



**Swami Keshvanand Institute of Technology, Management & Gramothan,
Ramnagar, Jagatpura, Jaipur-302017, INDIA**

Approved by AICTE, Ministry of HRD, Government of India

Affiliated to Rajasthan Technical University, Kota

Recognized by UGC under Section 2(f) of the UGC Act, 1956

Tel.: +91-0141- 5160400 E-mail: info@skit.ac.in Web: www.skit.ac.in

Name of the Event: Expert talk on “The role of AI and ML in Green building technologies” by Dr. Abheek Gupta and “Rethinking waste: Sustainable Municipal Solid Waste Management for Future civil engineers” by Mr. Shubham Rana

Date of the Event: 10th September 2025





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Key Discussions:

Topic: The Role of Artificial Intelligence and Machine Learning in Green Building Technologies

- AI & ML in Sustainable Design: How predictive analytics and data modeling help optimize building performance.
- Energy Efficiency: Use of AI-based systems for smart lighting, HVAC optimization, and reduced building energy consumption.
- Green Building Materials: Machine learning in selecting low-carbon, high-performance materials.
- Smart Building Monitoring: Real-time sensors and IoT for monitoring energy, carbon emissions, and indoor environmental quality.
- Simulation & Digital Twins: AI-enabled simulations to evaluate energy behavior, daylighting, ventilation, and building heat loads.
- Future of Green Buildings: Integration of automation, robotics, and AI for designing net-zero and carbon-neutral buildings.

Topic: Rethinking Waste: Sustainable Municipal Solid Waste Management for Future Civil Engineers

- Current Challenges in MSWM: Urbanization, increasing waste generation, and inadequate segregation at source.
- Waste Segregation & 3R Principles: Importance of Reduce, Reuse, Recycle for effective waste minimization.
- Modern Waste Treatment Technologies: Composting, biomethanation, waste-to-energy, paralysis, and sanitary landfilling.
- Role of Civil Engineers: Designing scientific landfills, planning waste transport systems, implementing waste processing units, and ensuring environmental compliance.
- Sustainable Waste Management Models: Community-level waste management, decentralized systems, and circular economy concepts.
- Behavioral Awareness: How public participation, awareness, and policy support contribute to long-term waste sustainability.

Name of event coordinator:

(Dr. Palak Agarwal)

Coordinator, IGBC Student Chapter