

COURSE SCHEDULE

Time	Activity	Guest/ Resource Person(s)
08:30	08:45 Inauguration	Prof. Gurumoorthy B ¹ , Prof. Pramod Kumar ² , Dr. Barun Chakrabarti ³ , Dr. Sunil S Shah ⁴ .
08:45	09:15 Introduction & Recap of Prerequisites	Dr. Sunil S Shah ⁴
09:15	09:30 Component - 1: 3D Interactive Visualization of Compressors	Mr. Ajeya Bhat ⁵
09:30	10:30 Component - 2: Compressor Concepts (Part-1)	Dr. Jinshah B S ⁶
10:30	10:45 Tea Break	
10:45	11:15 Component - 3: Compressor Computations (Part-1)	Dr. Jinshah B S ⁶
11:15	12:30 Component - 4: Compressor Basics VR	Mr. Ajeya Bhat ⁵
12:30	13:15 Lunch Break	
13:15	13:45 Component - 4: Compressor Startup VR	Mr. Ajeya Bhat ⁵
13:45	14:45 Guest Lecture - 1: Recent Trends in Compression Technologies	Prof. Pramod Kumar ²
14:45	15:00 Tea Break	
15:00	16:00 Guest Lecture - 2: Monitoring / Diagnostics of Compressors	Dr. Barun Chakrabarti ³
16:00	16:30 Component - 2: Compressor Concepts (Part-2)	Dr. Pavanraj R ⁷
16:00	16:30 Component - 3: Compressor Computations (Part-2)	Mr. Sreejith S ⁸
17:30	18:00 Assessment	Dr. Pavanraj R ⁷
18:00	18:30 Closing Remarks	Prof. Gurumoorthy B ¹ , Prof. Pramod Kumar ² , Dr. Barun Chakrabarti ³ , Dr. Sunil S Shah ⁴ .

1. Prof. Gurumoorthy B

Director,
Foundation for Science, Innovation and Development,
Indian Institute of Science, Bengaluru.

3. Dr. Barun Chakrabarti

Managing Director,
Bonitas consulting Services.

5. Mr. Ajeya Bhat

Engineering Manager,
ModellCon InfoTech LLP.

7. Dr. Pavanraj R

Sr. Systems Engineer,
ModellCon InfoTech LLP.

2. Prof. Pramod Kumar

Associate Professor,
Department of Mechanical Engineering,
Indian Institute of Science, Bengaluru.

4. Dr. Sunil S Shah

Co-Founder & CEO,
ModellCon InfoTech LLP.

6. Dr. Jinshah B S

Sr. Systems Engineer,
ModellCon InfoTech LLP.

8. Mr. Sreejith S

Process System Engineer,
ModellCon InfoTech LLP.



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COMPRESSORS Masterclass A Complete Guide

2nd March 2024

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Faculty Mentor: Prof. Pramod Kumar,
Dept. of Mechanical Engineering, IISc.

Venue

**Centre for Continuing Education
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REGISTRATION

Only 25 Seats Available !!!

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Course Fee:

₹5,900 /-

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COURSE HIGHLIGHTS

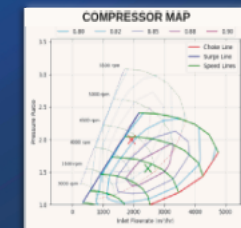
3D Interactive Visualization



Virtual Reality



Hands-on Tutorial



COURSE OVERVIEW

Compressors are one of the critical components in many industrial processes like refrigeration, gas processing, power plants, fertilizers, etc. Compressors also tend to be one of the major energy consumers in these industries.

This short course on compressors covers the fundamentals of compressors, their selection, operation, and controls. The course also reviews different types of compressors and their selection. The course is uniquely designed to provide conceptual training through curated technical sessions developed by our team of experts, tutorial sessions with case studies, and hands-on learning sessions with virtual reality.

The course covers the following sessions:

- Prerequisite session on compression fundamentals, thermodynamics, and types of compressors (covered online).
- Conceptual session discussing selection of compressors, understanding compressor performance maps, specifying compressors as a system, operations, and controls (covered in classroom through curated videos).
- Conceptual session on current trends in compression, monitoring, and troubleshooting live by our team of experts.
- 3-D visualization of different parts of the compressors.
- Tutorial sessions with case studies for designing different components of a compression system.
- Hands-on sessions with virtual reality to give you a feel of a live system for operation and control.

This course will equip participants with ability to carry out detailed analysis of compressor maps, design and specification of the control system, requirements for troubleshooting and maintaining compressors, etc.

KEY TAKEAWAYS

- Understand compressor principles.
- Explore compressor types and applications.
- Learn design considerations.
- Improve compressor efficiency.
- Master control systems.
- Analyze real-world case studies.
- Use VR for compressor simulations.
- Visualize complex compressor processes.

MODULE COMPONENTS

1. 3D Interactive Visualization:

- Visualize & explore 3D models seamlessly.
- Intuitive environment allowing to inspect and analyze 3D models from every angle.

2. Theory:

- Understand fundamental principles.
- Expert guidance through videos and instructors.
- Build a strong theoretical foundation.

3. Tutorial:

- Practical numerical insights.
- Hands-on training with Interactive simulation platform.
- Enhance problem-solving skills with real-world use cases.

4. Virtual Reality (VR):

- Immersive experience in a cutting-edge VR lab.
- Assemble and disassemble components.
- Gain practical insights and confidence in equipment handling.

WHO SHOULD ATTEND?

- Participants with up to 5 years of industry experience who are interested in a career shift to rotating machinery.
- Final year or fresh engineering graduates and postgraduates seeking industry-relevant skills in rotating machinery.

SALIENT FEATURES

- Practical and advanced concept on compressor technologies.
- Realistic and advanced hands-on tutorial and virtual reality sessions.
- Participants will have access to the course contents for a duration of 60 days.
- Upon successful completion of the assessment test, participants will be awarded a completion certificate from IISc (CCE).

Register and receive the complimentary refresher prerequisite module.

Instructions to check compatibility of your phone for VR experience will be emailed after registration.

