Online Short-Term Course (STC) on

AI for Net-Zero: Innovations in Energy, Environment, and Sustainability (AINZ-2026)

June 01-05, 2026

Organized by

Department of Chemical Engineering
National Institute of Technology
Hamirpur – 177005
Himachal Pradesh-India

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About NIT Hamirpur

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, which came into existence on August 07, 1986 as Regional Engineering College, a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. On June 26; 2002, REC Hamirpur was awarded the status of Deemed University and upgraded to National Institute of Technology. NIT Hamirpur is an institute of National importance set up by an act of Parliament namely the National Institute of Technology Act 2007 which received the accent of the President of India on June 05, 2007.

About Chemical Engineering Department

Department of Chemical Engineering was established in the year 2013, with a mission to impart high quality engineering education and to mold the students to meet the ever-growing demand of technical manpower in the field of Chemical Engineering. The department offers three programs B.Tech, M.Tech and Ph.D. The department comprises of several laboratories for the undergraduates catering to the needs of the curriculum.

In addition, computational/ experimental and research laboratories for the postgraduates and doctoral resources are already in place. All the faculties are highly qualified and well dedicated to teaching and research in various fields of chemical engineering as well as in different interdisciplinary areas of engineering.

About The e-STC

The proposed short-term course aims to integrate artificial intelligence with sustainable technologies to achieve net-zero goals. Rapid advancements in artificial intelligence (AI) are transforming energy systems, environmental monitoring, and industrial processes. However, a significant gap remains between emerging digital technologies and their practical application in sustainability sectors. This course will offer researchers, academicians, industry experts, and students a platform to exchange knowledge, discuss recent developments, and explore collaboration in AI-driven solutions for energy efficiency, carbon reduction, environmental protection, and sustainable development. Participants will gain insights into current challenges, innovative research, and practical applications.

Objectives of The e-STC

- To understand the fundamentals in artificial intelligence (AI) and machine learning (ML) algorithms specifically relevant to energy, environment and sustainability contexts
- To provide tools that accelerate the transition from fossil-fuel-based systems to intelligent, AI-managed renewable energy ecosystems
- To develop models to accurately predict climate, forecast greenhouse gas emissions, and analyze risks by simulating the impact of various policy interventions
- To optimize energy storage and distribution systems to reduce waste and reliance on fossil fuels
- Explore the role of AI in the circular economy and waste management, including resource optimization, waste sorting automation, and lifecycle assessment to reduce environmental footprints.

Thrust of The e-STC

In this program, the participants will be able to:

- Enhance understanding of Artificial Intelligence's role in achieving net-zero targets across sustainability
- Gain exposure to recent research developments, innovative technologies, and emerging trends in AI-driven sustainable solutions
- Promote innovation and technology developments aimed at reducing carbon emissions and improving resource efficiency
- Develop interdisciplinary research ideas combining AI, chemical engineering, environmental science, and energy systems

Who Can Apply

- **Students-** UG, PG, PhD
- **Faculty Members**
- **Other professionals-** Engineers and scientists from Industry and R&D organizations

Participation Fee

All registered participants will get participation e-certificate. The participation fee including GST is mentioned below

- **Student (UG/PG/PhD):** 300 INR
- **Academia/ R&D Labs:** 500 INR
- **Industry participants**: 1000 INR
- **Internal Participants of NITH** Nil

Mode of Fee Payment

Open SBI Collect

https://www.onlinesbi.sbi/sbicollect/

Under Select Category <Click on Educational Institutions> Filter by state <Himachal Pradesh> Educational Institutions <NIT Hamirpur>Payment Category <Workshop STC FDP Conference>

How to Apply

The interested participants should register by paying the registration fee and filling the google form through the below link (copy and paste the link): **https://forms.gle/XoT1fYWVoCDNnSK59**

Important Dates

- **Last Date of Registration**: **May 29, 2026**
- **Intimation to Participants** : **May 30, 2026**

***E-Certificate will be provided to those registered participants having attendance ≥ 75% in the program**

Resource Persons

The course will be taught by the eminent speakers from the Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), and industries.