

# INTERNATIONAL CONFERENCE ON SUSTAINABLE ENGINEERING & AI SOLUTIONS

April 17-18, 2026



**Organized by**



# BANSAL

Institute of Engineering & Technology ,Lucknow

Affiliated to AKTU Lucknow,Approved by AICTE ,Ministry of HRD ,New Delhi

**In collaboration with**



# About the Conference

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The International Conference on Sustainable Engineering & AI Solutions (ICSEAIS), scheduled for April 17-18, 2026, at Bansal Institute of Engineering and Technology, Lucknow, is set to be a transformative event aimed at addressing global sustainability challenges through innovative engineering and AI solutions. The conference will bring together a diverse group of researchers, academics, industry experts, and thought leaders from a wide range of fields, including electrical, electronics and communications, mechanical, civil, and computer engineering, along with AI, IT, biotechnology, and management. Its primary goal is to foster cross-disciplinary collaboration and create a platform for sharing cutting-edge research and practical applications that can lead to sustainable solutions for industries worldwide.

With a strong focus on AI-driven technologies and sustainable engineering practices, the conference will explore how these innovations can address pressing issues such as climate change, resource depletion, and waste management. Key topics will include the development of smart grids, AI-powered renewable energy systems, sustainable infrastructure, and innovations in green manufacturing, sustainable agriculture, and energy efficiency across various sectors. The event will also emphasize the importance of industry-academic partnerships, encouraging joint research efforts and technology transfer to drive real-world impact.

Participants will have the opportunity to engage with leading experts, network with professionals from diverse sectors, and discuss the latest research in AI and sustainability. The conference will not only serve as a venue for showcasing academic research but also as a space for industry leaders to share insights and real-world case studies on the successful implementation of sustainable technologies. Ultimately, ICSEAIS aims to accelerate the adoption of AI-driven solutions that can help create a more sustainable, resilient future for industries worldwide.

## Focus of the Conference

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International Conference on Sustainable Engineering & AI Solutions will focus on the integration of advanced technologies and interdisciplinary approaches to promote sustainability across a wide range of engineering domains. The conference will explore how innovations in electrical engineering can optimize energy systems, enhance smart grids, and support the transition to renewable energy through AI-driven solutions. Electronics and communication engineering will explore how innovations in IoT (Internet of Things), wireless communication, and sensor networks can enhance real-time monitoring of environmental data, enabling more efficient resource usage and pollution control.

For civil engineering, the conference will highlight the role of AI in designing sustainable infrastructure, including eco-friendly buildings, green urban planning, and smart cities that reduce carbon footprints through optimized resource management. In mechanical engineering, the focus will be on improving energy efficiency, reducing waste in manufacturing processes, and developing sustainable technologies like electric vehicles and automated systems for precision tasks.

In biotechnology, the conference will examine how AI and other technologies can drive advances in sustainable agriculture, such as precision farming techniques, bioremediation for environmental cleanup, and lab-grown food production to address global food security challenges.

Computer science will focus on AI and machine learning applications for sustainable solutions, such as predictive modeling for climate change, energy optimization, and the development of green AI algorithms that are energy-efficient and reduce computational waste. Information technology (IT) will play a pivotal role in supporting these efforts by enabling the infrastructure for data-driven sustainability. This includes the use of cloud computing and big data analytics to monitor environmental conditions, manage resources efficiently, and provide actionable insights for decision-makers. Finally, the role of artificial intelligence will be central, with discussions on how machine learning, deep learning, and other AI techniques can transform industries by optimizing processes, reducing emissions, and fostering innovations in sustainable production systems and environmental management.

The conference will offer a comprehensive view of how all these domains – electrical, mechanical, civil, electronics and communication, biotechnology, computer science, IT, AI, and engineering – can converge to create practical, scalable solutions for a sustainable future, empowering both researchers and industry professionals to drive forward technological advancements that will address pressing global challenges.

# About Dr. A.P.J. Abdul Kalam Technical University (AKTU)

Dr. A.P.J. Abdul Kalam Technical University (AKTU), formerly known as UPTU (Uttar Pradesh Technical University), is a prominent public technical university located in Lucknow, Uttar Pradesh, India. Established in 2000, AKTU offers a wide range of undergraduate, postgraduate, and doctoral programs in engineering, technology, management, and applied sciences. The university is named after Dr. A.P.J. Abdul Kalam, the former President of India and a renowned scientist, to honor his contributions to the nation's scientific advancements.

