# Science and Engineering Research Board

(a statutory body of the Department of Science & Technology, Government of India)

## Completion Report of the organized High-End Workshop

(Karyashala)

**Date:** 12-04-2024

SERB Sanction / File No: SERB/F/11429/2023-2024

- 1. Name of Academic Institution: Amity Institute of Environmental Sciences, Amity University, Sector-125, Noida, Uttar Pradesh
- 2. Title the High-End Workshop (HEW): Hands-On Training Programme on Tools and Techniques of Water Quality Monitoring, Sampling, Analysis, and Quality Assurance  $(SDG\ 6)$
- 3. Duration / Period of the organized event: 12th February 2024-16th February 2024
- 4. Name and Affiliation of the Invited Expert(s):
  - 1. Dr. H.S Mandal, Scientist-F/Project head, National centre for seismology, Ministry of Earth Sciences
  - Mr. Sundeep, Director (Control of Pollution) & Add. Project Director Society of Integrated Coastal Management (SICOM), MoEF&CC, GoI
  - 3. Dr. Sandeep Kumar Shukla, Research Officer, Central Water Commission, New Delhi.
  - 4. Dr. Suman Chahar, Director Indcare Development Foundation, New Delhi, India.
  - 5. Mr. Akshay Charegaonkar, Director, Anchrom.
  - 6. Mr. Arvind Singh Senger, Principal Scientist, Centre for Science and Environment
  - 7. Dr. Ashwani Kumar Tiwari, Assistant Professor, Jawaharlal Nehru University
  - 8. Dr. Shailender Jain, Assistant Professor, Amity School of Engineering & Technology
  - 9. Prof. Chirashree Ghosh, Professor, University of Delhi
- **5. Grant Sanctioned:** Rs. 500000 (Rupees Five Lakh Only)
- 6. Summary of the HEW (Max. 1000 Words):

The Hands-On Training Programme on "Tools and Techniques of Water Quality Monitoring, Sampling, Analysis, and Quality Assurance" organized by Amity Institute of Environmental Sciences and sponsored by SCIENCE & ENGINEERING RESEARCH BOARD (SERB) was a comprehensive event that took place from February 12th to 16th, 2024, at the MDP Hall, F3 Block, Amity University, Noida. The workshop aimed to enhance participants' knowledge and skills in water quality management through a series of interactive sessions, hands-on practices, and expert-led demonstrations covering various aspects of water quality monitoring and analysis. The workshop commenced with an Inaugural Session on the first day, February 12th, 2024. The session began with the Lighting of the Lamp and Saraswati Vandana, followed by a Welcome and Introduction of the Training Programme by Dr. Renu Dhupper, Assistant Director at AIES. Prof. D. K. Bandyopadhyay, Chief Advisor FPO / Chairman, Amity Law School, shared his thoughts, as did Prof. (Dr.) Balvinder Shukla, Vice Chancellor of Amity University Uttar Pradesh (AUUP). Guest of Honor addresses were delivered by Dr. H.S Mandal, Scientist-F/Project head at the National Centre for Seismology, Ministry of Earth Sciences, and Mr. Sundeep, Director (Control of Pollution) & Add. Project Director at the Society of Integrated Coastal Management (SICOM), MoEF&CC, GoI. The day concluded with a Vote of Thanks and a lunch break. The Plenary Sessions on Day 1 focused on Introduction and Water Sampling Techniques. Dr. Harshita Jain, Assistant Professor at Amity Institute of Environmental Sciences, introduced the training program and water quality parameters. Dr. Sandeep Kumar Shukla, Research Officer at Central Water Commission, New Delhi, provided an overview of water quality parameters and their significance. Dr. Suman Chahar, Director at Indcare Development Foundation, New Delhi, discussed sampling techniques and procedures for water quality analysis, followed by hands-on practice in water sampling by Dr. Anamika Shrivastava. Day 2, February 13th, 2024, featured sessions on Safety Procedures and Quality Control in the morning. Dr. Pushpa Raju Made, Assistant Professor at Amity University, introduced laboratory equipment and reagents, while Dr. Juhi Gupta, also an Assistant Professor at Amity University, conducted an interactive session on QA Case Studies and Group

