

### BACKGROUND

Energy is an important and critical factor to decide the overall economic development of the country. Today's modern life wants to have self-sustainability and energy independence. India's energy requirements are majorly met from non-renewable fossil fuels. Out of 370GW installed power plant capacity, 240GW (63-65%) power is generated from fossil fuels. Renewable Energy Sources mainly from solar and wind contributes only 80GW (20-22%). As the India's electricity demand skyrockets, it is projected that India will overtake the U.S. as the world's second-biggest emitter of carbon dioxide generated from the power plants by 2030. The carbon dioxide (CO<sub>2</sub>) emissions from the Indian power plants are likely to be 1154 million tons which forced the Prime Minister of India to set a target of having 40% installed power plant capacity by green energy sources by 2030.

As per the current plan, India set a target to install 175GW power plant through renewable energy sources by 2022, out of which 100GW from Solar, 60GW from Wind, 10GW from Biomass and 5GW from small hydro power. The target of reducing the ever increasing energy demand could be achieved only by enhancing the efficiency of major energy consuming utilities such as transformers, motors, pumps, fans, blowers, compressors, heating ventilation and air conditioning (HVACs) and lighting systems installed in industrial, buildings and commercial establishments. Energy Efficiency by Energy Management System/Energy Audit/Use of Renewable Energy has widespread cascading impacts. It provides solution to optimum use of energy, minimize energy wastage and reduction in greenhouse gas emissions.

### ABOUT CSIO CHENNAI CENTRE

CSIR-CSIO Chennai Centre was established in 1965 having its headquarters in Chandigarh, carried out many projects related to Energy Management Instrumentation sponsored by DST, DIT, PCRA, Ministry of Power, Indo German Energy Efficiency Program (IGEEP) and Private Industries. CSIO Chennai Centre has expertise in i) Industrial Energy Management Systems ii) Performance Monitoring systems for utilities and buildings iii) Biosensor based instrumentation iv) Industrial Networking and Remote Monitoring v) Application Software development for Energy Analysis vi) IoT enabled systems etc. CSIO has NABL accredited calibration laboratory for testing and certification of mechanical and electrotechnical devices. CSIO is in the process of creating a common research and technological development hub (CRTDH) in Renewable Energy and Electronics.

### ABOUT CONFERENCE

CSIR-CSIO Chennai Centre is organizing this 3 days national Conference on "Role of Energy Efficiency and Renewable Energy in Global Warming Mitigation" under DSIR's Access to Knowledge for Technology Development and Dissemination-Programme (A2K+Events) in association with the National Productivity Council, Dr. Ambedkar Institute of Productivity, National Productivity Council (AIP-NPC) which is a pioneering institution in India providing consultancy and training services in various fields including Energy Management for the past five decades.

### SPEAKERS

Well qualified and experienced energy professionals from CSIR labs (CSIO/SERC/CECRI/CLRI/CEERI), AIP-NPC, NIWE, PCRA, CPRI, IIT-M, Anna University and Industries.

### OBJECTIVES

- ✦ To disseminate scientific & technical information on various approaches towards enhancing energy efficiency and use of renewable energy towards mitigating global warming.
- ✦ To create awareness on energy management system used in industrial and building sectors.
- ✦ To create awareness on testing the performance of Industrial Utilities for Efficiency Improvement
- ✦ To provide live demo on energy saving concepts on electrical and thermal Utilities
- ✦ To create awareness on petroleum conservation
- ✦ To promote the concepts of star rated green buildings i.e., smart net zero energy buildings.

### TARGET AUDIENCE

Executives from all Industries (Engineering, Cement, Pulp & Paper, Chemical, Sugar, Textile, Dairy, Pharma, Refineries, Automobiles, Iron & Steel, Power Plants). Persons from industries who are responsible for Energy Conservation Energy Consultants, LEAD/ISO 50002 Auditors, Production Managers and Maintenance personnels. Engineering Staff from Hospital, Commercial Buildings, Municipalities, Institutes, Railways, Airport and College Professors /Ph.D/P.G Students of Electrical and Electronics Engineering, Mechanical, Energy Engineering, Energy Management, Energy & Environmental Studies.

### NUMBER OF PARTICIPANTS

Fifty (Maximum), preference will be given in this order: Industrial Professionals, CSIR Employees, Professors, Consultants, Energy Managers, Engineering Students.

### DATE & VENUE

2-4<sup>th</sup> March, 2020, two days (1<sup>st</sup> and 3<sup>rd</sup> day) programme will be at CSIR Madras Campus, Taramani Chennai -600113 and one day (2<sup>nd</sup> day) programme with includes ½ Energy Efficiency demo & training on Electrical and Thermal utilities at Dr. Ambedkar Institute of Productivity, National Productivity Council (AIPNPC), Ambattur, Chennai-600098

### FEE DETAILS

The participation fee is Rs. 10000/- for Industries and Institutes Professionals and Rs. 5000/- for CSIR Employees and Students + 18% GST, at prevailing rate. The participation fee covers tea / coffee, working lunch, course material, Joint Certificate given by CSIR-CSIO & AIP-NPC.

### NOMINATIONS

Industries/ Institutes/ CSIR Labs/ Organizations can nominate the participants and register for this programme in advance along with a crossed DD / Cheque in favour of the Director, CSIO payable at Chennai. CSIO Chennai Centre bank details is given in the brochure.

### ACCOMMODATION FOR THE PARTICIPANTS

The participants who wants to stay nearer to CSIR, (i.e., 2days programme place), they can approach for guest house accommodation at National Institute of Technical Teachers Training and Research (NITTTR), Taramani and Hotels nearer to CSIR campus i.e., in Taramani, Adyar, Tiruvanmiyur. AIP-NPC is also having single AC accommodation with Wifi, TV etc at Ambattur. Organizers will support the participants in getting good accommodation as per the actual rates.

### CERTIFICATE TO THE PARTICIPANTS

CSIR-CSIO and NPC would issue the Joint Certificate to the registered participants.

### FOR ON LINE REGISTRATION

Please refer the website for registration  
i) [www.csio.res.in](http://www.csio.res.in) ii) [www.csircmc.res.in](http://www.csircmc.res.in)  
iii) [www.aipnpc.in](http://www.aipnpc.in)

### BANK DETAILS OF CSIR-CSIO

Name : CSIO UNIT, CHENNAI  
Account No. : 30267719755  
Bank Name : State Bank of India  
Branch Code : 10673  
IFSC Code : SBIN0010673  
Bank MICR Code : 600002130  
Type of Account : Saving

### PROGRAMME COORDINATORS

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Govt. of India  
Ministry of Science and Technology

## Three Days National Conference on Role of Energy Efficiency and Renewable Energy in Global Warming Mitigation

Organized by

CSIR-CSIO Chennai Centre  
In Association with  
National Productivity Council (NPC), Chennai

Under DSIR's A2K+ Events

On 2 - 4th March, 2020  
at CSIR Campus, Chennai - 600113



