

Design and development of Hydraulic Systems for Industrial **Machineries Applications - A Practical Approach** 

Date: 10 to 12 March, 2025

Venue: IMTMA Technology Centre, Bengaluru

#### Last date for registration 03 March 2025

#### INTRODUCTION

The course is structured with introduction to basics of Hydraulics system to complete design. Design of Hydraulics is key to effective utilization of any Mechanical Application. Hydraulics design if not implemented correctly results in poor performance & quality problems during running. Conceptualization w.r.t the actual requirement in terms of force, speed and safety is very essential during design. Selection of hydraulic elements, sizing of elements, calculations for optimization, design of entire system is very vital in any mechanical industry. Assembly of hydraulic elements, hydraulic plumbing, machine interface and troubleshooting is key requirement. The entire course is designed to address all the above and convert engineer as hydraulic engineer. During the course a complete hydraulic system design will be carried out from concept to final design with hands on.

Keeping this in view, Indian Machine Tool Manufacturers' Association is organizing a training program on Design and development of Hydraulic Systems for Industrial Machineries Applications - A Practical Approach".

#### **FOCUS AREAS**

- · Basics of Hydraulics.
- Introduction of Hydraulics elements
- Introduction to Fluids, Pumps, Direction, Flow, Pressure Control Valves and Symbols
- Introduction Hydraulic Actuators, Reservoirs, Hoses, Pipings, Fittings, Modular Valves, Manifolds, Electrical Devices, Proportional Valve and Servo
- Study of customer requirement for Hydraulic power pack
- Design exercise for Hydraulic power pack
- Hands on training using one of the popular cad tool
- Design Input-> Design Calculations-> Selection Of Hydraulic Elements- > Circuit Diagram-> BOM-> Detail Design in 2D Or 3D On
- Implementation of project on training kit
- Assembly, Maintenance and Trouble Shooting

#### **KEY TAKE AWAYS**

- Comprehensive design knowledge on Hydraulics System
- Knowledge on design of simple to complex power pack
- Hands on assembly, testing, trouble shooting
- Knowledge in systematic approach on Hydraulic design

#### **PARTICIPATION FEE**

Rs. 13750/-

+18% GST

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

**USD 550/-Overseas Participants** 

Group Concession: 10% for 3 to 5 and 20% for 6 and more delegates being nominated from the same company

## PARTICIPANT PROFILE

- This programme will benefit practicing Design Engineers from industry of all segment.
- Entry level or <5 years' experience in Diploma and Graduate engineers from industry.</li>

# **FACULTY**

This program will be conducted by Mr. Ganapathy Bhatta A S,

Mr. Ganapathy Bhatta, is a Mechanical Engineer and an employability expert having 38 plus years of experience as an enabler and a passionate technical trainer in imparting and organizing technical training for newly recruited technical personnel and experienced Industrial employees and instrumental for many of them to become senior executives and entrepreneurs in India and abroad. Has worked in M/s. LMW, GKDITR in Coimbatore, NTTF, Bangalore, M/s. Maruti Suzuki, Gurgaon, M/s. Triveni Turbines Bangalore.

During his tenure, he has trained more than 10000 full-term technicians and Engineers and helped them to successfully establish their careers. Today, his trainees/students are working globally in multinational companies and many of them have become successful entrepreneurs and carrying out successful businesses in India.

## For Registration Contact

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**Back End Operations** 

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## Contact Address

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