

## INTRODUCTION

In depth understanding about Hydraulics & Pneumatics systems is mandatory for assembly and maintenance engineers. This will help minimize / eliminate the down time of a machine or an equipment related to Hydraulic and Pneumatic system to ensure the smooth functioning and uninterrupted production. This programme will focus in depth understanding of Elements of Hydraulics circuits, Preventive Maintenance Procedures and Safe Trouble Shooting Practices.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing an online 3 day programme on Maintenance and Trouble Shooting of Hydraulic and Pneumatic Systems.

## FOCUS AREAS

- Function of hydraulic components - Pumps, DC Valves, Cylinders, Motors and Reservoirs
- Symbols and circuit diagrams
- Hydraulic circuits using elements - DC valves, Check valves, Pressure control and Flow control valves
- Hydraulic technology in Machine Tools – case studies
- Energy saving measures in Hydraulic power packs
- Maintenance and Trouble shooting of Hydraulic circuits; Safety procedures and practices; Case studies
- Live demo exercises 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
- Do assembly and disassembly of power pack

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 5000/-**  
+18% GST

**IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others**

## FACULTY

**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 design 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 /cm<sup>2</sup> and a flow of 1200 Litres per min. He has served customers like GE (Austria) / Nuclear power corporation / Siemens / ARAI.

**M. Maheswaran**, Senior Executive Officer, IMTMA with over 12 years of experience in Technical Training and has acquired expertise in CNC manufacturing & automation, precision manufacturing of components. He has experience in conducting training programs. Prior to working at IMTMA, he has worked at NTT.

### For Registration Contact

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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.