

\*\*\* CALL FOR APPLICATIONS \*\*\*



## **Training on Basics of Cartography: T-121** **from 9<sup>th</sup> – 10<sup>th</sup> DECEMBER 2019**

**Organized by Cartography Lab., Department of Earth Sciences, Gujarat University, Ahmedabad, India**

**Place & Venue:** Cartography Lab., Department of Earth Sciences, Gujarat University, Ahmedabad, India.

**Level of the training:** **Beginner - Intermediate**

**Deadline to apply:** **30<sup>th</sup> November 2019**, IST midnight 12'o clock.

**Training Faculty:** **Er. Ajoy Das**, *Cartographer*, Department of Earth Sciences, GU.

The **Cartography Lab** is launching this training aimed to provide advanced training for young scholars, students and Faculty members on Cartography Subject. Before starting a mapping exercise, people need to learn the basic concepts of Cartographic methods.

### **OBJECTIVES:**

The objective of the training is to create a community of young scholars from a broad range of disciplines, ranging from environmental and natural resource economists to Geographers, Geo-information professional, system analyst and environmental scientists, interested in the topic of modelling human activities and the earth system in an integrated framework, commonly referred to as Cartographic methods.

The training will cover the basics of cartographic principles, methods and the interaction between economic activities and the energy system, land use, forest and agriculture, water, and atmosphere, and whether and how these multidimensional methods could be shown for the preparation of various thematic Maps.

### **TOPICS**

- **History of the Cartography:** Cartographic base around the globe, ancient cartography with field techniques, evolution of cartographic instruments, modern and advanced cartographic techniques.
- **Cartographic Principles:** Scale (linear, Vernier, graphical), Projection system and Theory (conical, Planner, cylindrical, Mercator, UTM etc.), Geographic coordinate system (Latitude/longitude, datum, spheroid), Distortions.
- **Cartographic Methods:** Introduction to various cartographic methods (Graphical and analytical) and its application, various instruments for field survey (Dumpy level, theodolite, prismatic compass, leveling staff, Chain, tape, total station and GPS etc.), steps for systematic data collection [door to door survey, audio/video interview, questionnaires (online/offline), Graphical methods for data visualization (choropleth, isopleth, circle, sphere, block, 3D).
- **Field Survey:** Generation of manual geographic information system database, chain survey with prismatic compass, creating shape entities manually (point, line, polygon), plotting the data from the survey data. Topographical sheet interpretation (topo sheet numbering system and coding, symbols, scales, index, contour analysis, drainage morphometry, relief features).

#### **Convener**

**Dr. Shital H. Shukla**, *Head of the Department*  
Department of Earth Sciences, School of Sciences  
Gujarat University, Navrangpura, Ahmedabad, India

#### **Coordinator and Trainer**

**Er. Ajoy Das**, *Cartographer*  
Department of Earth Sciences  
Gujarat University

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## TRAINING STRUCTURE

Five teaching modules are scheduled each day, Monday to Tuesday

	Modules	Timings	Topics
Day-1	M-1	10:00- 11:00	<b>History of the Cartography:</b> Cartographic base around the globe, ancient cartography with field techniques, evolution of cartographic instruments, modern and advanced cartographic techniques
	M-2	11:00- 12:00	<b>Cartographic Principles:</b> Scale (linear, Vernier, graphical), Projection system
	M-3	12:00- 13:00	Projection system and Theory (conical, Planner, cylindrical, Mercator, UTM etc.), Geographic coordinate system (Latitude/longitude, datum, spheroid), Distortions.
	Lunch Break		<b>13:00- 14:00</b>
	M-4	14:00- 15:30	various instruments for field survey (Dumpy level, theodolite, prismatic compass, leveling staff, Chain, tape, total station and GPS etc.)
	Tea Break		<b>15:30- 16:00</b>
	M-5	16:00- 17:00	steps for systematic data collection [door to door survey, audio/video interview, questionnaires (online/offline), Graphical methods for data visualization (choropleth, isopleth, circle, sphere, block, 3D).
Day-2	M-1, 2 & 3	10:00- 13:00	<b>Field Survey:</b> Generation of manual geographic information system database, chain survey with prismatic compass, creating shape entities manually (point, line, polygon), plotting the data from the survey data.
	Lunch Break		<b>13:00- 14:00</b>
	M-4	14:00- 15:30	Topographical sheet interpretation (topo sheet numbering system and coding, symbols, scales, index, contour analysis, drainage morphometry, relief features).
	Tea Break		<b>15:30- 16:00</b>
	M-5	16:00- 17:00	contour analysis, drainage morphometry, relief features
	Valedictory		<b>17:00- 17:30</b>

## TARGET

Graduate students (BA/BSc, MA/MSc, MPhil, PhD) and professionals from any university, research institute, or other organization (private companies, government agencies, NGOs) with an interest in Cartography, Environmental studies, Climate Change, spatial data sciences are encouraging to apply.

**Number of students** : The maximum number of students is 50.

## HOW TO APPLY

Applicants are requested to fill the application form available from the link given bellow:

**<https://forms.gle/jkfc2NFjp2eBtX4L9>**

## COSTS

**Registration Fees:** BA/BSc- Rs. 150/-, MA/MSc/MPhil/PhD- Rs. 300/-, Faculty /Others Rs. 500/- Registration fees include the cost of Lunches and coffee for two days. There will be no TA/DA for attending the training. After selection confirmation submit the registration fees at the Department of Earth Sciences, Gujarat University before 30<sup>th</sup> November 2019.

## IMPORTANT DATES

Announcement of accepted applicants: **After successful submission of application on or before 30<sup>th</sup> November 2019.**

**UPCOMING TRAINING MODULES:** Please check Gujarat University website regularly

- 1. One Day Workshop on Transformation of Manual GIS to Next Generation Digital GIS**
- 2. International Training on Geospatial Data Science for Eco-sustainability. (5 days)**
- 3. National Workshop on Natural Hazard Risk Assessment for Healthy Ecosystem. (2 days)**
- 4. National Seminar on Biodiversity Conservation for the Economic upliftment of the Society. (3 days)**