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## Patron

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**Dr. P V Naga Prapurna, Associate Prof.**

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**Prof. Umakanta Chaudhury, Advisor – Innovation & Incubation**  
**Dr. N. L. N. Reddy, Advisor – Career Development Cell**

## Registration QR Code & Link

For Non-IChE members: Rs. 200/-  
For IChE members: Rs. 150/-

scan for payment



Register@:

<https://forms.gle/cEKToPdT9k22pSQw5>

## Address for Communication:

**Dr. P. V. Naga Prapurna**  
**Mobile No: +91 9885256057**  
**Email: nagaprapurna\_chem@cbit.ac.in.**



**CHAITANYA BHARATHI**  
**INSTITUTE OF TECHNOLOGY**

An Autonomous Institute | Affiliated to Osmania University  
Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in

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COMMITTED TO  
RESEARCH,  
INNOVATION AND  
EDUCATION

**45**  
years

*One Week*  
*National Level Faculty Development Program on*  
*Empowering Educators: AI tools for*  
*Engineering and Technology*  
*29 January 2024 - 02 February 2024*



Organized by  
**Department of**  
**Chemical Engineering**

In association with  
**Indian Institute of Chemical Engineers**  
**Students' Chapter, CBIT**  
**Hyderabad Regional Center**  
**(IChE-HRC)**



## About the College

CBIT is one of the premier Engineering Institutes in India, pioneer in Telangana State, which is at idyllic surroundings of Gandipet Lake, Hyderabad. The college offers 12 UG and 10 PG programs. It has been standing as a temple of knowledge for the past 45 years by producing more than 25,000 eminent and skillful graduate engineers, who are successful in their careers, serving all over the globe. The Institute has been accredited by NAAC – UGC with 'A++' Grade and various programs are accredited by NBA – AICTE. The institution is UGC autonomous since 2013-14. Stringent academic standards, industry compliant teaching methodology, research projects from private and public sector organizations and consultancy practice enabled the Institute to establish its identity in the Technical Education and is ranked as one of the best amongst the private engineering colleges.

## About the Department

Established in the year 1995, the department offers an undergraduate (UG) programme with an intake of 60 students today and has gained recognition and prominence as the most sought option for admission into UG - Chemical Engineering. The department has been accredited by NBA during the years 2004, 2008, 2012 and 2017, each time for a period of 3 years and was accorded extension upto year 2021 and is now in the process of renewal. The strength of the department is the highly qualified and diverse faculties, mostly from IITs and NITs rich experience in teaching and research in the core and allied fields. They work with dedication and passion in transforming the young students into skilled engineers by nurturing them to the needs of the present society. The department has six laboratories with the latest state-of-the-art equipment used for the teaching-learning and research, including process simulation lab. The department regularly organizes industrial visits, workshops, invited talks and seminars and equip the students with practical exposure and latest trends of the field. The students learn through internships, Ideathons and collaborative live projects and are enthusiastic in continuing their education or take up placements through offers in core and allied fields. The department's Alumni are well settled as Scientists, Process engineers, corporates or entrepreneurs.

### Department Vision

To become the most sought center of excellence engaged in training and shaping students as professionals for higher education and process industries both in India and abroad and allow the students to do R & D projects and publish same in the reputed journals.

### Department Mission

Imparting contemporary technical education and training manpower to create a skilled human resource talent pool to serve, manage the process industries globally with a sense of responsibility towards society and the environment.

## About the

The concept of AI Readiness and framework for training is a contextualized way of helping Educators to understand the difference between human and Artificial Intelligence (AI). AI tools are essential in today's digital world due to the multiple intricacies, sensitivities and variations between different sectors. This FDP is a comprehensive initiative designed to equip educators in the field of engineering and technology with the knowledge and skills required to integrate artificial intelligence (AI) tools into their teaching and research methodologies. This FDP focuses to empower the educators in Engineering and Technology and help them to be more able to leverage AI to meet their needs on the diversity of professions, workplaces and sectors. The FDP on the integration of AI in chemical engineering, than can optimize processes, develop predictive models, accelerate material design, and enable smart sensors and monitoring systems. The sessions shall be helpful to understand the significant contributions made in the design and evaluation of AI systems that can be used in real-world educational systems.

## Objectives

- Guide educators in integrating AI tools seamlessly with a focus on creating future-oriented learning experiences.
- Provide a know - how on AI tools and techniques in multi-disciplinary research applications.
- Learn about AI for optimizing chemical and process industries, improve efficiency, and reduce resource consumption, thereby enhancing sustainable practices.

## Outcomes

After completion of the FDP, participants will be able:

- Develop an understanding of the evolution, concepts, and basic methodologies in AI
- Get insights into Data analytics and machine learning in process industries for real time plant monitoring.
- Acquire knowledge on AI-driven educational resources contributing to the creation of interactive and engaging learning environment.
- Explore applications of AI tools for multi-disciplinary research.

## The FDP will broadly cover the following topics:

- Artificial Intelligence (AI) in Education and Skill Development
- Role of Machine Learning for a sustainable and healthier tomorrow
- AI to Deep Learning: Data Science in Multi-Disciplinary Domains
- AI tools for Research
- Data analytics and machine learning in process industries for real time plant monitoring
- Optimization with Artificial Neural Networks as ML modeling tool
- AI applications in process engineering
- Detection of anomalies using AI technology

## Who can participate?

Academicians, Research scholars, Industry personnel, UG/ PG students

## Resource Persons



Prof. Kishalay Mitra,  
IIT Hyderabad



Dr. Arnab Dutta,  
BITS-Hyderabad



Dr. Ravi Gujjula  
Chief General Manager -  
Technical, APSSDC



Dr. E.Harikishan Reddy,  
Data Scientist



Sai Hitesh Bhandaru,  
Data Scientist



Dr. K Ramana,  
CBIT Hyd



Dr. BVS Praveen,  
CBIT Hyd



Dr. R. Prasanna Rani  
CBIT Hyd