

## **Introduction**

This Centre provides a platform to the Institute faculty to organize high quality short term courses. The courses can be conducted for individuals, organisations, and professional groups.

The present rate of development in any scientific area necessitates to continuously upgrade the specialized knowledge of a person in that area. Continuing education plays a vital role in the education and training of professionals which will keep them more productive and creative throughout their professional career. IIT Roorkee provides a very good basic education and training to the participants over a wide range of academic and professional disciplines to fulfill personal, social and national needs. The companies and organizations can build a work force by the use of our expertise by providing proper training, continuing education and re-education. Developed countries have demonstrated that a refresher course leads to better job performance and job satisfaction contributing to higher levels of economic development. The need for continuing education at the present juncture is all the more evident because Indian engineering industry has to survive global competition in the light of new economic reforms as a result of opening of our industrial sector to foreign investors.

## **Vision**

A front line centre in science, engineering, technology and management making significant contributions to human resource development envisaging dynamic needs of the professionals.

## **Objective**

- To create opportunity to experience and gain more knowledge in a particular field.
- To provide opportunity to visit and study at IIT Roorkee for a short period of time.

- To provide requisite inputs for knowledge improvements.
- To make available the expertise of IIT Roorkee to the benefit of Indian Industries & Govt. organizations

## **About Indian Institute of Technology Roorkee**

Indian Institute of Technology - Roorkee is among the foremost of institutes of national importance in higher technological education and in engineering, basic and applied research. Since its establishment, the Institute has played a vital role in providing the technical manpower and know-how to the country and in pursuit of research. The Institute ranks amongst the best technological institutions in the world and has contributed to all sectors of technological development. It has also been considered a trend-setter in the area of education and research in the field of science, technology, and engineering.

The Institute has completed 150th year of its existence in October 1996. On September 21, 2001, an Ordinance (now an act of Parliament) issued by the Government of India has declared it as the nation's seventh Indian Institute of Technology.

The Institute offers Bachelor's Degree courses in 12 disciplines of Engineering and Architecture, Integrated dual degree/M.Tech/MSc. and Postgraduate's Degree in 52 disciplines of Engineering, Applied Science, Architecture and planning. The Institute has facility for doctoral work in all Departments and Research Centres.

## **About Continuing Education Centre**

It is a pioneering centre in the area of continuing education in the country. It has completed 60 years of service and has played a vital role in the promotion of knowledge upgradation activity in our country by organizing refresher/specialist courses for in-service technical and professional person from various

Govt./Semi Govt. organisations, public and private undertakings, research institutions and industries.

The Centre conducts around 60 to 70 short term training programmes of Continuing Education every year in various disciplines of management, engineering, science and technology in which the professionals are trained from all parts of the country as well as from the neighboring countries. The Centre is fully equipped with the facility of lecture halls, accommodation, Internet facility and Wi-Fi system.

This Centre acts as a window to disseminate information and technology on latest technological developments. Courses organised by this Centre are innovative, accessible and stimulating and address to the current needs of the professionals. Programs reach to participants in all corners of the country/from all walks of life. To meet a variety of needs, Centre offers flexible, comprehensive course curricula in many formats. In the face of rapid technological advancement taking place around the globe, continuing education of in-service professional to new technologies is the need of the day to update knowledge much after completing formal education. Courses are being organised through the technical expertise available in the departments and centres of the Institute. Experts from industries, R&D organizations, academic Institute or an eminent person may be invited to deliver lectures wherever necessary. Centre organizes the courses in the beautiful campus of the Institute and also outside the Institute in consultancy as well as in sponsored mode that respond to client's continuing professional development needs.

## **Participants attending the courses**

Participants who enroll in our courses are interested in life-long learning. Some participants attend courses to develop professional skills whereas others due to their love to learning and some for both of these reasons.

## Fee Structure

The fee of each course may vary according to the duration of course, subject area and number of participants etc and will be as per negotiation between course coordinator & sponsoring organization and number of participants etc.

