

# SKILL UP WITH YASKAWA

Training Course Content and Schedule



## YIND-MD-TN-001

### Basics of AC Drives and Product training

- Introduction to AC Motors and VFD Concepts
- Need for Variable Frequency Drives Energy Saving & Process Control
- Fundamental Principles: V/f Control, Vector Control, and Torque Control
- Key Components of a VFD System (Rectifier, DC Bus, Inverter, Control Unit)
- Drive Selection Parameters (Motor ratings, load type, application)
- Overview of YIND Product Portfolio and Series Differentiation
- Basic Parameter Setting and Start-up Procedure
- · Safety Precautions and Standards for Installation
- Hands-on Demonstration/Workshop

## YIND-MD-TN-002

### Sales and Marketing

- Introduction to the Industrial Drives Market and Key Segments
- Product Positioning and Competitive Landscape
- Unique Selling Propositions (USPs) of Yaskawa Drives
- Application-based Selling Strategies
- Understanding Customer Requirements & Solution Mapping
- Preparation of Technical and Commercial Offers
- Quotation Preparation, Sizing Tools, and Selection Guides
- Marketing Collaterals, Brochures, and Digital Tools
- · Case Studies and Successful Project References
- Objection Handling and Closing Techniques

## YIND-MD-TN-003

# Applications-Cranes, Elevators, booster pumps, winders and solar pumps

- Application Fundamentals and Key Drive Functions per Segment
- Cranes: Brake sequencing, anti-sway considerations
- **Elevators**: Ride comfort, speed control, brake logic, safety integration
- Booster Pumps: PID control, pressure feedback, sleep/wake logic
- Winders: Tension control methods, dancer feedback, torque control
- Solar Pumps: MPPT function, V/f settings, compatibility with solar inverters
- Application Parameter Settings and Tuning
- Integration with external PLCs, sensors, and field devices
- Troubleshooting and common issues per application
- · Real-world examples and configuration exercises



## YIND-MD-TN-006

## Panel Testing and Engineering Practies

- Standard Engineering Practices for VFD Panel Design
- Electrical Layouts, GA Drawings, and Wiring Diagrams
- Cable Sizing, Earthing, Shielding, and EMC Guidelines
- Control Circuit Design (DI/DO/AI/AO, communication interfaces)
- · Power Circuit Testing Pre-commissioning checks
- Panel Assembly Best Practices (Busbar, Termination, Labelling)
- Testing Procedures: Insulation, Functional, and FAT Testing
- Documentation Standards and Quality Checklists
- Safety Standards, IEC Guidelines, and Compliance

## YIND-MD-TN-007

### Service and maintenance of drives

- Drive Fault Diagnostics and Error Code diagnostics
- Common Faults and Corrective Actions (Overcurrent, Overvoltage, etc.)
- Preventive Maintenance Schedules and Best Practices
- Drive Data Backup and Parameter Cloning
- Component Replacement (Cooling Fans, DC Bus Capacitors, IGBTs – overview)
- Troubleshooting using Multimeter and Oscilloscope
- Basic Repair Procedures
- Field Service Reporting and Documentation
- Hands-on Repair activity

## YIND-MD-TN-010

# Product Training – MP Controller and Servopack

- Introduction to Servo Systems and Control Principles
- Overview of YIND MP Controller Architecture
- Communication between MP Controller and Servopack
- Servo Motor Characteristics and Selection Guidelines
- Wiring and Connection Setup
- Basic Parameterization and Auto-tuning
- Motion Control Functions: Position, Speed, and Torque Modes
- Programming Basics for MP Controller
- Alarms, Diagnostics, and Troubleshooting in Servo Systems
- Practical Demonstrations and Exercises

# TRAINING CALENDAR FOR FY 2025-26

Course code	Course name	Duration	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR
YIND-DM- TN-001	BASICS OF AC DRIVES & PRODUCT TRAINING	3				10.07.2025 to 12.07.2025							04.02.2026 to 06.02.2026	
YIND-DM- TN-002	SALES & MARKETING	2							23.10.2025 to 24.10.2025					
YIND-DM- TN-003	APPLICATIONS – CRANES, ELEVATORS, WINDERS & SOLAR PUMP	2					19.08.2025 to 20.08.2025					08.01.2026 to 09.01.2026		
YIND-DM- TN-006	PANEL TESTING & ENGINEERING PRACTICES	2			12.06.2025 to 13.06.2025					07.11.2025 to 08.11.2025				
YIND-DM- TN-007	SERVICE & MAINTENANCE of Drives	3	22.04.2025 to 24.04.2025								11.12.2025 to 13.12.2025			
YIND-DM- TN-010	PRODUCT TRAINING - SERVO PACK & MP CONTROLLER	2		28.05.2025 to 29.05.2025			01.08.2025 to 02.08.2025							

### Notes:

- 1. Each Participant should check with the Training in charge on the slot availability and can nominate themselves via e-Mail along with advanced payment.
- 2. If the nominations are less than 6 no. Then the program would be cancelled or postponed.
- 3. Accommodation and Transportation are not in the scope of Training Package.
- 4. All training programs are for 2 or 3 days respectively.
- 5. Every Participant should attend on time for all the days.
- 6. Evolution tests are conducted for each training program on the last day.

Course Fees: Rs 15,000/- per participant

#### Note

- 1. Taxes are not included and are extra as applicable.
- 2. Course fees mentioned is same and applicable for all courses.
- 3. Certificate will be provided only on course completion.
- 4. Refund of training charges is not applicable due to participant cancellation.

