Manufacturing Technology Training
An IMTMA initiative

Design, Integration, Maintenance & Troubleshooting of Hydraulic Systems
Date : 13 to 17 December, 2021
Time : 0940 Hrs to 1300 Hrs (Online Mode)

INTRODUCTION

Hydraulics is one of the popular technology applied in many machinery and equipment as it has significant advantages over other technologies as a prime mover. Since it is involved with many elements for collective output, it is mandatory to know in depth about industrial Hydraulics for design, assembly and maintenance engineers. This will help to minimize or eliminate the down time of a machine or an equipment related to Hydraulic system and ensure smooth functioning for uninterrupted production. This programme will focus in depth understanding of Elements of Hydraulic elements, Hydraulics circuits, Preventive Maintenance and Safe Trouble-shooting practices.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing an online 5 day programme on **"Design, Integration, Maintenance and Trouble Shooting of Hydraulic Systems"**.

FOCUS AREAS

- Basics of hydraulics
- Know in depth all hydraulic elements
- Function of critical hydraulic components - Pumps, DC Valves, Cylinders, Motors and Reservoirs
- Hydraulic symbols and circuit diagrams
- Hydraulic circuits using elements - DC valves, Check valves, Pressure control and Flow control valves
- Design of a Hydraulic power pack for an SPM – case studies
- Energy saving measures in Hydraulic power packs
- Maintenance and Troubleshooting of Hydraulic circuits; Safety procedures and practices; Case studies
- **Live demo on Hydraulic trainer kit**
- **Live demo on Dismantling and re assembly of Hydraulic elements.**

KEY TAKE AWAYS

After undergoing the programme, the participants will be able to:

- Understand Hydraulic elements & Pneumatic elements
- Understand to read the hydraulic and pneumatic circuit
- Adopt preventive maintenance procedure for Hydraulic systems
- Troubleshoot Hydraulic circuits in systematic manner
- Analyze probable failures related to critical hydraulic elements
- Demo of assembly and disassembly of power pack

FEE PER PARTICIPANT (PER LOGIN)

Rs. 10000/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 400/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 15% for 6 and more delegates being nominated from the same company

FACULTY

This program shall be conducted by **Mr. N Swaminathan** and **Mr. Balkrishna Deshpande.**

Mr. N Swaminathan is a Mechanical engineer with over 40 years of professional experience. He joined BFW Ltd as R&D engineer and was involved in developing a vertical machining centre. He co-founded Leonardo Automation in 1986 as Technical Director looking after deisgn to customer service. He was involved in design of Hydraulic powerpacks, expanded to Electro- hydraulic systems with CE marking, developed special test rigs, Actuators, lab systems and jack oil systems. The powerpacks built by him have the capacity to handle a maximum pressure of 2500 kg /cm2 and a flow of 1200 lpm. He has served customers like GE (Austria) / Nuclear power corporation / Siemens / ARAI.

Mr. Deshpande is a Domain expert with more than 38 years of hands-on experience in machine controls design, assembly, & commissioning. He is an expert in hydraulics, pneumatics, bearings lubrication & mechatronics (focus on factory automation). He has vast experience in circuit building, system designing, commissioning & fault finding. He has delivered extensive hands-on training in hydraulics and pneumatics to more than 2000 industry professionals across India. He represented India as Mechatronics trainer & expert of Mechatronics World Skills international Competition 2013 & Jury for Russian hi-tech World Skill competition 2014.

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.