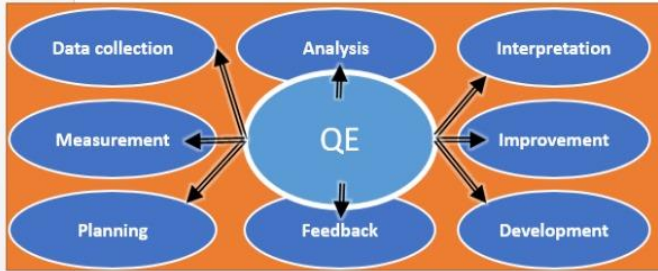




Executive Development Program (Offline only)
on
Quality Engineering and Management
17-21 September, 2024
at
IIT(ISM)-IIIF near Hotel Crowne Plaza Okhla Phase-I New Delhi-20



Organized by

Department of Mechanical Engineering
Indian Institute of Technology (ISM) Dhanbad, Jharkhand 826004

INTRODUCTION TO THE PROGRAM

- Quality Engineering and Management are being applied in all fields of engineering for many decades for controlling, maintaining and improving the quality characteristics of products and services as well as in research.
- Quality Engineering is the set of operational techniques that are used to ensure that the quality characteristics of a product are at the nominal or desired levels and that the variability around these levels is minimum.
- Quality Management is coordinated activities to direct and control an organization with regard to quality.
- The reduction or minimization of the variability using various statistical techniques e.g. various theoretical and sampling distributions, Acceptance sampling plans, Control charts, Process capability analysis, DOE, ANOVA, etc., will be discussed which is helpful in enhancing product and research quality.
- Concepts of Total Quality Management, Business Process Re-engineering, Six Sigma, Just-in-time / Lean manufacturing, ISO 9000:2015 etc. will be discussed.
- Quality Management is an essential component of strategic and corporate management. It is aimed at realising the best out of quality and not just achieving the best level of quality with available resources.

IMPORTANT DATES

Only 50 number of participants will be selected on the **first-cum-first-serve** basis. Selected candidates will be informed by email. Complete information for communication must be necessarily provided in the registration form via email along with payment reference to the coordinator.

Last date for receipt of application:	09/09/2024
Last day of selection & notification:	13/09/2024

Incomplete or non-payment applications shall be rejected.

CONTACT

For any correspondence, please contact:
Prof. Nirmal Kumar Singh
Professor
Department of Mechanical Engineering
Indian Institute of Technology (ISM) Dhanbad
-826004, Jharkhand, India
Tel: (0326) 2235181
Mob: 9431711359
Email: nirmal@iitism.ac.in

ABOUT THE INSTITUTE

To be a nationally and internationally acclaimed premier institution of higher technical and scientific education with social commitment having an ethos for intellectual excellence, where initiative is nurtured, where new ideas, research and scholarship flourish, where intellectual honesty is the norm and from which will emerge the leaders and innovators of tomorrow in the realm of technology

The Indian School of Mines was formally opened on 9th December 1926, by Lord Irwin, the then Viceroy of India to address the need for trained manpower related to mining activities in the country with disciplines of Mining and Applied Geology. In 1967 it was granted the status of a deemed to be university under Section 3 of UGC Act, 1956.

The long run of Indian School of Mines (ISM) came to an end, for it had now been awarded the tag of an Indian Institute of Technology (IIT) on 6th September 2016.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering started the journey in 1999 and successfully completed 23 years. Presently, the department is the largest in the institute having 46 faculty members. The department offers two UG courses, one in Mechanical Engineering and another in Mining Machinery Engineering. Faculty members of the department have guided more than 200 PhD students so far. The UG and PG students are working with the faculties in the field of microfluidics, aero-acoustics, bubble dynamics, biomechanics, robotics, renewable energy, tribology, refrigeration, modern-manufacturing, fluid power, mining machinery along with thermal engineering and machine design. Students of the department are associated with Robotics club, Smart manufacturing, ASME students' chapter and other professional bodies. The UG and PG students of the department are associated with several national and international research and consultancy projects. A good number of them complete their research internships abroad also.

PROGRAM CONTENTS

Venue: IIT(ISM)-Industry Institute Interaction Facility (IIIF), 4th floor, NBCC Centre near Hotel Crowne Plaza, Okhla Phase-I, New Delhi-700020 (Physical presence of the participants is mandatory)

Proposed schedule of day to day sessions:

Dates	Details of the Workshop				
17/09/2024 (Tuesday)	09:00 - 09:30	Inaugural Session	20/09/2024 (Friday)	09:30 - 11:00	Lecture 13
	09:30 - 09:45	Coffee Break		11:00 - 11:15	Coffee Break
	09:45 - 11:15	Lecture 1		11:15 - 12:45	Lecture 14
	11:15 - 11:30	Coffee Break		12:45 - 14:00	Lunch break
	11:30 - 13:00	Lecture 2		14:00 - 15:30	Lecture 15
	13:00 - 14:00	Lunch break		15:30 - 15:45	Coffee Break
	14:00 - 15:30	Lecture 3		15:45 - 17:15	Lecture 16
	15:30 - 15:45	Coffee Break			
18/09/2024 (Wednesday)	15:45 - 17:15	Lecture 4	21/09/2024 (Saturday)	09:30 - 11:00	Lecture 17
	09:30 - 11:00	Lecture 5		11:00 - 11:15	Coffee Break
	11:00 - 11:15	Coffee Break		11:15 - 12:45	Lecture 18
	11:15 - 12:45	Lecture 6		12:45 - 14:00	Lunch break
	12:45 - 14:00	Lunch break		14:00 - 15:30	Lecture 19
	14:00 - 15:30	Lecture 7		15:30 - 15:45	Coffee Break
	15:30 - 15:45	Coffee Break		15:45 - 17:15	Lecture 20
15:45 - 17:15	Lecture 8	17:15 - 17:30	Valedictory Session		
19/09/2024 (Thursday)	09:30 - 11:00	Lecture 9			
	11:00 - 11:15	Coffee Break			
	11:15 - 12:45	Lecture 10			
	12:45 - 14:00	Lunch break			
	14:00 - 15:30	Lecture 11			
	15:30 - 15:45	Coffee Break			
15:45 - 17:15	Lecture 12				

