



**Pondicherry University
School of Life Sciences,
Department of Ecology & Environmental Sciences
Puducherry – 605 014, India**

In collaboration with

**Indian Geoinformatics Centre,
Chennai, India**

Organized a

**Capacity Building program on
Global Positioning System**

on
14 July 2022



Co-funded by the
Erasmus+ Programme
of the European Union



Pondicherry University organized a capacity building on Global positioning system 14 July 2022. A group of three professional from the Indian Geoinformatic Centre, Chennai, India trained the students and scholars in the following aspects.

About the Indian Geoinformatic Centre:

Indian Geoinformatics Centre (IGC) is a services provider in technologies of RTK GNSS, Satellite & Drone Image Processing and GIS for its clients in domains of urban planning, watershed management, crop health assessment, forest and land surveys.

1. Mr. D. Ragavan,
Head of operations, Indian Geoinformatic Centre, Chennai, India
2. Mr. Regu,
Survey Engineer, Indian Geoinformatic Centre, Chennai, India
3. Mr. Mathy,
Asst. Engineer, Indian Geoinformatic Centre, Chennai, India



The Team from IGC, Chennai

Materials used

1. Base Station (Leica)
2. Tripod
3. Rover (Leica and Trimble)



Introduction to Global Positioning System

The capacity building started at 9:30 am with an introduction to the basic understanding of GPS. Mr. Ragavan introduced various navigation systems available in the world (NAVSTAR, GALILEO, GLONASS, BIEDUE, IRNSS, etc.) the signal type (L1, L2), ephemeris error caused by the atmosphere, single positioning system (AGPS) and Differential global positioning system (DGPS), Real time kinematic (RTK Mode) and Post processing.



Collecting Single positioning system

The team from IGC demonstrated the use of single GPS receiver to collect coordinates. They also explained the advantages and disadvantages of using single GPS. What are the prerequisites before starting the collection of coordinates were also explained to students and scholars.



Setting up of Base Stations

The team from IGC demonstrated how to set up a base station. They also explained how to select a location for base station, what are the different points to be considered while setting the base station, what could be the distance between the base station and rover, etc.







Marking Ground Control Points

After setting the base station, the team took the students and scholars to field to mark ground control points (GCP). They also demonstrated how to mark the GCPs and how to initiate the rover, how to get correction data from the base station and how to record the coordinates of the each GCP. While marking GCPs the team also explained how to distribute the locations of GCPs through out the survey.









Using GPS in RTK mode

The team demonstrated the collection of coordinates in RTK mode. The base station was continuously in communication with the rover throughout the training. Students and scholars have also collected coordinates of different locations.





The capacity building ended at 4:30 pm. Prof. S. Jayakumar, Coordinator, URGENT Project, who organized the team from IGC for this training program as part of the URGENT project thanked the team members.

Participants from Pondicherry University

Prof. S. Jayakumar – Faculty
Ms. Neha Jaiswal – Research Scholar
Mr. Shovasish Karna – Research Scholar
Ms. Ankita Roy Chawdhary – Research Scholar
Mr. Zaki Ahmed – Research Scholar
Mr. Shankar Thamburan – Research Scholar
Mr. Atheesh – Research Scholar
Ms. Aafreen – Research Scholar


