



Internet based Environmental Engineering Courses



INTRODUCTION

Rapid industrialization of developing countries has led to a shortage of engineering personnel at all levels, including the industrial sector and in the infrastructure management. This necessitated the development of Environmental Engineering (EE) Courses in Self Learning Format, taking advantage of recent developments in Information Technology, so that the courses could be taught in distance mode. Recognizing this need, five environmental engineering modules were developed for in-service working professionals in environmental engineering through distance mode.

- These courses with student relevant examples are directed at practicing professionals in India for continuous professional development.
- The course format, gives the participants to take more responsibility for their own learning process, which is initiated by distance learning tasks.
- Print version of the courses were published in 2006 and reprinted in 2009.
- The delivery model was developed in 2004 with the adoption of ATUTOR- Open Source Web-based LCMS.
- EE Courses are being offered through ODL at Indian Institute of Science since 2004 and details available at <http://wgbis.ces.iisc.ernet.in/energy/DistanceEducationCourses/index.htm>.



- Now the course is self sustaining with two batches per year (since 2004). Considering the infrastructure availability, the number of participants per batch is about 50 per course.
- Two courses are being offered in distance mode since 2004.



1. ENVIRONMENTAL MANAGEMENT (EM)



2. MUNICIPAL SOLID WASTE MANAGEMENT (MSWM)

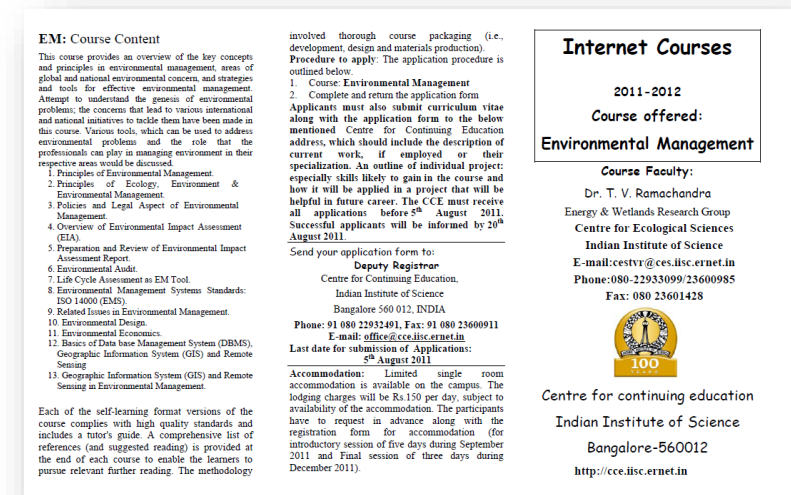
OBJECTIVES

- Reach a wider student audience.
- Meet the needs of students who are unable to attend on-campus classes.
- Involve outside speakers who would otherwise be unavailable
- Link students from different social, cultural, economic, and experiential backgrounds



COURSE SCHEDULE

1. ANNOUNCEMENT OF THE COURSE (Feb-Jun)



2. SELECTION OF CANDIDATES (Aug)

Registered participants can access the course webpage at <http://wgbis.ces.iisc.ernet.in/emcourse>



3. CLASS ROOM INTERACTION (Aug/Sept)

One week classroom sessions for a face to face interaction with the course faculty followed by the mid-term exam.

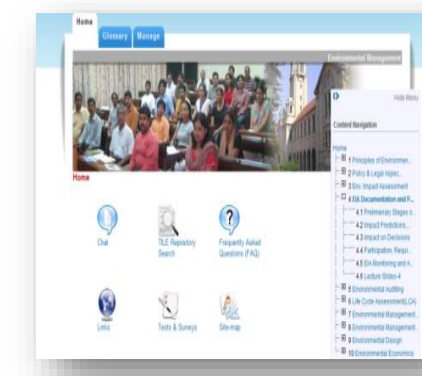


4. FIELD WORK



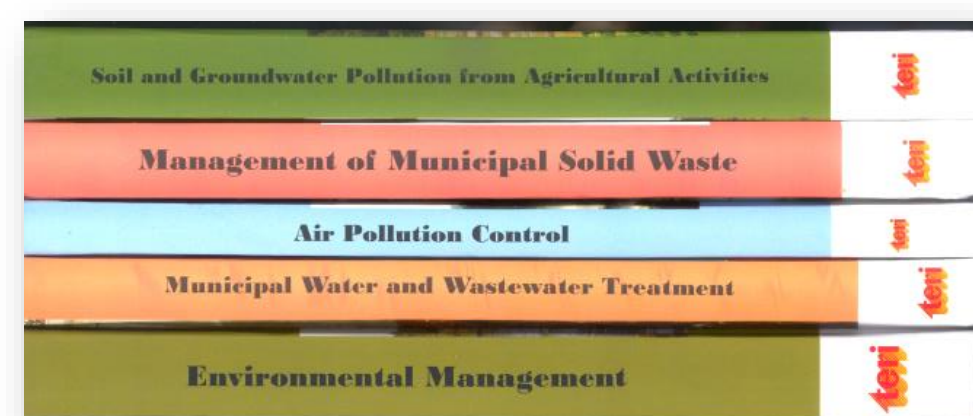
5. INTERACTIVE SESSION THROUGH INTERNET (September – November)

- Downloadable mode – Students can download the study materials
- Read only mode
- Xchat - Instructor and participants can interact on real-time
- Mailing group – Instructor and participants can discuss through text within a group



6. FINAL CONTACT SESSION (Dec)

Interactive session, project presentation, guest lectures followed by final exam

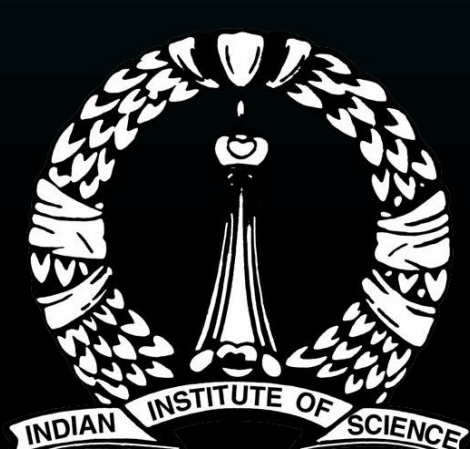


7. EVALUATION

Concept level – Online tests
Module level – At the institution



LEARNING MATERIALS



Chairman, Center for Continuing Education - Email: chairman@cce.iisc.ernet.in, Web: <http://cce.iisc.ernet.in>
Course coordinator - Dr. T.V. Ramachandra, Convener - ENVIRONMENTAL INFORMATION SYSTEM [ENVIS],
Energy & Wetlands Research Group, Centre for Ecological Sciences (CES),
Indian Institute of Science (IISc), Bangalore – 560 012, INDIA.
Email: cestvr@ces.iisc.ernet.in, Web: <http://ces.iisc.ernet.in/energy>

