CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

DEPARTMENT OF CHEMICAL ENGINEERING

ONE WEEK NATIONAL FACULTY DEVELOPMET PROGRAMME

ON

SMART AND SUSTAINABLE ENGINEERING PRACTICES USING AI FOR SDG ATTAINMENT

5th–9th January 2026

The FDP aims to equip faculty members, industry personnel and researchers with insights into the role of Artificial Intelligence in enabling smart and sustainable engineering practices aligned with the Sustainable Development Goals (SDGs). The programme emphasizes data-driven and intelligent approaches to improve efficiency, minimize environmental impact, and support sustainable development. It will feature six eminent resource persons from distinguished academic, research, and industry backgrounds, offering an interdisciplinary learning experience.

Dr. Ch. Venkateshwarlu, Chief Scientist (former), IICT

Prof. Arnab Dutta, BITS Pilani Hyderabad Campus

Dr. Reddi Kamesh, Principal Scientist (CSIR-IICT)

Dr. Ravi Gujjula, Professor, Skill Development, ICFAI group

Mr. Serish Gandikota, Co-Director of the Frugal AI Hub, University of Cambridge

Prof. Kishalay Mitra, Professor, Indian Institute of Technology Hyderabad

VENUE: CHEMICAL ENGINEERING DEPARTMENT, COMPUTER LAB (K002)

PROGRAM SCHEDULE

Day 1 (5th Jan 2026)

Time	Program
9.30 – 10.00 AM	Inaugural
10.05– 10.15 AM	Tea break
10.20 – 12.15 PM	Session 1: Introduction to Artificial Intelligence & its Broad and Sub-fields by Dr. Ch. Venkateshwarlu, Chief Scientist (former), IICT, Hyderabad
Lunch break	
2:00 – 4:00 PM	Session 2: ANN Strategies for Modeling of Chemical & Related Processes by Dr. Ch. Venkateshwarlu, Chief Scientist (former), IICT, Hyderabad
4:05 - 4:30 PM	Expert interaction and query resolution

Day 2 (6th Jan 2026)

Time	Program
10.00– 11.30 AM	Session 3: "Applications of Machine Learning towards SDG attainment", by Prof. Arnab Dutta, Assistant Professor, Department of Chemical Engineering, BITS Pilani Hyderabad Campus
11.30 – 11.40 PM	Tea Break
11.45 – 12.15 PM	Expert interaction and query resolution
Lunch break	
2:00 – 4:00 PM	Session 4: "Role of Optimization in Smart and Sustainable Engineering", by Prof. Arnab Dutta, Assistant Professor, Department of Chemical Engineering, BITS Pilani Hyderabad Campus
4:05 - 4:30 PM	Expert interaction and query resolution

Day 3 (7th Jan 2026)

Time	Program
10.00– 11.30 AM	Session 5: "Engineering Sustainability with AI: Integrated Catalyst and Process Design for Efficient Hydrogen Production", by Reddi Kamesh. Principal Scientist (CSIR-IICT)
11.30 – 11.40 PM	Tea Break
11.45 – 12.15 PM	Expert interaction and query resolution
Lunch break	
2:00 – 4:00 PM	Session 6: "Physics-Informed AI/ML–Driven Design of Metal Hydrides and Composite Pressure Vessels for On-Board and Stationary Hydrogen Storage", by Reddi Kamesh. Principal Scientist (CSIR-IICT)
4:05 - 4:30 PM	Expert interaction and query resolution

Day 4 (8th Jan 2026)

Time	Program
10.00– 11.30 AM	Session 7: By Dr. Ravi Gujjula, Skill Development, ICFAI group
11.30 – 11.40 PM	Tea Break
11.45 – 12.15 PM	Expert interaction and query resolution
Lunch break	
2:00 – 4:00 PM	Session 8: By Mr. Serish Gandikota, Co-Director of the Frugal AI Hub, University of Cambridge
4:05 - 4:30 PM	Expert interaction and query resolution

Day 5 (9th Jan 2026)

Time	Program
10.00– 11.30 AM	Session 9: By Dr. Kishalay Mitra, Professor, Chemical Engg Dept, Indian Institute of Technology Hyderabad
11.30 – 11.40 PM	Tea Break
11.45 – 12.15 PM	Expert interaction and query resolution
Lunch break	
2:00 – 4:00 PM	Session 10: By Dr. Kishalay Mitra, Professor, Chemical Engg Dept, Indian Institute of Technology Hyderabad
4:05 – 4:30 PM	Expert interaction and query resolution
4:35 – 5:00 PM	Valedictory

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