

INDUSTRY INSTITUTE COLLABORATION CELL (IICC)

Department of Civil Engineering
National Institute of Technology Raipur

Report of Expert Lecture

1. Title of the Expert Lecture

Geospatial Technologies for Land Economics, Groundwater Stress, and Disaster Awareness

2. Date of Activity

20 March 2026

3. Name and Designation of Expert

Mr. Upendra Singh Chandel
Principal System Analyst (Joint Director IT)
National Informatics Centre (NIC), Government of India

4. Venue

F-05 Classroom, First Floor
Department of Civil Engineering
National Institute of Technology Raipur

5. Time

03:00 PM

6. Number of Participants

Students: 51
Faculty Members: 04
Research Scholars: 04
Total Participants: 59

7. Brief Summary of the Activity

The Department of Civil Engineering, NIT Raipur, under the aegis of the Industry Institute Collaboration Cell (IICC), organized an expert lecture on **“Geospatial Technologies for Land Economics, Groundwater Stress, and Disaster Awareness”** on 20 March 2026.

The lecture was delivered by **Mr. Upendra Singh Chandel**, Principal System Analyst (Joint Director IT), National Informatics Centre (NIC), Government of India. Mr. Chandel shared his extensive experience in the development and implementation of geospatial and e-governance platforms related to land administration, GIS-based planning, and digital governance.

The expert highlighted the role of modern geospatial technologies, satellite imagery, GIS analytics, and digital public infrastructure in addressing challenges related to land economics, groundwater stress, and disaster management. He discussed the successful implementation of various land governance platforms such as Bhuiyan, Bhu-Naksha GIS Cadastral Mapping, and the integration of the National Generic Document Registration System (NGDRS) for enhancing transparency and efficiency in land administration.

The lecture also covered GIS-based water conservation initiatives undertaken under the **Jal Shakti Abhiyan**, demonstrating how spatial data and remote sensing tools can support sustainable groundwater management and environmental planning. Furthermore, the speaker emphasized the importance of integrating geospatial intelligence, land-use planning, and disaster awareness to develop resilient and sustainable communities.

The session provided students and faculty members with valuable insights into the practical applications of geospatial technologies in governance, infrastructure planning, environmental sustainability, and disaster risk reduction. The lecture concluded with an interactive discussion session where participants engaged with the expert on emerging opportunities in GIS, remote sensing, and digital land management systems.

8. Learning Outcomes

1. Understanding of modern geospatial technologies and GIS applications in land management.
2. Awareness of digital governance initiatives related to land records and cadastral mapping.
3. Knowledge of GIS-based approaches for groundwater monitoring and water conservation planning.
4. Insights into the role of spatial analytics in disaster awareness and risk mitigation.
5. Exposure to real-world applications of geospatial systems in public administration and sustainable development.

9. Coordinator Details

Dr. Ritesh S. Ingale

IICC Coordinator

Department of Civil Engineering

National Institute of Technology Raipur

10. Photographs



Photo 1: Expert delivering the lecture.



Photo 2: Interaction with students and faculty members.



Photo 3: Felicitation of the Expert by HOD, Civil.

Submitted by

Dr. Ritesh S. Ingale
IICC Coordinator
Department of Civil Engineering
National Institute of Technology Raipur



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NO. NITRR/HOD/CIVIL/...1073.....

Date- 17/03/2026

NOTICE

The **Department of Civil Engineering** is organising an **Expert Lecture under the aegis of the Industry Institute Collaboration Cell (IICC)**. The lecture aims to provide interdisciplinary insights into land economics, groundwater stress, geospatial technologies in land management, and disaster awareness associated with land, and GIS applications.

Faculty, staff, and students are requested to take note of the information and necessary participation.

Details	
Name of the Expert	Mr. Upendra Singh Chandel
Designation	Principal System Analyst (Joint Director IT), National Informatics Centre (NIC), Government of India
Department	Civil Engineering
Title of lecture	"Geospatial Technologies for Land Economics, Groundwater Stress, and Disaster Awareness"
Date	20 th March 2026
Venue	F-05 Classroom, First Floor, Dept. of Civil Engg., NIT Raipur
Time	03:00 PM

17/03/2026
Prof. (Dr) Laxmikant Yadu
Professor and Head
Dept. of Civil Engineering
NIT Raipur

17/03/2026
विभागाध्यक्ष, सिविल इंजीनियरिंग
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