

Workshop  
**GEOINFORMATICS: PRINCIPLES AND  
APPLICATIONS IN URBAN  
ENVIRONMENT MANAGEMENT**

**1<sup>st</sup> June– 6<sup>th</sup> June 2009**

**REGISTRATION FORM**

(Please mail to reach before **15<sup>th</sup> May 2009**)

Name: \_\_\_\_\_

Office Address: \_\_\_\_\_  
\_\_\_\_\_

Permanent Address \_\_\_\_\_  
\_\_\_\_\_

E Mail: \_\_\_\_\_

Tele (+ STD Code): \_\_\_\_\_

Fax (+ STD code): \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Sex : Male / Female

Highest Academic Qualification and subject  
(with proof) \_\_\_\_\_  
\_\_\_\_\_

Professional Experience: \_\_\_\_\_  
\_\_\_\_\_

Teaching / Research Interest: \_\_\_\_\_  
\_\_\_\_\_

Accommodation required: YES / NO

Registration (teachers) / Registration (non-  
teachers)

Demand Draft No: \_\_\_\_\_ Rs. \_\_\_\_\_

dated: \_\_\_\_\_ Bank: \_\_\_\_\_

I agree to abide by the rules of the CiSTUP,  
IISc. If selected I shall participate in the  
workshop for the entire duration [1<sup>st</sup> June– 6<sup>th</sup>  
June 2009].

Date

Place

Signature

Name:

(Photocopy of this form may be used).

The applicant Mr. / Ms. \_\_\_\_\_

\_\_\_\_\_ from  
our institution will be permitted to attend the  
workshop – Geoinformatics: Principles and  
applications in Urban Environment  
Management at CiSTUP, Indian Institute of  
Science, Bangalore, if selected for the same.

Date

Place

Signature of the Head of the  
institution with seal.

Last date for submission of application form  
**20<sup>th</sup> May 2009.**

*Please mail the application form along with  
demand draft to*

**The Chairman**

**Centre for infrastructure, Sustainable  
Transportation and Urban Planning  
(CiSTUP), Indian Institute of Science**

Bangalore 560 012

Tel: 91-080- +91-80-2293 2919

Fax: 080-23601428

E Mail: [cistup@civil.iisc.ernet.in](mailto:cistup@civil.iisc.ernet.in)

Web: <http://cistup.iisc.ernet.in>

Workshop  
**GEOINFORMATICS: PRINCIPLES AND  
APPLICATIONS IN URBAN  
ENVIRONMENT MANAGEMENT**  
**1<sup>st</sup> June– 6<sup>th</sup> June 2009**

Co-ordinator

**Dr. T.V. Ramachandra**

Centre for Ecological Sciences

Indian Institute of Science

E Mail: [cestvr@ces.iisc.ernet.in](mailto:cestvr@ces.iisc.ernet.in)

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**Centre for infrastructure,  
Sustainable Transportation and  
Urban Planning (CiSTUP)**

INDIAN INSTITUTE OF SCIENCE

Bangalore 560 012, India.

<http://cistup.iisc.ernet.in>

**Workshop**  
**GEOINFORMATICS: PRINCIPLES AND**  
**APPLICATIONS IN URBAN ENVIRONMENT**  
**MANAGEMENT**  
**1<sup>st</sup> June– 6<sup>th</sup> June 2009**

**WORKSHOP**

Geoinformatics is increasingly being used to solve complex environmental problems in domains such as management of natural resources, land use planning and management, nature conservation, and environmental monitoring, require reliable spatial information and methodologies. Geoinformatics combines expertise from the fields of: - information and communication technology (ICT); - geographical information systems (GIS), remote sensing, GPS and mapping; - environmental and social sciences such as land use planning, geography, and communication. This workshop provides an overview of the key concepts and principles in Geoinformatics and its applications in environmental management, areas of global and national environmental concern. Various tools, which can be used to address environmental problems and the role that the professionals can play in managing environment in their respective areas would be discussed.

**Workshop Structure**

- **Geographical information systems:** Introduction, from the real world to GIS, basic data models, Geo-references and co-ordinate systems, basic spatial analysis and modeling, GIS implementation and project management, GIS issues and prospects, **Data models and data quality** : Problems and prospects, **GIS in Environmental modeling** : Urban modeling, atmospheric modeling, landsurface-subsurface modeling, biological/ecological modeling, infrastructure development planning , disaster management and risk modeling.

- **Physical aspects of remote sensing**, spectral characteristics of earth's surface and of atmosphere, Sensors and their characteristics: multi-spectral scanners. Visual and machine interpretation of imagery. Ground truth data. Digital image processing and image classification. Concept of environment, economic benefits of remote sensing, the geographical uses of remote sensing, sensors for environmental monitoring.
- **Remote sensing and GIS integration**, Applications to resources inventorying, monitoring and management.
- **Principles of Environmental Management**, Overview of Environmental Impact Assessment (EIA), Related Issues in Environmental Management
- **Application of Remote Sensing** : Urban sprawl analysis, Hazards and disasters, Water in environment, Soil and landforms, Ecology, conservation and resource management, Landuse/landcover dynamics, etc.
- **Laboratory sessions:** GIS- digitization of vector layers, creation of thematic layers, remote sensing data analysis (everyday during 3 - 6.30PM).

**Lectures: lab sessions: 65:35**

**Faculty:** IISc Faculty will deliver the lectures and lab sessions will be handled by research scholars and project staff.

**Venue:** JNCASR seminar hall, IISc campus.

**Workshop schedule:** 9 30 am to 6.30 pm

**ELIGIBILITY:**

The workshop is meant for faculty (recognized engineering colleges in India) and CiSTUP stakeholders. TA would be provided to the select teachers. Faculty desiring for Travel allowance need to send a brief write-up on "Relevance of Geoinformatics in India" and how "Geoinformatics workshop would benefit their career". Application

and write-up is to be routed through their institution. Selected outstation candidates would be paid TA three-tier train / bus fare by the shortest route from the place of work to IISc, Bangalore and back. The lodging charges at campus guest house is Rs.150 per day (for teachers - sponsored by an education institution)

**Workshop Registration Fee:**

1. Fee waiver for young teaching faculty (< 30 years)
2. TA would be paid to the outstation participants whose write-up is accepted by the committee
3. Fee waiver for women unemployed engineering graduates
4. Fee of Rs 1500 for officials from the State Government agencies (CiSTUP stakeholders) and teaching faculty (>30 years and members of ISTE)
4. Rs.12000 for **practicing engineers and scientists** from R & D organisations, industries, and others interested in this workshop. The registration fee entitles the candidates to participate in the workshop and receive the workshop materials.

**Accommodation:** Single room accommodation is available at the Hoysala/Jawahar Guest house on the campus. The participants have to request in advance along with the registration form for such accommodation. The lodging charges will be Rs. 250 per day subject to the availability of the accommodation for non-teachers.

**Application Submission:** Intending applicants may use the attached application form (or a photocopy of the same). Workshop registration fee (and room rent – outstation participants) is to be paid by demand draft drawn in favour of 'Registrar, Indian Institute of Science, Bangalore 560 012 (payable at Bangalore) and should be submitted along with the application. This amount will be refunded to those not selected and at the end of the workshop to those selected.

**Deadlines: Completed Application form** (with DD and other enclosures): **20<sup>th</sup> May 2009**

**Intimation of Selection:** **25<sup>th</sup> May 2009.**