CSIR - CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE
(Under Ministry of Science and Technology, Govt. of India)
Mahatma Gandhi Avenue, Durgapur – 713 209, W. Bengal, India
www.cmeri.res.in

Training on
ANALYTICAL TECHNIQUES AND INSTRUMENTATION FOR WATER QUALITY ASSESSMENT

Venue: CSIR-CMERI, Durgapur Date: May 12 – 13, 2021



CSIR-Central Mechanical Engineering Research Institute (CSIR-CMERI), the only national laboratory dedicated to Mechanical Engineering, carry out dedicated research and development over a broad spectrum of mechanical engineering and allied disciplines of science and technology. The Environmental Engineering Group from CSIR-CMERI carry out dedicated R&D efforts towards clean water technology, water testing, water purification technology etc. The group has developed iron, arsenic and fluoride filters for both domestic and community levels, a number of which have been commercially exploited through licenses. The water testing facility is recognized by the WB pollution control board (WBPCB).

Over large parts of the world, rivers, lakes and other water bodies show increasing trends of water pollution, especially for developing countries under economic expansion and increasing population sizes. Assessment of the physical, chemical and biological water quality is essential for the reduction of freshwater pollution. Therefore, sustainable water quality assessment and monitoring programs should be aimed at integrating the various steps in the monitoring cycle, from the information needs, field and laboratory procedures up to data collection and processing.

Objectives of the Training:

- To aware about water related issues [water conservation, water pollution, water quality parameters (for drinking and waste water) and their testing, water related diseases etc.]
- Hands-on training on testing of water quality parameters by using sophisticated analytical instruments.
- Integrating various steps in the monitoring phase, from the theoretical knowledge, laboratory test procedures up to data collection, characterization and assessment.

With emphasis on practical application driven training, this program provide in-depth exposure to the scientific concepts, working principles, implementation methodology and hands-on experience on water quality assessment. After successful completion of this training, participation certificate will be provided to the participants. This training may help the participants in their career prospects.

Training Covered:

- **Water Quality:** To understand and apply concepts of water quality and pollution processes in waterbodies and to gain knowledge on factors affecting the water pollution.
- **Water Quality Assessment:** To understand and apply standard procedures to test various water quality parameters (TDS, hardness, pH, residual chlorine, alkalinity, sodium, potassium, arsenic, iron, fluoride, chromium, nickel, lead, zinc, phenol, cyanide, oil & grease, BOD, COD, total coliform, E. coli etc.) by using sophisticated instruments like Atomic Absorption Spectrophotometer with GFS, UV-VIS spectrophotometer, Flame photometer etc.
- **Data handling and presentation:** To apply common statistical techniques for water quality data evaluation and design sustainable water quality monitoring and assessment programs under specified conditions.



Training structure:

Participants complete the training in a period of 2 days with a workload of 4 hours of theory and 12 hours of hands-on training of water and wastewater training following standard procedures. Participants are expected to have an ongoing or completed Bachelor/Master degree or equivalent in chemistry, biology, environmental science, chemical engineering, natural resources management, or a related discipline.

Course Fee: Rs. 800/- ; **Number of Participants (in a batch):** 30

Contact Details: Dr. Biswajit Ruj, Head and Senior Principal Scientist, Environmental Engineering Group, CSIR-CMERI, MG Avenue, Durgapur-713209
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First Batch

Second Batch

Third Batch

Water is life's matter and matrix, mother and medium. There is no life without water-:- Albert Szent-Gyorgyi

The participants shall have to follow the standard protocols to prevent the spread of COVID–19 during the training. Before entry on each day, all of them have to pass through thermal screening, sanitize their hands. Nobody shall be allowed inside with fever or any visible symptoms of COVID–19. In case of any lockdown enforced by government, the training will be conducted at a later date.

PARTICIPANT REGISTRATION FORM

Kindly register the following name for the Training on ANALYTICAL TECHNIQUES AND INSTRUMENTATION FOR WATER QUALITY ASSESSMENT) to be held during May 12 – 13, 2021 at CSIR-CMERI, Durgapur, India.

Name (in Block letters): _____

Educational Qualification: _____

Name of the Organization: _____

_____

Address: _____

_____

Phone: _____

E-mail: _____

Payment of Registration Fees (Online Transfer)
Bank Name: State Bank of India
A/C Name: Central Mechanical Engineering Research Institute
Branch Code: Durgapur 0074; IFS Code: SBIN0000074
Account No: 30280331299

Payment Details: Amount Rs. _____

Online Transfer Id _____ **Date** _____

Sign _____ **Date** _____

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