



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachibowli, Hyderabad – 500 032.TS, India



MANAGEMENT & TECHNOLOGY DIVISION

Continuing Professional Development Programme on
*Operation, Maintenance and Performance Monitoring of Centrifugal
Pumps and Compressors*
(With Practical Orientation)
10-12 December 2019



(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

INTRODUCTION

Centrifugal pumps & Compressors are an essential critical and unavoidable equipment group of any process industry. Whether it is steel plant, petroleum refinery, petrochemical complex, thermal power plant, fertilizer plant, Aluminum Company, irrespective of production business involved in, every organization thrives on operation of high speed rotating equipment.

Compressors and gas boosters are common equipment of any industry. Troubles in these machineries results in colossal loss to production. Disruption in supply of utilities like compressed air or high pressure gases or steam and electricity can bring total plant operations to a grinding halt.

Dependence of process operations on un-interrupted availability of high speed machines for operation underlines criticality of this equipment. 100% equipment availability is an essential prerequisite for meeting production targets.

Operation and maintenance of Centrifugal Pumps and Compressors is a specialized field. Developments like online monitoring of equipment behavior, improvements in design of equipment, improved remedial methods, standardization etc., need to be understood and implemented for enhanced availability of equipment.

This programme is designed to bring in awareness among engineers and engineering managers of various process industries about the necessity to critically analyze and review the operational aspects of this machinery, thereby help achieving near 100% equipment availability by reducing operational expenditure.

OBJECTIVE

The objective of the programme is to update the knowledge of engineers and engineering managers to the latest developments in performance monitoring of Centrifugal pumps & Compressors. The focus will be on seeking solutions to problems of Centrifugal Pumps and Compressors and to enhance equipment availability.

COURSE COVERAGE

The topics to be deliberated are:

- Introduction to Centrifugal Pumps
 - Operational Problems & maintenance intricacies
- Introduction to centrifugal Compressors
 - Types and applications of various services
- Constructional Features of Centrifugal Compressors
 - Principles of gas compression
- Auxiliary Systems of Centrifugal Compressors
 - Lubrication Oil System
 - Anti-surge control system
- Operational and maintenance intricacies and performance monitoring for improved machine availability (Compressors)
- Group discussions on “Performance Monitoring of Centrifugal Pumps and Compressors” and case studies by participants
- Technical Visit to Compressors & Pumps manufacturing Plants

Methodology

Methodology of the programme includes classroom Sessions with Lecture/discussion with audio visual aid, benched marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive demanding active participation from all the members. CMI will be the main method of instruction. Technical Visit will also be conducted to provide necessary practical exposure and orientation

Programme Advisor & Resource Persons.



Mr. K L VasudevaRao

Former Executive Director
B H E L
Ramachandrapuram
Hyderabad.

a walking encyclopedia on Gas Turbine, Pumps and Compressor



Mr. B Prahlad,

Former Dy. Chief Executive(QA & HRD)
Nuclear Fuel Complex, Dept. of Atomic Energy,
Hyderabad



Mr. Atmakuru Chandra MohanaRao has over 3 and half decades experience of serving in prestigious organizations like Atomic Power stations and Heavy water plants under DAE, Tata power, and held important positions both as Professional Engineering Commissioning, Maintenance and operation of Power plants of various capacities both conventional and Nuclear and also in Technical Management areas. He is also Certified ENERGY MANAGER and AUDITOR by BEE Govt. of India. His areas of interest have been Compressors, Pumps and turbines.

Other faculty consists of experts from Centrifugal Pumps and Compressors manufacturing industry and connected research establishments besides that from ESCI.

TARGET PARTICIPANTS

Engineers, engineering managers, Professor's/technical staff from engineering colleges/Institutes and supervisors of industries that involve high speed machinery, who are responsible for design, operation, production and maintenance functions and play key role in equipment availability and cost savings in their functional areas.

Benefit to the Participants:

- Awareness on performance Monitoring Techniques for Centrifugal Pumps & Compressors
- Learning from success Stories in pioneering organizations through case studies and develop new perspectives to transform their own organization.
- Programme provides a unique platform to develop networking and sharing of experiences from fellow participants and faculties even after the completion of programme

Programme Venue, Dates & Timings

Venue: Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachibowli, Hyderabad. 500032. TS, India.

Dates: 10- 12 December 2019

Timings

On the first day, Registration will commence at 0900 h, on all other days the programme timings will be from 0945-1715 h with breaks in between for tea and lunch.

Course Director



Course Director

Gp Capt (Retd) BS Phillora BE (ETC), AE (L), MMS (DS), M Phil, FIE Certified lead Auditor ISO 9001:2015
Dean of Studies ESCI &
Sr. Faculty & Head,
Management & Technology Division, ESCI

Course Fee

₹ **15,500/-**(Residential Fee) per participant. Fee includes, course material, course kit, twin-sharing AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

DISCOUNTS

- ❖ Non-Residential Fee- 10% discount on course fee is allowed for non-residential participants.
- ❖ Group Discount: Additional 10% discount for three or more participants, if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI before the commencement of the programme.)

Goods and Services Tax @ 18% is to be paid extra over and above the training fee. PAN Card No AAATT3439Q; **GST No. 36AAATT3439Q1ZV.** (Under commercial training or coaching services).

Programme fee is to be paid in favour of "IE (I)-Engineering Staff College of India" in the form of demand draft payable at Hyderabad at par cheques payable at any Bank Branches.

Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - **SB A/c No.0432104000039631 with The IDBI Bank Ltd., Gachi Bowli Branch, Plot No. 2-53/2, JNIBF, IIIT Junction, Gachi Bowli, Hyderabad-500032 by RTG's/ NIFT / IFSC Code No: IBKL0000432.** ESCI PAN No. is AAATT3439Q. While using EFT/ Draft method of payment, kindly forward a covering letter giving details on the names of the participants, Title and the programme schedule so that proper accounting can be done.

Registration

Online registration shall be available on ESCI website. ([URL:www.escihyd.org](http://www.escihyd.org)) Please visit M&T Webpage: <http://www.escihyd.org/index.php/mt-upcoming-trainings>

To register, manually please send your nominations giving details of name, designation, contact address, email address, mobiles no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

Head, Management & Technology Division
Engineering Staff College of India
Old Bombay Road, Gachibowli, Hyderabad 500 032, TS. India
Phone: 040 6630 4112 & 6630 4105
Fax : 04066304103 & 914030995227

Email : mt@escihyd.org

Certification

A certificate of participation will be awarded to each participant on conclusion of the programme.

General Information

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation)
- Well-developed Information Centre and Internet facilities are available to the participants Programme Dates Venue & Timings.

Nominating authorities are requested to kindly send the contact details of the participants while sending their nomination letter. This will help us in making necessary administrative arrangement for them.