

# Short Term Course

on

## GEOINFORMATION SCIENCE AND TECHNOLOGY

REMOTE SENSING, GPS, & GIS APPLICATIONS



Information Brochure



## Dr. R. Satheesh Centre for Remote Sensing & GIS

*(supported under NNRMS-SC-T Programme of Govt. of India and by ISRO)*

School of Environmental Sciences

Mahatma Gandhi University, Kottayam, Kerala



## **Mahatma Gandhi University & School of Environmental Sciences**



**Mahatma Gandhi University is one of the premier institutions for higher learning in India. It was founded on 2nd October 1983, the 115th birth anniversary of Mahatma Gandhi, Father of the Nation, by an Act of Government of Kerala. Today, it stands foremost among the developing generation of Indian Universities, incredible in academic pursuits, modern facilities, prolific in new methods, ideas and a host to distinguished scholars.**

**With the objective of consolidating the existing efforts and to pay focussed attention to the frontier areas of environmental sciences, University has established the School of Environmental Sciences in 1995 as a Centre of learning for advanced studies in different branches of Environmental Sciences.**

### **Dr. R. Satheesh Centre for Remote Sensing and GIS**



**The Dr. R. Satheesh Centre for Remote Sensing and GIS Facility in SES is the pioneering facility for RS and GIS in the universities in Kerala established with technical and financial support from ISRO, Department of Space, Government of India in 2003 under National Natural Resources Management System (NNRMS) programme. The facility aims to give advanced research and corporate training, consultancy and complete location based solution to the academic community, Government departments/local self.**

**The facility is equipped with the State-of-Art software for GIS, Photogrammetry and Image processing and equipments and peripherals including the powerful graphic Workstations, PCs and Servers.**

## Geo-Information Science and Technology-Short Term Courses



**Geomatics is a comprehensive term applied to the Geoinformation Science and Technology - the powerful combination of various spatial and data processing technologies namely:**

**Remote Sensing, Photogrammetry, Mapping and Surveying, GPS, Information and Communication Technology (ICT) and GIS**

**It has wide range of applications in various fields including:**

**Natural Resource Management, Utilities Management, Urban and Regional Planning, Activities of Local Self-governments among others**

### The Structure and Content

**The course is designed by experts to provide sufficient knowledge and advanced training in the field of RS, GIS and GPS. The theoretical and practical modules consist of fundamental concepts of Remote Sensing, Digital Image Processing, GPS, GIS, Database Design, Computer and ICT, Information Analysis and modelling.**

**The courses highlights on various application fields like**

**Natural Resource Management , Utilities Management , Urban and Regional Planning , Land or Urban Information Systems and Municipal GIS, Customisation and Application Software Development.**

**The course is planned in six defined modules.**

## The Course Modules

- **Overview of Computer and Information Technology**  
Database and Customised Application Software Development
- **Remote Sensing and Digital Image Analysis**  
Mapping Concepts, Surveying and Cartography, Remote Sensing, Digital Image Processing, Aerial Photography and Photogrammetry
- **Global Navigational Satellite System (GNSS)**  
Various GNSS, Global Positioning System (GPS), Augmentation systems
- **Geographical Information System**  
Spatial Data Concepts and GIS  
Geographic Analysis and Modelling
- **RS and GIS Applications**  
Natural Resources Mapping and Assessment  
Agriculture, Forestry and Land Capability Analysis  
Urban / Regional Planning and Information Systems  
Utilities and Facilities Management  
Environmental Studies and Impact Assessment
- **Project Work**  
Based on the subject interest of the candidate

## Target Group and Eligibility

Graduates / Post Graduates and researchers/scholars in Biology, Physics, Chemistry, Geology, Geography, Ecology, Environmental Science and Management, Agriculture, Forestry, Architecture, Town and Country planning, Civil engineering, Electronics, Computer Science, Mathematics, Community Medicine, Commerce and Management can apply.

Working professionals and senior and middle level officials from corporate bodies, government departments, agencies, NGOs, local self-governments and researchers and academicians from universities, colleges and institutions can participate the training as sponsored candidates.

## Duration and Periodicity

The duration of the course is *20 weeks (340 hrs)* comprising of theory, practical and project work. There will be two batches in a year commencing in *March* and *September* every year

## Fee Structure

Prior Registration: Rs.1, 000/-

Course Fee :**Rs. 25,000/-** (Include prior registration fee and can remit in 2 instalments.)

