Manufacturing Technology Training
An IMTMA initiative

VFD Technology for Industrial Applications and Energy Saving
Date : 2 September, 2025
Venue : IMTMA Technology Centre, Bengaluru

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 is organising a one day training programme on **"VFD Technology for Industrial Applications and 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

KEY TAKE AWAYS

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

- 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

PARTICIPATION FEE

Rs. 6600/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 260/-
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. Anil Purohit.**

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.

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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.