**E-ITEC-Training program**

**on**

**Water, Sanitation, and Hygiene (WASH)**

**Organized by**

**Department of Water Resources Development & Management**

**Indian Institute of Technology Roorkee**

**Introduction**: This course will cover the issues and challenges related to water, sanitation, and hygiene (WASH) and related infrastructure in the context of tropical public health. In the first third of the course, it will cover drinking water security involving quantity (with appropriate sources), quality (with appropriate treatment options) as well as supply and demand management aspects. In the second third, it will cover sanitation technologies (various types of latrines, sewers, and septic systems), including construction and use. It will also cover wastewater treatment and disposal. In the last third of the course, it will cover hygiene in a tropical context. This includes essential hygiene practices in rural, urban, and peri-urban settings and under conditions of both water abundance and water stress. Additional topics to be addressed will be KAP, MEAL, assessment of current practices, behavior change techniques, etc. The course will emphasize the appropriate use of peer-reviewed literature and critical-thinking skills.

**Aim**: This training course aims to develop the capacity in Afro-Asian countries to address the issue of Water, Hygiene, and Sanitation in rural and urban areas.

**Objective**: In this training program, a much-required capacity development program is proposed at local and regional levels to address the knowledge and skill gaps in effectively addressing the challenges in the WASH sector. This training program imparts knowledge of the WASH sector to the young field engineers.

**Course coordinator:**

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| Prof. M. L. Kansal Dept. of Water Resources Development and ManagementIndian Institute of Technology Roorkee, 247667 (India)Email: mlk@wr.iitr.ac.inPhone: +91-1332-285141 (office), +91-9412919302 (mobile) | Prof. Basant YadavDept. of Water Resources Development and ManagementIndian Institute of Technology Roorkee, 247667 (India)Email: basant.yadav@wr.iitr.ac.inPhone: +91-1332-284954 (office), +91-9899286153 (mobile) |

**Course content and schedule:**

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| Day No./ Date | Time | Program | Name of Faculty(Annexure - I) |
| 1 | 2 | 3 |  |
| Day 1 | 14:00- 15:00 | On line Registration, Course Inaugural, and Introduction |  |
|  |  |  |
| 15:00 –15.55 | Source & Finished Water Quality Standards | Prof. M. L. Kansal |
| 16:00 –16.55 | Drinking water sources and its protection. | Prof. Deepak Khare |
| 17:00 –17.55 | Water Distribution Systems & its Impact of Reliable Water Supply | Prof. M. L. Kansal |
| Day 2 |  |  |  |
| 14:00 -14:55 | Knowledge, Attitude and Practice (KAP) for Sustainable WASH services | Er. R. D. Singh |
| 15:00 15.55 | Hygiene promotion among rural & urban community | Prof. Basant Yadav |
| 16:00 –16.55 | Sanitation facilities - latrines, sewers, and septic systems.  | Dr. Rajesh Singh |
| 17:00 –17.30 | Wastewater collection, treatment & Disposal | Prof. Bhaskar Jyoti Deka |
| Day 3 |  |  |  |
| 14:00- 14.55 | Water treatment processes and disinfectant requirements. | Prof. Bhaskar Jyoti Deka |
| 15:00- 15.55 | WASH: Governance, accountability, and the enabling environment (Participatory Approach, Infrastructural & environmental modifications) | Prof. Basant Yadav |
| 16:00 17.00 | Feedback and Valedictory Function |  |

**The expected outcome of the course**: At the end of this training course, participants will understand the issues related to water, hygiene and sanitation. Further, the course also designed to introduce advanced technology in wastewater treatment and reuse, Water distribution systems and Sanitation facilities.

**Eligibility conditions of the participants**: Participants working in the area of Public health, water supply, Wastewater Treatment are eligible to apply.

**Resource Persons:** Experienced faculty members from various departments/centers of IIT Roorkee and other reputed institutions/agencies/industries will deliver lectures and coordinate laboratory exercises.