Exercise. Dr. Manish Kumar, Assistant Professor at Amity University, led a campus guided tour of STPs and water treatment facilities. The afternoon session focused on Analytical Methods and Techniques for Water Quality, with Dr. Amrik Bhattacharya, Assistant Professor at Amity Institute of Environmental Sciences, providing an introduction to analytical methods and techniques. Day 3, February 14th, 2024, began with sessions on Quality Assurance and Laboratory Safety in the morning. Arvind Singh Senger, Principal Scientist, Centre for Science and Environment, discussed Good Laboratory Practices and ensuring quality in laboratories. Dr. Richa Nagar, Assistant Professor at Amity University, covered safety procedures in laboratories and conducted hands-on practice in using laboratory equipment. The afternoon session focused on Membrane-Based Treatment Methods and AAS Analysis, with Dr. Manoj Chand Garg, Assistant Professor at Amity University, introducing membrane-based treatment methods. Dr. Pushpa Raju, Assistant Professor at Amity University, discussed AAS analysis principles and instrumentation, followed by hands-on practice in AAS analysis. Day 4, February 15th, 2024, featured sessions on Resource Recovery from Wastewater and Groundwater Sampling in the morning. Dr. Ashwini Kumar Tiwari, Assistant Professor at Jawaharlal Nehru University, discussed groundwater sampling, issues, and management. Dr. Manish Kumar, Assistant Professor at Amity University, covered resource recovery in wastewater practices, while Dr. Shailender Jain, Assistant Professor at Amity School of Engineering & Technology, discussed strategies for effective resource recovery from wastewater. The afternoon session focused on the Analysis of Physical and Chemical Parameters. The workshop also highlighted the importance of Sustainable Development Goals (SDGs), particularly focusing on SDG 6 (Clean Water and Sanitation) and its interconnectedness with other SDGs. Prof. Chirashree Ghosh, Professor, University of Delhi provided an overview of SDG 6 and its significance, emphasizing the critical role of sustainable water management in achieving global development goals. The Valedictory session on the final day, February 16th, 2024, marked the conclusion of the workshop. Dr. Harshita Jain delivered a Welcome Address, followed by a Report Presentation by Dr. Renu Dhupper, Assistant Director at AIES. Prof. D. K. Bandyopadhyay and Prof. (Dr.) Balvinder Shukla shared their thoughts, and the Guest of Honor delivered an address. The session included certificate distribution, feedback and networking opportunities, and concluded with a Vote of Thanks followed by Hi-Tea. In summary, the Hands-On Training Programme on "Tools and Techniques of Water Quality Monitoring, Sampling, Analysis, and Quality Assurance" provided participants with a comprehensive learning experience, equipping them with practical skills and knowledge to contribute effectively to water quality management and environmental sustainability. The workshop's diverse sessions, expert-led demonstrations, and emphasis on SDGs underscored the importance of sustainable water management practices in achieving global development goals.

> Dr. Renu Dhupper Assistant Director, Amity Institute of Environmental Sciences, Amity University, Uttar Pradesh rdhupper@amity.edu, +91-9810804964 Event Organiser

**Details of Participants** 

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S.	Name of the	Pursuing Degree	Department &	Contact Details					
No.	Student	(Msc. /Ph.D. etc.)	Institute Name	(Phone No. & Email Id)					
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Photographs Section: Please paste high resolution photographs in given spaces below or may be submitted directly on online / email in JPEG format

### Inaugural and Valedictory Session









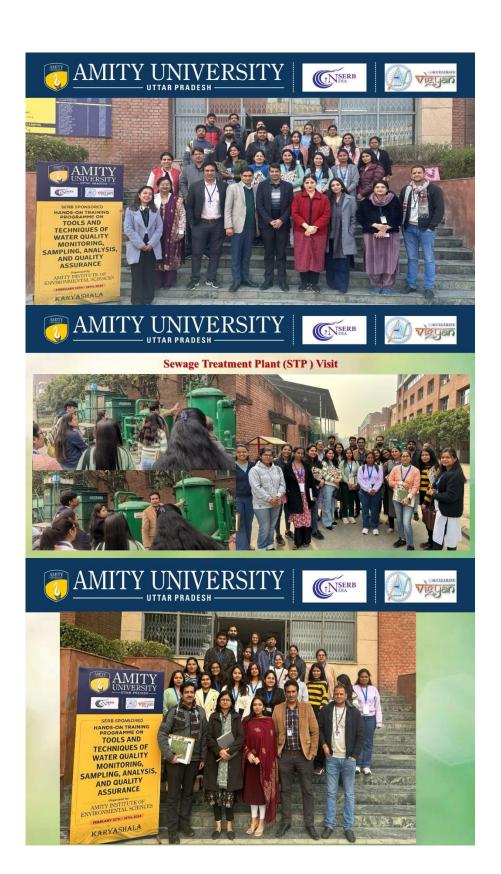


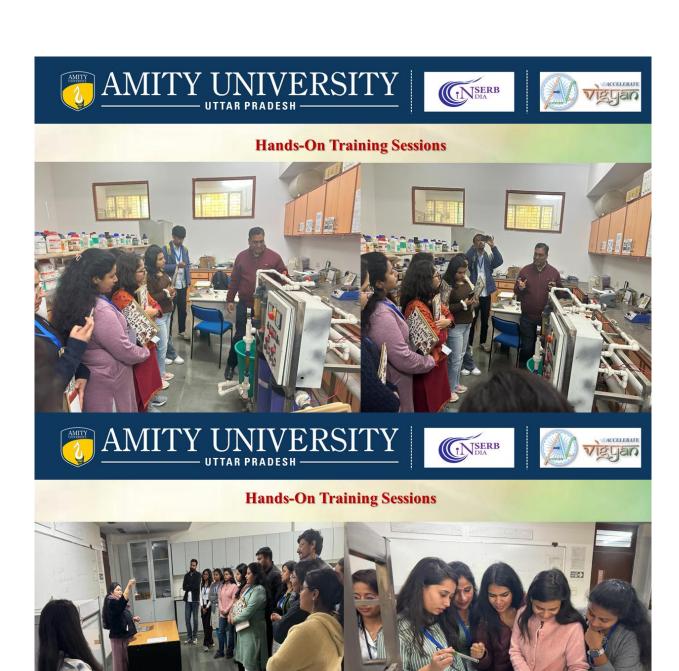




### **General Photographs**







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#### Feedback Form

The Event Organizer (EO) may provide the feedback / suggestions to us for the High-End Workshop program.

The Event Organizers expresses gratitude to the Science & Engineering Research Board (SERB) for sponsoring the High-End Workshop program on "Tools and Techniques of Water Quality Monitoring, Sampling, Analysis, and Quality Assurance." They appreciate SERB's support in making the workshop a success and look forward to potential future collaborations and opportunities for continued partnership in organizing similar educational initiatives.

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**Event Organiser**