

**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**

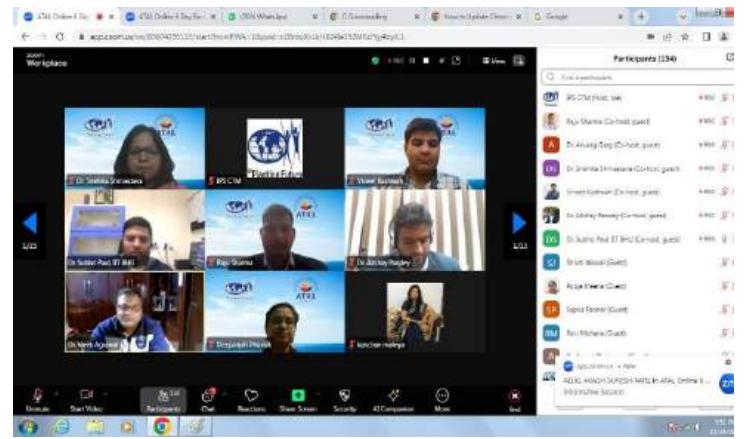


**Some screenshots of the inaugural function, Technical Sessions and Valedictory Sessions are given below:**

**INAUGURAL SESSION (DAY – 1, 24/11/2025)**



**TECHNICAL SESSION-1 (DAY – 1, 24/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



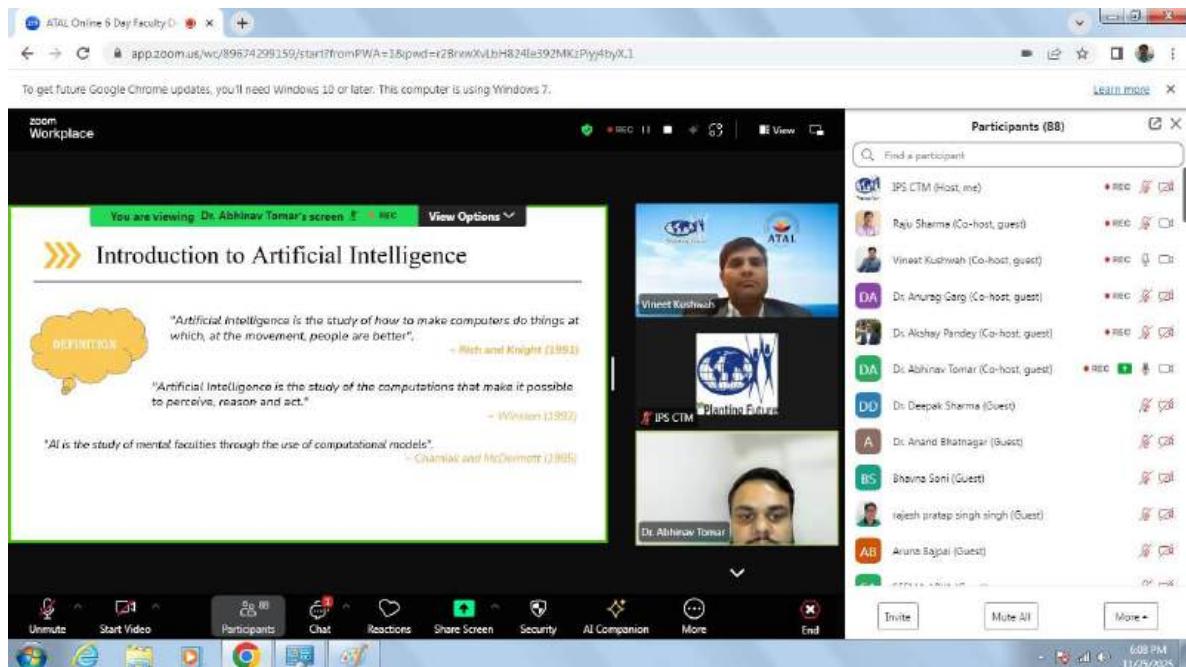
**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



**TECHNICAL SESSION-2 (DAY – 1, 24/11/2025)**



**TECHNICAL SESSION-3 (DAY – 2, 25/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



The agent will try to remember the preceding steps that it has taken to reach the final step. To memorize the steps, it assigns 1 value to each previous step.

The agent has stored the previous steps assigning the 1 value to each previous block. But what will the agent do if it starts moving from the block, which has 1 value block on both sides?

The agent faces difficulty deciding between up or down as all blocks have the same value. Solution: To address this, we use the Bellman equation, the core of reinforcement learning.

