

SONA COLLEGE OF TECHNOLOGY

Learning is a Celebration !

| An Autonomous Institution |



Department of
**ELECTRICAL &
ELECTRONICS ENGG.**

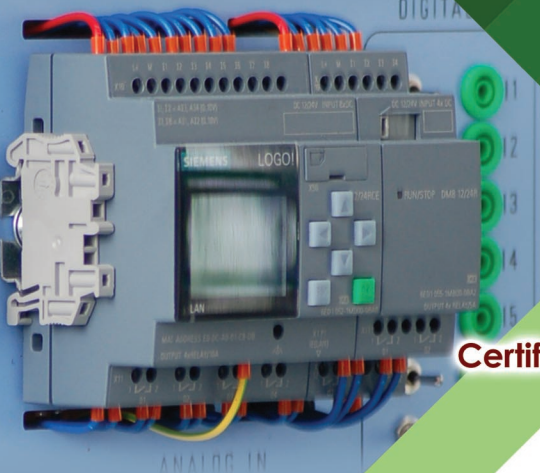
Job oriented one year Diploma programme
**DIPLOMA IN EMBEDDED CONTROL &
INDUSTRIAL AUTOMATION**

Certificate programmes

- Introduction to Embedded Systems & Internet of Things
- Industrial Automation

LOGO! - DIDACTIC PANEL

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ABOUT SONA

Sona College of Technology has achieved global identity through its involvement in research in recent technology and successful completion of projects and products. The college is known for its rich tradition and high values bestowed upon it by its Founder Chairman, Thiru. M.S. Chockalingam. The college is awarded with "AICTE-CII award for the best industry linked Technical institute in India for 5 years from 2014 to 2018" and acclaimed "A" grade by "NAAC" that standard testimony to the commitment of the college to impart the quality education.



Sona is proud recipient of "Eduprenerus Award" from MHRD, New Delhi, for Emerging Global Destination for Education. The College has been accorded recognition as a Scientific and Industrial Research Organisation (SIRO) by the Department of Scientific and Industrial Research Organisation, New Delhi. Sona College of Technology is equipped with world class infrastructure, highly qualified and experienced faculty members, and an active placement Training and Welfare Cell.

ABOUT DEPARTMENT



The Department of Electrical and Electronics Engineering was established in 1997 to produce young and quality electrical engineers who are industry-ready and skill-oriented to fulfill the desired requirements of industries. It offers U.G. programme (B.E. - Electrical and Electronics Engg.), two PG programmes (M.E. - Power System Engineering and M.E. - Power Electronics and Drives) and Doctoral Programme (Ph.D.).

Vision

To become a front-runner in bringing out globally competent electrical and electronics engineers, innovators, researchers, and entrepreneurs and thereby contribute value to the knowledge-based economy and society.

Mission

- To offer good quality Under-Graduate, Post-Graduate and Doctoral programmes in electrical and electronics engineering
- To provide state-of-the-art resources that contribute to achieve excellence in teaching-learning, research and development activities
- To bridge the gap between industry and academia by framing curricula and syllabi based on industrial and societal needs
- To provide suitable forums to enhance the creative talents of students and faculty members
- To enable students to develop skills to solve complex technological problems of current times and also provide a framework for promoting collaborative and multidisciplinary activities
- To inculcate moral and ethical values among the faculty and students

It has a highly qualified and experienced faculty team of 30 members, which includes 21 Doctorate degree holders and 7 members pursuing Ph.D. Also, it has four established R & D centres, which are working towards recent technologies to provide solutions for industry problems. The Department has received 5 years FULL Accreditation from National Board of Accreditation (NBA), New Delhi, for the duration of 2016 to 2021. The department has also bagged AICTE – CII award for the best industry linked institution.

An Overview of

ELECTRICAL AND ELECTRONICS ENGINEERING DIPLOMA PROGRAMME

- The Diploma programme in Embedded Control and Industrial Automation focuses on practical and skill oriented training.
- The programme covers embedded systems, IoT and Industrial automation which are the most sought out industrial skill sets.
- The specialty of the programme is that it enhances the employability in industries.

“The programme is essentially a judicious mix of theory and practical components to develop technology based knowledge, skills and attitude to develop as high level professionals and entrepreneurs”



MODULE 1

Introduction to Embedded systems and Internet of things

Embedded systems and Internet of Things is the back bone of the current trend of Industry 4.0. The certified module is tailored to equip the learners with a comprehensive knowledge, understanding and skills required to meet the demands of the current industrial automation needs.

Course Code	Title of the Course	Credits
DEE1	Introduction to Embedded System and Internet of Things	4
DEE2	Embedded IoT Platform Design Methodology	4
DEE3	Pillars of Embedded IoT and Physical Devices	4
DEE4	IoT Protocols and Cloud of Things	4
DEE5	Python Programming	4

MODULE 2

Industrial Automation

Automation is becoming an integral part of an industry. Industrial Automation is the second certified module of the diploma programme, which introduced Programmable Logic Controllers (PLC) and SCADA / HMI systems used for Industrial Automation.

Course Code	Title of the Course	Credits
DEE6	Introduction to PLC	4
DEE7	SCADA	4
DEE8	VFD	4
DEE9	Distributed Control System	4
DEE10	Industrial Robotics	4

Programme Details: In this course training will be given for programming various PLCs and hands on experience will be given with various brands of PLC wiring and operation.

Eligibility: SSLC or 10+2, DEEE, DECE, B.E (EEE), B.E (ECE), B.E (E&I)

Medium of Instruction: English

Duration: 12 months (Module 1: 6 months, Module 2: 6 Months, online/ distance learning).

Certificate Level: Module 1 or Module 2 Completion

Diploma level: Completion of both Modules 1 and 2.

FEES STRUCTURE for Module I & II

Rs 20,000
+ GST + Exam fees for Module I & II

PROGRAMME OBJECTIVES

After successful completion of the programme, the Diploma holders will be able to:

- Pursue a successful career in the industrial sector in concurrence with the standards of Industry 4.0.
- Develop efficient solutions to practical industrial problems by considering both technical and economical aspects.
- Engage in industrial problem solving with a constant learning and skill updating attitude.

PROGRAMME OUTCOMES

- Provide solid foundation in real time embedded systems integrated with IoT to develop industrial automation solutions.
- Understand, analyse, design and implement PLC, SCADA, Variable Frequency Drives and DCS in real time applications.
- Make the learners to compete with large skills for growing efficiently in their future.

CAREER OPPORTUNITIES

The onset of Industry 4.0 has opened a huge door of opportunities in the embedded control and automation stream of industrial sector. A diploma in Embedded control and Industrial Automation will boost your profile apart from equipping your practical experience and skillset in the field.

Automation solution provided PLC programmer are some of the possible career paths that the Diploma holder can choose.

Research & entrepreneurship in the field of automation have a rising a consistent demand for innovation and improvement.



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For further details visit: www.sonatech.ac.in

Limited Seats only!