Caution Deposit : Rs. 1,500/- (Refundable)

## Evaluation and Certification

The participants will be evaluated through internal assessment, final examination for theory and viva- voce for the project work. Participants will be graded based on the marks gained and the successful candidates will be issued proficiency certificates.

## Selection and Admission

Candidates will be admitted to the course on **First Come – First Serve** basis. Seats can be reserved by remitting the prior registration fee at the time of applying.

## How to Apply

The application form and details can be had from the office of the School on payment of Rs. 100/- as DD drawn in favour of the The Director, School of Environmental Sciences, Mahatma Gandhi University payable at State Bank of India, M. G. University Campus Branch either through post or as cash directly in person or downloaded from the website [www.sesmgmu.net](http://www.sesmgmu.net) The completely filled application form along with the registration fee of Rs 150/- as DD drawn in favour of Director, School of Environmental Sciences, Mahatma Gandhi University should be mailed to the **The Co-ordinator, Dr. R. Satheesh Centre for Remote Sensing and GIS, School of Environmental Sciences, Mahatma Gandhi University, Priya Darshini Hills P. O., Kottayam - 686 560. Kerala, India.** Mob: **9446767451**

Those who want to reserve their seats while applying itself should send a single DD of Rs.1,250/- (100 + 150 + 1000); Rs. 1,000/- is the amount that is paid from the course fee in advance to book the seat, provided the qualifications are matching with the requirement. This arrangement is due to the admission policy of 'First-Come First Serve'

Applications can be Send throughout the Year.

Cut off Date for 25th Batch: **30th Jul 2018** Classes will Commence on **3rd Sep 2018**

## Special Features and Facilities

- **Qualified and well experienced faculties with expertise in different areas of Geoinformation Science and Technology.**
- **Ample hands-on experienced in real-time projects.**
- **Well equipped state-of-the-Art facilities laboratory housed with ground truth and interpretation equipments and high performance graphic workstations, PCs and Servers and powerful industry standard software packages.**
- **High quality and exhaustive training materials.**
- **Lectures from invited faculties, regular workshops and seminars.**
- **Training organized with technical support from ISRO, Bangalore under the National Natural Resources Management System (NNRMS).**

## Short Term Courses on

- **GeoInformation Science and Technology (Remote Sensing, GPS and GIS Application)**
- **Corporate In-house Training Programmes for User Agencies.**
- **Customised Orientation / Refresher Courses for Teachers Technology.**
- **Courses on specific application areas or techniques in RS & GIS / Environmental Monitoring.**
- **Regular M. Sc., M.Phil. in Environmental Science and Management & Ph.D. in Environmental Science.**
- **Training Workshops in Geoinformatics for School Students**
- **Edusat based IIRS Outreach Programmes.**