Participants (122)

Find a participant

IPS CTM (Host, me) REC

Raju Sharma (Co-host, guest) REC

Vineet Kushwah (Co-host, guest) REC

Dr. Anurag Garg (Co-host, guest) REC

Dr. Abhinav Tomar (Co-host, guest) REC

Dr. Akshay Pandey (Co-host, guest) REC

Dr. Deepak Sharma (Guest) REC

Dr. Anand Bhatnagar (Guest) REC

Bhavna Soni (Guest) REC

SEEMA ARYA (Guest) REC

Vipin Kasers (Guest) REC

Pratima Kushwah (Guest) REC

S. S. Majeed (Guest) REC

Invite Mute All More

**TECHNICAL SESSION-4 (DAY – 2, 25/11/2025)**

Flairdocs Intelligent Document Management

Flairsoft

INTELLIDOC>>

1. Scanned document (PDF/Image)

2. Noise Removal (Generative Model)

3. Text Detection & Localization

4. Value Annotation/Information Extraction

5. Annotated Document Output

6. User Feedback & Iterative Model-Fine-Tuning

Storage Database

User

Participants (120)

Find a participant

IPS CTM (Host, me) REC

Raju Sharma (Co-host, guest) REC

Vineet Kushwah (Co-host, guest) REC

Dr. Anurag Garg (Co-host, guest) REC

Dr. Akshay Pandey (Co-host, guest) REC

Dr. Deepak Sharma (Guest) REC

Dr. Anand Bhatnagar (Guest) REC

Bhavna Soni (Guest) REC

SEEMA ARYA (Guest) REC

Vipin Kasers (Guest) REC

Pratima Kushwah (Guest) REC

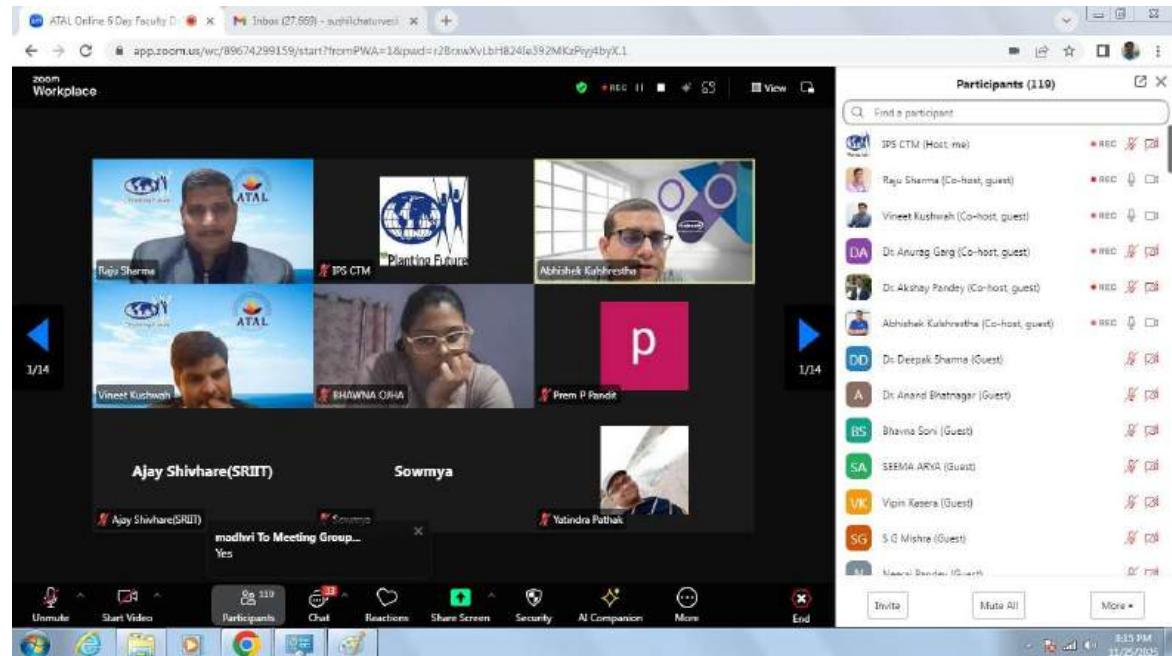
S. S. Majeed (Guest) REC

Invite Mute All More

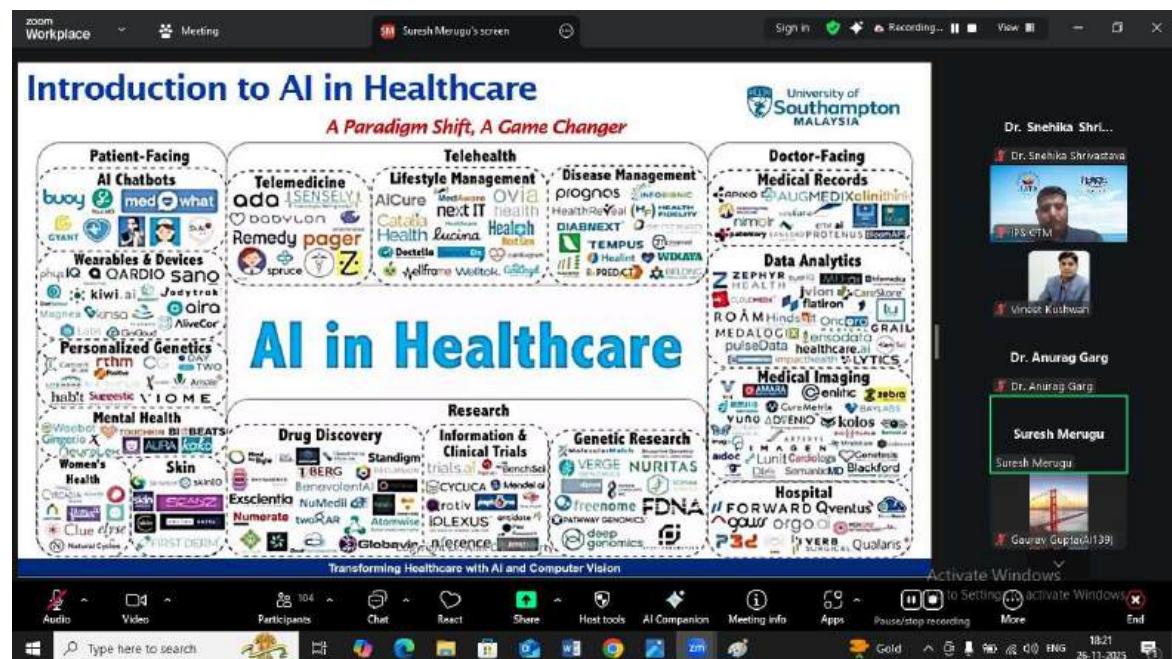
**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



**TECHNICAL SESSION-5 (DAY – 3, 26/11/2025)**



An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”



Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management



zoom Workplace Meeting Suresh Merugu's screen Sign in Recording View

## Global AI in Healthcare Market Analysis

University of Southampton MALAYSIA

