



## INTRODUCTION

With ever shrinking time available for developing new products and bringing them to global markets, manufacturing enterprises have been forced to continuously adopt new methods to survive. One approach is to use Design for Manufacturing/Assembly (DFM/DFA) methods where products are systematically designed and evaluated to minimize set-ups during production operations, component counts and overall product complexity. DFMA will help designers to build quality into robust design at least cost. In addition to achieving quicker product development and reducing cost of product development, DFMA also ensures that the transition from the design phase to the production phase is as smooth and rapid as possible.

Keeping this in view, IMTMA is organising an online training on Design for Manufacturing and Assembly. This training will enable organizations to develop products reducing manufacturing and assembly costs, improving quality and speeding time to market.

## FOCUS AREAS

- Objectives and Principles of DFM & A
- Understanding of product design process
- Guidelines Design for ease of assembly, per Boothroyd / Dewhurst principles
- Theoretical part count efficiency.
- Guidelines for Design efficiency calculations, per Boothroyd / Dewhurst principles
- Guidelines for Design of Casting and Forging, parting line selection, draft, mismatch and other allowances that would help easy manufacturing
- Guidelines for Design for Manufacturing (DFM): Castings / Forgings / Sheet metal, plastic and machined parts
- Overview on Techniques to improve Assembly cycle time, Poka-Yoke (mistake-proofing)

## KEY TAKE AWAYS

- Understand various stages in product design process
- Learn Design based on Boothroyd / Dewhurst principles
- Understanding various mistake proof techniques, Poka-Yoke
- Reduction of part count
- Learn design efficiency calculations
- Able to apply DFMA principles in design and development

## FEE PER PARTICIPANT (PER LOGIN)

**Rs. 12500/-**

+18% GST

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

**USD 500/-**

**Overseas Participants**

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

## FACULTY

This Program will be conducted by **Mr Manoharan, Mr. Ganapathi K N, Mr. Ramesh Srinivasa Rao & Mr. Avinash Khare**

**Mr. Manoharan**, has over 39 years of experience in the areas of Design, Development, Project Engineering / Management, and Marketing in diversified industries. His expertise spans multiple domains like Pollution Control, Cement Plants, Power, Oil & Gas, Gas Turbines, and Industrial Automation. His strength is in providing global engineering support on design and development of Mechanical Engineering Projects. Had been actively provided engineering support to prestigious Customers like GE, Rolls-Royce, Siemens, Procter & Gamble, Halliburton and Baker Hughes.

He is a graduated in Mechanical Engineering and secured PG Diploma in Ecology and Environment and PG Management from IIM, Calcutta

**Mr. Ganapathi K N**, is presently working as Advisor at IMTMA, having 16 years of industrial and 16 years of academic and training experience. He is a mechanical engineer with post graduate in metal casting science and engineering. Prior to IMTMA, Ganapathi has worked at various capacity in manufacturing companies. He has thorough knowledge of Materials, Metallurgy, Metal casting and heat treatment processes. He has carried out many specialised programmes on metal casting technologies, Metallurgy and heat treatment for industries. He has also taught these topics to post graduate engineering students. At IMTMA his role is to develop and introduce new programmes for enhancing competitiveness of Industries.

**Mr. Ramesh Srinivasa Rao** is an experienced mechanical design engineer professional with 35+ years of work experience in the field of plastics, plastics testing, precision components, and product design. He has been responsible for mechanical design services across the Automotive, Medical, Industrial, process and consumer electronics verticals. He built, trained, and managed teams of 250 + engineers in Plastics, Injection Molds, Dies, and Die Casting Die, New Product Design, Industrial Design, Packaging, Testing, and Reliability. Currently holds seven US patents, two on medical products and four on interconnects. Handled complex projects and managed engineering operations worldwide. Previously worked for L&T Technology Services, Molex, Flextronics, National, etc.

**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

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