



ICT PRESENTATION
ON
TRAININGS , INTERNSHIPS & PROJECT WORKS
BENGALURU

Date: 10 December 2021

By: Vinay Avanchi

Founder & Director
IndustriConnect Technologies Pvt. Ltd.



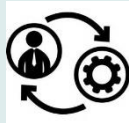
WHO WE ARE

Core Group of Industrial Automation professionals with Several decades of combined experience in India & abroad .



OUR STRENGTHS

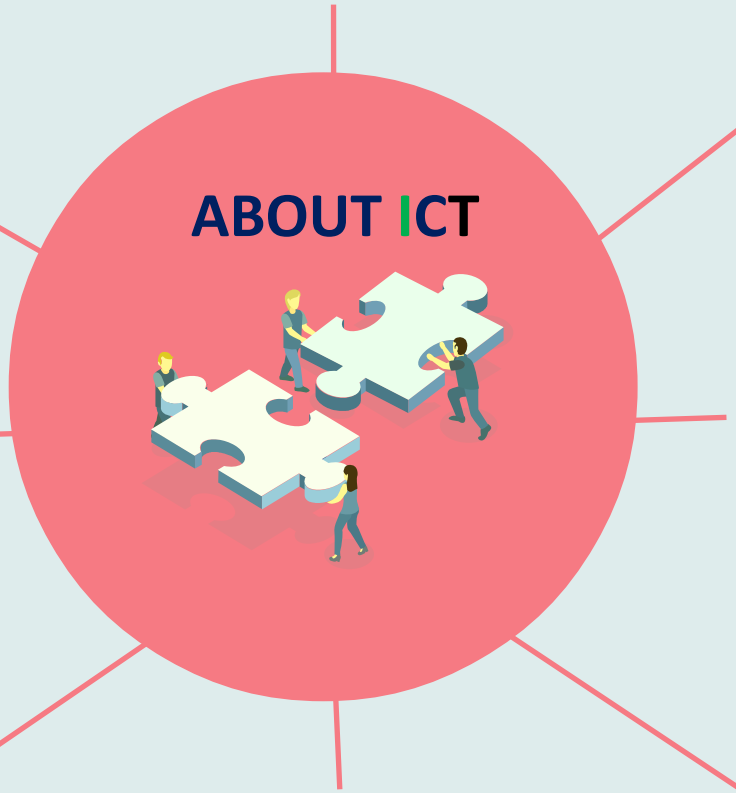
System Design, Detailed Eng'g, Completions, Commissioning Engineering in different industry verticals



OUR KEY RESOURCES

Shared Knowledge Base, Access to National & international Standards, IIoT training kit, HMI softwares

INDUSTRICONNECT TECHNOLOGIES
www.industri-connect.com



ABOUT ICT



OUR GLOBAL NETWORK

Industry, Academia, ISA (International Society of Automation) & IETE (Institution of Electronics & Telecommunication Engineers)



OUR PASSION

Continuous interaction with Academia & Industry to identify gaps



OUR MISSION

To Create a platform of passionate professionals & provide Training in Professional Engineering & Management of real life Industrial Automation projects

TO KNOW MORE
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Vinay Avanchi

Founder & Director,

IndustriConnect Technologies Pvt. Ltd.

(www.industri-connect.com)



Academic:

- B.E. (Electrical Engineering), M.E. (Systems & Control Engineering)

Past work experience

- STEEL AUTHORITY OF INDIA LIMITED, (FERTILIZER PLANT)
- MECON LIMITED (Ranchi, Hyderabad & Bangalore) (STEEL, CHEMICALS & GENERAL INDUSTRIES)
- SAMSUNG HEAVY INDUSTRIES, South Korea (FPSO/FLNG/DRILLSHIPS OF OIL MAJORS)
- KHAN Offshore, South Korea, for Daewoo shipyard projects (DRILLING VESSELS)
- ISSACENC, South Korea, for Samsung shipyard projects (SHELL FLNG)