The diagram illustrates the relationship between Market Segmentation, Technology, Application, and End-user. Market Segmentation is represented by a green circle. Technology, Application, and End-user are represented by blue circles. Dotted lines connect Market Segmentation to Technology, Application, and End-user. Solid lines connect Technology, Application, and End-user to each other. A yellow curved line connects Market Segmentation to the solid line connecting Technology, Application, and End-user.

- Technology**
  - Machine Learning (ML)
  - Natural Language Processing (NLP)
  - Deep Learning
  - Generative AI
  - Predictive Analytics
  - Others
- Application**
  - Medical Imaging & Diagnostics
  - Clinical Decision-Making
  - Personalized Medicine
  - Virtual Health Assistants
  - Robotic Surgery
  - Remote Monitoring & Telehealth
  - Population Health Management
  - Others
- End-user**
  - Healthcare Providers
  - Healthcare Payers
  - Academic & Research Institutes
  - Others

Transforming Healthcare with AI and Computer Vision

Activate Windows

Audio Video Participants Chat Read Share Host tools AI Companion Meeting info Apps Pause/stop recording More End

Type here to search

18°C 26-11-2025

TECHNICAL SESSION-6 (DAY – 3, 26/11/2025)

zoom Workplace Meeting Vishal's screen Sign in Recording View

## Generative AI & GIS

in Precision Farming Practices

Advanced Architecture | Agentic AI | Multi-Agent Systems

November 2025

The video conference interface shows four participants in a grid. The top-left participant is identified as "Vineet Kashish" and has the "ATAL" logo in the background. The other three participants are shown in smaller video frames. The presentation slide is titled "Generative AI & GIS in Precision Farming Practices" and includes the subtext "Advanced Architecture | Agentic AI | Multi-Agent Systems" and the date "November 2025". The interface includes standard Zoom controls for audio, video, participants, and chat.

Activate Windows

Audio Video Participants Chat Read Share Host tools AI Companion Meeting info Apps Pause/stop recording More End

