Facilities being provided

We have modest boarding and lodging facilities at FERAL, five kilometers from Pondicherry. Please note that the campus is surrounded by scrub and forests. We suggest you visit our web page introducing the campus ahead of your visit

For Registration

Contact: Rajendran <rajendran@feralindia.org>, tel: +91 9443602080

Pricing: ₹7,500/- for a non-student and ₹4,500/for full time students. An additional ₹2,500/- will be charged to cover boarding and lodging. for resident participants.

All participants need to make their own travel arrangements and arrangements for boarding and lodging if you're not staying at the campus. Full payment for the course should be made by the 10th of July.

- **Discount for students:** This is for full time students in recognised institutions. Bring your ID-card and a letter on the official letterhead from your department permitting you to attend the course. Part time or correspondence students are not entitled to this discount.
- Check in/out: Check into the campus by 18:00 hrs on the 12th of July, or between 8am and 9am on the 13th. Workshop concludes by 16:30 hrs. on the 17th of July. Stay on for an additional night is allowed for an additional payment of ₹1,000.00, however will need to vacate by 10am the next morning.
- Cancellations: A full re-fund for cancellations on or before the 10th of July will be given. ₹2,000.00 will be deducted for cancellations made after this date.
- **NOTE:** THERE WILL BE NO REFUND MADE FOR PERSONS DROPPING OUT OF THE COURSE AFTER IT STARTS.



Directions:

Take the NH 66 (JIPMER exit towards Tindivannam). Drive about 4km and take left just after the Morattandi bus stand (before the toll plaza).

Drive down 2km along the Mariyamman street to Tiruchitrambalam and take left at the gate to the Dera farm. Link to the road map on GoogleMaps

Introduction to GIS, GPS and Remote Sensing Using Quantum GIS



13th to 17th July, 2015 at the FERAL Campus 170/3, Morattandi, Auroville Post Vanur Tk., Villupuram Dt., Tamil Nadu – 605101



Conducted and hosted by the Foundation for Ecological Research, Advocacy and Learning (FERAL). Web: http://www.feralindia.org Course site: http://www.feralindia.org/moodle/course/ view.php?id=2

Introduction

Basic knowledge of GIS, GPS and remote sensing (RS) are no longer "specialised" areas, they are essential tools for a range of applications spanning development, vulnerability analysis, conservation and natural resources management. Unfortunately, there are not many avenues outside a formal degree, to get a basic grounding in the GIS and remote sensing. This workshop is an attempt to fill in this lacuna by providing hands on training on using GIS, GPS and RS in real-world applications.

Quantum GIS is among the most popular free and open source GIS software. It is cross platform, i.e. you can use it on many operating systems, it is easy to learn and it is very powerful. Thanks to its active developers and contributors, the capabilities of QGIS match or exceed many commercial GIS software.

The latest version of QGIS which you can download for free, offers not only powerful vector GIS features, but also has a host of raster and image processing capabilities. QGIS interfaces with other open source GIS/RS software giving the user a vast range of advanced vector, image processing and raster operations.

The Workshop

QGIS provides an ideal platform for beginners to dive into the world of GIS and remote sensing.

This is a hands-on workshop comprised of tutorials and exercises for persons new to GIS, GPS and remote sensing. The team conducting the workshop has over a decade of experience in using and teaching the subject. Materials and tutorials being used for this course and other courses conducted by FERAL are available for free on the FERAL course management site. Global Positioning Systems

Collecting waypoints, tracks and routes with a GPS and on your smart phone

Generating a route for navigation

Adding GPS and other data to GoogleEarth

Hands-on Sessions with Q-GIS The Q-GIS menu

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Creating GIS objects

Coordinate systems and projections

Geoprocessing and data operations

Image compositing and enhancement

Raster algebra

Image interpolation & terrain analysis

Map layout

Theory & Background

Concepts in vector GIS

Map Projections

Concepts in remote sensing & image processing

Introduction to image classification

Topics that we will try and cover during the workshop.

By attending this course you will learn how to:

- Import, view, edit and manage spatially explicit data in a number of vector and raster formats.
- 2. Manage attributes and data stored in tables.
- 3. Georeference maps and imageries.
- 4. Digitise vector data and derive raster data from other sources of information.
- 5. Convert between different data formats and upload data to web based applications such as Google Maps.

- 6. Analyse and manipulate vector data using geo-processing routines, database features, research and analysis tools.
- 7. Use raster algebra and conduct basic image processing and classification.
- 8. Manipulate digital elevation models to extract terrain related information
- 9. Use a hand held GPS unit or your smart phone or tab in conjunction with the GIS package for mapping an navigation.
- 10. Make publication quality maps.

What is expected from you

- 1. You must bring a relatively new laptop with at least 100GB of free disk space. Please note: net-books are not suitable for GIS/RS applications.
- 2. Bring your GPS and cable if you have one.
- 3. Install the latest stable version of Quantum GIS and GPSBabel. Other packages such as GRASS, OTB and SAGA are optional.
- 4. If you have an Android or iOS based phone or tablet with a GPS, please install:
 - (a) GeoPaparazzi http://geopaparazzi, and GPS Staus http://geopaparazzi,
 - (b) Optionally you can install OsmAnd <http: //wiki.openstreetmap.org/wiki/OsmAnd> as well.

Make sure you've downloaded the relevant maps onto your mobile device.

- 5. Bring a digital mouse and mouse-pad, touchpads are not suitable for GIS work.
- 6. We expect participants to be familiar with basic computer usage.