Associations:

- Senior Member, International Society of Automation (ISA), ISA Bangalore section
- Fellow, Institution of Electronics & Telecommunication Engineers (IETE), Bangalore Centre



P.S.Krishna - profile

Academic:

- B.Tech Instrumentation), Madras Institute of Technology, Chennai, TN

Past Work Experience: (over 50+ years)

- **ICI INDIA PVT LTD –, Principals at ICI UK (total period 17 years)**

(in various divisions: Central Engineering dept, Explosives & Fertilizer involving Design, projects, Maintenance, Expansions, Training & Commissioning)

Head of Instrumentation of Fertilizer complex. ICI. Kanpur-[1981-1984], Head of Noise and Vibration Cell [1985]

- **ICI -FIBERS & SPECIALITY DIVISION-** [Head of Instrumentation Maintenance and Modernization Projects]

- **RELIANCE INDUSTRIES GROUP**[1993-October to April 2000[Retired]-Retained as consultant from April 2000 to March 2002] – **Head of Instrumentation and Modernization Projects** at **TFIL Reliance** acquired Fibers unit from ICI

- **OVERSEAS ASSIGNMENTS**

ICI UK at Billingham Fertilizer, ICI USA at their Speciality Chemicals, At Jamnagar Project office at Bechtel London

- **TRAINING IMPARTED FOR INSTRUMENT TEAM ENGINEERS & ENGINEERING STUDENTS**

Present Assignment:

IndustriConnect Technologies Pvt. Ltd., Bangalore: Principal Consultant-Automation

Association:

- **International Society of Automation (ISA) : Senior Life Member, ISA Bangalore Section**
- **MIE- Institution of Engineers[India]**





Sukumaran M - profile

Academic:

- B. Sc Engineering (Electrical Engineering), Regional Engineering College (NIT) Calicut, Kerala

Past Work Experience:

- Keltron Controls, Kerala: Engineer Trainee to Asst. Manager
- S.A. Kent, Saudi Arabia: Engineer - II
- P.T. Polysindo Eka Perkasa, Indonesia: Manager - Instrumentation
- Towler Automation, Bangalore: General Manager - Projects
- J. Ray Mc Dermott, Dubai: Instrumentation Engineer
- Valdel Engineers & Constructors, Bangalore: HOD - Instrumentation
- Pepperl & Fuchs (India) Pvt. Ltd, Bangalore: General Manager - Operations
- Petroleum Safety Products Industries Pvt. Ltd., Oragadam, Tamil Nadu
(presently, Pepperl & Fuchs Manufacturing India Pvt. Ltd): Director - Operations
- Control Infotech Pvt. Ltd, Bangalore: Chief Customer Officer

Present Assignment:

- IndustriConnect Technologies Pvt. Ltd., Bangalore: Principal Consultant - Automation

Association:

