

**FOUR-WEEK ONLINE TRAINING  
PROGRAM ON**

**QUANTITATIVE PROCESS  
ANALYSIS: A MATLAB and ASPEN  
PLUS APPROACH**

**OCT 16<sup>th</sup> 2024 – NOV 16<sup>th</sup> 2024**

**REGISTRATION FORM**

Name: \_\_\_\_\_

College: \_\_\_\_\_

Year of Study: \_\_\_\_\_

Mobile No. \_\_\_\_\_

E-mail ID. \_\_\_\_\_

Amount Paid: Yes/No

Transaction ID Details: \_\_\_\_\_

Participants are requested to pay the fee of **Rs. 1000** through **QR** code using any online payment and register for the training program using the following link

<https://forms.gle/d8vu26zo1U5dhn6N6>



**CHIEF PATRON**

**Sri N. Subash**  
President, CBIT

**PATRON**

**Prof. C. V. Narasimhulu**  
Principal, CBIT

**CONVENER**

**Prof. M. Mukunda Vani**  
HoD, Chemical Engineering

**COORDINATORS**

**Dr. BVS Praveen, Asst. Professor**  
**Dr. R Prasanna Rani, Asst. Professor**

**ORGANIZING COMMITTEE**

**Dr. P V Naga Prapurna, Assoc. Professor**  
**Dr. M Mallaiah, Assoc. Professor**  
**Dr. NLN Reddy, Assoc. Professor**  
**Sri I Balakrishna, Asst. Professor**  
**Dr. P Madhuri, Asst. Professor**  
**Dr. K Prasad Babu, Asst. Professor**  
**Dr. B Ganesh, Asst. Professor**  
**Dr. Raj Kumar Verma, Asst. Professor**



**FOUR-WEEK ONLINE TRAINING  
PROGRAM ON**

**QUANTITATIVE PROCESS ANALYSIS:  
A MATLAB and ASPEN PLUS  
APPROACH**

**OCT 16<sup>th</sup> 2024 – NOV 16<sup>th</sup> 2024**



**Organized by**  
**Department of Chemical Engineering and**  
**Indian Institute of Chemical Engineers,**  
**Hyderabad Regional Centre**

**Chaitanya Bharathi Institute of Technology(A),**  
**Hyderabad 500075, Telangana**  
**www.cbit.ac.in**

## ABOUT CBIT

Established in 1979, Chaitanya Bharathi Institute of Technology (CBIT) is the premier engineering institute in Telangana and Andhra Pradesh. Founded by visionaries from diverse fields, including engineering, medical, legal, and management, CBIT aims to provide top-quality engineering and management education, addressing the nation's need for skilled engineers and management professionals.

Over four decades, CBIT has become a coveted destination for students aspiring to excel in engineering and management, educators seeking fulfilling careers, and corporations searching for well-rounded engineers. The institute's rigorous academic standards, industry-aligned teaching methods, research projects, and consultancy practices have solidified its identity in technical education, earning it the top rank among private engineering colleges in the Telugu-speaking states. CBIT's commitment to holistic education is evident through its diverse academic, practical, co-curricular, and extra-curricular programs, fostering multi-skilled personalities and future leaders. With state-of-the-art facilities, including labs, libraries, sports amenities, and a serene 50-acre campus, CBIT continues its relentless pursuit of academic excellence nationally and internationally, making it a leader and innovator in engineering higher education.

## ABOUT DEPARTMENT

Established in 1995, our institute's Department of Chemical Engineering has become a prestigious choice for aspiring chemical engineers. Initially enrolling 40 students, the program expanded to accommodate 60 students by 1997. Accredited by the NBA since 2004 and consistently reaccredited in 2008, 2012, and 2017, our graduates find diverse career paths, including MNC placements, teaching, research, and further studies in

India and abroad. Some even venture into entrepreneurship. The department ensures holistic development through co-curricular activities, seminars, industrial visits, and workshops. Collaborations with the Biotechnology, Chemistry, Mathematics, and Physics departments under the 'Centre of Life Sciences Research umbrella promote interdisciplinary research. Additionally, our energetic staff actively engage in institute-level initiatives, fostering a vibrant academic environment.

## ABOUT THE TRAINING PROGRAM

The training program on Quantitative Process Analysis using MATLAB and Aspen offers a comprehensive Beginners Quick Start Program, encompassing 80 hours of instruction that seamlessly integrates theoretical knowledge with practical applications. Participants dive into hands-on learning through interactive sessions tailored for chemical engineers, starting with Microsoft Excel. They master essential skills such as data management, what-if analysis, lookup functions, pivot tables, and material balances for both non-reactive and reactive systems. The program further covers algebraic equations, linear regression, and unit conversions, reinforcing these concepts through quizzes designed to enhance understanding.

Building on this foundation, the MATLAB segment introduces fundamental programming concepts, matrix calculations, and numerical methods, empowering students to tackle complex engineering challenges, including ordinary differential equations and batch reactor simulations. Participants learn to plot graphs, analyze frictional losses in pipe flows, and implement numerical methods like the Bisection and Newton-Raphson.

The Aspen module focuses on process flow sheeting, property estimation, and reactor design, emphasizing thermodynamic analyses and sensitivity studies. The program culminates in a significant project component, allowing participants to apply their skills to real-world scenarios using either MATLAB or Aspen simulations, ensuring a robust understanding of quantitative analysis in the chemical engineering field.

## RESOURCE PERSONS

### Mr Hari Babu

Assistant Manager, BITS-Pilani Hyderabad Campus

### Mrs D Srujana

Assistant Professor, Department of Chemical Engineering, RGUKT (IIIT Basara), Telangana

## TARGETED PARTICIPANTS

This course is for students/Faculty from any engineering branch.

## CERTIFICATION

**E-Certificate will be issued to those participants who attend all the program sessions and clear the online exam as per the norms.**

## CONTACT US

### Dr BVS Praveen, Asst. Professor

bvspraveen\_chem@cbit.ac.in, +91 9791074572

### Dr R Prasanna Rani, Asst. Professor

prasannarani\_chem@cbit.ac.in, +91 9618365277