Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

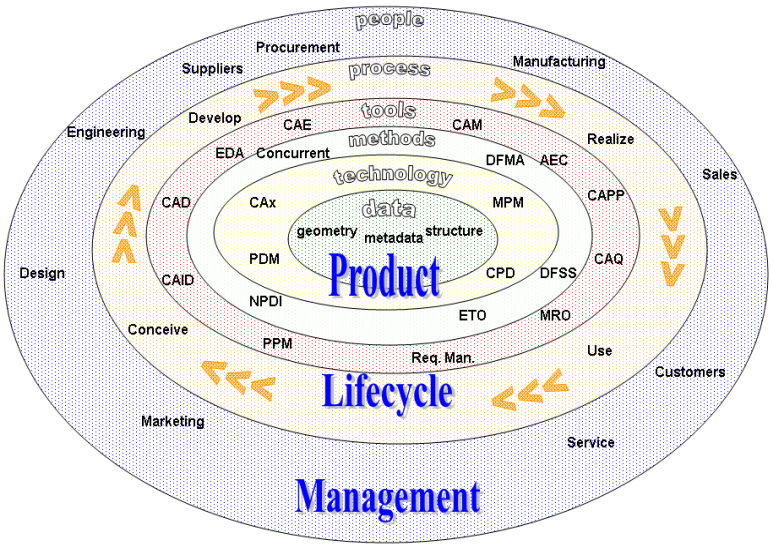
Old Bombay Road, Gachi Bowli, Hyderabad – 500 032. TS, India

POWER & ENERGY DIVISION

Continuing Professional Development Programme on

Power Plant Design, Analysis and Optimisation through Product Life Cycle Management (PLM) Techniques

27 – 29 March 2018



(**An ISO 9001:2008 Certified, AICTE & CEA Recognized Institution**)

Centre for Promotion of Professional Excellence

INTRODUCTION

Today's demands on network availability, efficiency and capacity are increasing continuously such as:

- Business demands on power stations such as merit order based generation at sustained lowest cost, highest possible efficiency, high reliability to meet committed generation even at low loads, flexibility to meet varying grid load requirements, minimizing auxiliary power requirements and support fuel, quick start-ups, quick recovery from unintentional occurrences, etc.,
- Demands on power plant environmental regulatory requirements and their compliance.
- As a result of the current economic climate in the world, the number of new power plants being built is slowing down (this is valid for all fossil fired power plants).
- Regulatory requirements and other factors associated with installation of green power plants vs refurbishment and life extension of existing power plants.

In many cases, the systems from earlier technology in Generations can't meet these new requirements. This is our challenge and we can aim to resolve by utilizing our portfolio of upgrade and retrofit solution, which includes consulting and engineering activities at all stages of an assets' life cycle. It is important that maintenance activities or retrofits are carried out professionally according the actual needs for life cycle performance.

Key requirements are higher maneuverability of plants regarding MW output and load changes while maintaining high efficiency levels throughout the complete load range, i.e. also being efficient in lower load conditions. Primary measures for achieving these requirements concern adaptations of the mechanical and process part (i. e. boiler, turbine and valves). Secondary measures address implementation of efficient control of the combustion process, adaptations to instrumentation and control, process information and optimization programs.

Varying lifecycle periods of the many different components and systems must be managed while meeting performance targets and complying with law and regulations at the same time.

OBJECTIVES

The objective of this program is to discuss and understand the various stages of Product Life Cycle at the level of Sub systems / Systems and what are the issues governing the PLM. The training course is envisaged to understand, Maximising Power Plant Performance and Returns on Investments through Product Lifecycle Management (PLM) and Techniques.