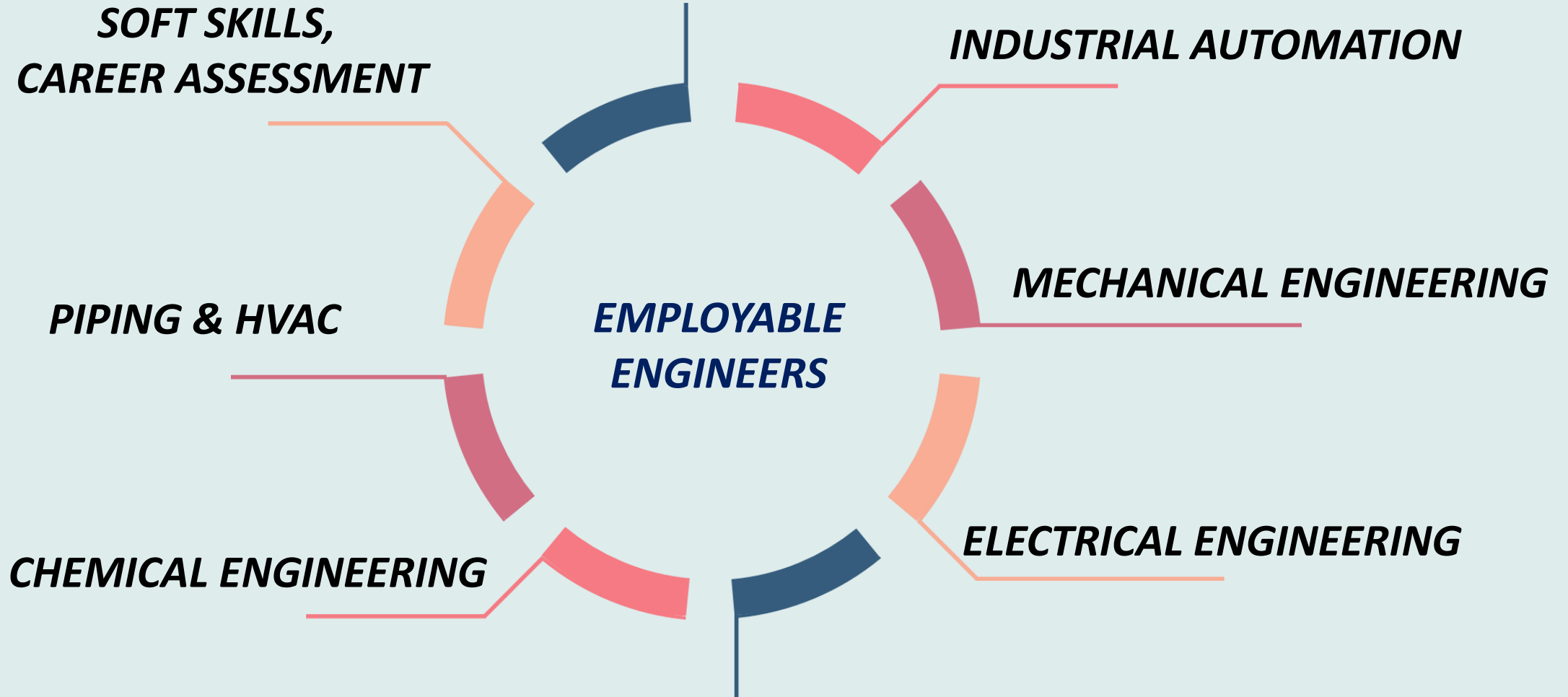
- International Society of Automation (ISA) : Senior Member
- ISA Bangalore Section : President (2014-'15)





ICT VISION

ENGINEERING COMPETENCY DEVELOPMENT FOR A GLOBAL CAREER





ICT PROGRAMS-HIGHLIGHTS

- **BASIC & ESSENTIAL CONCEPTS FOR EXECUTING INDUSTRIAL AUTOMATION PROJECTS**
 - **Designed for Engineering Students**
 - **Application Engineering Development**
 - **Typical Case Studies from Chemical, Oil & Gas, Refineries, Petrochemicals, Fertilizers, Steel, Power, General Industries, Utility Plants Etc**
 - **Based on practical knowledge & industry experience of our team**
 - **Recommended as pre-requisite for those intending to take up courses on hardware & software aspects of DCS/PLC/SCADA/Field Instrumentation equipment**
- **OUR SURVEY**
 - **Such training programs are rarely conducted in colleges**
 - **Few text books cover very little of these industrial requirements**
- **CREATE PRE-TRAINED AND EMPLOYABLE GRADUATING ENGINEERS**
 - **As the programs cover topics of direct relevance in core industries recruiting organizations can save considerable time in training fresh employees.**



