

Engineering Staff College of India





Environment Management Division

Continuing Professional Development Programme on Application of GIS, GPS & RS in Environmental Data Management

25-27 June 2025

Interactive Sessions | Digital Learning | Assessments | 24/7 Experts Online/Offline Support

Introduction

With the rapid economic development, environmental pollution is serious. It brings great threat to the social sustainable development and the health of human beings. Environmental protection is complex and dynamic. It involves spatial information from multi-sectoral, multi-region and multi-field and a lot of data processing. An Effective environmental protection information system is needed so that many factors hidden in the complex relationships will become clear and visually seen. Using advanced information technology, environmental data is stored, transmitted, processed and analyzed in order to achieve scientific management.

Geographic information system (GIS) is a new technology emerging with the development of geographical science, computer technology, remote sensing technology and information science. It is the computer information system that can collect, manage, analyze and visualize space data. According to actual needs, GIS combines location and associated attribute information and shows to the user truly and illustrative. The spatial information of environmental protection is very large. Management and analysis of spatial information is the advantage of GIS. Therefore, GIS is the ideal choice to a government department in pollution monitoring and environmental resources protection.

Environmental monitoring is the process of determining the various signs data of environmental quality. It is divided into three sorts those are research monitoring, surveillance monitoring and particular purpose monitoring. Its mission is to identify and test the contaminants composition in the environmental sample, and to study the nature, composition and structure of the environmental quality within a certain historical period and a certain space. So that we can test and judge if the quality of the environment is in compliance with environmental quality standards set by the state and determine the pollution caused by pollutants.

Objectives

The Objective of this programme is to make the participants:

- To Understand the GIS applications on Environment Monitoring
- To Provide in-depth knowledge on various GIS enabled Environment Parameters modeling.

Course Coverage

- Introduction to GIS, GPS and RS
- GIS Application in
 - Disaster Management
 - Water Pollution Monitoring
 - Atmospheric Pollution Monitoring
 - Environmental Impact Assessment studies (Landuse / Landcover analysis, Air Pollution and Water Pollution Modeling)
 - Solid Waste Management
 - Coastal Zone Management
- Group Discussion and Case Studies

Methodology

Methodology of the programme includes classroom Sessions by expert faculty, with Lectures/discussions, with audio visual aid; bench - marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive, demanding active participation from all the participants.

Target Participants

Engineers and managers working in the areas of Environmental Pollution Monitoring from Government Departments, Public Sector Companies and Private sector (all categories of industries). Officials from Regulatory boards, NTPC, NHPC, Consultancy firms, R&D institutions, Academicians, NABET Consultants can also participate in this programme.

Programme Dates, Code & Timings

Dates: 25-27 June 2025 (EM 6065) / Timings: 10:00 AM onwards.

Course Director

Ms. Anita Aggarwal

Faculty & Head I/c. Environment Management Division, Engineering Staff College of India

Phone: Direct 040 6630 4120, 4122 / Fax: 040-66304163

Mob: 8374362306; Email: em@escihyd.org

Faculty/Speaker Details

Apart from the core internal faculty, Experienced Professionals/Faculties/Sector experts will be delivering the lively lecture with practical knowledge & case study.

Course Fee

- ➤ Course Fee (Residential): Rs. 16,500/-* (Rupees Sixteen Thousand and Five hundred only) per participant. Fee includes course material, course kit, twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme. ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation)
- Non-Residential Fee: 10% discount on course fee is allowed for non-residential participants
- > Group Incentive: 10% discount for five or more participants, if sponsored by the same Organization

*GST @18% is to be paid extra over and above the training fee. PAN Card No. AAATT3439Q. GST No: 36AAATT3439Q1ZV, HS No.: 999293 (under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994).

Programme fee is to be paid in in favour of "THE INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING STAFF COLLEGE OF INDIA" in the form of demand draft payable at Hyderabad. Alternatively the payment may be made by Electronic Fund Transfer (EFT) to ESCI – SB A/c No. 10007111201 with The SBI, PBB, Rajbhavan Road Branch, Khairatabad, Hyderabad-500004 by NEFT/ RTGS. IFSC Code No. SBIN 0004159 – MICR No.500002075. PAN Card No AAATT3439Q; GSTIN No. 36AAATT3439Q1ZV. While using EFT method of payment, please ensure to communicate us your company name, Contact details, our invoice reference and programme title.

Registration

Online registration shall be available on ESCI web portal: www.escihyd.org

To register manually please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to: **Course Director (or) Contact us at: Mr. GNM. Rao (Prog. Manager) – 9866431555.**

A Certificate of participation will be awarded to each participant on conclusion of the programme.