

Emerging Trends in Industrial Motors & its Driven Systems for improving Energy Efficiency

25TH APRIL 2019, THURSDAY



Venue

National Productivity Council

6, Aavin Dairy Road

Ambattur Industrial Estate(North)

Ambattur, Chennai - 600050

BACKGROUND

Electric motors are the workhorses of the industries. Electric motors have been the prime drivers in industry for decades and shall probably remain so for several years in future. Today, almost 45% of global electricity generated and **70% of total industrial electricity consumed is by Electric motors & motor driven systems.**

There are generally two approaches to improving energy efficiency –firstly by improving the system as a whole and secondly by improving components of the system. The first approach looks at improving the efficiency of the various motor-driven systems in an industrial facility in a systemic manner. These systems include pumping systems, fans, refrigeration, compressed air systems, and material handling and processing. It also uses a variable speed drive to control flow rate compared to the conventional method of using a throttle valve which only reduces flow rate even while the motor is operating at full speed.

The main reasons for focusing on the Motor Driven Unit are:

- The highest electricity savings potentials in the entire motor system.
- The use of variable frequency drives has the highest savings potential in applications with variable load (e.g. pump- and fan-MDUs) compared to applications with constant load (e.g. conveyors).
- Major driven applications pumps, fans and compressors, responsible for 70% of the electricity demand by motor systems.
- New and existing technologies offer the potential to reduce the energy demand of motor systems across the global economy by 20% to 30%.
- The know-how to realize energy savings exists but is not widely applied.

OBJECTIVE

This training cum certification workshop aims to impart relevant knowledge and awareness by the application experts to energy auditors & managers for enabling them to take better and informed decisions for implementing energy efficient technologies as per prevailing Energy Standards in the country.

This workshop shall also provide a practical session on learning various aspects of performance evaluation in motors, pumps, fans & compressors at the installed facility at NPC's state of art Centre for Excellence in Training for Energy Efficiency (CETEE), Chennai.

TENTATIVE PROGRAM AGENDA

09 00 h - 09 30 h	REGISTRATION	
09 30 h – 10 00 h	INAUGURAL SESSION	
	Welcome of Dignitaries	Lighting the Lamp
	Welcome Address	Program Manager, International Copper Association India
	Inaugural address	Director, NPC
	Vote of Thanks	Deputy Director, NPC
10 00 h - 13 00 h	TECHNICAL SESSIONS	
	TOPIC	SPEAKER
10 00 h – 10 40 h	Higher Efficiency Motors (HEMs), IE3 & IE4 – Approach to replacement of old motors with HEMs and case study.	SIEMENS
10 45 h – 11 15 h	Variable Frequency Drives – Role of VFDs in improving energy efficiency in motor systems	SIEMENS
11 15 h – 11 30 h	Q & A	
11 30 h – 11 45 h	NETWORKING TEA	
11 45 h – 12 20 h	Energy Efficient Pumping System	GRUNDFOS
12 25 h – 12 55 h	Energy Efficient Compressed Air System	NPC
13 00 h – 13 30 h	Blowers/Fans	NPC
	Q & A	
13 30 h – 14 15 h	LUNCH	
14 30 h – 16 30 h	VISIT TO CENTRE OF EXCELLENCE FOR TRAINING	
16 30 h – 17 00 h	Distribution of Certificates	