## Boarding and Lodging

The Centre has a well furnished Guest House consisting of fully air conditioned 34 double bedded rooms, two VIP suites., and 2 Dining Hall of International Standard.



Well furnished accommodation is provided to the participants of any course in the Guest House of the Centre or in other guest house of I.I.T. Roorkee within the campus. Khosla International House has double bedded 9 AC Suite, double bedded 40 AC Rooms and 11 non-AC rooms. N.C. Nigam Guest House is equipped with a committee room and dining hall. There are 16 rooms and 12 suites in the guest house. All the rooms and suites are air conditioned and are well furnished.

## About Roorkee

Roorkee is a peaceful and pollution free town, situated in the foothills of the Himalaya mountains and is a gateway to the pilgrimage centre of Haridwar, Rishikesh, Badrinath, Kedarnath & hill stations of Dehradun, Mussoorie and Nainital. It is located on Amritsar-Howrah main line of Northern Railway and almost all mail/express trains stop here. Among other major trains, Dehradun Shatabdi and Jan Shatabdi Express also connect Roorkee with Delhi and Dehradun daily. Roorkee is well connected by road/rail to Delhi, Dehradun, Haridwar as well as important cities of Punjab, Haryana, Uttarakhand and Uttar Pradesh.

The 160 years old Northern Ganga Canal originating from Haridwar which is 30 kms from Roorkee, passes through the heart of the town. The climate is generally cold in winter and hot in summer with temperature ranging from 5<sup>0</sup>C to 45<sup>0</sup>C and annual average rainfall of about 1032 mm.

## Major Courses organized

### International

1. Climate Change Effect on Flood Estimates & Hydrological Variables
2. Climate Change Issues and Impact on Water Resources
3. Construction Supervision – Quality Control

4. Design of Small Dams
5. Dissemination & Market Development in Off Grid Rural Electrification
6. Earthquake Risk Mitigation
7. Economic Development for Rural and Smaller Communities
8. Energy Efficiency & Conservation
9. Foundation Treatment for Dams and Reservoirs
10. Hydrological Analysis for Water Resources Planning and Management
11. Irrigation Agronomy, Drainage and Land Reclamation
12. Irrigation Water Requirement and Scheduling
13. Legal Policy and Framework on Rural Electrification
14. Livelihood in River Basin
15. Modern Irrigation Practices
16. Nonlinear Modelling and Seismic Response Evaluation of Structures
17. Operation and Maintenance of Irrigation Schemes
18. Operation and Maintenance of Sewerage Works
19. Real Time Digital Simulator for Small Hydro Power
20. Renewable Energy and Energy Efficient Projects
21. River Basin Planning
22. Rural Electrification with Small Hydropower
23. SHP for Sustainable Development
24. Small Hydro Power Development
25. Techniques for Earthquake Resistant Structures
26. Water Resources Project Administration

