

ROTATING MACHINERY BOOTCAMP FOUNDATION, COMPRESSORS AND TURBINES

(With Digital Enablement and IIoT Focus)

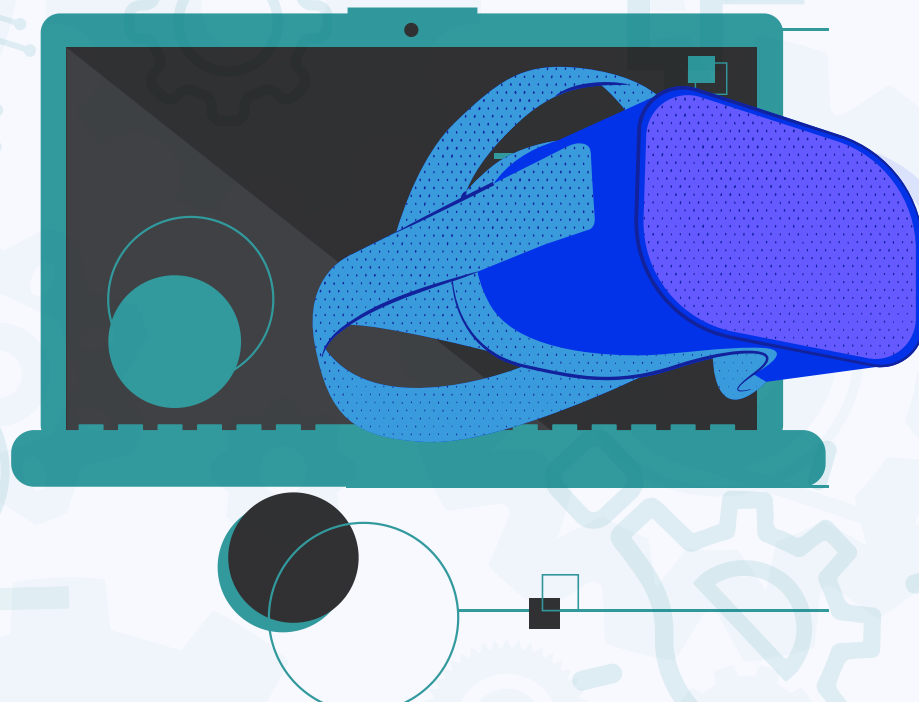
A THREE-DAY WORKSHOP

Course developed as part of the SamridDHI Skill-building Initiative of Ministry of Heavy Industries, under mentorship of Indian Institute of Science (IISc), Bengaluru.

Online
Course Material
Available for
90 Days

All participants will
receive a certificate*

"Last Date For Registration"
18th April



**REGISTER
NOW!**

**REGISTRATION
FEES**
₹17,000/-
+ GST

LIMITED
SEATS
AVAILABLE

**SPECIAL 10%
DISCOUNT**

EARLY-BIRD REGISTRATIONS
(13TH APRIL)

BULK REGISTRATIONS
(3 OR MORE PARTICIPANTS)

23 - 25 APRIL 2026

Conducted Jointly By:



ModeliCon InfoTech LLP,
Bengaluru



IC Pro Solutions Pvt Ltd



IXS ACADEMY
INDUSTRY EXCELLENCE CENTER

VENUE

RECCAA Club

Reccaa Valley,
Kakkanad, Kochi, Kerala 682030

Contact Us for Registration:



www.icpro.in



+91-8848108127



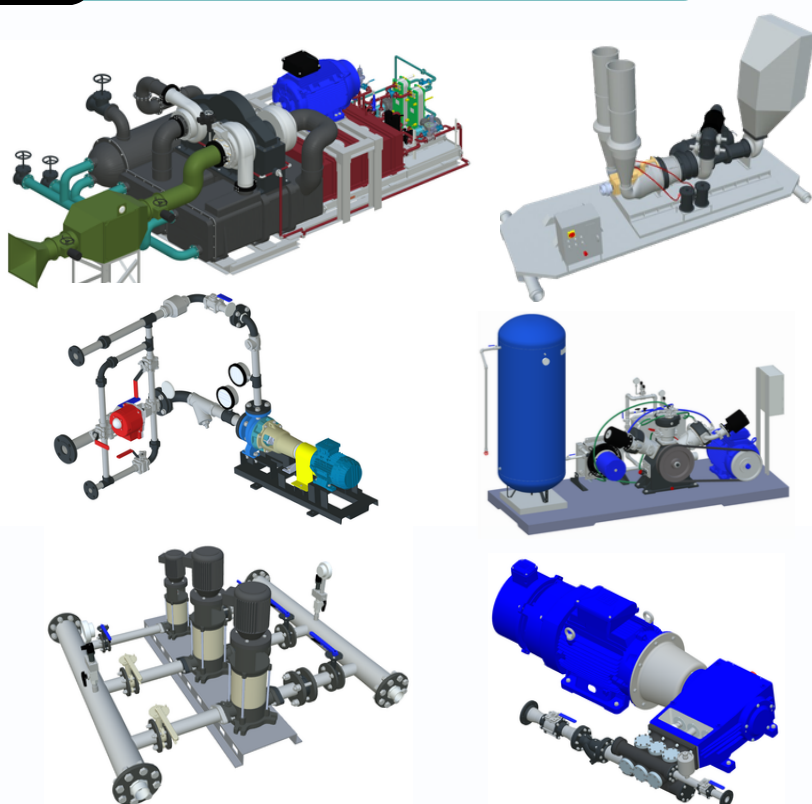
training@icpro.in



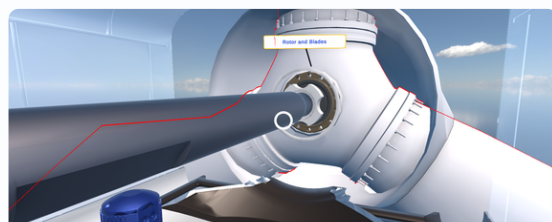
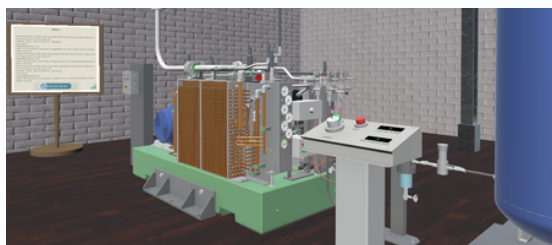
* A Participation Certificate will be provided to all attendees, and a Completion Certificate will be awarded to participants who qualify in the online assessment test.



