

Central Pollution Control Board (CPCB), New Delhi sponsored

Three-day Training

On

**Investigation, Remediation and Management of  
Soil and Groundwater contaminated sites**

[November 20-22, 2017]

Being organized at and by  
DEPARTMENT OF HYDROLOGY

In association with  
CONTINUING EDUCATION CENTRE, IIT ROORKEE



INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
Roorkee – 247667, INDIA

Nomination form/Application for CPCB sponsored three days training on  
**Investigation, Remediation and Management of Soil and Groundwater  
contaminated Soil**

[November 20-22, 2017]

Being organized at and by  
DEPARTMENT OF HYDROLOGY

After Completion, please mail to:

**Dr. Brijesh Kumar Yadav**  
Associate Professor  
Department of Hydrology, IIT Roorkee  
Roorkee – 247 667 (Uttarakhand)  
Phone: (01332)284755, 8979534484  
Email ID: [brijeshy@gmail.com](mailto:brijeshy@gmail.com),  
[brijkfhy@iitr.ac.in](mailto:brijkfhy@iitr.ac.in)

Affix passport size photograph

Name:

Designation:

Name of the Institute where employed:

Name of State level pollution control board:

Addresses:

Mobile No.

Email ID:

Qualification:

Field of Study/work:

Date:

**Signature of applicant**

Note:

**SPONSORSHIP CERTIFICATE**

- (a) The applicant will be permitted to participate in the above training, if selected. Further, I have personally talked to the applicant and he/she seemed to be sure to attend it, in case the admission is offered to him/her.
- (b) Certified that this institute is recognized by CPCB/State level pollution control boards.

Date:

**Signature of Sponsoring Authority**  
(Principal/Director/Head)

Seal of the Institution

Identification and subsequent cleaning of polluted resources have rapidly evolved in the last couple of decades, and the focus has now shifted in favor of using green and sustainable approaches. The emphasis of this course is on practical applications of emerging technologies used in identification and characterization of the polluted sites and their subsequent remediation practices. Geophysical and other investigation techniques will be introduced to identify and manage the data associated with problematic sites effectively. Strategies and technologies to address contaminant treatment, including the no-action alternative, natural attenuation, pump-and-treat, green and sustainable methods, containment techniques, and in-situ destruction technologies, will be reviewed in sufficient technical detail so the participants can apply the basic engineering design equations in field. A review of regulatory requirements will also be included; economic constraints that play important roles in the selection of appropriate remediation strategies and treatment technologies will also be discussed.

### **Objectives:**

1. To understand the fundamental techniques for identifying polluted sites and their associated physiochemical and biological environmental conditions.
2. To understand different remediation technologies and practices along with their engineering, economic, and regulatory limitations in order to determine a treatment strategy and selection of technologies to implement the strategy for a given data sets.

### **About IIT Roorkee:**

IIT Roorkee became the seventh IIT of the country when 21<sup>st</sup> September 2001, the prestigious University of Roorkee was converted into an IIT. Founded as Thomason College of Civil Engineering in 1847, this temple of learning, the oldest engineering institution in Asia and the first one in the then British Empire, is now around 170 years old. The Institute offers 11 undergraduate courses in Engineering and Architecture and 51 postgraduate courses in different disciplines of Engineering, Architecture, Management and Sciences along with 5 Integrated Dual Degree, 3 Integrated M. Tech. & 3 Integrated M.Sc. programs. Ph.D. programs are conducted in all disciplines.

IIT Roorkee possesses a unique environment congenial for research and development activities and the faculty has expertise in almost all the major fields of engineering and sciences. The Institute has 18 academic departments, one academic center and 3 centers of excellence. Modern centralized facilities exist at the Institute, including a Computer Center, Information Super-Highway Center and Instrumentation Center. The Institute's Central Library and the libraries of several national institutes located at Roorkee provide priceless technical literature, seldom available at any other engineering center in the country.

### **About Roorkee:**

Roorkee is a part of the State of Uttarakhand and is located at the foothills of Himalayas. Roorkee Railway Station is on the main line of Northern Railways having direct links to Delhi, Amritsar, Jodhpur and Shri Ganga Nagar etc. The place is also within easy reach by road from Delhi (200 km) and Chandigarh (180 km) connected by National Highways. It is located on Delhi-Haridwar and Delhi-Dehradun bus routes. Roorkee is ideally located near several tourist places, like Dehradun (70 km), Mussorie (100 km), Haridwar (32 km) and Rishikesh (50 km).

### The Coordinator:



Dr. Brijesh Kumar Yadav is an Associate Professor at the Department of Hydrology, IIT Roorkee. He is an awardee of the prestigious Ramanujan fellow by Government of India and had received postdoctoral fellowships from University of California Davis, Utrecht University & UNESCO-IHE Delft Netherlands.

His current research focuses on multiphase flow modelling, soil water flow and solute transport analysis, Nonpoint source pollutant movement through deep and heterogeneous vadose zone, Phytoremediation of heavy metal polluted sites, Bioremediation of hydrocarbon polluted soil and groundwater resources, Quantification of groundwater resources, CO<sub>2</sub> sequestration in subsurface. Dr. Yadav published around 30 peer reviewed journal articles and book chapters, and made 35 presentations at various national and international conferences/symposiums in areas of natural resources. He has successfully organized 08 training courses/workshop sponsored by MHRD, CPCB, and DST.

### The Co- coordinator:



Dr. N. K. Goel is currently Professor in Department of Hydrology, Indian Institute of Technology Roorkee and Chair Professor, Bharat Singh Chair for Water Resources, Established by Ministry of Water Resources, Government of India.

He has obtained PhD from IIT Roorkee in 1991 and has published three books and more than 60 international/national research papers. His area of expertise includes Stochastic Hydrology, Extreme value estimation, Flood estimation and forecasting, Power generation projects and pipeline projects, hydrological analysis and planning. Prof. Goel has more than thirty years of academic and research experience. He has experience of organizing many international/national training/ short term courses.

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| Modules              | <b>Duration:</b> November 20-22, 2017<br><br><b>Venue :</b> Department of Hydrology, Indian Institute of Technology Roorkee   |
| You Should Attend If | <ol style="list-style-type: none"><li>1. Nominated by CPCB/State level pollution control boards</li><li>2. You are a person from industry/research organization</li><li>3. You are a scientist/faculty of an institution dealing with natural resources management.</li><li>4. You are a civil/agricultural Eng. /environmentalist/biotechnologist/geologist etc.</li></ol> |
| Note:                | <ol style="list-style-type: none"><li>1. No participation and accommodation charges for nominated person by CPCB and State pollution control boards.</li></ol>  |
| Participation Fees*  | <ol style="list-style-type: none"><li>1. Academic/Research organizations: ₹ 5,000 INR</li><li>2. Exhibition/Industrial participation: ₹ 10,000 INR</li></ol>  |
| Seats                | <b>Total No of Seats= 25</b><br>[20 Nominated by CPCB/State level pollution control boards + *05 Self/Industrial sponsored]   |
| Last Date            | <b>30/10/2017</b>   |