

SHORT TERM TRAINING COURSES

Related to Conservation of Rivers And Lakes

on

PROJECT FORMULATION AND DPR PREPARATION

(June 09-13, 2009)

WASTE WATER TREATMENT TECHNOLOGIES

(September 08-12, 2009)

ENVIRONMENT PROTECTION LAWS

(December 15-19, 2009)

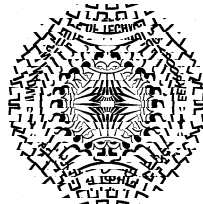
PUBLIC PARTICIPATION AND INSTITUTIONAL DEVELOPMENT

(January 05-09, 2010)

Sponsored by

**Ministry of Environment and Forests
National River Conservation Directorate
Government of India, New Delhi**

Offered by



**Alternate Hydro Energy Centre
Indian Institute of Technology Roorkee**

ABOUT THE COURSE

Due to the exponential growth of population and development, the demand on water resources, particularly fresh water, has been increasing but are getting degraded. Therefore, proper management & conservation of all available water resources has become inevitable in recent years. Lakes, reservoirs, wetlands & rivers are the important sources of water. Conservation & Management of rivers & lakes for the society is of great significance & deserves due consideration.

The National River Conservation Directorate, Ministry of Environment Forests (MoEF) has sponsored a M.Tech programme in "Conservation of River & Lakes" at Indian Institute of Technology, Roorkee to build up capacity in the conservation of rivers & lakes as part of its initiative under NRCD. The conservation & management plans include the interception and treatment of waste waters before their entry into the water bodies, solid waste management and a variety of activities eg. catchment improvement, shoreline protection, in-lake treatments and improvement of recreational facilities in and around the lake to ensure public interest and participation.

Apart from regular M.Tech programme, four short term training courses on various aspects of Conservation & Management of Lakes and Rivers of 5 days duration each are offered during year 2009-10. The participants shall be provided an in-sight into Lakes and rivers, their ecology, pollution problems and management practices required to improve their health.

COURSE PROGRAMME

Modern teaching aids, group discussions, site visits etc. will be used. The course will have lectures, tutorials, exchange of experiences of participants from different organizations and case studies related to conservation and management of lakes. Visit to nearby lakes / STPs / ETPs etc. will also be organized.

SCHEDULE

- June 09-13, 2009 : Project Formulation and DPR Preparation
- September 08-12, 2009 : Waste Water Treatment Technologies
- December 15-19, 2009 : Environment Protection Laws
- January 05-09, 2010 : Public Participation And Institutional Development

NUMBER OF SEATS (Sponsored and Paid)

There shall be only 15 sponsored seat in each course for nominations from government organizations. The admission will be offered on first come first serve basis. The other candidates are to pay a course fee of Rs. 7,500/- payable through a bank draft drawn in favor of Head, Continuing Education Centre, IIT Roorkee. All participants will be provided free training, boarding/loading/travel to site during the course.

The representation will be given to the large numbers of organisations. Accordingly, the participants are advised to send their nominations to Head, AHEC IIT Roorkee at the earliest. Women candidates are also encouraged to apply.

TARGET PARTICIPANTS

The course has been designed for the participants having Engineering/Scientific background and those involved in the conservation of rivers & lakes, especially, from central/state/local government bodies such as water works department, municipalities, public health units, pollution control boards, irrigation departments etc. The participants may be from government departments, academic institutions, private developers of townships, manufacturers of equipment to handle / treat waste water and solid wastes and NGOs etc. who are contributing or intend to contribute in the conservation of lakes and rivers.

COURSE FACULTY

The course faculty will comprise faculty of AHEC and other departments of the IIT, Roorkee, planners, policy makers, The experts from other organizations may also be invited to deliver the lectures.

MODULES

- Programme and Project objective
- Preparation of PFR, DPR, Cost Estimates,
- Project implementation methods
- Public hearing process
- Tendering procedures
- Internal Rate of Return, Cost Benefit Analysis
- Financial Management
- Resource Mobilization and sustainability of the project
- Project planning
- Project Management concepts
- Use of Application Softwares in project management
- Specific regulations/statuary acts of other countries not practiced in India

COURSE CONTENTS

- **Project Implementation methods:**
 - o Self management, project management & project management agencies
- **Tendering procedures:**
 - o Tender documents of central & different state governments
 - o Standard Tender documents from international bodies like world bank, ADB & other funding agencies
 - o Procedures for developing on-line tendering procedures
- **Project Planning :**
 - o Effective planning
 - o Background of network charts
 - o Network elements
 - o drawing, PERT and CPM chart comparison and applications
 - o Monitoring and control
- **Management concepts :**
 - o Planning
 - o Organizing
 - o Staffing, directing and controlling

MODULES

- Waste Water quality
- Natural drainage system
- Waste water disposal
- Waste water treatment methods and implementation Strategy
- Centralized and decentralized system
- Design of treatment units
- Polishing of treated waste water, disinfection, nutrient removal
- Disposal of treated effluent & sludges
- Generation of resources and revenues treatment plant
- Disaster management in the operation and maintenance of treatment plants

COURSE CONTENTS

- **Waste water :**
 - o Quality, source and its evaluation
 - o Water supply data & evaluation of capacity
 - o Collection and sewerage system
- **Centralized & decentralized system :**
 - o Physical operations: screening, grit removal, flow equalization, sedimentation
 - o Biodiesel processes: aerobic and anaerobic, pond system/ combinations thereof.
 - o Design of sewerage & treatment units
 - o Estimation of LCC.

