

## First Information Brochure

### The Institution of Engineers (India)

*97 years of Relentless Journey towards  
Engineering Advancement for Nation Building*

## All India Workshop

On

### Productivity Management in Manufacturing and Service Organizations

August 18-19, 2017

Organised by

The Institution of Engineers (India)  
West Bengal State Centre



Under the aegis of  
Production Engineering Division Board, IEI

In association with



Department of Industrial and Systems Engineering  
Indian Institute of Technology Kharagpur  
Kharagpur 721302, West Bengal, India

Venue: Indian Institute of Technology Kharagpur

## ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform from which to share professional interest. IEI has membership strength of over 0.8 million. Established in 1920, with its headquarters at 8 Gokhale Road, Kolkata – 700 020, IEI has served the engineering fraternity for over nine decades. In this period of time it has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India to be accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. IEI functions among professional engineers, academicians and research workers. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating from 120 Centres located across the country. The Institution has established R&D centres at various locations in the country and also provides grant-in-aid to its members to conduct research and development on engineering subjects.

IEI conducts Section A & B Examinations in different Engineering disciplines, the successful completion of which is recognized as equivalent to Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Govt. of India. Every year as many as 90000 candidates appear for these exams. For details, please see: [www.ieindia.org](http://www.ieindia.org)

## ABOUT THE WEST BENGAL STATE CENTRE, IEI

The erstwhile Bengal Centre was established in 1921 at Calcutta in order to cater to the needs of the members of the entire eastern region of India. The Bengal Centre in due course was divided to Bihar Centre at Patna in 1947, Assam Centre at Shillong in 1958, Orissa Centre at Cuttack in 1959. At present, the erstwhile Bengal Centre is known as West Bengal State Centre situated alongside the IEI Headquarters located at 8 Gokhale Road, Kolkata 700 020. There are four Local Centres under the jurisdiction of West Bengal State Centre, located at Asansol, Durgapur, Kharagpur and North Bengal. Pursuant with its objective of propagating the cause of engineering science and technology, it organizes various seminar / symposium / conferences/ Short Term Courses on the contemporary engineering and technological issues.

## INTRODUCTION

Today the majority of the industries all over the world are facing stiff challenges in meeting the goals of profitability, quality and productivity because of a number of reasons. First, the rapid changes in the characteristics of products, work organizations and technologies pose serious problem of underperformance. The organizations in both manufacturing and service sectors are subjected to the known and unknown risk of fluctuating market demand of the products thereby under or over utilizing resources that may include very expensive machineries, plant and equipment. Second, the growing societal demand of better quality of work life have made people aware of the importance of productivity and its improvement at all levels of an organizations, irrespective of their jobs – blue and white collar, direct and indirect, or

skills/rules/knowledge-based or their combinations. Third, increased competition from world-class organizations/companies has compelled many organizations to produce their products and services with increased quality, reduced cost, and maximum-possible productivity of all their resources, human or physical for their survival and sustainability. Under this changed scene, industries and organizations need to develop ways and means to measure, evaluate and improve human, resource, and total productivity at all levels for all jobs in all types of functions that an organization is involved in.

The movement for improving productivity worldwide over the past several decades shows that suitably educating employees on productivity management principles and empowering them with the knowledge in the state-of-the-art tools, techniques and methodologies for productivity management ensures an excellent result in the form of increased profitability and market share on a continuous basis. In such a competitive environment, development of a total productivity management system in organizations is a necessity. Such a development ensures that everyone and every functional unit or department in an organization participate actively in achieving productivity. Productivity improvement programmes, with support and commitment of top management, makes significant difference to an organization's performance. The proposed programme on Productivity Management has been planned keeping in view this scenario and purpose.

To meet these goals, organizations will have to undertake vigorous productivity measurement, evaluation and improvement activities using the state-of-the-art tools and techniques as applicable for the purpose in a given situation. Everyone in the organization must be aware of the importance of adherence to international norms in both product and process performance improvement in this context.