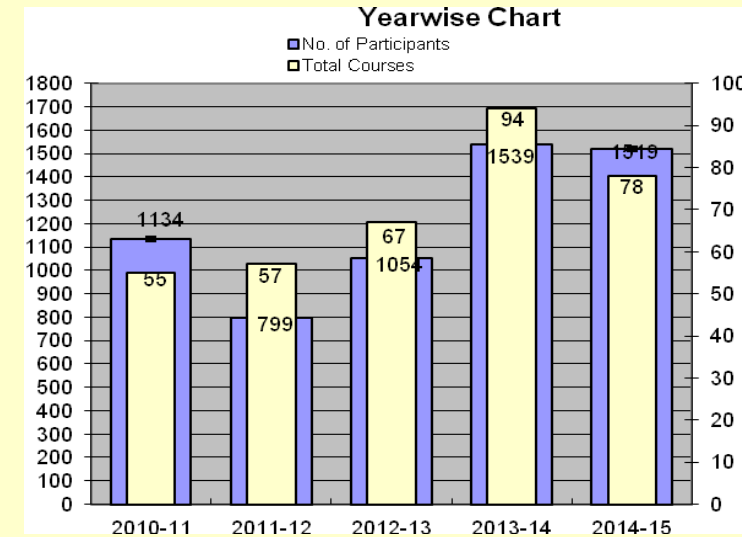
### National

1. Advanced Control and Computing Technology for Reliable Industrial Electricity
2. Advanced Materials and Manufacturing
3. Advanced Microwave and Radar Systems
4. Big Data Analysis for Improving Business Performance
5. Biomedical Signal Analysis
6. Building Digital Libraries Using Open Source Software
7. Capacity Building of Minor Irrigation organisation
8. Catchment Area Conservation and Management Aspects
9. Change Management in Power Distribution
10. Climate Change Issues and Its Impact on Water Resources Management in the Coastal and Seasonal Wetland
11. Codal Practices on Earthquake Resistant Design

- and Construction
- 12. Controlling Abrasion & Erosion in Cement Plants
- 13. Dam Break Analysis
- 14. Demand Side Management Capacity Building
- 15. Digital Mapping Technology
- 16. Digital Signal Processing
- 17. Disaster Mitigation & Management
- 18. Dynamics and Control of Robots
- 19. Earthquake Resistant Design of Dams
- 20. Earthquake Resistant Structures
- 21. Efficiency Improvement Measures in Distribution System
- 22. Energy Resources
- 23. Environmental Health and Safety Management in Process Industries
- 24. Estimation of Design Flood and Design of Spillways for Minor Irrigation Projects
- 25. Estimation of Site Specific Seismic Design Parameters
- 26. Failure Analysis and Metallography
- 27. Finishing School Programme for Engineering Graduates
- 28. Fundamentals and Applications of Structural Equations Modeling Using AMOS
- 29. Geotechnical Earthquake Engineering
- 30. GIS and Remote Sensing Applications in Water Resources Projects
- 31. Ground Water Assessment, Development & Management
- 32. HEC-RAS Modeling
- 33. How to Promote Innovation and IP in HEIs
- 34. Hydrological Assessment and Water Resources Planning
- 35. Introduction to Hydrological Method for Assessment of Environmental Flow in River
- 36. Introduction to Wireless Sensor Networks
- 37. Irrigation Agronomy, Drainage and Land Reclamation
- 38. Latest Trends in Building Materials and Construction Techniques
- 39. Learning the Architectural Modeling Tools for Research in Software Engineering and related areas
- 40. Managerial Excellence
- 41. Manufacturing Processes and Quality Assurance
- 42. Maximizing Energy Savings in Process Industry Using Pinch Analysis
- 43. Microwave Engg. Practices

- 44. Metering Technology & AMR Application
- 45. Mobile and Distributed Computing Systems and Models
- 46. Modern Techniques in Biotechnology
- 47. Noise Monitoring and Control Techniques
- 48. Numerical Simulations Using FEM, XFEM and Meshfree Methods
- 49. Operation & Maintenance of SHP Stations
- 50. Performance Testing and Evaluation for SHP Stations
- 51. Planning, Design, Construction and Maintenance of Flexible and Rigid Pavements
- 52. Power Electronics in Mini/Micro Hydro Power Projects
- 53. Practical Problems in Pulp and Paper Making Control
- 54. Project Management for River Valley Projects
- 55. Real Time Digital Simulator for Small Hydropower Development
- 56. Recent Trends in Environmental Monitoring
- 57. Regulation in Electricity Sector
- 58. Remote Sensing and GIS Applications in Hydropower Projects
- 59. Renewable Energy Technology Specially Solar
- 60. Revenue Management. & Loss Reduction
- 61. River Training Works
- 62. Roads, Bridges and Buildings
- 63. Rock Engineering for Hydroelectric Projects
- 64. Rural Road Construction
- 65. Seismic Retrofitting of School Buildings
- 66. Site Removal and Resistive Material for SHP Projects
- 67. Small Hydropower Development
- 68. Soft Computing in Image Processing
- 69. Strategic Human Resource Management for Effective Performance
- 70. Survey Investigation and Design of Bridges
- 71. Techno Managerial Skills
- 72. VLSI Design and Embedded Systems
- 73. Welded Structure Design and Quality Control