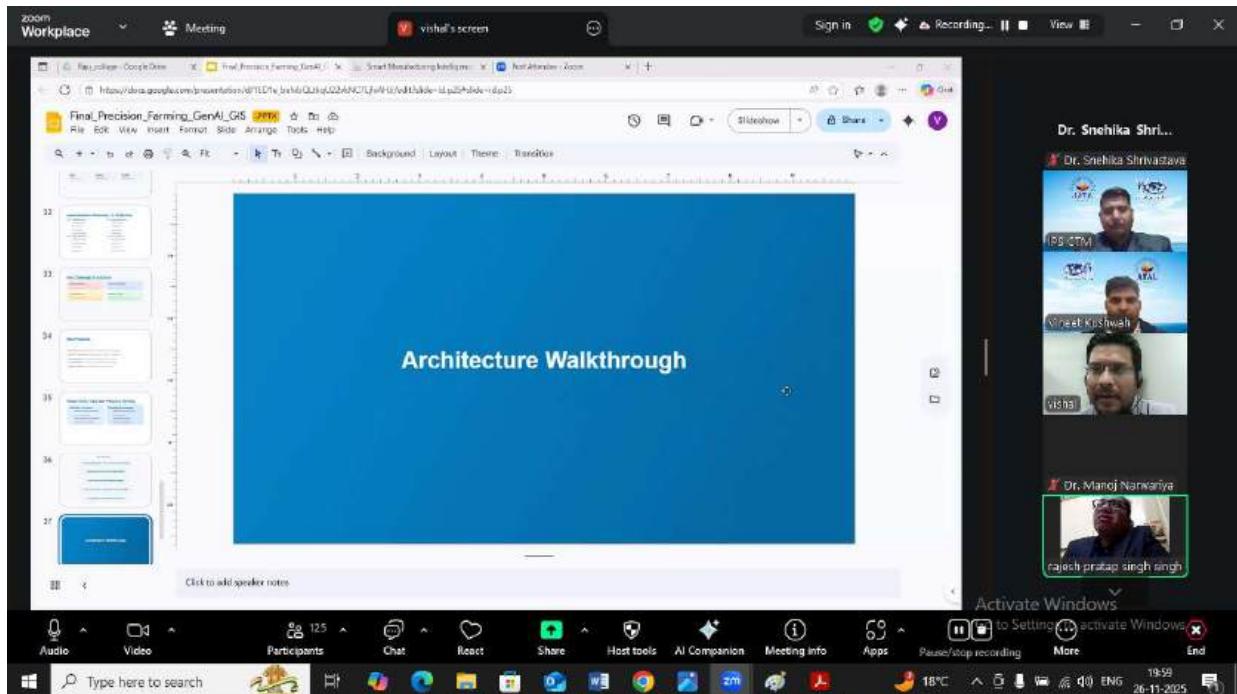
Type here to search

21°C 26-11-2025

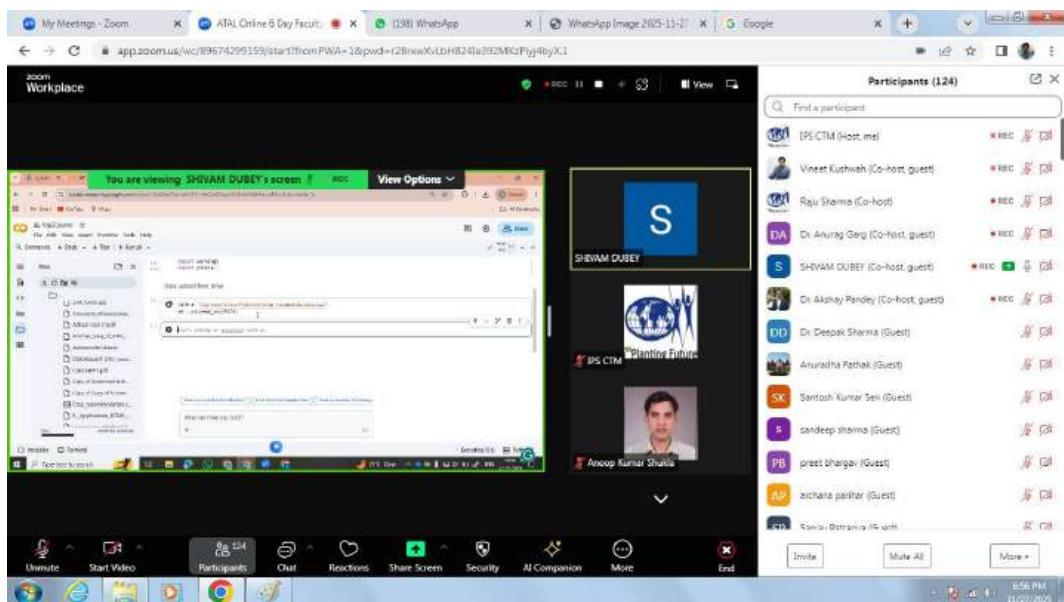
**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



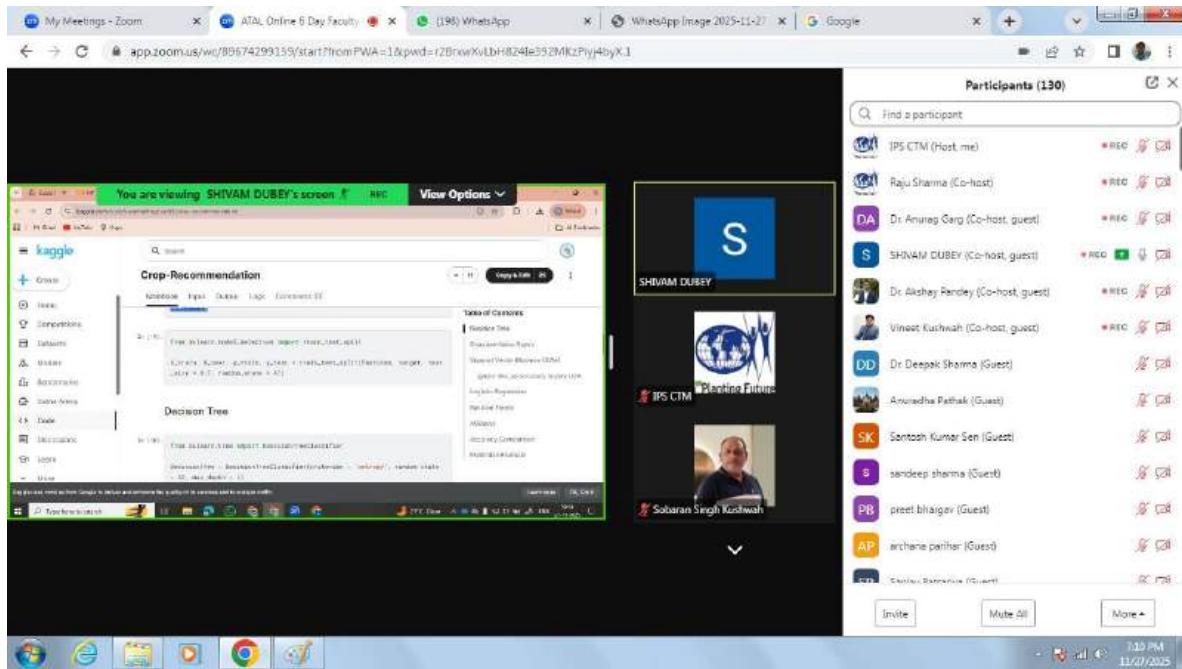
**TECHNICAL SESSION-7 (DAY – 4, 27/11/2025)**