## Remote Sensing and GIS based Solutions

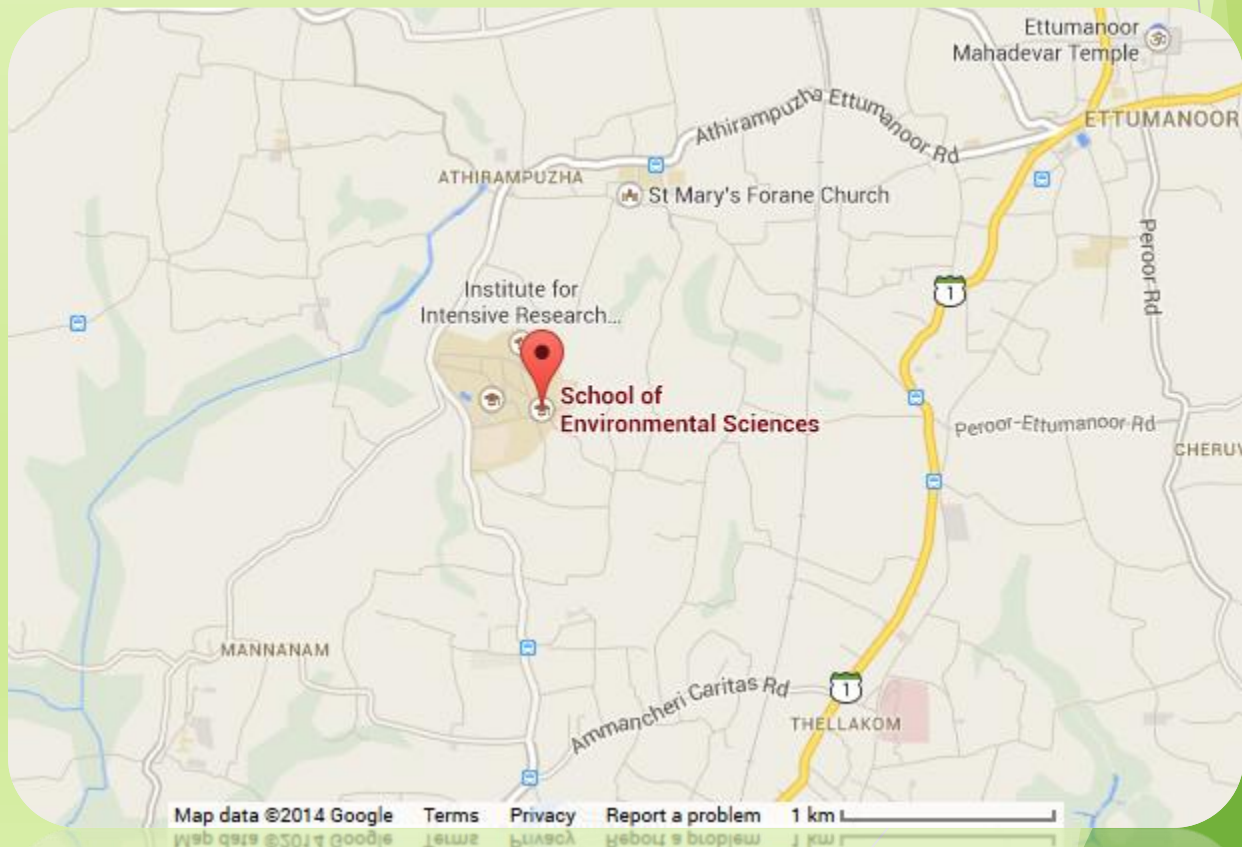
- **GIS and GPS mapping.**
- **Interpretation of Satellite Imageries and Aerial Photographs.**
- **Natural Resource Mapping.**
- **Digital Photogrammetry Services.**
- **Digitisation and Data Conversion into Specific Formats.**
- **Sophisticated Geo-processing, Modelling and Spatial Analysis.**
- **Development of Customised Application Software.**
- **Corridor / Vegetation Surveys and Urban Mapping.**

## Our Location



The School is centrally located in the backdrop of Vembanad Lake-the biggest Ramsar site in the state of Kerala at Kottayam "the Land of Letters, Latex and Lakes". It is well connected by rail and road. The nearest airport is at Kochi (about 80kms). It is having proximity with diverse natural ecosystems like wetlands and flood plains, estuarine and coastal areas, agricultural and forest ecosystems (grasslands, evergreen, deciduous, sholas, etc.), mountains and river valleys.

## We are on Map



## About the Centre

Dr. R. Satheesh Centre for Remote Sensing and GIS (formerly known as the Centralized Remote Sensing and GIS Facility, renamed after the first Co-ordinator of the Facility and Reader of the School, late Dr. R. Satheesh), the first of its kind in a university in Kerala is established by the University as a 'Centre of Excellence' in the field of Remote Sensing and GIS applications with technical and financial support from the Indian Space Research Organization (ISRO), Dept. of Space, Govt. of India under the National Natural Resources Management System, Sub Committee on Technology and Training (NNRMS-SC-T) Programme as a joint venture of the University and ISRO.

The facility was inaugurated by Dr. G. Madhavan Nair, former Chairman, ISRO on March 15, 2003



## Other Short-term Courses Offered in this field

- Digital Photogrammetry and Digital Image Processing -2 Months (Full time and Part time)
- Corporate in-house training programmes for different user agencies.
- Orientation / Refresher Courses / Training or Technology workshops
- Courses on specific applications or techniques in the field of RS & GIS

### For further details contact:

**THE CO-ORDINATOR**  
**Dr. R. SATHEESH CENTRE FOR REMOTE SENSING AND GIS**

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