Manufacturing Technology Training
An IMTMA initiative

Assembly, Welding & Inspection Fixtures - Design and Manufacturing
Date : 8 to 9 January, 2026
Venue : IMTMA Technology Centre, Pune

INTRODUCTION

Fixtures are used in almost all the segments of the engineering industry and are considered to be critical for achieving optimum quality and productivity of various products. Any shortcomings in the design and manufacture of these fixtures have a direct negative impact on the assemblies manufactured.

A well designed and manufactured fixture is the result of a systematic approach which takes into consideration the respective processes and the various design and manufacturing challenges.

Keeping this in view, Indian Machine Tool Manufacturers' Association is organizing a training programme on **"Assembly, Welding & Inspection Fixtures - Design and Manufacturing".**

FOCUS AREAS

- Introduction to Process Engineering for a BIW assembly
- Basic Design Process of the Assembly, Welding and Inspection Fixtures
- Solutions to common challenges faced in designing the fixtures
- Solutions to common challenges faced in manufacturing the fixtures
- Solutions to common challenges faced in using the fixtures
- Modular concepts to minimise costs
- Use of standard elements
- Inspection of the fixtures
- Exercise in designing a welding fixture for a simple assembly
- Proving & maintenance of the fixtures
- Case study of a welding fixture for a component of medium complexity: Design - Manufacture - Production

KEY TAKE AWAYS

At the end of the program, the participants shall be able to:

- Correct Joineries and their importance
- Right Process Definition
- Control Points Definition
- Inputs needed for fixture Design
- Importance of fixtures to attain the desired BIW quality
- Fundamentals of fixture design
- Decision on type of tooling based on:
    - Economics of tooling development
    - Socio-economic impact on fixture design
    - Safety considerations
- Maintenance of fixtures
- Acceptance and Buyoff of tools

PARTICIPATION FEE

Rs. 4999/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 200/-
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 Managers, Engineers and Middle Management personnel involved in the functions of Design, Manufacturing and use of fixtures in Automotive, Aerospace, Defence, Railway and General Manufacturing industries. However major focus in the programme will be sheet metal fixtures for automotive body.

As this is an advanced level workshop, it is desirable that the participants have an industry experience of at least five years.

FACULTY

The programme will be conducted by **Mr. Avinash Khare.**

Mr. Avinash Khare, is presently working as a Consultant Head for IMTMA Pune Technology Centre for last 5 years ; he has been designing, developing content and delivering 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.

For Registration Contact

Santosh Singh
Programme Coordinator
9021442692
santosh@imtma.in
Back End Operations
9742626488
enquiry@imtmablr.com

Contact Address

INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION
12/5, D-1 Block, MIDC, Chinchwad,
Pune-411019
Board Line : +91 7066030531 / 532

imtmatrainning.67038796@hdfcbank

REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.