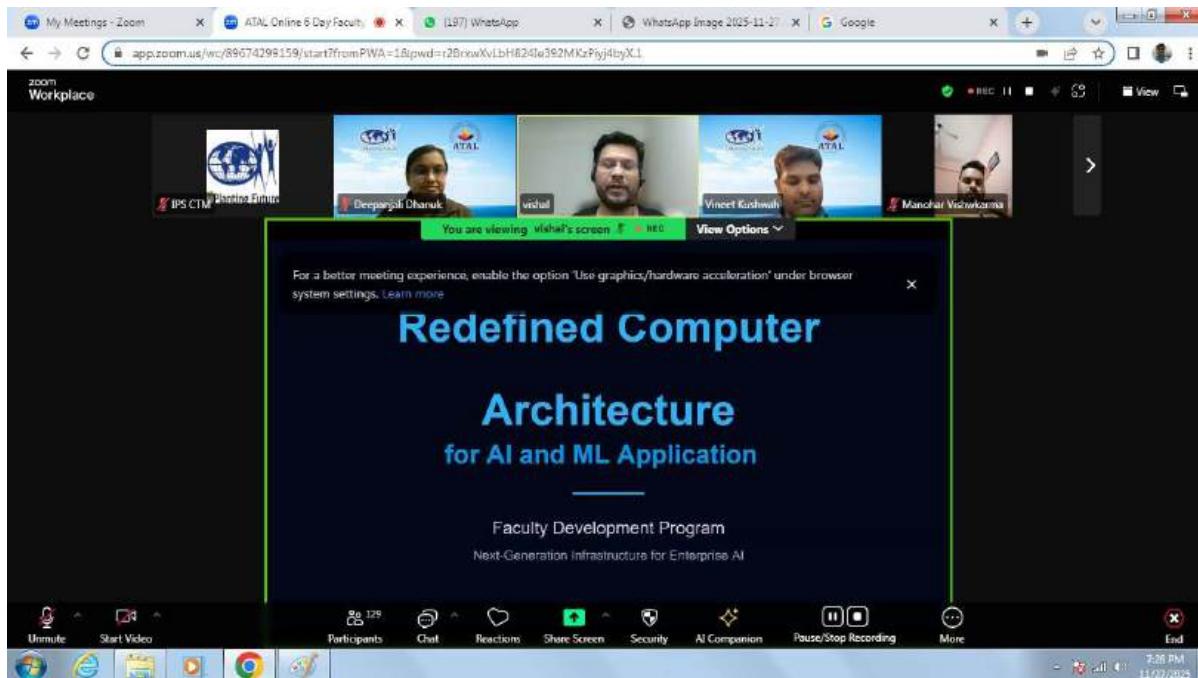
**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



**TECHNICAL SESSION-8 (DAY – 4, 27/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



**Observability & Governance in AI Systems**

**Observability:**

- Model performance metrics (BLEU, ROUGE)
- Inference latency & throughput
- CPU/TPU utilization tracking
- Data drift detection

**Governance:**

- Model versioning & lineage | Compliance & regulatory audit trails
- Data privacy & encryption | Cost optimization & chargeback

