



Engineering Staff College of India
Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachibowli, Hyderabad – 500 032.TS, India



MANAGEMENT & TECHNOLOGY DIVISION

Continuing Professional Development Programme on Instrumentation for Non Instrumentation Professionals 3 – 5 October 2018

("One must measure a process in order to control it.")



(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

INTRODUCTION

Instrumentation is the art and science of measurement and control of process variables within a production or manufacturing area, any business, or daily life.

Instrumentation & Control in Industries is now more than a century old. From Basic Thermometer & pressure gauge the Instrumentation systems have grown into a complex world of Sensors, Control systems, Communication Systems, Asset management Systems, Safety systems, to top level Management Information Systems.

Today's Intelligent Instrumentation Devices deliver a wide range of Data & Information on Wide area Networks.

Large Operations are carried out from the comforts of a distant Control Room Managed by Handful of Skilled Engineers, Operators & Technicians. Fault findings have improved with Strong Diagnostics in the state of the art Instrumentation Systems. **IOT & Industry 4.0 are revolutionizing the industries in how the data is to be processed, Analyzed & Presented.** These capabilities are significantly improving Productivity, Availability, Reliability & reduction in unplanned down time to negligible levels.

Instrumentation is the window through which operations are seen & decisions are taken. The Operating professionals face every day challenges in meeting the productivity demands with ever changing Instrumentation & Control Technology.

Modern Instrumentation systems are built from fundamental knowledge of Instrumentation. **The better the users of Instrumentation technology understand the systems, the better they are able to extract the benefit from the Modern Instrumentation systems.** It is essential for them to have basic knowledge on measurement & Control Systems so that they are able to use the Modern systems for tighter controls & improve productivity to sustain in today's competitive world.

Many Success stories are heard wherein small changes in Control philosophy have yielded savings of Millions. Similarly how Plant Instrumentation revamp with modern intelligent Instrumentation has reduced spurious trips to negligible levels.

This Programme is a journey from fundamentals of Instrumentation & control to the modern State of the art Intelligent Instrumentation & Control Systems.

OBJECTIVE

The objective of the programme is to discuss & refresh the Control & Instrumentation knowledge for Professionals **from Oil/gas/Refineries/Petrochemical/ Fertilizer & Power sectors**, who are from **other than Instrumentation discipline** but directly or indirectly using Measurement & Control Systems in their Professional life.

COURSE CONTENTS

- Introduction & concepts of Control & Instrumentation
- Measurement Techniques for Pressure, Flow, Level & Temperature in Industrial Environment
- Turbovisory Instrumentation for Rotating Machineries
- Automatic Control Systems, Types, Modes, Control Philosophies & their applications in Industry
- Final control Elements, Control Valves, Actuators, Accessories & their applications
- Fundamental Concepts of DCS & PLC, SCADA & their Applications
- IOT, Industry 4.0 & Modern DCS Configurations
- Concepts of modern Field instrumentation Systems i.e. HART, FIELDBUS, & Wireless.
- Advances & Modern Trends in Instrumentation & Control
- Case Studies / Problem Solving & Conclusion

METHODOLOGY

Methodology of the programme includes class room Sessions with Lecture/discussion with audio visual aid, benched marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive demanding active participation from all the members. CMI will be the main method of instruction. Social /management Visits will also be conducted to encourage participants learning from each other's experiences in an informal platform.

PROGRAMME ADVISOR AND RESOURCE PERSON:



Mr. S.K. Thakar
Training & Engineering Consultant
& Former GM Gujarat Narmada Valley Fertilizers Co. Ltd

FACULTY

Other faculty consists of experts from industries and other corporate world besides that from **ESCI**.

