

## Programme Completion Report

### One-Day Workshop on Application of GIS in Modern Era of Civil Engineering (AGMECE-2024)

#### Introduction

The Civil Engineering Department of BIT Patna successfully conducted a one-day workshop on "Application of GIS in the Modern Era of Civil Engineering" on December 3, 2024. The workshop was aimed at exploring the advancements in Geographic Information Systems (GIS) and their impact on civil engineering, with a focus on sustainable development and efficient project execution. The event was made possible through the approval and financial support from the Bihar Council on Science & Technology (BCST), Government of Bihar.

#### Programme Execution

The workshop was conducted as per the scheduled programme, featuring expert-led sessions, interactive discussions, and hands-on demonstrations. The detailed breakdown of the sessions was as follows:

##### **Inaugural Session (9:30 AM - 10:30 AM, Conference Room)**

- **Floral Welcome (9:30 AM - 9:35 AM):** The Chief Guest, Er. Manoj Raman, Engineer-in-Chief, WRD, Government of Bihar, had honoured us with his presence.
- **Welcome Address (9:35 AM - 9:45 AM):** The Director of BIT Patna highlighted the significance of GIS in modern infrastructure projects and encouraged active participation.
- **Workshop Overview (9:45 AM - 9:55 AM):** The Convener provided an outline of the objectives, emphasizing GIS's role in civil engineering.
- **Chief Guest's Speech (9:55 AM - 10:05 AM):** Er. Manoj Raman discussed the applications of GIS in public sector projects, particularly in water resource management.
- **Vote of Thanks (10:05 AM - 10:10 AM):** Expression of gratitude by the workshop convener.

##### **Technical Sessions**

###### **1. Introduction to GIS (10:30 AM - 11:30 AM)**

Speaker: Ms. Bandana Mahto, Assistant Professor, Department of Civil Engineering, BIT Patna.

The session covered GIS fundamentals, mapping techniques, and essential software tools for spatial data visualization.

###### **2. Keynote Address on GIS Applications in Civil Engineering (11:30 AM - 1:00 PM)**

Invited Speaker: Dr. Mani Kumar, Ex-Dy Director and former HoD, MMC, FMISC, Anisabad

The session discussed the GIS applications in urban planning, flood management, transportation, and disaster response.

GIS tools like QGIS were demonstrated, along with real-world case studies.

**Lunch Break (1:00 PM - 2:00 PM)**

**3. Introduction to GIS Software (2:00 PM - 3:00 PM)**

Speakers: Dr. Angshuman Mandal & Ms. Bandana Mahto

The session demonstrated GIS software capabilities, including data organization, spatial analysis, and decision-making support in civil engineering.

**4. Interactive Session: GIS Applications in Civil Engineering Challenges (3:00 PM - 5:00 PM)**

Invited Speaker: Mrs. Ananya Kumari, Assistant Sales Manager, Technical Support Division, Steelsalt System Ltd.

The session discussed GIS applications in environmental assessments, disaster management, and urban development.

Hands-on exercises were conducted on network analysis and 3D modeling.

**Valedictory Session (5:00 PM - 5:40 PM, Computer Lab)**

- **Participant Feedback (5:00 PM - 5:10 PM):** Attendees shared their experiences and insights gained from the workshop.
- **Address by Co-Chairman (5:30 PM - 5:40 PM):** Highlighted the significance of GIS in modern civil engineering practices.
- **Certificate Distribution (5:20 PM - 5:30 PM):** Certificates were awarded to participants in recognition of their active involvement.
- **Vote of Thanks (5:10 PM - 5:20 PM):** Expression of gratitude by the Convenor to all speakers, organizers, and participants.

**Conclusion**

The workshop was successfully conducted as per the planned schedule, achieving its objective of imparting practical knowledge of GIS applications in civil engineering. The expert lectures, interactive sessions, and hands-on training helped participants gain a deeper understanding of GIS technology and its role in infrastructure development.

This Programme Completion Report is submitted to the Bihar Council on Science & Technology (BCST) as part of the post-event documentation. The detailed schedule of the workshop is attached herewith for reference. Future collaboration in the field of enhancing knowledge & skill will be awaited.

*Angshuman Mandal*  
24/02/2025

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**AGMECE-2024**