nearly 2500 years ago. Buddhists from all over the world visit the holy city on pilgrimage. To be in Varanasi is an experience in itself. The majestic ghats on the banks of Ganga, morning sunrise, visit to famous temples and evening Ganga Aarati are some of the special attractions. Varanasi is also renowned for its rich tradition of music, arts, crafts and education. For more details, visit <http://varanasi.nic.in/>