**TECHNICAL SESSION-9 (DAY – 5, 28/11/2025)**

**Measuring AI Companion Success**

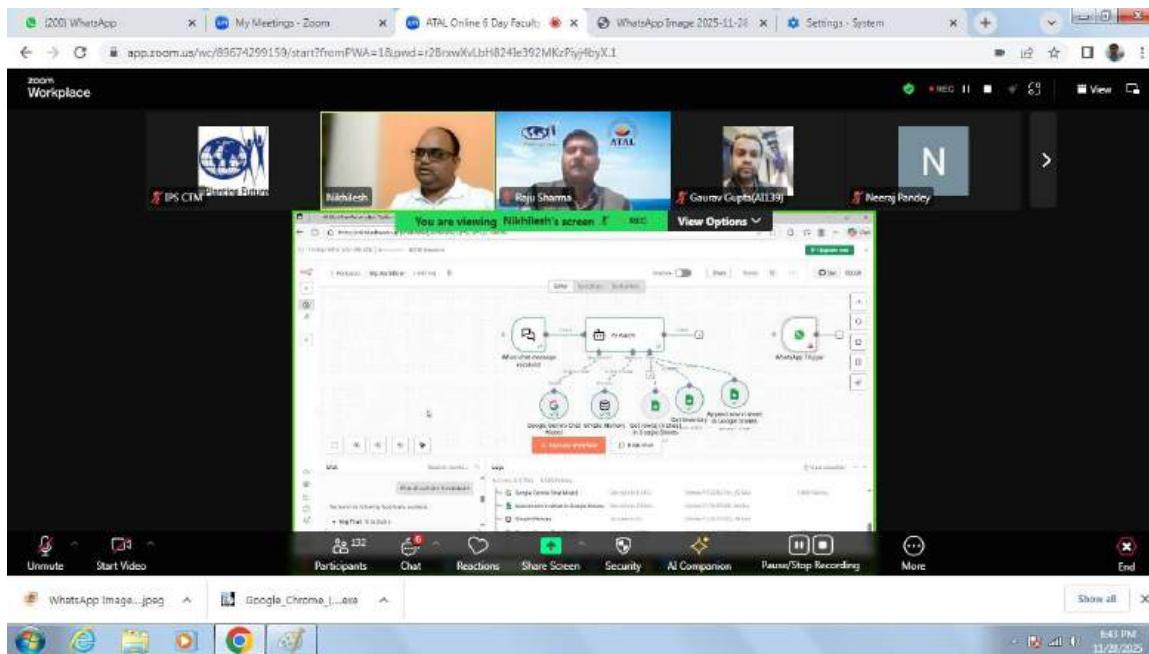
**Key Performance Indicators (KPIs):**

- Completion of relevant AI companion tasks
- Use cases per month
- Number of users using AI companion
- Use of AI companion for daily tasks
- Completion of AI companion tasks
- Integration into user tracking data (Analytics)

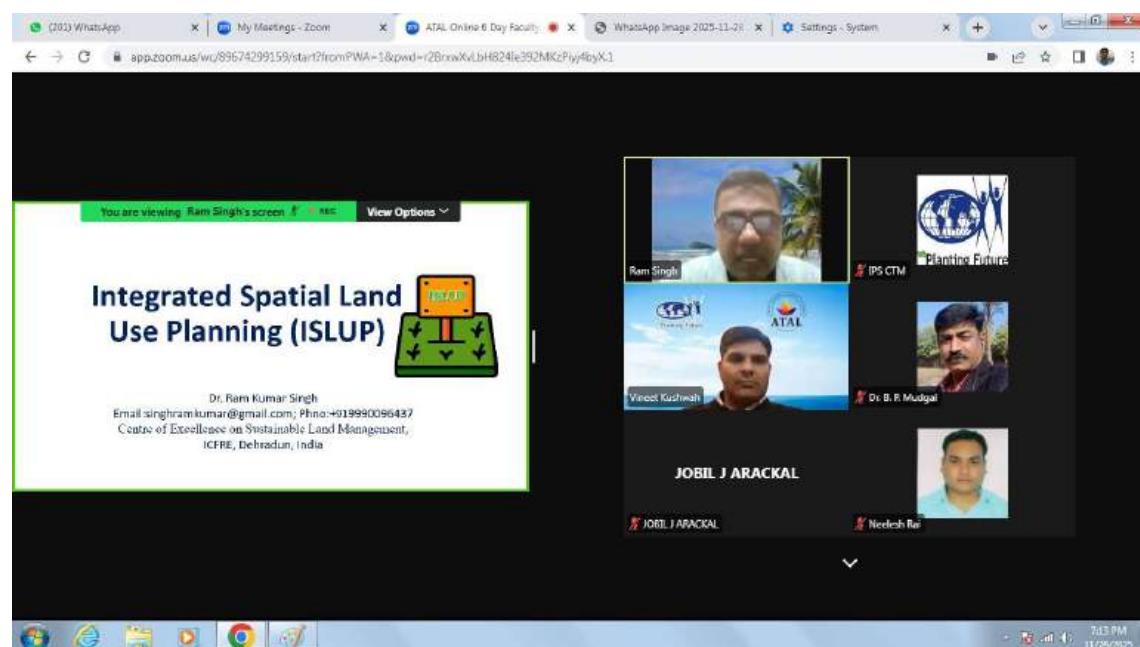
**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