In this context, training programmes on productivity management are highly important and useful. Such programmes help a participant assess the status of productivity management and practices in their organizations vis-à-vis those desirable. Needless to say, persons trained in these areas become the driving force behind the successful implementation of quality systems in their organizations.

### **OBJECTIVES OF THE PROGRAMME**

The major objectives of the programme are as follows:

- Exposing participants to the fundamentals of productivity management
- Building, in the participants, confidence and faith in productivity measurement, monitoring, and methodologies
- Providing exposure to practical problems and their solutions, through case studies and live projects in the field of productivity management
- Enhancing the capability of the participants to identify, control, and remove the productivity-related problems
- Reducing the gap between demand and supply of trained manpower in the field of productivity management

### **TOPICS**

- Basics of Productivity Management: Relevant Issues and Problems, Methodologies, Framework for Productivity Analysis
- Multi-Factor Productivity Measurement and Evaluation System for Manufacturing Function/Industry: Models and Applications
- Multi-Criteria Productivity Measurement System for Service Functions and Industries: Models and Applications
- Productivity and Quality of Work life, White Collar Productivity, Productivity Improvement Tools and Techniques.

### **WHO SHOULD PARTICIPATE**

The managers and executives at middle and senior levels from manufacturing/service/IT sectors as well as faculty members from academic institutions.

### **LEVEL OF PARTICIPATION**

The personnel responsible for routine decision making and those involved in improvement exercises. The participants should be able to work with Microsoft Excel.

### **TEACHING FACILITY**

- Two faculties would conduct the class room sessions
- It is advisable to restrict the number of participants between 20 to 25 for the programme. Teaching will be made using LCD Projector and Writing Board (white board). As there will be number of classroom exercises, participants need to have scientific calculators/computer for his/her use.

## PROGRAMME SCHEDULE

9 am to 5 pm with 2-hour lunch break on each day.

## TRAINING METHODS

The training programme consists of lecture sessions, hands-on exercises, computer demonstrations, discussions on cases and live problems.

## NATIONAL ADVISORY COMMITTEE

**Chairman:** Mr N B Vasoya, FIE, President, IEI

**Co-Chairman:** Dr D K Tripathy, FIE, Chairman,  
PRDB, IEI

**Convenor:** Mr Ranjan Dutta, FIE, Honorary Secretary,  
WBSC, IEI

**Members:** Dr S Satyanarayana, FIE, Member, PRDB,  
IEI

Mr R Selvaraj, FIE, Member, PRDB, IEI  
Prof (Dr) N R Bandyopadhyay, FIE,  
Council Member, IEI

## ORGANIZING COMMITTEE

**Chairman:** Mr Kashmir Lal Mallik, FIE, Chairman,  
WBSC, IEI

**Organizing Secretary:** Professor Bijan Sarkar, FIE

## ADDRESS FOR CORRESPONDENCE

For clarifications and assistance, correspond with:

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## COORDINATORS

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## APPLICATION AND FEE

The programme is designed to be offered for a duration of **two days**. Number of participants for each course module will be limited to **twenty five**.

The fee for the programme is **Rs 5,000 per participant**. All payments are to be made through crossed Demand Draft drawn in favour of **“The Institution of Engineers (India), West Bengal State Centre”** payable at Kolkata. The course fee includes course materials, working lunch, and tea/coffee during lecture schedules only.

## ACCOMMODATION

Participants have to arrange their accommodation on their own. Expenses towards travel and local hospitality are to be borne by them separately.

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**Productivity Management in Manufacturing and  
Service Organizations  
(August 18-19, 2017)**

**Venue: Department of Industrial and Systems  
Engineering, IIT Kharagpur**

1. Name: \_\_\_\_\_
2. Affiliation: \_\_\_\_\_
3. Educational Qualification:  
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4. Address for Correspondence:  
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Date: \_\_\_\_\_  
Amount Rs. \_\_\_\_\_  
Bank: \_\_\_\_\_  
Branch: \_\_\_\_\_

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Signature of the Participant

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Signature of the Sponsoring Authority  
(with Seal)