International Seminar on AI-Powered Decarbonization for a Sustainable Future

Sep 17th 2025 (Wednesday)

Organized by

CO_2 Research and Green Technologies Centre,
Vellore Institute of Technology,
Vellore-632 014, TN, India

Last Date of Registration:
16/09/2025

In association with
Teesside University, UK
Sponsored by

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About the Seminar

The International Seminar on AI-Powered Decarbonization for a Sustainable Future is a pioneering initiative that brings together global experts, researchers, and industry leaders to explore the transformative role of artificial intelligence in combating climate change. This forward-looking program focuses on how AI technologies can accelerate decarbonization across key sectors such as energy, transportation, manufacturing, and urban development. Participants will engage in dynamic sessions covering AI-driven carbon footprint analysis, predictive modeling for emissions reduction, smart energy systems, and sustainable infrastructure planning. The seminar emphasizes interdisciplinary collaboration, showcasing real-world applications and innovative startups that harness AI to optimize renewable energy deployment, monitor climate impacts, and reduce digital waste in data centres. Keynote speeches from renowned climate scientists and AI technologists will highlight the urgency of climate action and the potential of intelligent systems to drive measurable change. Interactive workshops and panel discussions will foster knowledge exchange, policy dialogue, and strategic partnerships aimed at scaling AI solutions globally. By aligning with the United Nations Sustainable Development Goals, the seminar promotes ethical AI practices and inclusive innovation. It serves as a catalyst for shaping a low-carbon future—where technology and sustainability converge to protect the planet for generations to come.

About VIT

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.

About CO_2 RGTC

The CO_2 Research and Green Technologies Centre **(CO_2 RGTC)** is a unique centre that carries out research exclusively on various aspects of CO_2-related research, like CO_2 sequestration, conversion of CO_2 into useful fuels, development of transcritical CO_2 refrigerators, and supercritical CO_2-based extraction technology. The centre also focuses on cutting-edge research on energy and environmental-related challenges, leading to the development of sustainable technologies. CO_2 RGTC researches the development of various sustainable technologies for the effective use of solar, wind, and bioenergy. Advanced research is also conducted to develop materials for energy storage, electrochemical systems for the production of value-added products, fuel cells, and hydrogen energy applications.

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Registration Fee

Student/ Research Scholar	Rs. 250/-
Faculty member	Rs. 350/-
Industry person	Rs. 500/-

Registration Fees (Inclusive of GST)

Payment should be made online only using the link provided:

https://events.vit.ac.in/

Contact Information

CO_2 Research and Green Technologies Centre,
Vellore Institute of Technology,
Vellore-632014

Web: https://events.vit.ac.in/
+91- 9952223180
ranjitha.j@vit.ac.in

Keynote Speakers

Topic: Decarbonization pathways through a multi-energy system
Dr. Dawid Hanak
NZIIC, Professor
Teesside University, UK

Topic: Energy Storage Systems for Renewable Integration
Dr. Maher Al-Greer,
Associate Professor,
Teesside University, UK

Topic: Decarbonization Strategies for Green Fuel Production
Dr. Shadab Alam
Research Scientist
Teesside University, UK

Topic: AI-driven Decarbonization Pathways for Energy Production
Dr. Manish Kumar S. Tiwari
Assistant Professor
SVKM's NMIMS University, Mumbai