



**AICTE SPONSORED
SHORT TERM COURSE**

**Application of Principles of
Reliability and Risk Analysis to
Various Sub-disciplines of Civil
Engineering**

Organizing Department

**Department of Civil Engineering
Indian Institute of Technology (BHU), Varanasi,
U.P-221005
Date: 29th May, 2017 - 9th June, 2017
(Two Weeks)**



**Quality Improvement Programme Centre
Indian Institute of Technology (BHU), Varanasi,
U.P-221005**

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ABOUT THE DEPARTMENT



The Civil Engineering Department was established in 1949 (then known as Civil and Municipal Engineering) in BENCO (Banaras Engineering College) which was a part of BHU. The formal sanction of the Visitor of the University to create this Dept. was received in 1956 and the B.Sc Engineering (Civil & Municipal) Degree was recognized by the Govt. of India in 1958. The department was rechristened to the present name in the year 1975. The department has taken up various research programmes apart from regular teachings and the research activities, namely CSIR, UGC, SAP, HUDCO, DST and AICTE. Presently, it caters its student with various Post Graduate and Ph.D courses like Environmental Engineering, Geotechnical Engineering, Hydraulic Engineering, Structural Engineering, Geo-informatics and Transportation Engineering.

ABOUT THE COURSE

The short course to be conducted on Reliability and Risk Analysis at IIT/BHU should be useful to people from different disciplines from universities as well as working professionals from Industry. This is due to the fact that most of the practical systems in real life are probabilistic in nature than deterministic which is what this short course will deal with. In addition, the reliability calculation of series system, parallel system and mixed system will be discussed both conceptually and with practical examples. Other important topics like Monte Carlo simulation used for analysis of

complex system will also be discussed. On the whole, this short course should be very interesting and useful to all the participants.

COURSE OBJECTIVES

- Exposure to basic fundamentals of Reliability.
- Discuss Fundamentals of Probability Models, Analytical Models of Random Phenomena.
- Discuss the concepts of Queuing Theory, Inventory Theory
- Computer-Based Numerical and Simulation Methods in Probability including Monte Carlo Simulation methods.
- Development of FOSM (First Order Second Moment) and AFOSM (Advanced First Order Second Moment) Methods)
- Relation between Reliability and Risk

ABOUT THE INSTRUCTOR & EXPERTS

Dr. Chandrasekhar Putcha is a Professor in the Department of Civil and Environmental Engineering at California State University, Fullerton. Dr. Putcha did his Ph.D. and M.S. in Civil Engineering from Indian Institute of Technology, Kanpur in 1975 and 1971 respectively and B.S. from IIT(BHU) in 1969. Dr. Putcha received campus-wide Outstanding Professor award at California State University Fullerton CA, 92834, USA in 2007. He is the first recipient of this award from College of Engineering in 44 years. He is also a Fellow of American Society of Civil Engineers (ASCE) and author of 4 books in the areas of Political Science, Sociology, Civil Engineering and Economics. Other experts will be drawn from within the department, other IIT's/NIT's and industries.

WHO CAN ATTEND?

All existing faculty Members of AICTE approved institutions working in the any field of engineering are primarily targeted for this short duration course work. Academicians from fields and R&D organizations can also attend this course by paying the course fee Rs. 15000/-.

HOW TO APPLY?

By e-mail:- Scanned copy of the application for Registration duly endorsed by the forwarding authority should be mailed at:kkpathak.civ@iitbhu.ac.in by April 15, 2017 with a copy to coordinator.qip@iitbhu.ac.in. Application for registration is given below.

ACCOMMODATION

Accommodation and local hospitality will be provided to candidates from AICTE approved institutions in IIT(BHU) Guest House.

IMPORTANT DATES:

Last Date of Registration: 15 April, 2017

Intimation of Selection: 29 April, 2017

COURSE CORDINATOR

Dr. K. K. Pathak
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Department of Civil Engineering,
Indian Institute of Technology (BHU),
(Banaras Hindu University)
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CHAIRMAN

Dr. Prabhat Kumar Singh
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APPLICATION FOR REGISTRATION

Application of Principles of Reliability and Risk Analysis to Various Sub-disciplines of Civil Engineering

29th May, 2017 - 9th June, 2017
(Two Weeks)

1. Name.....

2.

a) Age.....

b) Sex: M/F.....

3. Designation.....

4. Organization.....

5. Address for Correspondence

.....
.....
.....

E-mail:

Phone/Mobile:

6. Highest Academic qualification.....
.....

7. Specialization.....
.....
.....

8. Experience (in years)

a) Teaching:

b) Industrial:

Please register me for the course on “Application of Principles of Reliability and Risk Analysis to Various Sub-disciplines of Civil Engineering” to be held at IIT (BHU) Varanasi.

Date.....

Place.....

Signature of applicant

a. This application from should reach to Prof. K. K. Pathak, Course Co-ordinator, Department of Civil Engineering, IIT(BHU) office latest by 15th April, 2017.

b. Application without the letter of approval/ endorsement will not be entertained.

c. Please note that 100% attendance is compulsory in the course.