AKTU is well-regarded for its strong emphasis on research, innovation, and academic excellence. It has a sprawling campus with modern infrastructure, including state-of-the-art laboratories, libraries, hostels, and sports facilities. The university also fosters a vibrant student life through various extracurricular activities, clubs, and events. AKTU has a wide network of affiliated colleges across Uttar Pradesh, making it one of the largest technical education providers in the state.

The university is known for its rigorous academic programs and a well-structured curriculum that incorporates both theoretical knowledge and practical skills. It collaborates with industries, research institutions, and international universities to provide students with exposure to real-world challenges and opportunities. Over the years, AKTU has gained a reputation for producing highly skilled professionals in various fields of technology and management, contributing significantly to the nation's workforce.

In terms of quality assurance, AKTU has been accredited with an A' Grade by the National Assessment and Accreditation Council (NAAC), reflecting the university's commitment to maintaining high academic standards, infrastructure, and overall educational quality. Additionally, many of AKTU's individual engineering programs are accredited by the National Board of Accreditation (NBA), further validating the quality and relevance of its technical education. These accreditations highlight the university's dedication to continuous improvement and excellence, ensuring that students receive a globally recognized and quality education.



# About Bansal Institute of Engineering and Technology (BIET)

Bansal Institute of Engineering and Technology (BIET), Lucknow, established in 2008 and affiliated with Dr. A.P.J. Abdul Kalam Technical University (AKTU), is a reputed private engineering institution dedicated to providing quality technical education and fostering the holistic development of students. Approved by AICTE, the institute features a modern and student-friendly campus on Sitapur Road, equipped with spacious classrooms, advanced laboratories, a well-resourced central library, high-speed internet connectivity, and comfortable hostel accommodations. BIET offers a variety of undergraduate engineering programs, among which Electrical Engineering, Biotechnology, and Information Technology (IT) are NBA-accredited, reflecting adherence to rigorous academic benchmarks, industry relevance, and outcomes-based education. This accreditation ensures that students receive education that is contemporary, skill-oriented, and aligned with evolving technological and professional standards.

BIET places strong emphasis on practical learning and professional preparedness. Students gain hands-on experience through workshops, seminars, industrial visits, research initiatives, and extensive laboratory work that connects classroom knowledge with real-world applications. The institute's proactive Training & Placement Cell further enhances employability by offering career counseling, aptitude and technical training, soft skills development, and campus recruitment opportunities in collaboration with numerous reputed companies. Through these structured initiatives, BIET strives to nurture industry-ready, innovative, and ethically responsible engineering professionals.



# Thematic Sessions

## 1. Electrical and Renewable Energy

This thematic session will focus on exploring the latest innovations, challenges, and solutions in integrating renewable energy sources with electrical power systems. It will address the key issues of grid stability, energy storage, and optimization, while highlighting the critical role of electrical engineering in creating more efficient, resilient, and sustainable energy infrastructures.

The broad themes of the paper may include:

- Integration of Renewable Energy into the Power Grid
- Power Electronics for Renewable Energy Systems
- Energy Storage and Grid Stability for Renewables
- Smart Grids and Digitalization for Renewable Energy Integration
- Advanced Control Systems for Renewable Power Generation
- Power System Protection and Fault Detection for Renewable Grids
- Wind, Solar, and Beyond

## 2. Electronics and Communication Engineering

This thematic session will focus on the intersection of electronics and communication technologies with renewable energy and sustainable development. It will explore how innovations in electronic devices, communication networks, and sensor technologies are playing a crucial role in optimizing energy systems, enabling smart grids, and advancing the use of renewable energy sources.

The broad themes for the paper may include :

- IoT and Smart Grids for Renewable Energy Management
- Low-Power Communication Systems for Sustainable Development
- 5G and Beyond: Impact on Energy Systems and Sustainability
- Communication Systems for Smart Cities and Sustainable Urban Infrastructure
- Advanced Modulation Techniques for Energy-Efficient Communication Systems
- AI-Enabled Communication Systems for Renewable Energy Optimization

## 3. Civil Engineering

This thematic session will focus on advancing sustainable practices in the built environment, exploring innovative technologies, materials, and design strategies that integrate renewable energy and climate resilience into civil infrastructure.

