

**REPORT**  
**One Week Online Faculty Development Program**  
**On**  
*Integrated Approaches in Structural and Environmental Engineering (IASEE–2026)*  
**2–7 February 2026**

**Introduction**

The Department of Civil Engineering, Harcourt Butler Technical University (HBTU), Kanpur successfully organized a **One Week Online Faculty Development Program (FDP)** on “*Integrated Approaches in Structural and Environmental Engineering (IASEE–2026)*” from **2nd to 7th February 2026**.

The primary objective of the FDP was to provide a comprehensive platform for academicians, researchers, industry professionals, and scholars to explore emerging trends, innovative technologies, and interdisciplinary approaches integrating structural and environmental engineering for sustainable development.

The program comprised **17 specialized lectures** delivered by eminent experts from premier institutions, research organizations, and industry across India.

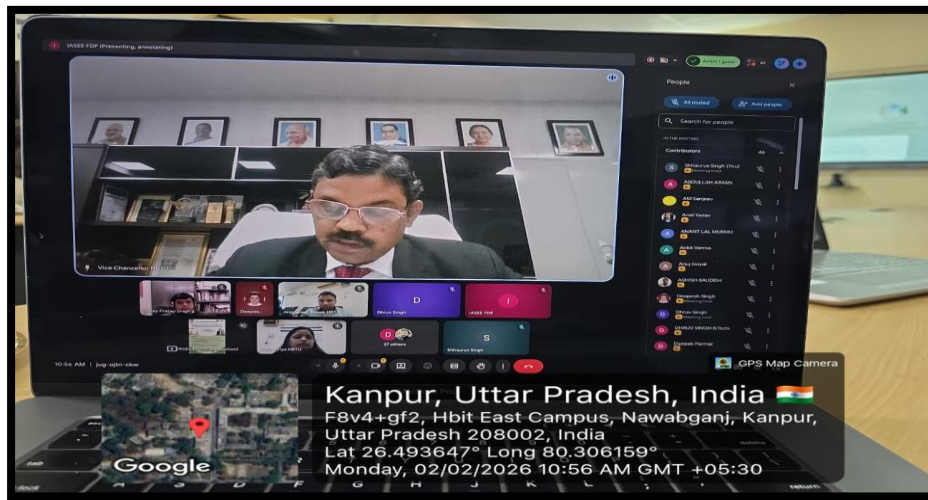
**Day 1 – 2 February 2026**

**Inaugural Ceremony**

The program commenced with a formal inaugural session.

- **Welcome Address** was delivered by the Convener of IASEE–2026, who highlighted the objectives and significance of integrating structural and environmental engineering practices in addressing contemporary sustainability challenges.
- **Keynote Addresses** were delivered by:
  - The Head of the Department, Civil Engineering
  - The Dean, School of Engineering
  - The Hon’ble Vice Chancellor, HBTU Kanpur

The dignitaries emphasized interdisciplinary research, sustainable infrastructure development, and the need for collaborative academic–industry engagement.



## Technical Sessions

### 1. **Dr. Brijesh Kumar Yadav (IIT Roorkee)**

*Topic:* Geological Sequestration for Long-Term Greenhouse Gas Mitigation and Climate Change Resilience

The lecture focused on carbon capture and storage (CCS) technologies and geological sequestration strategies for mitigating greenhouse gas emissions.

### 2. **Dr. M. Chandrashekhara (NIT Warangal)**

*Topic:* Principles of Solid Waste Management and Disposal

The session covered waste characterization, collection systems, treatment technologies, and sustainable disposal practices.

### 3. **Dr. Tanvir Arfin (NEERI)**

*Topic:* Air Pollution from Construction Activities and Solutions

The lecture addressed emission sources from construction sites and mitigation strategies aligned with environmental regulations.

## Day 2 – 3 February 2026

### 1. **Dr. Reena Singh (NIT Patna)**

*Topic:* Diverse Applications of Remote Sensing and GIS in Implementing Integrated Solid Waste Management

The session demonstrated geospatial tools for waste site selection, monitoring, and urban environmental planning.

### 2. **Prof. S. S. Mishra (NIT Patna)**

*Topic:* Climate Change Effects and Structural Risk Mitigation

The lecture highlighted climate-induced structural vulnerabilities and resilience-based design approaches.

3. **Dr. Paromita Chakraborty (SRM University)**

*Topic:* Challenges and Environmental Impact of Electronic Waste: Sustainable Approaches

The session discussed e-waste generation trends, toxic impacts, recycling technologies, and policy frameworks.

**Day 3 – 4 February 2026**

1. **Dr. Priyaranjan Pal (MNNIT Allahabad)**

*Topic:* Concrete Design Mix

The lecture elaborated on mix design principles, durability considerations, and performance-based concrete design.

2. **Dr. S. V. A. R. Sastry (HBTU Kanpur)**

*Topic:* Sustainable Environmental Management Using Environmental Remediation Techniques

The session focused on soil and water remediation technologies and sustainable management strategies.

3. **Dr. Nityanand Singh Maurya (NIT Patna)**

*Topic:* Greenhouse Gas Emissions from Municipal Wastewater Treatment

The lecture addressed emission sources in wastewater treatment plants and mitigation strategies.

