
Open Software, Data and Standards in Geoinformatics - Three Pillar for Building Innovative ICT Solutions -

Course Overview

Geoinformatics have come to be a mainstay of Internet and Communication Technology (ICT) and is the backbone of several national initiatives such as Digital India, Smart Cities Mission and Swachh Bharat Abhiyan. Prudent and effective use of Geoinformatics requires skills in developing, maintaining, customizing, localizing indigenous ICT solutions suited for diverse Indian conditions. Over the last decade, Open Source Software, Open Data and Open Standards have evolved as the three vital pillars for deployment of interoperable and scalable solutions related to management of natural resources, disaster mitigation, public health, asset/facility management and environmental monitoring.

Over the last fifteen years, Free and Open Source Software Solutions for Geoinformatics (FOSS4G) has gained wide spread acceptance the world over. Further, a wealth of geospatial Open Data have recently become available not only as a part of international and national initiatives but also through participatory data production initiatives such as the Open Street Map. Due to the explosive proliferation of GPS-enabled devices, Crowd Sourcing and Volunteered Geographic Information has also facilitated value addition and updating of geospatial data. The past decade has also seen the maturing of international standards for geospatial data and services through the initiatives of the Open Geospatial Consortium (OGC) and ISO. As a part of the educational outreach and skill development, the OSGeo Foundation along with partner organizations such as the International Cartographic Association and the International Society for Photogrammetry and Remote Sensing has also established the Geo4All international network of universities and research institutions offering high-level training and sharing of knowledge and experiences to build a strong and vibrant geospatial workforce.

In light of the above, this course aims at presenting recent trends based on FOSS4G. The course is unique in that it would not only provide an overview of technology but also make available the entire suite of geospatial software and also equip participants with skills to leverage Open Data and Open Standards in providing ICT solutions for a variety of societal needs. The course will also provide an overview of software development framework to enhance, customize and improve on existing technologies through participation in national and international initiatives for collaborative technology development and knowledge sharing.

The course aims to provide (a) Introduction to Open Source Software, Open Data and Open Standards for Geoinformatics, (b) Exposure to available software to collect and share geospatial data, (c) Explore the potential of FOSS4G for spatial data analysis and (d) Enhance skills in deploying innovative geospatial solutions in his/her domain expertise.

Dates	November 23-29, 2016. Maximum Number of participants: 30.
You Can Attend if	Anybody with interest in the course topic and some basic background of geoinformatics may attend. This course is designed for graduate/postgraduate researchers. Knowledge of computer programming is not required. Students should have some exposure to GIS and remote sensing, and should have performed basic coursework in GIS/RS. A complete suite of FOSS4G tools and tutorial materials for self-learning after the completion of the course will be provided. Attendees are advised to bring their own laptop computers (MS-Windows version-7 and above, or computers that can smoothly run Oracle Virtual Box (www.virtualbox.org) to install the software suite for subsequent use. Selection on the first-come-first-served basis after ensuring reasonable background (total capacity: 30; some seats reserved for students from the Savitribai Phule Pune University). Resume/CV with a brief statement of interest/purpose is required for selection and registration.

Fees

One-Time GIAN Registration: Visit <http://www.gian.iitkgp.ac.in/GREGN/>

Course Fees: Those affiliated to Savitribai Phule Pune University or affiliated colleges: No fee, but registration is must. Those affiliated to academic institutions, research institutes, NGOs, etc.: Rs1000. Those from industry: Rs.5000. Those from abroad: US \$150. Fees include tea with light snacks, any instructional material provided by the expert faculty, computer access during any tutorial sessions for the course, internet access via the SPPU campus network during the course. Out-station candidates need to arrange for transport and accommodation on their own. Minimum 90% attendance necessary to be eligible for certificate of participation/attendance. Appearing for evaluations/examinations during the course is necessary for certificate of grades in the course.



Venkatesh Raghavan is an alumnus of Pune University and obtained his Doctor of Science in Geological Remote Sensing from Osaka City University (OCU), Japan in 1994. He is presently based in Japan as Professor of Geoinformatics at the Graduate School for Creative Cities, OCU. His research interest includes geospatial Web Services, sensor network and remote sensing for change detection. He is one of the founders and currently serves as the President of the OSGeo Foundation (www.osgeo.org). He plays leading role in OSGeo Local Chapters in Asia and actively promotes Free and Open Source Software Solutions for Geoinformatics (FOSS4G) worldwide. He is on the Advisory Board of the Geo4All initiative (www.geo4all.org) and serves in Editorial Board of International Journal of Geoinformatics, Applied Geomatics and Spatial Information Research. He is the founder of ZOO-Project which provides the framework for deploying Geospatial- Software as a Service (Geo-SaaS). He is a team leader and member in several Geoinformatics projects and vast experience in conducting national and international training programs and development of learning materials for RS/GIS using FOSS4G. He is the recipient of Mining & Material Processing Institute of Japan Young Scientist Award in 1995, Excellent Foreign Teacher Award, Chinese Ministry of Education in 2010 and the 2012 Sol Katz Award for his contribution to the international Open Geospatial community.

Course Coordinator

N.J. Pawar

Department of Geology

SavitribaiPhule Pune University

Pune 411007

Phone: +91-(0)20-25601360

+91-9011093368

Email: dr.njpawar@gmail.com

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