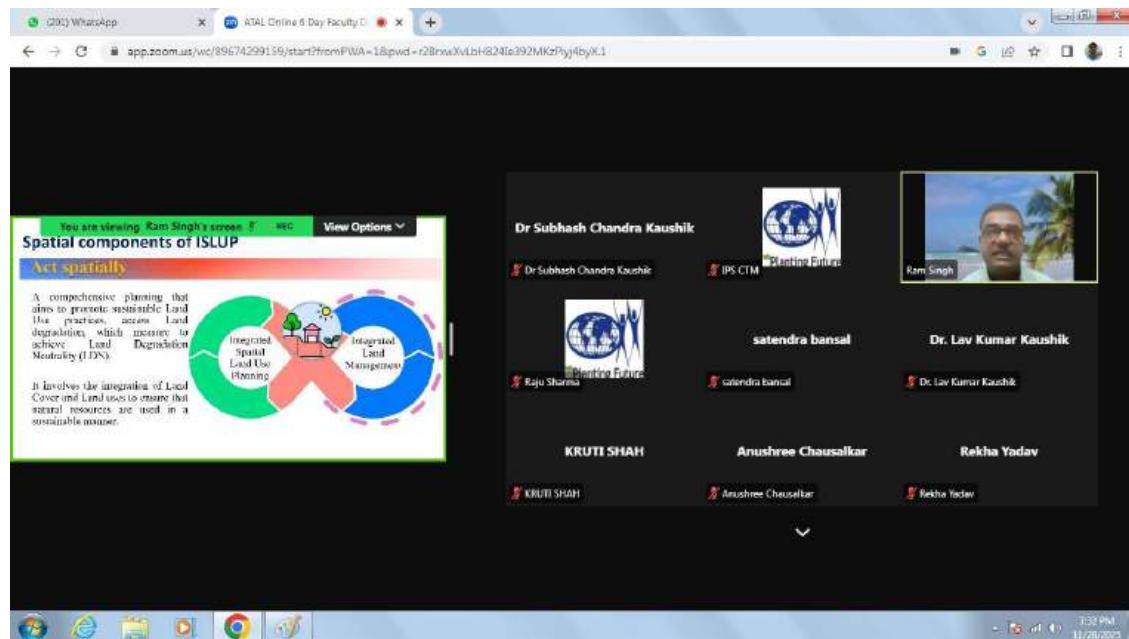
**TECHNICAL SESSION-10 (DAY – 5, 28/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by**  
**Department of Computer Science & Engineering**  
**IPS College of Technology and Management**



**TECHNICAL SESSION-11 (DAY – 6, 29/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



**Linkage With Sustainable Urban Planning**

Research Work	Sustainable Urban Planning Benefit
Building footprints	Infrastructure, growth monitoring, resilience
Green spaces	Heat mitigation, livability
UAV imagery based object extraction	Micro-level planning
Building change detection	Compliance, heritage, disaster management
Urban sprawl detection	Land management, master planning

**Participants (112)**

- IRS CTM (Host, me)
- Vineet Kushwah (Co-host, guest)
- Surendra (Co-host, guest)
- Dr. Ashay Pandey (Co-host, guest)
- IPS CTM (Co-host)
- SB Shayna Bano (Guest)
- Yashoda Pathak (Guest)
- Bhawna Soni (Guest)
- Pratima Kushwah (Guest)
- SOUMINA BAPSI (Guest)
- Alankrita Dubey (Guest)

**TECHNICAL SESSION-12 (DAY – 6, 29/11/2025)**

**Development of Fresh Water Pearl Culture Unit Based on IoT & Machine Learning**

Dr. Munesh Singh  
Associate Professor, CSE  
National Institute of Technology, Delhi

**Participants**

- Vineet Kushwah
- IPS CTM
- S SWEETY KUMAR
- P Promi Pandit
- Dr. Ashay Pandey
- Dr. Munesh Singh (NIT Delhi)

**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



Figure: CIFA Baseline Data

Parameters	Values
pH	7.4 ppm
Dissolved oxygen	2 ppm
Alkalinity (CaCO <sub>3</sub> )	100 ppm
Hardness (CaCO <sub>3</sub> )	68 ppm
Temperature	25-30°C
Food	Planktonic algae

Species: *Lundtia marginalis* and *Perryia coriacea*  
35 to 50 grams and size 7-8 cm is ideal

