



ESCI

Engineering Staff College of India

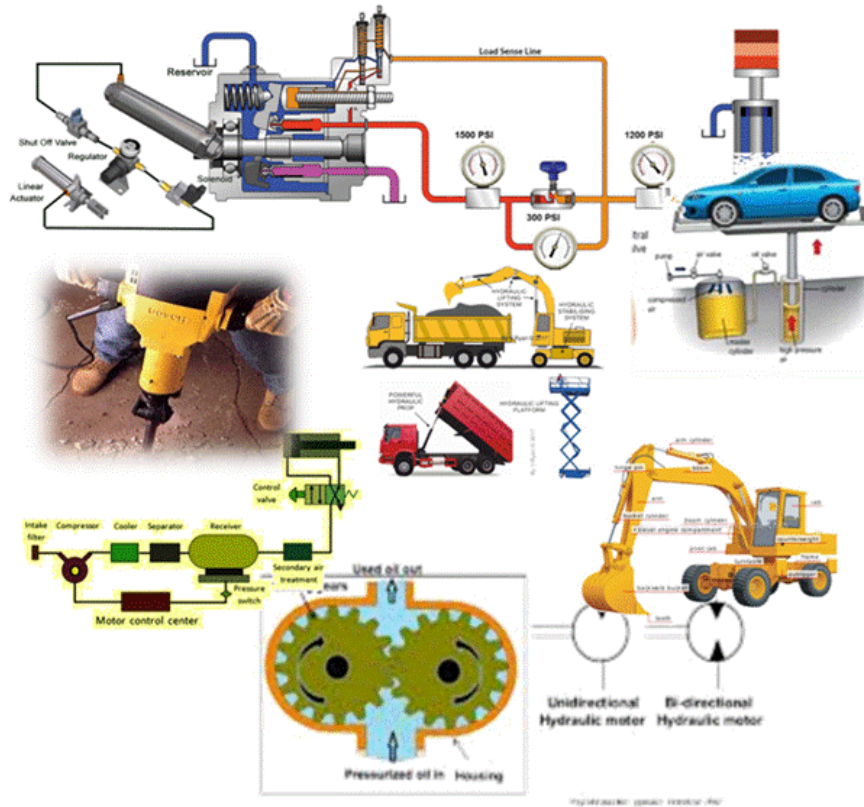
Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachibowli, Hyderabad – 500 032.TS, India

Management and Technology Division

Continuing Professional Development Programme on

Industrial Pneumatics & Hydraulics & its Controls & Systems

20-22 Jun 18



Centre for Promotion of Professional Excellence

INTRODUCTION:

Fluid power is a technology which deals with generation/control/transmission of forces & movements by use of compressed air or compressed oil. This technology is the source of prime mover in core sectors & other industries. This technology especially Pneumatics is also known as low cost automation.

In any manufacturing units, generally three sets of power transmissions are utilized, namely 1.Mechanical Power through shaft/gear / chain & belts etc., 2.Electrical transmission through wires/transformers and 3.Fluid power transmission through, Compressed air/pressurized liquid in a confined space.

This programme shall mostly highlight on Hydraulic & Pneumatic systems, right from concepts to various maintenance and operational issues, standards used, comparison of the Pneumatics and hydraulic system advantages & disadvantages of various types of power transmission and best practices in pneumatic & Hydraulic systems.

OBJECTIVES:

The main objectives of the programme are:

- To develop overall concept of Fluid Power Technology & its controls.
- To understand maintenance of common controls & accessories/develop knowledge on fault tracing & trouble shootings/understand ISO symbols & basic circuits/to enable read drawing /indenting procedures/a guide on energy savings concept.

COURSE COVERAGE:

General

- Basic Energy Concept and Optimization
- Fluid - Power - Definition and fluid Power Technology
- Basic difference between the Hydraulic and Pneumatics Systems
- Elements of Hydraulic and Pneumatics Systems

Pneumatic Systems

- a) System Block & Circuit Diagrams
- b) Symbols
- c) Properties of Pneumatic Fluids
- d) Standards, National & International
- e) Functional Pneumatics and Selection procedure for common controls systems
- f) Best practices in Pneumatic Systems

- System Maintenance Procedures
- (Special) Advanced in Control Systems

Hydraulic Systems

- a) System Block & Circuit Diagrams
- b) Symbols
- c) Properties of Hydraulic Fluids
- d) Standards, National & International
- e) Functional Hydraulic and Selection procedure for common controls systems
- f) Best practices in Hydraulic Systems
- g) Same for col-d ,COVERAGE SHOULD BE
- h) ON ISO ONLY.

Industrial Field Visit to give demo on the Best practices in Hydraulic & Pneumatic System and concept.

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.

COURSE ADVISOR & RESOURCE PERSON:



Mr. Ashis Kumar Dey BME (Hons)

Over twenty five years of rich experience in Pneumatics & Hydraulics disciplines and systems in the areas of product support/service & customer's training including multinationals like L&T /Schrader Scovill, world Trade Group & Tractors India etc. For last ten years he has been an approved visiting Faculty at various organisations like NTPC.

In addition the faculty consists of experts from industry, research establishments and academia besides that from ESCI.

TARGET PARTICIPANTS:

Engineers and Professionals from Manufacturing Industry, Fertilizers, Power Sector, Refineries, Petrochemicals, Agricultural Equipment, Medical Equipment, Lifts, Jacks, Jigs & Fixtures manufactures, Hydro powers, Irrigation Department, cement Industries, Scientists working in Research Laboratories, Controls & Instruments/Operations & Maintenance team /fresh GET's & DET's /Foremen /Supervisors etc. Professors of various NIT's, Universities and Engineering colleges will find the programme useful. FRESH GET's & DET's can be well groomed from this module.

BENEFIT TO THE PARTICIPANTS:

- To develop a clear view on systems & functions of fluid power controls & systems ,
- Can easily track fault finding & trouble shootings.
- To read hydraulic & pneumatic drawing/enable to prepare indents from circuits & drawings.
- Can draw & understand basic circuits.
- Understand importance of energy savings & can implement the same in their field.

PROGRAMME VENUE, DATES & TIMINGS

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

Dates

20-22 Jun 18

Timings

On the first day Registration will commence at 0900 h. On all other days the programme timings will be from 09.45-17.15 Hrs 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, Management & Technology and Design & prototyping Centre, Division, ESCI

COURSE FEE

₹ 16,000/- (**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., Gachibowli Branch, Plot No. 2-53/2, JNIBF, IIIT Junction, Gachibowli, 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)) Please Click Link: <http://www.escihyd.org/index.php/mt-upcoming-trainings>

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: Direct 040 6630 4111& 6630 4112 &, 6630 4105
Fax : 040-66304103 & 914030995227
Email: mt@escihyd.org,

For Registration Please Contact:

Mr. LV Rao
Manager (Programmes)
Land line : 040 66304105
Mob: 0 9949145865

CERTIFICATION

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

GENERAL INSTRUCTIONS:

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of outstation participants, ESCI will facilitate pick-up and drop from Airport / Railway Stations / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participant directly to the Cab.
- 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.

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.