

INTRODUCTION

Hydroforming processes have become popular in recent years, due to the increasing demands for lightweight parts in various fields, such as bicycle, automotive, aircraft, and aerospace industries. Tube Hydroforming is being used for a variety of applications cutting across sectors, for realizing complex tubular shapes/sections which may not be economically and elegantly possible through conventional technologies. It offers the possibility of reduction of welded joints and also light-weighting potential owing to the inherent benefits of using box sections for structural members. Sheet Hydroforming can produce intricate features which are not possible through the stamping route. Superplastic Forming has interesting applications in the automotive and aerospace sectors. Hence there are extensive possibilities for component development using these techniques.

This course provides an overall exposure to the technology of Industrial Automation and Controls as widely seen in factories of all types both for discrete and continuous manufacturing. The course also discusses a wide range of Industrial Automation topics like the architecture of automation systems, measurement systems including sensors and signal conditioning, discrete and continuous variable control systems, pneumatic and electric actuators, and industrial communication. Also, this program will give an overview to handle an industrial automation project through virtual practice.

FOCUS AREAS

- Basics of Tube Hydroforming & Water Bulging
- Equipment & Tools for Tube Hydroforming
- Applications of Tube Hydroforming
- DFM rules and Simulation for Tube / Sheet Hydroforming
- Fluid Cell Presses & Sheet Hydroforming
- Rubber - Hydroforming
- Hot Gas Forming - Superplastic Forming
- Case Studies

KEY TAKE AWAYS

- Merits and Challenges
- Typical Application Areas
- Process and Equipment familiarity
- Software Simulation Possibilities
- Development and manufacturing options in India

FEE PER PARTICIPANT (PER LOGIN)

Rs. 3000/-
+18% GST

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

USD 120/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

*This program will be delivered by Experts from **Electropneumatics & Mr.Avinash Khare.***

Mr. Avinash Khare, Consultant, IMTMA

Presently working as a Consultant Head for IMTMA Pune Technology Centre for the last 5 years; he has been designing, developing content, and delivering a wide range of Training Courses as a Faculty. He is Electrical Engineer by Qualification and he has worked for over 33 years at Tata Motors Pune in various capacities ranging from R&D in Industrial Electronics, Machine Maintenance, Technology Procurement, Head of Machine Shops, Tool Room Shop Head, Head of Die Design and Champion in Business Excellence. He has taught Instrumentation and Bio-Medical Instrumentation at Pune University as part-time faculty.

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