



**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**

**One-day hands-on Training on  
Differential Global Positioning System and Survey**

**on**

**08 July 2023 | 9:30 am to 6:00 pm**



Co-funded by the  
Erasmus+ Programme  
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Pondicherry University organized a one day hand-on training on Differential Global Positioning System (DGPS) and Survey on 08 July 2022. A group of three professional from the Indian Geoinformatic Centre, Chennai, India, One of the Non-Academic Stake holder, PU, 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. S. Anand,  
Survey Engineer, Indian Geoinformatic Centre, Chennai, India
3. Mr. M. Kathiresan,  
Survey Engineer, Indian Geoinformatic Centre, Chennai, India



**The Team from IGC, Chennai**



### Agenda of the Training

1. To make students and scholars understand the principles of GPS and DGPS
2. To train students and scholars the use of Base Station
3. To make the students and scholars use the Rover in field and take measurements in RTK mode
4. To download and prepare the data for processing

### Materials used

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



## Introduction to Global Positioning System

The capacity building started at 9:30 am with an introduction to the fundamental principles of global positioning system (GPS) in the seminar room. 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.



## Teaching Principles of GPS in Seminar room



The theory part of principles of GPS went upto 12:00 pm. Then the team demonstrated to setup the Base station at the building top.







After Lunch the participants were divided into three groups and each group was trained in the collection of coordinates in RTK mode.

















After two hours field survey all participants assembled in the seminar room where the data collected in the field were downloaded from each receiver and processed.





Students and scholars interacted with the team and their questions were clarified.



The training ended at 6:00 pm. Prof. S. Jayakumar, Coordinator, URGENT Project, thanked the Non-Academic partner for taking their time to spend with students and scholars for this training.



### Participants from Pondicherry University

1. DIVIJA MURKOTH
2. DEBARPITA DAS
3. AAYUSH GUPTA
4. NAIDU VEERENDRA NARENDRA
5. SHARVANI DESHPANDE
6. SRINIWAS
7. RIGZEN ANGMO
8. SATYAM GUPTA
9. EVENEZER MYLLIEM UMLONG
10. INDUMAULI GOLDAR
11. NIDHI PALIWAL
12. CHEENA JOSHI
13. ABDUL SUBAN
14. GRACEMOL VICTOR
15. BARUNIDHARAN. P
16. UGRUNUM MURALI KRISHNA
17. NEHA JAISWAL
18. SHOVASISH KARNA
19. ANKITA ROY CHAUDHARY
20. ATHEESH
21. AAFREEN

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