TARGET PARTICIPANTS

The Programme is designed for Experienced Professionals from OIL/GAS/PETRO/ FERTILIZERS/POWER /CEMENT/METAL & Allied Industries who **are from other than Instrumentation discipline but directly or indirectly connected with Measurement & Control Systems in their Professional life.** Project Personnel, Consultants, Fresh GET's & DET's / Foreman / Supervisors, Scientists working in Research Laboratories, Defence Professionals, Professors/Academicians from various NIT's, Universities and Engineering Colleges and any interested individuals will find the program Useful & befitting to their requirements.

BENEFIT TO THE PARTICIPANTS:

- Awareness on control & Instrumentation techniques & practices.

- The participants will be able to appreciate the intelligent as well as the state of the art Control & Instrumentation Systems & will be able to apply this knowledge to Control the Processes efficiently.
- Understanding of operating Control Philosophies will be helpful in Modifying Control Systems for tighter Controls.
- Improved Synergy in understanding Plant Issues on Day to day basis thereby improving productivity.
- Knowledge on Modern Instrumentation, DCS, PLC, IIOT & Industry 4.0 will be useful in setting visions, Decisions & Implementation of Revamping.
- Learning from success Stories in pioneering organizations through case studies and development on new perspectives to transform their own organization.
- Programme provides a unique platform to develop networking and sharing of experiences from fellow participants and faculties even after the completion of programme.

PROGRAMME VENUE, DATES & TIMINGS

Venue: Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachibowli, Hyderabad. 500032. TS, India.

Dates

3 – 5 October 2018.

Timings

On the first day Registration will commence at 0900 h, on all other days the programme timings will be from 0945-1715 h with breaks in between for tea and lunch.

Course Director



Gp Capt (Retd) BS Phillora, BE (ETC), AE (L), MMS (DS), M Phil, FIE Certified lead Auditor ISO 9001:2015
Dean of Studies ESCI & Sr. Faculty &
Head, Management & Technology Division and Design & Prototyping Centre, ESCI

Course Fee

₹ 15, 500/- (Residential Fee) per participant. Fee includes, course material, course kit, twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

DISCOUNTS

- ❖ Non-Residential Fee- 10% discount on course fee is allowed for non-residential participants.
- ❖ Group Discount: Additional 10% discount for three or more participants, if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI before the commencement of the programme.)

Goods and Service Tax @ 18% is to be paid extra over and above the training fee. PAN Card No AAATT3439Q; **GST No. 36AAATT3439Q1ZV.** (Under commercial training or coaching services).

Programme fee is to be paid in favour of "IE (I)-Engineering Staff College of India" in the form of demand draft payable at Hyderabad at par cheques payable at any Bank Branches.

Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - **SB A/c No.0432104000039631 with The IDBI Bank Ltd., Gachi Bowli Branch, Plot No: 2-53/2, JNIBF, IIIT Junction, Gachi Bowli, Hyderabad-500032 by RTG's/ NIFT / IFSC Code No: IBKL0000432. ESCI PAN No. is AAATT3439Q. While using EFT/ Draft method of payment, kindly forward a covering letter giving details on the names of the participants, Title and the programme schedule so that proper accounting can be done.**

Registration

Online registration shall be available on ESCI website. ([URL:www.escihyd.Org](http://www.escihyd.Org))

To register, manually please send your nominations giving details of name, designation, contact address, email address, mobiles no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

**Head, Management & Technology Division
Engineering Staff College of India
Old Bombay Road, Gachibowli, Hyderabad 500 032, TS India
Phone: 040 6630 4111 & 66304112/4105
Fax : 91309935227/040-66304103
Email : mt@escihyd.org**

Certification

A certificate of participation will be awarded to each participant on conclusion of the programme.

General Information

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation)
- Well-developed Information Centre and Internet facilities are available to the participants Programme Dates Venue & Timings

Nominating authorities are requested to kindly send the contact details of the participants while sending their nomination letter. This will help us in making necessary administrative arrangement for them.

For Registration Please Contact:

Mr. LV Rao
Programme Manager,
Land line 040 66304105
Mob: 0 9949145865