

INDENTED BENEFICIARIES:

Architects and Engineers from various organizations, professionals from govt., Private & public sector undertakings, Research scholars, Faculties and students are invited to participate in the deliberations of the workshop from all over the state.

REGISTRATION FEE (INR)	
UG/PG STUDENTS	1000
FACULTY/ RESEARCH SCHOLARS	2000
INDUSTRIAL PROFESSIONALS	5000

IMPORTANT DATES:

Last date for online registration	20/08/2019
Workshop date	22/08/2019 to 25/08/2019

Participation certificates will be provided to all participants.

PAYMENT DETAILS:

Payment to be made at Account section, AIET Office only.

ACCOMMODATION:

Accommodation for the participants will be provided in hostels on sharing basis depending on demand and availability.

VENUE:

Inauguration and Valedictory @ MBA Seminar Hall, Sessions @ CAD Lab Civil Engg Department Alva's Institute of Engineering and Technology, Shobhavana Campus, Moodabidri, Karnataka, INDIA.

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Co-ordinator

Prof Veena D Savanth,
Assistant Professor, Dept. of Civil Engg,
Dept. of Civil Engg.
AIET, Moodbidri

Course faculty

1. T V Ramachandra, IISc Bangalore
2. Bharath Settur, IISc Bangalore
3. Vinay S, IISc Bangalore
4. Karthick Naik, IISc Bangalore
5. Vinayaka Bhatta, IISc Bangalore

Organising Committee:

Dr. H Ajith Hebbar, Head of the Department
Dr. H G Umeshchandra, Associate Professor



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**SHORT TERM COURSE ON
"FREE & OPEN SOURCE GEOSPATIAL
TECHNOLOGIES (FOSS4G) FOR
NATURAL RESOURCES
MANAGEMENT"
22-25 AUGUST 2019**



Organised by

**Department of Civil Engineering
Alva's Institute of Engineering & Technology**

Shobhavana Campus, Mijar,
Moodabidri, Mangalore Taluk, D.K - 574225
Phone: 08258-262725

www.aiet.org.in

THE HOST INSTITUTION: Alva's Institute of Engineering & Technology (AIET) is a premier Engineering Institute of Alva's Education Foundation established in the year 2008. AIET is strategically located adjacent to Moodbidri - Mangalore National Highway, which is 24 Kms from Mangalore International Airport. It has a lush green campus spread over 30 acres; a part of ALVA'S-SHOBHAVANA, spreading over 144 acres.

VISION OF THE INSTITUTE: “Transformative education by pursuing excellence in engineering and management through enhancing skills to meet the evolving needs of the community”.

MISSION OF THE INSTITUTE

- To bestow quality technical education to imbibe knowledge, creativity and ethos to students community.
- To inculcate the best engineering practices through transformative education.
- To develop a knowledgeable individual for a dynamic industrial scenario
- To inculcate research, entrepreneurial skills and human values in order to cater the needs of the society.

SALIENT FEATURES:

- Experienced faculty facilitating a strong student-mentorship programme.
- Excellent infrastructural facilities: Spacious classrooms, well equipped laboratories, separate hostels within the campus equipped with modern amenities & Wi-Fi facilities, food court , transportation facility, a well-stocked library supported by a state of the art Digital Library, Wi-fi enabled Campus.
- A dedicated placement cell comprising counselors, corporate trainers working to bridge the industry-academic gap and also organizing major placement initiatives like Alva's Pragati, ChickballapurUdyogmela which has provided more than 20,000 jobs over 4 years.
- Summer Internship programs, Certification programme, industrial visits, live projects from the industry, visit by industry experts, seminars/paper presentations, conferences, process of mapping aspirations and building focus groups are other highlights of the course curriculum.

ABOUT THE DEPARTMENT:

The Bachelor's degree in Civil Engineering in AIET was started in the academic year 2009 – 10 with an intake of 60 students and 120 intake in the year 2012. The department offers a full time B.E degree course in Civil Engineering. Our department organizes seminars, workshops & Industrial visits for the benefit of students and faculty which would bring exposure of the recent trend in civil engineering. Students involve in the consultancy projects obtained through various govt. and non-govt. agencies. The infrastructure available in the

department facilitates students to develop their skill and knowledge within the framework of curriculum prescribed by the Visvesvaraya Technological University.

Department Vision: “To become a leader in the field of Civil Engineering by imparting quality education in developing highly competent manpower and promote research to meet the current and future challenges in Civil Engineering”.

Department Mission:

1. To impart knowledge by creating conducive teaching-learning Environment.
2. To produce Civil Engineers of high caliber, technical skills and ethical values, to serve the society.
3. To promote innovation in the minds of budding Engineers to face the future challenges.

REGARDING COURSE:

Introduction: The course is being offered under Alva's- EWRG, IISc Research initiative for capacity building. The demand for spatio-temporal data analysis has gained momentum with the government's push for digital India. There is lack of professionals in these disciplines, particularly of those with a vast knowledge of the practical utilization of these technologies. This necessitates knowledge augmentation of in-service professionals particularly of teaching faculty in colleges and universities.

COURSE OBJECTIVE:

Knowledge augmentation (advancements in spatial informatics, remote sensing data analysis, modelling and Geo Visualization) for in-service professionals

COURSE CONTENTS:

Geographical Information Systems: Introduction, Historical development, 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.

GIS Perspectives: Environmental research, the state of GIS for environmental research, the state of GIS for environmental problem-solving, GIS and environmental modeling.

Understanding the scope of FOSS4G: Its relationship to environmental modeling and natural resources management.

Data models and data quality: problems and prospects.

GIS in environmental modeling: Hydrological modeling, urban dynamics, biological/ecological modeling, disaster management and risk modeling.

Principles of Remote Sensing: Spectral characteristics of earth's surface, spatial data pre-processing, classification, accuracy assessment, land use land cover analysis, change detection, biophysical modeling.

Remote sensing and GIS integration: Applications to resources inventorying, monitoring and management. Ground truth data. Digital image processing image classification.

Concept of environment: Economic benefits of remote sensing the geographical uses of remote sensing, sensors for environmental monitoring.

Applications of Remote Sensing: Water in environment in environment, soil and landforms, urbanization, design of Smart Cities, Ecology, Conservation and resource management, Land/land cover dynamics, Urban sprawl analysis, Hazards and disasters, Coastal zone management.

COURSE OUTCOME:

Selected participants would learn basic concepts of GIS, remote sensing data classification, integration of remote sensing information with GIS, database development and if time permits spatial data modeling and geo-visualization, geo-server, etc.

DETAILS FOR COMMUNICATION/CLARIFICATION:

Co-ordinator

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