HIGHLIGHTS OF 4 WEEKS ONLINE INTERNSHIP PROGRAM FOR B.E./B.TECH STUDENTS

- **Understand industry requirements, safety aspects, multi disciplinary environment in industries**
- **Get an overview of “Concept to Commissioning” requirements of Industrial Automation projects**
- **Prepare some of the major design and engineering deliverables using ISA standards**
- **Learn concepts of Industry 4.0, Digital transformation, IIoT, Smart factory and Smart city**
- **Get overview of reputed Design & Engineering, Project Completions softwares used in industry**
- **Explore roles available for employment in different types of core industries**
- **Enhance employment opportunities through our network**
- **Explore meeting AICTE internship requirements as per respective university / college guidelines**



4 Weeks Online Internship Program for B.E. / B.Tech Students

Batch size: Minimum : 8, Maximum 12 students, Monday to Friday, Daily 2 sessions each of 40 minutes

Week	Module	Module Description
1	1	Introduction of Internship program, students & faculty , Introduction to Industry & Industrial safety
	2	Introduction to Industry 4.0, Digital transformation, IIoT & Industrial Automation, Smart city / Smart factory
	3	Understanding 'Concept to Commissioning' of Industrial Automation EPC projects, Design & Engineering principles
	4	Major Design & Engineering deliverables-P&ID, System Architecture diagrams, I/O list, Specifications sheets etc
	5	Core Industry requirements, List of Major core industries & Employment Opportunities in India and abroad
2	6	Field instrumentation equipment-Flow, Level, Pressure, Temperature, Analyzers & Control valves, Instrument signals
	7	Applications & selection criteria for field instruments, ISA standards & selected manufacturer's products
3	8	DCS/PLC/SCADA systems – Introduction, Application with Case studies of projects executed by us
	9	Introduction to Field buses and OPC/UA
	10	Overview of Safety Instrumented System with Applications and case studies of projects executed by us
4	11	Calibration, Installation, Testing & Commissioning applications and case studies of projects executed by us
	12	Introduction to Completions Philosophy, Completions Softwares, Systems & Subsystems approach
	13	Introduction to IIoT software –Thingworx, applications with case studies
	14	Introduction to Engineering software-"Engineering Base" with applications and case studies



HIGHLIGHTS OF 4 WEEKS ONLINE PROJECT FOR B.E./B.TECH STUDENTS

- **Get an overview of “Concept to Commissioning” requirements of Industrial Automation projects and apply the same to the project work undertaken**
- **Prepare major design & engineering deliverables (P&ID, I/O list, Loop diagrams, Hook up diagrams and instrument Data sheets) using ISA standards required for the project work selected**
- **Prepare Control Philosophy / logic diagrams / flow charts**
- **Implement the control logic on Arduino Platform and interface with sensors & actuators**
- **Develop Widgets / Dashboards for viewing on mobile phone / PCs.**
- **Simulate and test the logic and widgets / dashboards on mobile phone / PCs**
- **Explore roles available for employment in different types of core industries**
- **Enhance employment opportunities through our network**



4 Weeks Online Project Work For B.E. / B.Tech Students

Batch size: Minimum : 6, Maximum 10 students, Monday to Friday, Daily 2 sessions each of 40 minutes

Week	Module	Module Description
1	1	Introduction of Scope of Project work and selection of Project , students & faculty
	2	Understanding Design & Engineering deliverables to be prepared-P&ID, I/O list, Specifications sheets, Logic diagrams etc
	3	Conceptualizing Project, preparation of Process narrative & Block diagram
2	4	Preparation of PFD, Understanding ISA standards, Preparation of P&ID & I/O list
	5	Preparation of Specification sheets of instruments, Loop diagram & Logic diagram/Flow charts
3	6	Preparation of Graphic screens for SCADA
	7	Logic implementation on Arduino / Raspberry Pi system
	8	Dash boards / Widget development for selected process parameters
4	9	Simulation and testing of logic / widgets developed on Arduino Platform
	10	Report writing and presentation
	11	Summing up, clarifications and issue of ICT certificate