

## ABOUT DEPARTMENT:

Established in the year 1994, the Manufacturing Engineering Department of COEP with its team of dedicated, qualified and experienced faculty, offers a sound programme at both UG and PG levels. The UG program is B.Tech.(Manufacturing Science Engineering). Department runs four PG programmes MTech Production Engineering (Manufacturing Engg. & Automation), MTech Mechatronics & MTech Project Management and M. Tech (AI and Robotics). Department also runs three post graduate diploma courses namely PGD-ERP, PGD-Additive Manufacturing, PGD-Product Design. The department aims at providing a valuable resource not only to the industries but also the society through excellence in technical education and research. An outreach project of MIT's centre for Bits and Atoms (CBA), COEP's Fab Lab provides a significant fillip to technological empowerment; peer to peer project based technical training and high-tech business incubation. The centralized Robotics and Automation Laboratory of COEP is a notable feature of the department. To keep abreast of the technological trends the departmental faculty undergoes a number of programmes and refresher courses and participates actively in seminars and conferences. With rich hardware and software resources and collaborative projects with the academia and industries, the department aims at providing an elite workforce of future leaders in myriad areas like manufacturing, designing, quality management and marketing. Department is having state of the art facility as Rapid Prototyping Lab as well as Tribology & Terotechnology Lab. Department runs many continuing education programme like CAD/CAM, Mechatronics etc.. Department also takes up consultancy work in the area of Reliability Engineering, Industrial Engineering, Optimization, Ergonomics, Rapid Prototyping, Tribology & Terotechnology etc.

## ABOUT COEP:

The College of Engineering Pune (COEP) was established in 1854. It is one of the oldest and premier engineering institutions in the country. It has rich history and dedication to the pursuit of excellence and offers a unique learning experience across a spectrum of academic and social experiences. With a firm footing in truth and humanity, the institute provides its students with the understanding of both technical developments and the ethics that go with it. COEP offers undergraduate programmes in 10 disciplines and post graduate programmes in 24 specializations. It is a recognized Research Center for doctoral programmes of the Savitribai Phule Pune University as well as QIP centre. COEP has been consistently ranked amongst the top 21 technical institutes in India and its alumni have a lion's share in the development of national infrastructure. COEP has many eminent alumni such as Bharat Ratna Sir M. Visvesvaraya. Many of them are heading several leading engineering industries and organizations.

## RESOURCE PERSONS

Experts from Industry, reputed Institutions and faculty from COEP, BARC will be delivering the Lectures.

## PATRON

Prof. B. B. Ahuja, Director, COEP

## ADVISORY COMMITTEE

Prof. M.S. Sutaone, Deputy Director, COEP  
Prof.(Mrs.)Jibi Abraham, Dean, Academics, COEP  
Prof. M J Rathod, Dean Faculty, COEP  
Prof. S. L.Patil Dean Alumni and IR, COEP  
Prof. S.N.Sapali, Dean Quality, COEP  
Prof.A.G.Thosar Dean R&D, COEP

**HEAD OF DEPARTMENT :** Dr. P.D.Pantawane

**COORDINATOR :** Dr. B Rajiv

## MEMBERS:

Dr. M.D.Jaybhaye	Prof. N.R.Rajhans
Dr.B.U.Sonawane	Dr. A.V.Mulay
Dr. S.M.Patil	Dr. Dhanvijay M.R
Dr. J.S.Karajgikar	Dr. S.S.Anasane
Mr. S.U.Ghunage	Mr. M.N. Shaikh

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## AICTE Sponsored One Week Faculty Development Program On "System Engineering - Reliability and Quality Management" (Under ATAL scheme)

1<sup>st</sup> February to 5<sup>th</sup> February 2021



## Course Coordinator

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Organized by  
Department of Manufacturing  
Engineering & Industrial Management  
College of Engineering, Pune  
(An autonomous Institute of Government of  
Maharashtra)

**Pune- 411005**

## Introduction

Reliability Engineering and its impact on degraded effectiveness of the equipment with time, Reliability Centered Maintenance, having quantitative impact of risk & hazard output apart from factors affecting performance stability. Through the short-term objective of evaluating the Life Cycle cost is to analyse the performance of investment in engineering product, the long-term objective is to optimize profitability and survival of the enterprise.

It was earlier considered, as an important project evaluation technique basically needed by management for decision making. Application of L.C.C. and its, mathematical as well as physically meaningful model received a strong industrial appreciation with the ingress of the basic concepts of Terotechnology.

The cost of maintenance over the life cycle of equipment depends on (1) type of maintenance, (2) incidents of failures and (iii) repairable or non-repairable system. Normally, all industrial machinery belongs to a repairable category, subject to large variation of load. A failure becomes imminent when the working loads applied exceed the strength of components comprising of the total system. Reliability analysis and failure prediction assumes (i) in repairable system, failure follows exponential distribution and (ii) replacements restores the system into original state. Quality management is very important tool from industry perspective and process control. Various quality control tool can be applied for process control.

The programme is specifically designed for faculty members, research scholars, PG scholars, engineers & professionals, who are working in the field of System Engineering. The course is useful for understanding the fundamental concepts of Reliability and Quality Management.

## Programme Contents:

- Introduction to Reliability Engineering
- Reliability analysis of control System
- Evaluation of System Reliability
- Reliability Allocations
- Non Parametric Methods
- Accelerated Life Cycle
- HALT and HASS
- FMEA/FMCEA/FTA
- Condition Monitoring
- Concepts of Quality
- Quality Management and Control
- Reliability Based Design
- Optimization Techniques

Course will be punctuated with Sessions on Reliability and Quality Management.

## Eligibility & Selection:

The registration fees is nil. Selection of participant will be intimated by 31<sup>st</sup> January 2021.

## IMPORTANT DATES

**Submission of registration form:** On or before 25<sup>th</sup> January 2021

**Confirmation to participants :** 31<sup>st</sup> January 2021

**Course commencement date:** 1<sup>st</sup> Feb 2021.

## Course Material:

Course material will be provided in a soft form.

## Department of Manufacturing Engineering & Industrial Management College of Engineering Pune-5

AICTE Sponsored One Week Faculty  
Development Program on

## “Reliability and Quality Management”

1<sup>st</sup> Feb to 5<sup>th</sup> Feb 2021  
(Under ATAL Scheme)

## Registration Form

Name :- \_\_\_\_\_

Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Name of the Institute/: \_\_\_\_\_

Company \_\_\_\_\_

Address for Correspondence:- \_\_\_\_\_

Contact No. :- \_\_\_\_\_

E-mail Address:- \_\_\_\_\_

Highest Educational Qualification:

Experience in Teaching/Research/Industry :

Signature of the applicant

## **SPONSORSHIP CERTIFICATE**

Dr.Mr./Mrs. \_\_\_\_\_, is an employee of our Institute/Organization and is hereby sponsoring to participate in the one week training programme on 'Reliability and Quality Management' during 1<sup>st</sup> Feb to 5<sup>th</sup> Feb 2021 at College of Engineering, Pune-5, if shortlisted.

Signature of Head of Institution (with Seal)