

**MHRD / AICTE SPONSORED**

**Short Term Course  
on  
Remote Sensing and GIS**

For Teachers of Colleges / Universities

**February 15 - 27, 2010**

A Continuing Education Programme of Indian Institute of Technology Kharagpur

Venue: I.I.T., Kharagpur



**Department of Geology & Geophysics**

**Indian Institute of Technology**

**Kharagpur - 721 302**

**INDIA**

**Introduction**

In recent years, Remote Sensing and GIS techniques have emerged as one of the most versatile decision making tools in the geospatial domain with increasing applications in new areas. Integrated application of these two techniques culminates in harnessing the natural resources with incredible speed and reasonable accuracy, even from inaccessible areas, to help the process of planning the integrated development of a region. They are widely used in monitoring, management and planning in diverse fields of activities, such as, sustainable development, infrastructure development, disaster management, environmental monitoring, resource inventory, rural and urban planning etc. Remotely Sensed data from Aerial photographs and Satellites, combined with GPS serve as the basic database in GIS for multi-criteria decision making in several applications, viz., groundwater and mineral exploration, land use / land cover, wasteland management, inland water resources, mining, agriculture, forestry, coastal mapping and development, land records, health care, socio-economic, crime investigation etc., to name a few.

The main objective of this course is not only to expose the participants to the rapidly growing field of Remote Sensing and GIS but also to motivate them to take up research in this rapidly growing field of science and technology.

## **Course Content**

- Concept of Remote Sensing, optical, thermal and microwave remote sensing, data acquisition, aircrafts and satellites, visual and digital remote sensing, analysis and interpretation of visual and digital remote sensing data, applications of remote sensing in geology, agriculture, forestry, urban and rural planning, land use / land cover, groundwater, mineral and hydrocarbon.
- Basic GIS concepts, spatial data models, data structures, database creation and manipulation, map analysis, geostatistical analysis, 3D GIS, project planning,
- Basic concepts of GPS

## **Resource Persons**

Faculty from IIT Kharagpur and experts from other premier Institution/ Organization will deliver Lectures followed by Laboratory classes.

## **Eligibility**

Course is exclusively for Teachers of AICTE approved Colleges / Institutions / Universities interested in the fields of Remote Sensing and GIS. Since it is an Introductory Course, Teachers who have undergone such Courses or are involved with teaching or research in the fields of Remote Sensing and GIS should not apply.

Depending on availability of seats, any person other than Teachers of AICTE approved Colleges / Institutions / Universities can join the Course as Self sponsored participant.

## **Registration**

Interested participant from approved Colleges / Institutions / Universities is requested to send the filled up Registration Form (appended below - to be downloaded), forwarded through proper channel (mandatory) to the Course Coordinator latest by February 5, 2010. However, in view of the limited number of seats, admission will be made on first come first serve basis. All Registration Forms must be accompanied with a Demand Draft of amount Rs.500/- drawn in favour of “CEP – STC, IIT Kharagpur” on any National Bank at Kharagpur. Demand Drafts will be returned to selected candidates who join the Course, as well as to unselected candidates. However, Demand Drafts will not be returned to the selected candidates, who do not join the Course.

Self Sponsored participant can send Registration Form accompanied with a Demand draft of amount Rs. 8000/- in favour of CEP-STC, IIT Kharagpur on any National Bank at Kharagpur. Forwarding through proper channel in the Registration Form is not mandatory for such interested participant.

## **Financial Assistance**

Selected participants will be eligible for reimbursement of railway fares both ways (to the maximum extent of AC 3 tier) via the shortest route; and free lodging and boarding during the duration of the Course.

Self sponsored participants have to bear their travel, lodging and boarding costs. However, accommodation can be arranged on prior information.

## **General Information**

The Department of Geology & Geophysics was founded since the inception of the Institute in 1951. From the very beginning, the Department has been involved in teaching and undertaking research in all disciplines of Geology, Geochemistry and Geophysics. The alumni of this Department have occupied responsible positions in India and abroad. It is one of the first Earth Science Departments of the country to start the course of Remote Sensing and GIS at UG, PG and Doctoral levels. Several Remote Sensing and GIS related Research and Consultancy Projects have been undertaken by the faculty of the Department.

IIT Kharagpur is located in a rural environment at a distance of about 5 km from Kharagpur Railway Station (SER). Kharagpur is connected with all the important cities of India.

## **Completed Registration Form should be mailed to:**

Amit K Bhattacharya  
(Course Coordinator)  
Department of Geology & Geophysics,  
Indian Institute of Technology, Kharagpur  
Kharagpur - 721 302, INDIA

Last Date for Submission of Application: February 3, 2010

E-mail must be legibly written. Admission to the Course will be intimated through e-mail only by February 5, 2010.

## **Any enquiry related to the Course should be addressed to:**

Amit K. Bhattacharya  
(Course Coordinator)  
Department of Geology & Geophysics  
Indian Institute of Technology  
Kharagpur – 721302, INDIA  
Phone: +91 – 3222 – 283352 (O), 283353 (R)  
Email: amkb@gg.iitkgp.ernet.in

Registration Form  
MHRD / AICTE SPONSORED  
Short Term Course  
on  
Remote Sensing and GIS

Name:

Designation/Responsibility:

Name and Address of Organization:

Address for communication:

Email:

Phone No:

Gender:

M

F

Highest Academic Qualification:

Specialization:

Demand Draft amount and number:

Date:

Place:

Signature of the Applicant

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Recommended and forwarded

Signature with Seal of the Head of the Organization

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The Registration Form should be accompanied with a Demand Draft (Rs. 500/- for Teachers of AICTE approved academic Institutions and Rs. 8000/- for others) in favour of "CEP - STC, IIT Kharagpur" drawn on any National Bank at Kharagpur.