The broad themes for the paper may include :

- Sustainable Infrastructure and Green Building Technologies
- Smart Cities and Sustainable Urban Development
- Advanced Materials for Sustainable Civil Engineering
- Sustainable Water Management and Infrastructure
- Green Transportation Infrastructure and Mobility
- Resilient Foundations and Earthquake-Resistant Design

## 4. Mechanical Engineering

The session will focus on advancing sustainable technologies and renewable energy solutions through innovative mechanical systems and design. The conference aims to explore the critical role that mechanical engineers play in developing energy-efficient systems, green manufacturing processes, and renewable energy technologies.

The broad themes for the paper may include :

- Energy-Efficient Mechanical Systems and Technologies
- Advanced Manufacturing for Sustainability
- Renewable Energy Systems in Mechanical Engineering
- Thermal Energy Storage and Heat Management Systems
- Mechanical Engineering in Electric Vehicles (EVs)
- Sustainable Heating, Ventilation, and Air Conditioning (HVAC) Systems

## 5. Applied Science

This session will explore the intersection of applied sciences and innovative technologies in advancing sustainability. It aims to translate scientific principles and interdisciplinary research into practical solutions that drive progress across various industries.

The broad themes for the paper may include :

- Applied Mathematics for Environmental Sustainability
- Mathematics for Artificial Intelligence
- Advanced Physics in Renewable Energy
- Applied Physics in Environmental Science
- Applied Chemistry in Environmental Solutions
- AI-Driven Language and Communication for Sustainable Solutions

# Thematic Sessions

## 6. Biotechnology

The focus of biotechnology at the Conference will likely revolve around its intersection with sustainable development, leveraging cutting-edge biotechnology innovations and AI-driven technologies to tackle pressing global challenges.

The broad themes of the paper may include:

- Sustainable Healthcare Solutions
- Synthetic Biology for Sustainable Materials
- Biosensors for Environmental Monitoring
- Waste Management & Bioremediation
- Bioenergy & Renewable Fuels
- Biotechnology for Sustainable Agriculture

## 7. Computer Science

The focus of the Computer Science thematic session at the ICSEAIS2025 will center on innovative computational technologies that drive sustainable solutions, optimize resources, and improve efficiencies across various sectors.

The broad themes for the paper may include :

- Data Science and Big Data for Sustainability
- Sustainable Software Engineering Practices
- Blockchain and Decentralized Technologies for Sustainability
- Data Privacy and Security for Sustainable Systems
- Parallel and High-Performance Computing (HPC) for Sustainability
- Quantum Computing for Sustainable Solutions

## 8. Information Technology

The Information Technology (IT) thematic session will focus on how IT innovations and digital technologies can enable sustainability across industries and society. IT has become a powerful enabler for creating smarter, more efficient, and environmentally responsible systems, supporting sustainable development goals (SDGs) through digital transformation.

The broad themes for the paper may include :

- Smart Cities and Urban Sustainability through IT
- Cloud Computing for Sustainable IT Solutions
- IoT for Sustainable Monitoring and Management
- Cybersecurity for Sustainable IT Infrastructure
- IT in Circular Economy and Resource Recovery
- IT for Renewable Energy and Energy Efficiency

## 9. Artificial intelligence (AI) & Machine Learning (ML)

The AI and ML theme at ICSEAIS will focus on how AI-driven technologies are central to solving sustainability challenges across sectors like energy, agriculture, water, manufacturing, and urban planning. The session will highlight cutting-edge research, practical applications, and cross-disciplinary collaboration aimed at creating a more sustainable, resilient future.

The broad themes for the paper may include :

- AI and ML in Sustainable Transportation
- AI and ML for Smart Cities
- AI and ML for Ecosystem Monitoring and Biodiversity Conservation
- AI for Disaster Management and Risk Reductions
- AI for Climate Risk and Resilience
- AI and ML for Sustainable Development Goals (SDGs)
- AI for Sustainability in Healthcare

## 10. Management

This session will explore the transformative role of Artificial Intelligence (AI) in modern management practices, particularly in the context of sustainability and resource optimization.