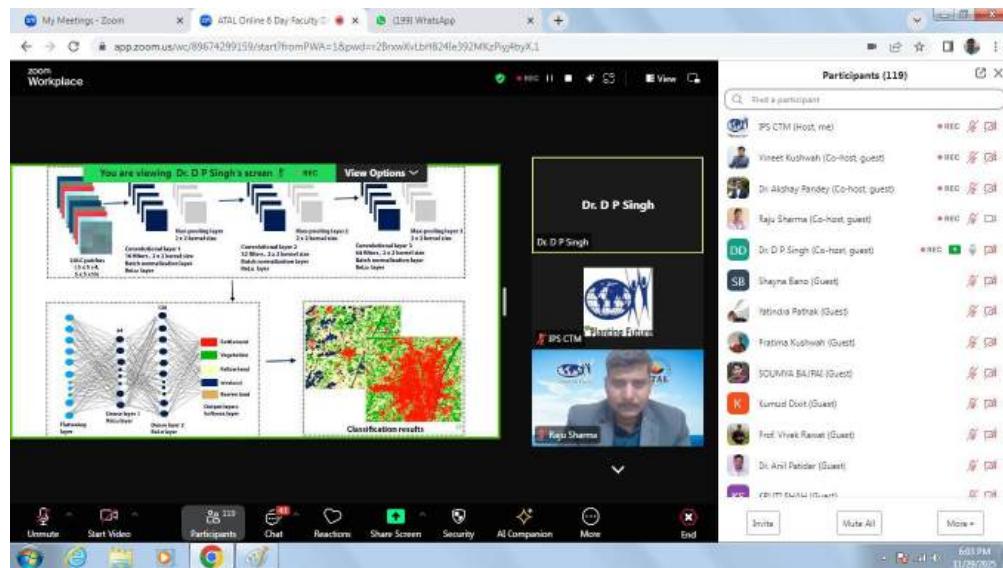
**TECHNICAL SESSION-13 (DAY – 6, 29/11/2025)**

Satellite view of a part of MANIT

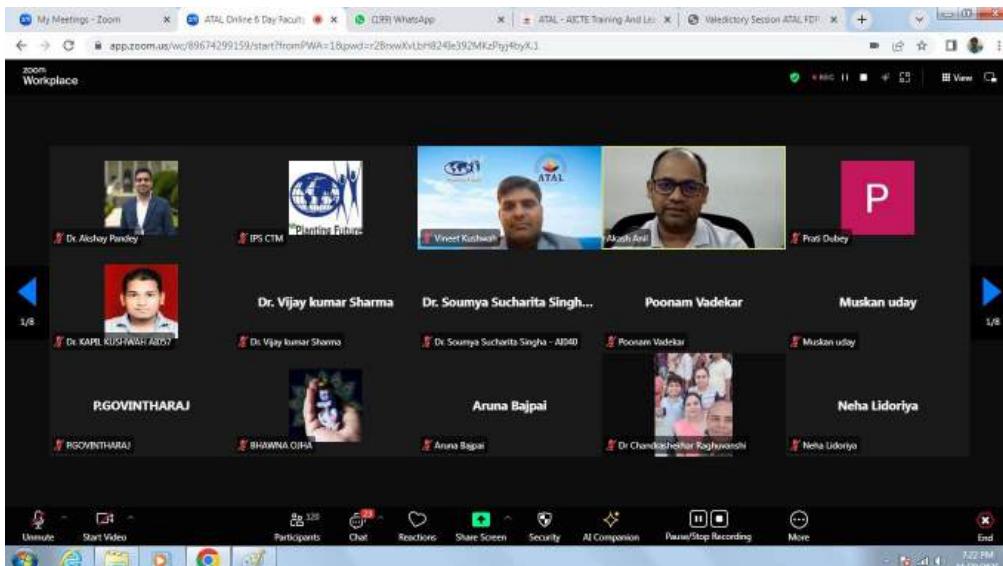
**An online Faculty Development Program on**  
**“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



Department of Computer Science & Engineering  
**IPS College of Technology and Management**



## **Valedictory SESSION (DAY – 6, 29/11/2025)**



**An online Faculty Development Program on  
“GengeoAi: Synergizing Generative AI, GIS, and Smart Technologies for Sustainable Agriculture”**



**Organized by  
Department of Computer Science & Engineering  
IPS College of Technology and Management**



My Meetings - Zoom

ATAL Online 8 Day Faculty

IPS CTM

Planting Future

Dr. Jyoti mishra

P

Dr. Vijay kumar Sharma

Dr. Soumya Sucharita Singh...

RGOVINTHARAJ

Dr. KAPIL KUSHWAHA A037

Dr. Vijay kumar Sharma

Dr. Soumya Sucharita Singh - A040

Alash Anil

Neha Lidoriya

Dr. Aradhana Sahu

Dr. Anju Singh

BAWNA OJHA

Dr. Chandreshwar Raghuvanshi

Neha Lidoriya

Dr. Aradhana Sahu

Dr. Anju Singh

Unmute Start Video Participants Chat Reactions Share Screen Security AI Companion Pause/Stop Recording More

1/8 1/8

7:38 PM 13/09/2023

My Meetings - Zoom

ATAL Online 8 Day Faculty

IPS CTM

Planting Future

Twinkal yadav

satendra bansal

Dr. Vijay kumar Sharma

Suchita Rathore

Poonam Vadkar

Dr. KAPIL KUSHWAHA A037

satendra bansal

Dr. Vijay kumar Sharma

Suchita Rathore

Poonam Vadkar

Muskan uday

RGOVINTHARAJ

BAWNA OJHA

Aruna Bajpai

Dr. Chandreshwar Raghuvanshi

Angad S. Dixit To Meeting Group... Feedback link please

Unmute Start Video Participants Chat Reactions Share Screen Security AI Companion Pause/Stop Recording More

1/8 1/8

7:38 PM 13/09/2023