Contact Details for Nominations	Address: #1	Conord Instructions			
Training Center-Coordinator	Ajay Kumar V	ajaykumar_v@yaskawa.in		General Instructions:  1. Training timings are from 9:30 am to 5:30 pm  2. Lunch, coffee/tea will be served during training.	
Training Center- In charge	Pradeep Kumar A	pradeepkumar_a@yaskawa.in		3. All Participants should wear safety shoes during the Training program.	

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# In-house Training and **Testing Facility**

#### APPLICATION CENTER

YASKAWA Application center is equipped with a cuttingedge simulation kit to simulate the working operation of VFDs in a variety of real-world scenarios. This kit is used to support the customers with a comprehensive understanding of the capabilities and functionality of our

In addition, Application Center features a range of Programmable Logic Controllers (PLCs) that can be used for training purposes or to simulate site issues. It allows to provide tailored solutions for communication protocols such as Profibus, Profinet, Modbus, Ethernet, EtherCAT, Mechatrolink and more to the customers.

Special portable training kits for GA700 and GA500 is used for training purposes, modbus simulation, customer demo etc.



#### **TESTING & ANALYSIS CENTER**

At YASKAWA India Pvt. Ltd. in Bangalore, we are proud to offer our customers access to our cutting-edge Analysis Center. Our Analysis Center is home to a range of advanced power quality analyzers, oscilloscopes, hicorders, and other various equipment. We also offer State-of-the-art 315kW motor load testing setup so that all out VFDs from the smallest to the largest (0.37kW to 315kW) ratings can be tested in-house up to full load and analyzed for power quality.

In addition, our team can offer site studies for power quality, providing our customers with a comprehensive understanding of the electrical environment at their site. This information can be used to identify areas for improvement, and to develop tailored solutions that meet their specific needs with VFDs.

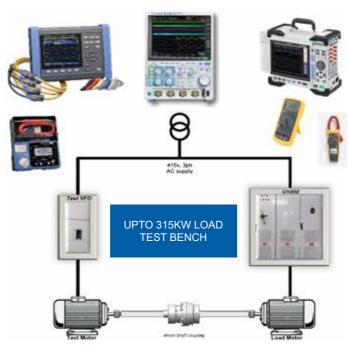
At YASKAWA India Pvt. Ltd., we understand that time is of the essence when it comes to solving electrical problems. That's why our dedicated team is committed to providing prompt and efficient service, utilizing our state-of-the-art equipment to quickly diagnose and solve even the most complex problems



#### SERVO SIMULATION BENCH AND TEST JIG

Servo simulation test bench contains two Servopacks along with an MP controller. This test kit enables testing and operating all IO configurations, along with the MP controller logic functions (Motion control programming based on ladder logic). Additionally, the trainees or partners can use this test kit to troubleshoot enduser issues by simulating them directly on the kit. This kit is used to develop customized solutions for various applications and can have real-time simulation results.

One of the key highlights of this kit is its ability to simulate a master-slave interpolation technique.



## **Measuring Equipments**



Yokogawa Make Power Analyzer, Model WT-1800



Motor loading facility - 22kW



Oscilloscope(TBS1064) Tektronix



Motor loading facility - 75kW

Servo testing unit

I/O port test

Servo units can be tested and

analyzed using this equipment.

Communication port test

Monitoring drive operation

Function test of drive







Fluke Power Analyser (435-II)



Oscilloscope (DLM 2022)-Yokogowa



**Drive and Loading Facility** 

Our loading facility can load drives up to 75kW for testing purposes and monitoring purposes. This load drive (U1000 - 75kW) is part of the facility which is further connected to a 75kW & 22kW motor load bench. Hence the load can be varied as per requirement.

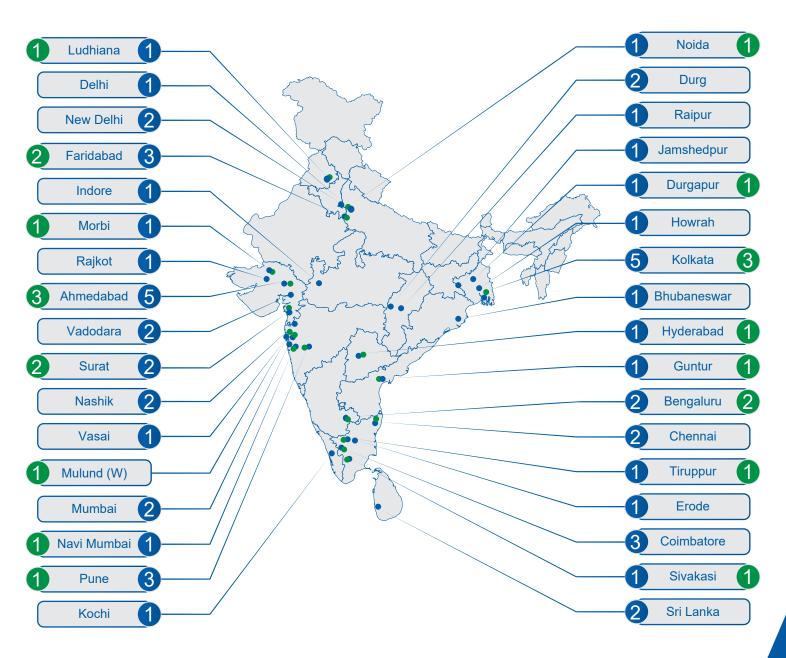


**Heat Test Oven** 

This oven is used to test the drive for heat. Heat run test can be performed at our facility to test and monitor the drive operation under temperature conditions.

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### YASKAWA INDIA'S NETWORK



Authorized Service Centers

**Authorized Business Partners** 

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