The broad themes for the paper may include :

- Financial Management in Sustainability
- Strategic Management in Sustainable Business
- Risk Management and Decision Support
- Innovation Management for Sustainability

# Paper Submission & Publication Detail

Each submitted paper will be peer-reviewed and only well-researched and well-written papers will be accepted for presentation. All presented papers will be published in conference proceeding with ISBN Number by a reputed publisher.

Interested candidates should submit their papers through Microsoft's Conference Management Toolkit link:

After acceptance of the paper the candidate should proceed for registration at:

At least one author of each accepted paper is required to register and present their paper at the conference; otherwise paper will not be considered for publication.

## Paper Submission & Publication Detail

IEEE double column (max. 6 pages)

<https://www.ieee.org/content/dam/ieee-org/ieee/web/org/conferences/Conference-template-A4.doc>

## Registration Fee Details

### Corporate Delegates

Indian      **INR 800**

Foreign      **USD 50**

### Academicians

Indian      **INR 500**

Foreign      **USD 50**

### Students/Scholars

Indian      **INR 500**

Foreign      **USD 50**

Registration Fee includes conference kit. Limited accommodation is available on a paid basis.

Note- 20% discount on registration charged for IEEE/IE(I) member.

Registration fee should be deposited through online payment in the account given below. The receipt must be sent through mail at [icseais2026@gmail.com](mailto:icseais2026@gmail.com)

A/C Holder: Director, Bansal Institute of Engineering and Technology

Bank: UCO Bank, IT College, Lucknow

Account No: 07520110020128

IFSC Code: UCBA0000752

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**Mr. Rajesh Kumar (Electrical Engineering Department)**

**Mr. Pawan Saini (Electronics and Communication Engineering Department)**

**Mr. Jitendra Kumar Srivastava (Electrical Engineering Department)**

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**Ms. Shradha Shukla (Master of Business Administration Department)**

**Mrs. Shweta Singh (Electronics and Communication Engineering Department)**

**Mrs. Itika Kapoor (Biotechnology Engineering Department)**

## **Contact Person**

**Dr. Arun Kumar Yadav, Associate Professor & Head, EED, Bansal IET, Lucknow**

**Email: hodee@bansaliet.in**

**Mobile: +91-9935640624**

**Dr. Rachit Srivastava, Dean R&D, Bansal IET, Lucknow**

**Email: rachit@bansaliet.in**

**Mobile: +91-9621180694**

# Post Conference Attractions

## Ram Janmabhoomi, Ayodhya

Ayodhya, the birthplace of Lord Ram, is located about 135 kilometers (84 miles) from Lucknow. It's an easily accessible destination for a pilgrimage or cultural tour from Lucknow.



## Namisharanya Temple

The Namisharanya Temple (also known as Naimisharanya) is a significant pilgrimage site located in the Sitapur district of Uttar Pradesh, around 90 kilometers (56 miles) from Lucknow. It is considered one of the important religious spots in India, especially for Hindus, due to its association with ancient scriptures and its connection to the great epics, the Ramayana and Mahabharat.



## Chandrika Devi Temple

The Chandrika Devi Temple is located near Sitapur, Uttar Pradesh, and is approximately 17 kilometers from Lucknow. It is dedicated to Goddess Chandrika, who is considered a manifestation of Durga or Mahakali. The temple is an important religious site in the region.



## Bara Imambara

Bara Imambara, is one of the most iconic landmarks in Lucknow, Uttar Pradesh. This historical structure was built by Nawab Asaf-ud-Daula, the fourth Nawab of Oudh (also called Awadh), in 1784. The Imambara is renowned for its grandeur, architectural brilliance, and historical significance.



## Rumi Darwaza

The Rumi Darwaza is one of the most iconic landmarks in Lucknow, Uttar Pradesh, and is an architectural marvel that embodies the grandeur of Awadhi architecture. It stands as a symbol of the city's rich cultural heritage and the magnificence of the Nawabi era.



## Janeshwar Mishra Park

Janeshwar Mishra Park is one of the largest and most beautiful parks in Lucknow, Uttar Pradesh. This expansive urban park is an ideal destination for nature lovers, joggers, families, and anyone looking for a peaceful escape from the hustle and bustle of the city.