Legend of lectures

Lectures	Description
1	Introduction to Quality, Quality Engineering and Management
2	Normal distribution
3	Introduction to Total Quality Management and Six Sigma
4	Control Charts, Process Capability Analysis
5	Acceptance Sampling Plan
6	Operating Characteristics(OC) curves
7	Sampling distributions, Central Limit Theorem
8	DMAIC/DMADV
9	Theoretical and practical Six Sigma
10	Statistical Quality/Process Control(SQC/SPC)
11	Z-test, t-test, Chi square test and F test
12	Design of Experiments
13	ANOVA
14	Software etc. for statistical analysis
15	Total Quality Management
16	Business Process Re-engineering
17	Just-in-time / Lean manufacturing
18	ISO 9000:2015, ISO 9001:2015 and ISO 9004:2018
19	Role of Measurement in Quality Engineering and Management
20	Miscellaneous discussion

Proposed topic(s) may change subject to demand/requirement

WHO CAN ATTEND?

The participation in this program is open to faculty and students of recognized technical institutes, researchers from the research laboratories, engineers/officers from Government organisations/industries and any other interested personnel. The successful participants will be given a participation certificate.

ACCOMODATION & HOSPITALITY

No residential accommodation and no transport will be provided to the participants for attending the course.

ORGANIZING COMMITTEE

Invited speakers(Tentative):

Prof (Retd.) S P Mukherjee Mentor IAPQR Kolkata
Prof. G L Samuel, IIT Chennai
Prof. Abhishek Das, IIT Delhi
Prof. S.G Deshmukh, IIT Delhi
Prof. Makarand Shrikrishna Kulkarni IIT Bombay
Prof Vinayak Kulkarni IIT Guwahati
Prof. Somnath Chattopadhyaya, IIT (ISM) Dhanbad
Prof. Anil Kumar Agrawal IIT(BHU) Varanasi
Prof Akshay Dwivedi IIT Roorkee
Prof Pradeep Kumar IIT Roorkee
Prof S K Patel NIT Rourkela

Chief Patron: **Prof. Prem Vrat, Chairman BOG, IIT (ISM) Dhanbad**

Patron: **Prof Sukumar Mishra Director, IIT (ISM) Dhanbad**

Chairperson: **Prof. S. Chattopadhyaya HOD (Mech. Engg.) Dhanbad**

Convener: **Prof. N K Singh (Mech. Engg.) IIT (ISM) Dhanbad**

Co-Convener: **Prof Vivek Bajpai (Mech Engg) IIT (ISM) Dhanbad**

MODE OF PAYMENT

- **Faculty/Post-Doc:** 10000/- inclusive of GST
- **R&D/Industry/Govt. :** 20000/- inclusive of GST
- **Research Scholars/ PG/UG students/private :** 5000/- inclusive of GST

The Executive Development Program fee includes kit, course material, working lunch and refreshment during the program days.

The registration fee has to be paid through NEFT in the undermentioned account on or before **09/09/2024**:

Name: **IIT(ISM) Dhanbad**

A/c No.: **0986101024892**

IFSC: **CNRB0000986**

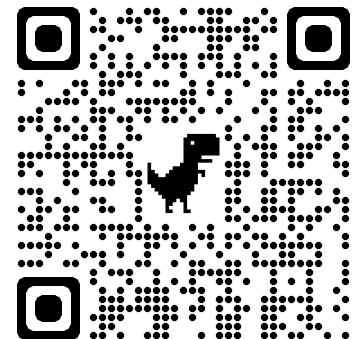
Bank name: **CANARA BANK**

Branch: **SARAIHELIA, DHANBAD-828127(JHARKHAND)**

The registration form is given after this page and it can be typed or converted in MS word or downloaded from Google form:

<https://docs.google.com/forms/d/e/1FAIpQLScKiqwliPGG->

[UNBdHmpmrg8MQRWjtlzmRNI6P9MFJMXCANLOQ/viewform?usp=pp_url](https://docs.google.com/forms/d/e/1FAIpQLScKiqwliPGG-UNBdHmpmrg8MQRWjtlzmRNI6P9MFJMXCANLOQ/viewform?usp=pp_url)



**Registration form
for
Executive Development Program
on
Quality Engineering and Management**

During
17-21 September, 2024

at

IIT(ISM) - Industry Institute Interaction Facility (IIIF) New Delhi-110020

Organized by: **Department of Mechanical Engineering, IIT(ISM) Dhanbad**

Full Name	Prof./Dr./Mr./Ms./Mrs.		
Designation		Department	
Institute/Organization			
Address			
Mobile			
Email			
Payment Details	Bank Name:		
	NEFT Reference no:		
	Date of transfer:		
	Amount:		
	Payment receipt attached :	Yes/No	

Dated:

Signature of the applicant