Manufacturing Technology Training
An IMTMA initiative

Mechatronics - Fundamentals and Core Concepts
Date : 6 to 10 December, 2021
Time : 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

Mechatronics is an interdisciplinary branch of engineering that focuses on mechanical, electrical, and electronics engineering and also includes a combination of robotics, computer, and telecommunications systems. As we are aware any and every product these days is built with this interdisciplinary engineering science and built more intelligence to perform their output without or with minimum intervention of humans.
This interdisciplinary concept brings up the importance of mechatronics, to prepare the engineers for these jobs, where they need to deal with mechanical, electrical, electronics and computers in product development of every domain.
Mechatronics is a step beyond mechanization, which makes use of high control capability devices used largely for efficient manufacturing or production processes. In order to understand the development, integration, and functioning of such systems, an engineer needs to have focussed skills in working with mechanical & electrical systems, programming industrial controllers, working with sensors, actuators, and industrial communication systems.
Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organizing a 5-day training programme on “Mechatronics – Fundamentals & Core Concepts”.

SPECIAL OFFER: Participants will be provided **Free Access** to **IMTMA Elearning Course** on "**L M Guide Ways**" towards continuous learning & upskilling, Access will be valid from **6 Dec** to **17 Dec 2021**.

FOCUS AREAS

- Fundamentals of Mechatronics
- Mechanical Kinematics, elements, and assembly techniques
- CNC system and PLC
- Ball screws and Guideways
- Pneumatics and Hydraulics
- Importance of Mechanical elements and assembly
- Industrial Sensors and its Connections to Controller
- PLC & HMI programming
- Servo Technology

KEY TAKE AWAYS

After undergoing the program, the participants will be able to -

- Understand fundamentals of Mechatronics system
- Knowledge of Mechatronics elements
- CNC controller, PLC, and communication
- Know how on mechanical systems and their selection
- Will Understand Standard Practices used to Plan/Build/Commission
- Assembly techniques of mechanical and electrical systems

FEE PER PARTICIPANT (PER LOGIN)

Rs. 10000/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 400/-
Overseas Participants

Group Concession : 10% for 3 to 5 and 15% for 6 and more delegates being nominated from the same company

FACULTY

This program will be conducted by **Mr. Rajashekara HV, Mr. Avinash Khare, Mr. T K Venkatesh, Mr.Balakrishna Deshpande, Mr. S H Upadhya.**

Mr. Rajashekara HV, Advisor IMTMA has 28 years of experience in the Design and Development of Metal cutting machines from various industries like M/s HMT Machine Tools, M/s Johnson Electric International Limited, Hong Kong, and 7 years as Senior Director, IMTMA Design Institute. He has an overall experience of 35 Years from both shop floor and training.

Mr. Avinash Khare is 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.

Mr. T K Venkatesh comes with 4 decades of rich experience in the CNC Machine Tools domain. After his graduation in Electronics & Communication Engineering, he had served HMT for 24 years in the Design & Development of CNC Machine Tools of different types as well as Automation systems. He was General Manager – Servicing at AMS for 15 plus years supporting all the customers in India as well as overseas. He had played a lead role in the Reliability Improvement program of CNC Machine Tools at AMS and IMTMA - ACMA Taskforce for benchmarking of electrical systems of CNC Machine Tools.

Mr. S H Upadhya is a graduate in Electrical Engineering from Karnataka Regional Engineering College, Surathkal, now known as NIT-K. He has over 35 years of experience in the field of Plant Engineering in a large public sector undertaking. He has worked in taking care of manufacturing facilities, captive generation facilities, HT and LT power transmission, distribution systems, and all other utilities associated with townships. Besides maintenance, he has worked in Material engineering, Projects, after-sales service, and assembly. He has undergone training in Germany on plant engineering, machine tools, and diesel-operated HT generators. He has wide-ranging experience in conducting various technical training programs for Engineering Industries, Process Industries, and Service Industries.

Mr. Balkrishna H. Deshpande and Industry Experts from Festo India and Yuken India**.** Mr. Deshpande is a Domain expert with more than 38 years of hands-on experience in the field of M/C controls Designing, Assembly, & commissioning. He is an expert in Hydraulics, Pneumatics, Bearings Lubrication & Mechatronics (Factory Automation) with vast experience in circuit building, system designing, commissioning & fault finding. He has delivered extensive hands-on training in hydraulics and pneumatics to more than 2000 industry professionals across India. He represented India as a Mechatronics trainer & expert of Mechatronics World Skills international Competition 2013 & Jury for the Russian hi-tech World Skill competition 2014.

For Registration Contact
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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on ‘First Come First Serve’ basis. A Certificate of participation will be issued to participants.