COURSE COVERAGE

1. Business Demands on Power Industry and corresponding Power Plant Performance Requirements (including Environment and other regulatory requirements)
2. Overall Power Plant Layout design of existing Power Plants and emerging concepts.
3. Design of Boiler and Boiler auxiliaries, Steam Turbines and Turbo Generator, Heat Exchangers, Pumps and coal Pulverizer and related design optimization. (also corresponding protection and automation systems)
4. Adding Power Plants – Greenfield or Refurbishment of Acquired Power Plants?
5. Product Life Cycle Management (PLM), PLM concepts, Product Life Cycle Phases
6. Benefits of PLM: How to use PLM principles and techniques to enable achieving of above demands and maximize returns on investments made
7. Power Plant Maintenance, Operation, Personnel Training, and related Techno-Economic Aspects
8. Power Plant Remnant Life Assessment and Life Extension Techniques
9. Power Plant Asset Integrity Management
10. A brief Introduction to ISO 55001 Standards for Asset Integrity Management

METHODOLOGY
The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a highly participative style of learning. The classrooms are provided with latest audio – visual teaching aids. The ambience in the campus and classrooms facilitate an effective learning by participants.

FACULTY
Apart from Core Internal Faculty, experienced professionals with domain expertise from Consulting Firms, Government Organisations, Manufacturing, Academic and Research Institutions etc. will share the sessions.

TARGET PARTICIPANTS
Power Engineers and Managers from Power Utilities, CPPs, Generating Companies, Independent Power Projects, associated with Planning, Design, Construction, Operation & Maintenance, System Operation, Manufacturing Industry, Academic and Consultancy Firms etc., Original Equipment Designers and Manufacturers of Power equipment.

PROGRAMME VENUE, DATES & TIMINGS
Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad - 500032, Telangana, India.

DATES
27 – 29 March 2018

TIMINGS
On the first day registration will commence at 0900 Hrs. On all other days the programme timings will be from 0945 to 1715 hrs with breaks in between for tea and lunch.

COURSE DIRECTOR
A Chandra Mohana Rao
Head, Power & Energy Division, ESCI
Certified Energy Auditor.

RESOURCE PERSON
M Venkat Ram
Former Deputy General Manager, Tata Power, Mumbai. Former Senior Consultant – Tata Quality Management Services; Former Certified Senior Business Excellence Assessor – Tata Business Excellence Model; Former Member, Central Boilers Board – Government of India.

COURSE FEE
Residential Fee is **Rs.15,000/- (Residential)** per participant. Fee includes Course Material, Course Kit, and Twin-sharing / Single AC accommodation as per availability, Breakfast, Lunch, Dinner, Tea / Coffee and Snacks.

DISCOUNTS
Non-Residential Fee: 10% discount on course fee is allowed for non-residential participants.

Group Discount: 10% discount for three or more participants if sponsored by the same organization.

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

GST @18% (as applicable) is to be paid extra over and above the training fee**. ESCI's Provisional ID No. 36AAATT3439Q1ZV, PAN Card No. AAATT3439Q.**

The course fee is to be paid in favour of **"IE (I) – ENGINEERING STAFF COLLEGE OF INDIA"** in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT) to ESCI – SB A/c No. 33705165550** with The SBI, Manikonda Branch, Gachi Bowli, Hyderabad – 500 032 by **NEFT / RTGS / IFSC Code No: SBIN0011076 – MICR No: 500002107.** While using EFT method of payment, please ensure to communicate us your company name, ESCI invoice reference and programme title.

Online registration is available on ESCI website. To register, manually please send your nominations (**10 days** prior to date of commencement of the programme) giving details of name, designation, contact address, email address, mobile number, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to :

Head, Power & Energy Division
Engineering Staff College of India
Gachi Bowli, Hyderabad – 500 032
Phone 040–6630 4170 to 4177; 040-6630 4171 / 4174, Fax: 040 – 23000336, 66304103
Email:pe.esci@gmail.com / pe@escihyd.org; Website: www.escihyd.org

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

GENERAL INSTRUCTIONS

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of the outstation participants ESCI will provide guidance to facilitate pickup and drop from Airport / Railway Station / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participants directly to the cab driver.
- ESCI provides complimentary accommodation to participants a day prior to the commencement and after the conclusion of the programme. (Check in at 12:00 hrs a day prior to the commencement & check out at 12:00 hrs a day after completion of the programme)
- Overstay charges of @ Rs.990/- per day / per head including hospitality (Bed Tea / Coffee to Dinner) will be charged.
- Well developed Information Centre and Internet facilities are available to the participants free of cost.