## Details of courses conducted during last five years



### Type of Courses

- Short term Courses
- Weekend Courses
- Staff Training Programmes

### Sponsoring Organisations : an illustrative list

#### International

1. Asian Development Bank
2. Bangladesh Water Development Board
3. Bhutan Power Corporation Ltd., Bhutan
4. Cowater International Inc., Canada
5. Ethiopian Electricity Agency, Ethiopia
6. Fundo De Energia (FUNAE) Mozambique
7. Ghana Irrigation Development Authority
8. Institute of Water Modelling, Bangladesh
9. International Renewable Energy Agency, UAE
10. Islamic Republic of Afghanistan
11. Japan International Cooperation Agency
12. LEA Associates South Asia Pvt. Ltd.
13. Loughborough University, U.K.
14. Lunawa Environment Improvement & Community
15. Ministry of Agriculture, Irrigation and Livestock (MAIL), Govt. of Afghanistan
16. Ministry of External Affairs

17. Ministry of Urban Development and Sacred Area Development
18. Nanyang Technological University Singapore
19. NORSAR & NGI, Norway
20. SAARC, New Delhi
21. Vienna International Centre
22. Water Management Institute, Sri Lanka

### National

1. ALSTOM India Ltd.
2. Arunachal Pradesh Energy Development Agency
3. APITCO, Dehradun
4. Applied Research International Pvt. Ltd.,
5. Associated Cement Company
6. Bharat Heavy Electricals Ltd.
7. Bharat Petroleum Corporation Limited
8. Building Materials & Technology Promotion Council
9. Central Pollution Control Board
10. Central Water Commission
11. Centre of Excellence in Disaster Mitigation & Management
12. Construction Industry Development Council
13. Damodar Valley Corporation
14. Department of Science & Technology
15. Everest Industries Ltd., New Delhi
16. Groundwater Surveys and Development Agency, Pune
17. FCI Limited, New Delhi
18. Indian National Academy of Engineering
19. Indian Railway
20. Indian Renewable Energy Development Agency Ltd.
21. Institute of Research Development and Training Department, Kanpur
22. Irrigation Management Training Institute
23. Ministry of Earth Sciences,
24. Ministry of Environment and Forest
25. Ministry of Home Affairs
26. Ministry of Human Resource Development
27. Ministry of New and Renewable Energy
28. Ministry of Power
29. Ministry of Water Resources
30. Minor Water Resources Deptt., Govt. of Bihar
31. National Bank for Agriculture & Rural Development
32. National Disaster Management Authority, Ne Delhi
33. National Hydropower Corporation Ltd.
34. National Institute of Defence
35. National Mission on Power Electronics Technology

36. National Programme on Earthquake Engg. Education
37. National Rural Roads Development Agency
38. National School Safety Program
39. National Thermal Power Corporation
40. Oil & Natural Gas Corporation
41. Orissa Community Tank Development Management Society
42. Power Finance Corporation Ltd.
43. PRAGYA
44. Prasar Bharti
45. Project Management Unit Dehradun
46. Public Works Department, Govt. of West Bengal
47. Punjab State Electricity Board
48. Research Designs & Standard Organisation
49. Road Construction Department, Bihar
50. State Project Facilitation Unit, Uttarakhand
51. Security Paper Mills
52. Shotam Instruments Pvt. Ltd., New Delhi
53. Shriram Piston and Rings, Ghaziabad
54. Tamil Nadu News Print and Papers Ltd.
55. Tech. Education Deptt., Kanpur
56. THDC India Limited
57. Uttarakhand State Council for Science and Technology
58. Uttaranchal Academy of Administration
59. Uttaranchal Gramin Sadak Vikas Abhikaran
60. Uttaranchal Renewable Energy Development Agency
61. Water Resources Department, Govt. of Odisha

### **Contact Address :**

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