**Day 4 – 5 February 2026**

1. **Er. Manohar Jangid (Delhi Development Authority)**

*Topic:* Integrated Structural and Environmental Challenges in Urban Infrastructure Processes

The session highlighted practical challenges in urban infrastructure planning and sustainable development.

2. **Dr. Shina Gautam (HBTU Kanpur)**

*Topic:* Sustainable Bio-based Packaging: An Environmentally Responsible Alternative to Plastics

The lecture explored biodegradable materials and circular economy concepts.

3. **Prof. Athar Hussain (NSUT Delhi)**

*Topic:* Integrated Solid Waste Management: A Step Towards Circular Energy

The session emphasized waste-to-energy technologies and circular resource recovery.

## Day 5 – 6 February 2026

1. **Dr. Anoop Kumar Shukla (Manipal Academy of Higher Education, Karnataka)**

*Topic:* Spatiotemporal Variability of Water Yield and Water Quality in the Ganges River Basin

The lecture discussed hydrological modelling, water quality assessment, and basin-level management strategies.

2. **Er. Anvesh K. Singh (Ex DGM-CTS, J.K. Cement Ltd.)**

*Topic:* Green Building Materials: Need of the Hour

The session provided industry insights into sustainable construction materials and low-carbon alternatives.

3. **Dr. Ashootosh Mandpe (IIT Indore)**

*Topic:* Environmental Infrastructure as a Structural Asset: Waste, Energy and Urban Resilience

The lecture highlighted infrastructure resilience, waste-energy integration, and sustainable urban systems.

## Day 6 – 7 February 2026

1. **Prof. Ashish Kapoor (HBTU Kanpur)**

*Topic:* Lab-on-a-Chip Technologies for Water Quality Assessment: An Integrated Approach

The session introduced advanced micro fluidic technologies for rapid water quality monitoring.

2. **Dr. S. V. A. R. Sastry (HBTU Kanpur)**

*Topic:* Carbon Capture and Storage Techniques

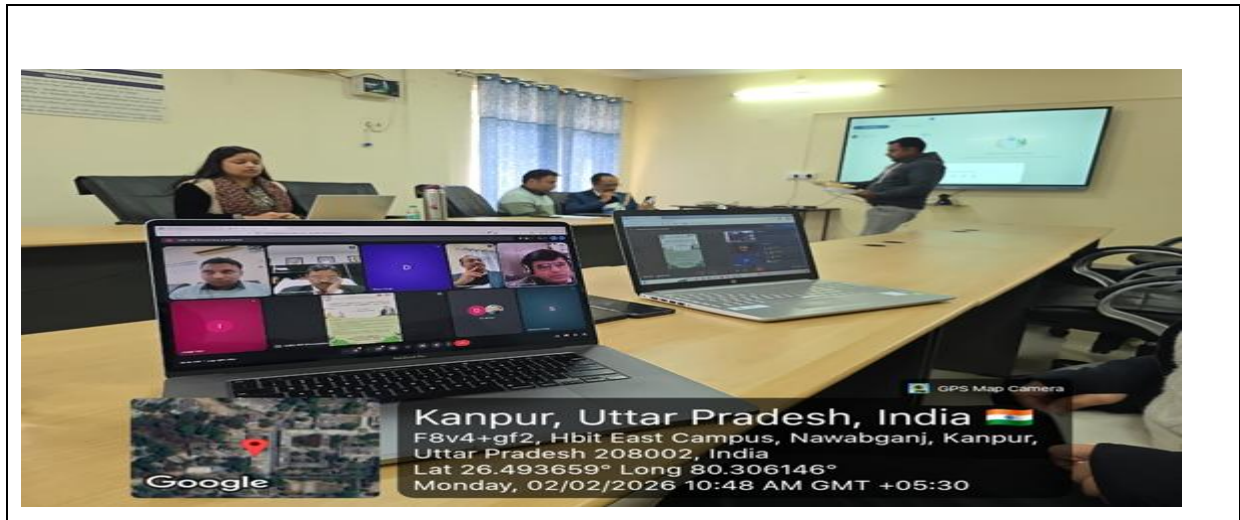
The lecture discussed advancements in CCS technologies and their integration with industrial systems.

## Valedictory Function

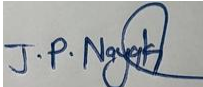
The valedictory session marked the successful conclusion of IASEE–2026.

- **Welcome Address** was delivered by the Convenor, IASEE–2026.
- **Course Summary** was presented by the Convenor, summarizing key technical insights and interdisciplinary learnings from the week-long program.
- The **Head of the Department of Civil Engineering, Prof. Deepesh Singh**, shared his views on the importance of such FDPs in enhancing academic excellence and research collaboration.

- **Participant Feedback** was presented, reflecting highly positive responses regarding the relevance, quality of lectures, and organization of the program.
- The program concluded with **Closing Remarks** by the Convenor, expressing gratitude to all distinguished speakers, participants, organizing committee members, and university authorities for their support and contribution.



  
(Kajol Priya)

  
(Jaiprakash Nayak)