

# **Registration Details**

Scan OR code for registration



Click on the link for registration https://forms.gle/yA6EA8cgpkBe9Lgy9

Registration entry is limited to a max of 30 seats

Registration Fee: Rs.500/-

Last Day for Registration: 25/6/2025

### **Online Transfer Details**

**Account Name: SJB Institute of Technology** 

Account No: 2890101004792

IFSC: CNRB0002890

Bank and Branch: Canara Bank, BGSHEC, Kengeri,

Bengaluru

**Contact:** 

Dr. Chandrashekar K : +91 9740432631 Dr. Supreeth H S G. : +91 9986207339 Mr. Gowtham K : +91 9844369153 Mr Dwarakanath S K. : +91 8050841306

### **Divine Blessings:**

His Divine Soul Jagadguru Sri Sri Sri

Dr. Balagangadaranatha Maha Swamiji

Founder President, Sri Adichunchanagiri Shikshana Trust (R)

#### **Chief Patron:**

His Holiness Jagadguru Sri Sri Sri

Dr. Nirmalanandanatha Maha Swamiji

Chief Pontiff, Sri Adichunchanagiri ShikshanaTrust (R)

#### Patron:

### Revered Sri Sri Dr. Prakashanatha Swamiji

Managing Director, BGS & SJB Group of Institutions & Hospitals, Bengaluru.

#### **General Chair:**

Dr. S. Vidvashankar

Vice-Chancellor, VTU, Belagavi.

#### **Chief Conveners:**

Dr. Puttaraiu

**Academic Director** BGS & SJB Group of Institutions

Dr. K. V. Mahendra Prashanth

Principal, SJBIT, Bengaluru

#### Conveners:

Dr. H R Vitala, Prof & Head, Dept of ME

Dr. Chandrappa D N, Prof & Head, Dept of ECE

Dr. Chandrashekar M J, Prof & Head, Dept of EEE

#### Co-Conveners:

Dr. Chandrashekar K, Asso. Prof, Dept. of ME

Dr. Supreeth H S G Asso. Professor, Dept. of ECE

Mr. Gowtham K, Asst. Prof, Dept. of ME

Mr. Dwarakanath S K, Asst. Prof, Dept. of EEE

#### **Coordinators**

Dr. Chethana R, Asst. Prof, Dept.of ECE

Mr. Shankara D R, Asst. Prof, Dept. of ME

Mr. Uday M, Asst. Prof, Dept. of ME

Mr. Thirumala S V, Asst. Prof, Dept. of ME

Mrs. Anushree R. Asst. Prof, Dept. of ECE

Mr. Vijay Kumar K, Asst. Prof, Dept. of EEE

















CENTRE OF EXCELLENCE FOR TRAINING AND RESEARCH IN AUTOMATION TECHNOLOGIES (CETRAT)

# FIVE DAYS **FACULTY DEVELOPMENT PROGRAM** ON

"INTEGRATED AUTOMATION TECHNOLOGIES- A PRACTICAL APPROACH"

30th Jun - 4th July 2025

# JOINTLY ORGANISED

DEPARTMENT OF MECHANICAL ENGG.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGG.







In Association with

















# **About SJBIT**

SJB Institute of Technology was started under the stewardship of Sri Adichunchanagiri Shikshana Trust® in the year 2001 and is located amidst peace and tranquillity, spread across 13 acres. SJBIT, being an autonomous institution under VTU, offers 8 UG programs and 3 PG programs which includes MBA and MCA as well. All the programs are approved by AICTE, New Delhi & Accredited by NBA & NAAC with 'A+' Grade.

SJBIT is committed to personal, social & intellectual growth emphasizing a comprehensive educational programme leading to high academic standards.

## **Institution Vision**

To become a recognized technical education center with global perspective.

## **Institution Mission**

To provide learning opportunities that fosters students' ethical values, intelligent development in science & technology and social responsibility so that they become sensible and contributing members of the society.

# **About CETRAT**

A state of art International standard Industrial Automation "CENTRE OF EXCELLENCE FOR TRAINING AND RESEARCH IN AUTOMATION TECHNOLOGIES" (CETRAT) has been established in association with Rexroth Bosch. Students are provided industrial standard state of art training, and internships both for in-house and external candidates.

The objective of the Centre of Excellence is to render the participants with various facets of automation technology and to develop their knowledge in hydraulic and pneumatic drives, PLC, drives and controls, and sensor technology. At SJBIT, the participants can directly work on state-of-the-art automation equipment's which are set up in association with Bosch-Rexroth. Various programs are offered at the centre which will be beneficial to Engineering, & Diploma students with the potential of employment opportunities.

# **About FDP**

This Faculty Development Program (FDP) is designed to focus on current advancements in Industrial automation. It enables a scientific discussion on the latest developments in Industrial Automation, it's up to date application in the mechanical and production industries, use of control systems such as computers, **PLCs** microcontrollers are used to operate machinery and processes. Nowadays, with the drastic changes in the industrial scenario and industrial competitiveness, excellence in manufacturing industries is being recognized as a major force and it has made robotics & automation an emerging field for industry and academics. The main objective of this FDP is to provide hands on training in automation and its primary application in manufacturing. This program will benefit participants from academics, R&D institutions, utility engineers and policy makers

# **Major Course Content**

- Construction and working of Hydraulic pumps
- Study of Hydraulic and Pneumatic valves
- Study of solenoid valves, limit switches. Pressure, flow control valve
- Circuits for the Use of different direction control valves and valve actuation in single And double acting cylinder, and multi actuation circuit.
- Speed control circuits. Different Metering methods Inlet & outlet flow control (meter-in & meter-out circuit)
- Pneumatic Sequencing circuit
- Hands on experience on Inductive, Capacitive, Magnetic, Ultrasonic Sensors & interfacing with PLC
- Programing concepts and applications of PLC.
- Relay Ladder Logic, network settings, central processing unit.
- Operations on timers & counters, user defined functional blocks.
- Addressing /declarations of variables
- Indra Drive hardware interface & overview
- Hardware based velocity control of servo motors using analog inputs
- Hardware based velocity control of servo motors using digital inputs
- PLC based absolute position control of servo motor using ladder programming

# Key Resource Persons & Hands on Training Sessions will be handled by Bosch Certified Trainers

Certification will be provided on successful participation of the FDP program