

**REGISTRATION FORM**

Name (in Block Letters):

Designation: \_\_\_\_\_

Qualification \_\_\_\_\_

Institute/Organization: \_\_\_\_\_

Postal Address: \_\_\_\_\_

City: \_\_\_\_\_ Pin Code: \_\_\_\_\_

Mob.No: \_\_\_\_\_

Email \_\_\_\_\_

Please tick the appropriate category of your organization in the box given below:

- TEQIP Institute
- Non- TEQIP Institute Govt.
- Non- TEQIP Institute Private
- Industry

**Registration Fee Payment Details**

Bank Name: \_\_\_\_\_

Payment details: \_\_\_\_\_

Date: \_\_\_\_\_ Amount: \_\_\_\_\_

Place                      Date                      Applicant's Signature

**SPONSORSHIP/NOMINATION CERTIFICATE**

Mr./Ms./Mrs./Dr./Prof.....  
is employed in our organization for the post of  
.....

and his/her application is being forwarded for attending the course "**Emerging Trends in Geoinformatics Techniques and Applications**" at MANIT Bhopal during 1-5 March 2021.

Our institute is (please tick one from the below):

- TEQIP project funded / & listed institution**
- Centrally Funded Technical Institute (CFTI)**
- State Govt. Funded institution**
- Private Engg. College**
- Industry/ Non-academic organization**

Signature of Authority

Designation:

Date:

Official Seal

**PATRON**

**Dr. N. S. Raghuwanshi**  
*Director, MANIT Bhopal*

**ADVISORY COMMITTEE**

- Dr. P. K. Garg**, Professor, IIT Roorkee
- Dr. Onkar Dikshit**, Professor, IIT Kanpur
- Dr. Manisha Tiwari**, Dean ID, MANIT Bhopal
- Dr. Charu Parashar**, HOD Civil, MANIT Bhopal
- Dr. Rajesh Gupta**, TEQIP-III Coordinator  
MANIT Bhopal

**COORDINATORS**

- Dr. S. K. Katiyar**, Professor  
&  
**Dr. Kamal Singh**, Associate Professor  
Civil Engg. Deptt. MANIT Bhopal

**ADDRESS FOR CORRESPONDENCE**

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**Institute Website: [www.manit.ac.in](http://www.manit.ac.in)**

**Application for participation can be submitted through online process by using following google form link:**

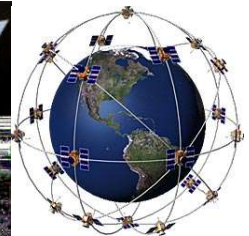
[https://docs.google.com/forms/d/e/1FAIpQLSfugsWzbXKSMmMcx1FoaMNPkyv6vSnKO8svITBqdDj22lyzIQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSfugsWzbXKSMmMcx1FoaMNPkyv6vSnKO8svITBqdDj22lyzIQ/viewform?usp=sf_link)

**Short Term Training Program**

On

**EMERGING TRENDS IN GEOINFORMATICS TECHNIQUES AND APPLICATIONS**

**(1<sup>st</sup> to 5<sup>th</sup> March 2021)**



Organized by

**Civil Engineering Department**

Under the TEQIP-III project

**Centre of Excellence in Geoinformatics**



**MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL (M.P.), INDIA**

## BACKGROUND

Maps are required for the activities of different walks of life and these have an important role in the development and planning process. The Surveying Technology deals with map data collection as well as preparation of maps. The revolution of Information Technology (IT) and Space Technology has completely changed the scenario in the area of Surveying Technology. In place of conventionally used paper and film media, now the map database is preferred in the digital form on the computer by using the spatial data storage, manipulation, analysis and management system known as **Geographic Information System (GIS)**. The modern ground based surveying data collection instruments like robotic total station, electronic distance measurements (EDMs), digital level, laser level, laser based land scanning systems and **Lidar Technology** have replaced the traditional surveying methods.

Recent developments in the **satellite based high resolution stereo sensor imaging technology** have changed the methodology for earth resources and infrastructure mapping for various applications. The most significant development of the twentieth century for the navigators was the development of **Global Navigation Satellite System (GNSS)**. The GNSS has revolutionized positioning concepts on land, at sea, in the air and in space. The **Global Positioning System (GPS)** can provide an alternative to the ground control survey methods for the poorly mapped areas, which could not be mapped using conventional methods. **Differential mode of GPS (DGPS)** has capability of providing very precise coordinates of any point at geodetic level accuracy.

The three-geospatial technologies namely, **Remote Sensing, GIS and GPS** in integration could provide an efficient and cost-effective tool in the development, monitoring and management of natural resources and infrastructure. Because of the above developments the surveying specialization is now known as

**Geoinformatics or Geomatics**. In the present scenario various developmental projects require theoretical and practical knowledge of modern surveying techniques due to fast changes in this area.

## ABOUT THE SHORT-TERM TRAINING PROGRAM

This short-term training programme (STTP) will provide an opportunity to the academicians, researchers, scientists and field engineers for the theoretical and practical knowledge of emerging Geoinformatics techniques and their applications. In this STTP the resource persons will be from institute as well as reputed organizations like IIT/NIT etc. The main contents of this STTP are:

- *Overview of Geoinformatics techniques*
- *Use of advanced data collection instrumentation like GNSS, Terrestrial and Aerial Lidar UAV borne sensor based remote sensing etc.*
- *DGPS Survey instrumentation and methodology and data processing.*
- *Advances in Geoinformatics data analysis*
- *Underground infrastructure mapping for utilities such as water supply lines, cables etc. using GPR) .*
- *Basic concepts of GIS and its applications.*
- *Open source GIS techniques and data resources*
- *Web-GIS basic concepts and applications.*
- *Emerging Applications of Geoinformatics techniques such as Urban Planning for Smart Cities, natural resources mapping, digital terrain mapping from stereo satellite imagery, water resources restructuring etc.*

## MODE OF STTP

STTP will be organized online through Google or an appropriate online platform.

## REGISTRATION PROCEDURE AND FEE

Selection of participants will be done on first come first serve basis and willing participants will have to submit their application through email as well as Google form entry through link provided above.

Participants are required to submit their applications on duly filled registration form along with the registration fee as given below:

Category of Participants	Fee
TEQIP institute participants	NIL
Non- TEQIP Academic and research institute participants	Rs. 1,000/-
Field Engineers and Professional from Industry	Rs. 1,500/-
Research Scholars/Students	Rs. 500/-

Registration fee can be paid online in the institute bank account as given below:

Bank and Branch: State Bank of India, MANIT Bhopal  
Account Name: Director MANIT Bhopal  
Account Number: 10020150107  
IFSC Code: SBIN0001608  
MICR Code: 462002014

## ABOUT MANIT BHOPAL

The Maulana Azad National Institute of Technology (MANIT) was formerly known as Maulana Azad College of Technology (MACT) started in the year 1960. MANIT Bhopal is [an institute of national importance under the control of MHRD, Govt. of India](#). The institute is located in the heart of Bhopal City at a distance of around eight Km from Bhopal railway station and twenty Km from Bhopal Airport. The Civil Engg. Deptt. is running UG course since the inception of the institute and presently seven PG programs are ongoing. The [Surveying laboratory](#) of the department is well equipped with the latest modern instruments and contributing research and consultancy services to various reputed agencies. Recently, state-of-art instrumentation facilities have been developed in the institute under the project [Centre of Excellence in Geoinformatics](#) funded by **MoE (Ministry of Education) Govt. of India under the World Bank TEQIP scheme** and presently this project is ongoing.