MODULES

- Environmental laws
- Environmental policies
- International Environmental concepts
- Environmental Awareness & Education
- Public participation in the implementation of laws / policies
- Role of Institutions & Government bodies in implementation.

COURSE CONTENTS

- **Introduction to Environmental Acts & Policies :**
 - Water (prevention and control of pollution) Act- 1974, 1986 and its amendments
 - Cess act, cess rules, Environment (protection) Act
 - Hazardous waste management and handling rules 1989.
- **Pollution Abatement Policy, 1992 :**
 - Municipal and solid waste (management and handling) rules 2000, Biomedical waste rules 1998 and chemical accidents rule 1998.
- Environment policies: National Environmental policy (NEP) 2006 and water policy 2006.
- Environment Audit: Concept and procedure
- Awareness and Education
- Economics of environmental education
- Role of civil society in awareness creation
- Public participation in water conservation sector

MODULES

- Modes of awareness generation information, education, communication
- Cost of awareness creation
- Sustainability and impact assessment
- Civil Society: Concept and components
- Role of Institutions
- Institutional laws

COURSE CONTENTS

- **Modes of awareness generation**
 - Information
 - Education
 - Communication
- **Cost of awareness creation**
- **Civil Society: Concept and components**
 - Role of civil society in awareness generation
 - Stages of public participation
 - Forms of Public Participation
- **Concept and role of Institutions**
 - Evaluation of existing Institutions
 - Design of Institutions
 - Case studies
- **Institutional laws/ regulations**

THE SPONSOR, Ministry of Environment and Forests (MoEF), Govt. of India

The National River Conservation Directorate (NRCD), Ministry of Environment and Forests (MoEF), Government of India, the nodal Ministry responsible the conservation of rivers & lakes in the Country has sponsored these courses.

BOARDING/LODGING

All the expenses during the course on accommodation, boarding, field visits and course material will be taken care by us. The accommodation will be arranged at Officer's guest house (Continuing education /Khosla International House) of Indian Institute of technology, Roorkee on twin sharing basis.

VENUE

The course will be held at **Alternate Hydro Energy Center (AHEC), Indian Institute of Technology Roorkee** (Uttarakhand), India. Roorkee is about 180 km North of Delhi and has a number of academic and research Institutions. It is connected by road and rail from Delhi. A large number of interstate buses Ply from Delhi to Roorkee on way to Haridwar and Dehradun. Roorkee is also connected by rail from Delhi and other important towns.

AHEC, THE HOST INSTITUTION

Alternate Hydro Energy Center (AHEC) was set up at Indian Institute of technology, Roorkee by the Ministry of New Renewable Energy (MNRE), Government of India, in the year 1982 initially to work for power generation through the development of small hydropower in hilly as well as in plain areas. AHEC, an Academic centre of IIT, Roorkee, has been engaged in education and training of the field engineers and technologists regularly and providing consultancy on all aspects of SHP to the utilities both in government and private sector nationally as well as to other developing countries. It is also engaged in R&D. It provides real time simulator based training for operation of Small Hydro Power (SHP) Plants. AHEC has been identified as 'Apex Technical Institution' for the Small Hydropower Development in India.

AHEC has also prepared conservation plans/DPRs and providing expert advice on various aspects of conservation of lakes/rivers including policy and evaluation support in the country.

AHEC has also been offering a 4 semester **M.Tech programme** in "**Conservation of River and Lakes**" since July 2004 and has prepared conservation plans for Dal-Nagin lakes (J&K), Nainital & 7 other lakes (Uttarakhand) including River Kshipra conservation plan etc. Ph.D. programmes to national and international candidates are also offered by AHEC.

For further information and registration, please contact or write to

Head,

Alternate Hydro Energy Centre,
Indian Institute of Technology Roorkee
Roorkee-247667 (Uttarakhand), India

Phone : +91-1332 274254, 285213, 285836

Fax : +91-1332 273560

E-Mail : ahec@iitr.ernet.in, aheciitr@gmail.com

Web site : www.iitr.ernet.in/centers/AHEC/Pages/index.html; www.ahec.org.in

REGISTRATION FORM

SHORT TERM TRAINING COURSES Related to Conservation of Rivers And Lakes

(please tick mark ✓)

- | | | |
|---|---|-----------------------|
| <input type="checkbox"/> Project Formulation and DPR Preparation | : | June 09-13, 2009 |
| <input type="checkbox"/> Waste Water Treatment Technologies | : | September 08-12, 2009 |
| <input type="checkbox"/> Environment Protection Laws | : | December 15-19, 2009 |
| <input type="checkbox"/> Public Participation and Institutional Development | : | January 05-09, 2010 |

Affix Photo

NameMr./Dr./Mrs./Ms.)
(write in block letters)

Age.....Position :

Company/Organisation

Department/Division.....

Mailing Address :

Tel (Off.) :Residence :Mob.....
(with area code)

Fax : E-mail :

Duties and Responsibilities :

Educational Background :

Degree	Year	Field of Study

Please describe briefly your professional experience in the course subject area on separate sheet.

Details of Fee: As applicable

DD No. Bank Amount Rs

Fee enclosed : Rs.7500/- may be remitted in favour of Head, Continuing Education Centre, if applicable IIT Roorkee through a Bank Draft payable at Roorkee and sent to Head, AHEC, IIT Roorkee, Roorkee.

Head,

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Web site : www.iitr.ernet.in/centers/AHEC/Pages/index.html; www.ahec.org.in

Signature of Candidate

Date :