

## INTRODUCTION

Programme is intended to develop advanced design skills which plays an important role in optimization and machine control. Also the programme enhances the scientific approach for making the design most optimized and error free design of any product. Cost of manufacturing and product reliability would be one of the key objectives at the design level which need to be addressed appropriately by all the design engineers. Quantitative design approach helps to address the right material, geometry, kinematics for simplified design. Systematic design approach reduces the design lead time, product cost, Design for manufacture, assembly, cost, quality and reliability.

In view of this, IMTMA is organizing 5 days comprehensive programme on **“Essential Skills for Machine Design Engineers - Level 3”** for all the design engineers. The programme will be held at IMTMA Design Institute, Technology centre, Bengaluru.

## FOCUS AREAS

- Design For Manufacturability and Assembly
- Tolerance Stack up Analysis
- Analytical analysis of rotating parts for stiffness, inertia, and life
- Finite Element Method for Optimization – Stress, Thermal, Static and Dynamic
- Electronics in Machineries – PLC, VFD, CNC, HMI, SENSORS,

## KEY TAKE AWAYS

- DFMA
- Tolerance stack-up analysis for optimization
- Develops full confidence to lead the team of machine design.
- Reduction and optimization of design lead time
- How to make cost effective product design.
- Knowledge on control systems what, why and how?

## PARTICIPATION FEE

**Rs. 15000/-**

+18% GST

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

**USD 600/-**

**Overseas Participants**

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

## FACULTY

### Mr. Ramesh Srinivas Rao

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. Ravi Shankar Nadig,

He holds a Bachelor's Degree in Mechanical Engineering, is a Manufacturing and Dimensional Management Professional with 27 years of experience in Machine tool, Automotive and Aerospace industries, He has worked as a Scientist in Central Manufacturing Technology Institute (CMTI), Bangalore (9 years) and as a Consultant in Tata Consultancy Services (TCS) for 15 years. His core competency is in Design and Manufacture of precision machine elements for Defence and Space applications, Manufacturing Engineering support for Fabrication of sheet metal parts of Aero Engine assemblies, Dimensional Management -Tolerance Stack Analysis of Automotive and Aero engines, GD&T practice and training, and Rapid Prototyping. He is a Senior GD&T professional certified by ASME (Y14.5-2009).

### Mr. P. Aruna Kumar

Mr. Arunakumar is a Postgraduate Mechanical Engineer with a Machine tool specialization. He comes with over 36 years of domain expertise in Machine tool design, Assembly, Inspection, Testing and Motor and pump selection.

He is a former DGM, Designs and development, HMT Machine tool division, Bangalore. He has a rich experience in Gear design, Gear cutting machine design, Gear metrology and also in Motor and pump selection. He has also worked in the field of assembly and testing machine tools.

### Dr. V Bharat

**Mr. Dr V Bharat** is a Mechanical engineer, with a post-graduation in CAD-CAM and has completed his PhD with a specialization in Powder metallurgy. He is currently working as Associate professor, with Global Academy of Technology, Bangalore. He has an overall academic experience of over 16 years. He has published several papers and conducted a number of workshops on Mechanical engineering related topics.

### Ms. K. LAKSHMI KUMARI

Ms K Lakshmi Kumari has done her BE in electronics and communication and worked in HMT Machine Tools Limited, Bangalore for 36 years, in various levels from Engineer Trainee to DGM (D & D). She has involved in Design & Development of various SPMs, Conventional machines, CNC Turning machines, CNC Grinding machines, Horizontal and Vertical Machining centers, Flow Forming Lathe etc. Also experienced in Reconditioning-Upgradation of Conventional Machines to CNC Machines. She has trained many New Engineers, Graduate Apprentice Trainees and Customers on Relay Logic design, Introduction to CNC system and drives and PLC programming.

## For Registration Contact

**B.L Patil**  
**Programme Coordinator**  
+91 7899799296  
[blpatil@imtma.in](mailto:blpatil@imtma.in)  
**Back End Operations**  
9742626488  
[enquiry@imtmablr.com](mailto:enquiry@imtmablr.com)

## Contact Address

**INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION**  
@ BIEC, 10th Mile, Tumkur Road, Madavara Post,  
Bangalore - 562 123  
Tel : 080-66246600  
Fax : 080-6624-6658



imtmatraining.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.