

## INTRODUCTION

Induction Motors have been the most preferred Prime Mover for Machines and Industrial Equipment cutting across all applications and sectors owing to lower cost, ruggedness, reliability and simplicity of construction; but limitation of variability of speed and requirement of starter have always been associated with them. Historically, costlier and maintenance prone DC Motors, Slip Ring Induction Motors, PIV Gearboxes, Multistage gearboxes and clutches have been used for variability of speed through complex and inefficient schemes.

Although there are options available now but unless the application requires precise position and torque control it does not make sense to go for Permanent Magnet Servomotor based sophisticated Servo Controls. For modest, simpler and cost sensitive applications and for retrofit on existing equipment Variable Frequency Drive (VFDs) remains by far the most effective, elegant and user friendly solution for :

- Achieving variability of speed for flexibility
- Soft start / stop
- Customizing speed-torque characteristics
- Energy saving

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising a 2 days online training programme on "VFD Technology for Industrial Automation/Energy Saving".

### **FOCUS AREAS**

- Basics of 3 Phase Induction Motor
- Basics of VFD based Speed Control of 3 Phase Induction Motor
- Overview of Torque Speed Characteristics Of Drives and Loads
- Various Modes of VFD based control
- Parameters and Monitoring
- Overview of Command Signalling
- Networking
- Advanced Features
- Specifications and Selection Guidelines
- Various Industrial Applications of VFD for motion control
- Concept of Energy Saving thro' optimum speed running
- Role of VFD technology in Energy Saving
- Various Industrial Applications of VFD for Energy Saving
- Comparison: VFD / DC Drive / Syn. Servo Drive / Async. Spindle Drive
- Guidelines for Use: Do's and Don'ts

#### Live demo of VFD controlled conveyor

### **KEY TAKE AWAYS**

After undergoing the programme, the participants will be able to

- Get total insight into the technology of Motor Speed Controls thro' VFD (including limitations)
- Know various Modes of Operation and Key / Latest technical features
- Selection / Implementation guidelines
- Visualise many Application Areas in field of Automation
- Get insight into the concept of "Energy Saving" thro' use of VFD technology

# FEE PER PARTICIPANT (PER LOGIN)

Rs. 5500/-

+18% GST IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others USD 220/-Overseas Participants

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

This Program will be conducted by Mr. Anil Purohit and Ms. Lakshmi Kumari

**Mr. Anil Purohit** is an Electrical engineer with more than 40 years Industrial Experience in field of Machine Control Systems, Automation Products & Solutions, Machines & Test Rigs building, Intelligent and High Speed Motion Controls with Servo. Presently he is working as Director at Leonardo Automation India Pvt Ltd and ETA Technology Pvt. Ltd. Bangalore.

**Ms. 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**

Shruthi GS Programme Coordinator 9886331231 enquiry@imtma.in Digvijay Nath Pandey 7349067391 digvijay@imtma.in

#### Contact Address INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION

Plot 249F, Phase IV, Udyog vihar,Sector - 18, Gurgaon - 122015 Tata no- +91-124-6463101 Tel : 0124 4014101 - 04 Fax : +91-124-4014108



**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.