

Importance and scope

Access to clean water and air is indispensable to human life. Yet, managing this access in an efficient and effective way is an immensely complex challenge. The current paradigm for environmental quality evaluation relies on a few fixed air and water quality monitoring stations for large areas. This Short term course invites some experts to talk about the state-of-the-art and future trends in development and eventual deployment of low-cost, low power, autonomous wireless sensor networks to provide a fine-grained view of several critical water and air quality metrics over large geographic areas (cities, rivers, watersheds etc.). The short term course will include presentation and discussion session.

Topic to be Covered

- ❖ Spectral indices for water quality monitoring.
- ❖ Application and use of different sensor for water quality monitoring.
- ❖ Application and use of different sensor for air quality monitoring.
- ❖ Maintenance of Environmental sensor.
- ❖ IoT (Internet for Things) based solution for environmental quality evaluation and management.
- ❖ Design and development of specialty e-sensors for catering the needs of environmental application.
- ❖ Use of e-sensors for a plethora of types of measurements such as temperature, particle counting, electric current, humidity and pH measurements.

Software Demonstration.

Electronics and Environmental Area:

Opti-Grating, Opti-Fiber, Opti-Spice,
COMSOL Multi-Physics Modeling
Software, R-Soft Full wave software,

About the institution

The Indian Institute of Technology (ISM) was formally opened on 9th December 1926, by Lord Irwin, the then Viceroy of India to address the need for trained manpower related to mining activities in the country with disciplines of Mining and Applied Geology. In 1967 it was granted the status of a deemed to be university under Section 3 of UGC Act, 1956. Situated in the heart of the country's prime coking coal belt, 260 kms from Kolkata with a campus spread over an area of 393 acres, (with 218 acres of existing campus and 175 acres under acquisition and development) the fully residential ISM has all the facilities of world class academic institute. What started as an institution to impart mining education has graduated into a full-fledged B. Tech., M. Tech., M. Sc. Tech., and MBA. In addition, the School offers M. technical institution of international acclaim offering a host of programs like Phil. and full as well as part time Ph. D. programs, while also awarding D.Sc. as the highest degree of academic Achievement.

Accommodation

Accommodation will be provided on payment basis subject to availability.

Eligibility Criteria

Participants from R&D Organizations / Faculties, Research Scholars and Technical Staffs Members of Universities, Institutes and AICTE approved engineering colleges.

Registration

Participants from R&D Organizations / Faculties and Technical Staffs Members of Universities, Institutes and AICTE approved engineering colleges: **Rs. 12000**. The payment in the form of account payee **Demand Draft** drawn in favor of **“Registrar, Indian Institute of Technology (ISM)”** payable at **SBI, ISM Campus Branch, Dhanbad** (Branch Code – 1641) or in the form of electronic payment:

A/C holder: Registrar, Indian Institute of Technology (ISM), Dhanbad

Bank Name: Canara Bank Seraidhela, Dhanbad

Branch Code: 0986, **A/C No.:** 0986101009746,

IFSC: CNRB00009746

A duly filled registration form along with Demand Draft or e-payment slip should be sent to any of the coordinators on or before **20th June 2017** by **COURIER /SPEED POST**. **Participation fees for: PhD students (from other institute) is Rs. 6000, B.Tech and M.Tech students (from other institute) is Rs.3000. While IIT(ISM) students will pay Rs. 500 as participation fees.** Scanned copy of the filled-in registration form should be sent by email. **Certificates will be issued only after the completion of the program.**

Venue

Executive Development Center (EDC)

Indian Institute of Technology (ISM)

DHANBAD – 826004, JHARKHAND

Website

www.ismdhanbad.ac.in/ei@ismdhanbad.ac.in

Chief Patron

Prof. D.D. Mishra,
Chairman, GC&EB, IIT(ISM), Dhanbad

Patron

Prof. DC Panigrahi, Director, IIT (ISM),
Dhanbad

Chairman

Head of Department, Electronics Eng.
IIT (ISM) Dhanbad

Coordinator

Dr. Sanjeev Kumar Raghuwanshi
Assistant Professor, Department of
Electronics Engineering IIT (ISM) Dhanbad
Mobile no: 9471191354
Email: sanjeevrus@yahoo.com

Co- Coordinator

Dr. Brijesh Kumar Mishra
Department of Environmental Science and
Engineering
IIT (ISM) Dhanbad
Email Id: bkmishra3@rediffmail.com
Mobile no: -9471191704

**Three Days
Short Term Course**

**Role of e-Sensors in Water
and Air quality Monitoring**

Scheduled Date
22nd to 24th June 2017



ORGANIZED BY
**Department of Electronics
Engineering**

**Indian Institute of
Technology (ISM),
Dhanbad
Jharkhand, India**

**Three Days
Short Term Course
on**

**Role of e-Sensors in Water and Air
quality Monitoring**

Scheduled Date
22nd to 24th June 2017

REGISTRATION FORM

Name:

Designation:

Sex (M/F):

Organization:

Address:

Phone/Fax:

Email:

Details of Bank Draft:

Amount Rs.

Draft No.: Dated:

Issuing Bank:

Date: _____ Signature