HIGHLIGHTS



3D Interactive Models



Virtual Reality



Hands-on tutorial



BACKGROUND

The Compressor and Turbine Bootcamp equips participants with essential knowledge on rotating machinery for industrial reliability and enhanced plant performance. It combines foundational engineering principles with modern digital tools, tailored for machinery engineers in sectors like Oil and Gas, Hydrocarbon Processing industries, HVAC, Power Plants and Chemical Plants.



COURSE STRUCTURE

The program begins with rotating machinery fundamentals, including unit systems, design principles, rotor dynamics, vibration analysis, balancing, and diagnostics to mitigate machinery faults. The compressor module covers types of compressors (positive displacement, dynamic), performance maps, selection/sizing factors, pre-start checks, startup/shutdown, and controls like flow regulation and surge prevention. The turbine sections detail steam/gas turbine types, construction, thermodynamic cycles, design parameters, operation, maintenance, and diagnostics.



KEY LEARNING AREAS

- **Rotating Machines Overview:** Types, mechanics, dynamics, materials (e.g., high-strength alloys), instrumentation (vibration/pressure sensors), machinery monitoring and fault diagnosis.
- **Compressor Mastery:** Types, performance metrics (capacity, power, efficiency); selection/sizing based on head/flow, operation and control.
- **Turbine Expertise:** Operating principles (Rankine and Brayton cycles), construction features, design considerations (energy conversion, pressure ratios, thermal stress, work output), performance tuning, and fault troubleshooting.



DIGITAL TRANSFORMATION AND AI

Emerging tech integration includes Digital Twins for operational characteristics and performance simulation, IIoT for remote monitoring, VR/3D simulations, and AI/ML for predictive diagnostics – enhancing asset management in process industries, power plants, HVAC systems and other sectors.



PRACTICAL OBJECTIVES

Participants gain skills to refine machinery design, identify risks due to machinery faults, interpret maps/metrics, optimize controls, and apply tech-driven solutions for real-world efficiency and uptime.



SCHEDULE

DAY 1

TIME	ACTIVITY	TIME	ACTIVITY
09:00 - 09:15	Registration and Inauguration	13:15 - 14:00	Lunch Break
09:00 - 09:15	Inauguration	14:00 - 15:30	Fundamental Rotating Machinery: Monitoring & Diagnostics (Part-3)
09:15 - 10:45	Fundamental Rotating Machinery Concepts (Part-1)	15:30 - 16:00	Rotating Machinery Computations
10:45 - 11:00	3D Interactive Visualization of Rotating Machinery	16:00 - 16:15	Tea Break
11:00 - 11:15	Tea Break	16:15 - 17:15	VR Demo
11:15- 13:15	Fundamental Rotating Machinery: Design Considerations (Part-2)	17:15 - 17:30	Preview of Day 2

DAY 2

TIME	ACTIVITY	TIME	ACTIVITY
09:00 - 09:15	Recap of Day-1	13:15 - 14:00	Lunch Break
09:15 - 10:30	Compressors: Compressor Basics (Part-1)	14:00 - 15:30	Compressor: Operation and Control (Part-3)
10:30 - 11:00	3D Interactive Visualization of Compressors	15:30 - 16:00	Compressor Computations (Part-2)
11:00 - 11:15	Tea Break	16:00 - 16:15	Tea Break
11:15- 12:45	Compressor: Maps, System Curves and Selection (Part-2)	16:15 - 17:15	Compressor Basics VR
12:45 - 13:15	Compressor Computations (Part-1)	17:15 - 17:45	Compressor Startup VR
		17:45 - 18:00	Preview of Day 3

DAY 3

TIME	ACTIVITY	TIME	ACTIVITY
09:00 - 09:15	Recap of Day 2	14:00 - 15:30	Advanced Automation and AI for Rotating Machinery
09:15 - 10:30	Turbine: Steam Turbine Basics(Part-1)	15:30 - 16:00	Turbines VR Session (Part 1)
10:30 - 11:00	3D Interactive Visualization of Turbine	16:00 - 16:15	Tea Break
11:00 - 11:15	Tea Break	16:15 - 17:00	Turbines VR Session (Part 2)
11:15 - 12:45	Turbine: Gas Turbine Basics (Part-2)	17:00 - 18:00	Assessment Test
12:45 - 13:15	Turbine Computations	18:00 - 18:30	Closing Remarks
13:15 - 14:00	Lunch Break		

For Registration-related Enquiries:

+91-8848108127
training@icpro.in



The Rotating Machine course has been recognized with the **"MSME-CII National Golden Business Award for Best Edutainment Program"** at the 2nd MSMECCII National Business Excellence Award ceremony.

Take a look at the venue and accommodation facilities below.



Board Room



Swimming Pool



Walking Area



Restaurant



Suites

Accommodation is available at the participants' own cost. Please contact the organizers for accommodation details and specially negotiated charges.