

# 5th INTERNATIONAL MECHANICAL ENGINEERING CONGRESS

on

# ENERGY SUSTAINABILITY AND MECHANICAL DESIGN

Jointly Organized by

The Institution of Engineers Pakistan Karachi Centre



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NED University of Engineering & Technology Karachi



on

## 9th & 10th May 2015 at Karachi Expo Center, Pakistan

in collaboration with Federation of Engineering Institutions of Islamic Countries (FEIIC)



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Federation of Engineering Institutions of South & Central Asia (FEISCA)





#### THE INSTITUTION OF ENGINEERS PAKISTAN

The institution of Engineers Pakistan (IEP) was established in 1948. It is the premier national body of engineers working for the advancement of the Engineering Profession. It has headquarters at Lahore and centres in all major cities of Pakistan as well as in Riyadh, Saudi Arabia & Bahrain. IEP has signed technical collaboration agreements with more than forty professional Engineering Organizations across the globe. IEP is also the member of six international / regional engineering bodies and has the honour to represent Pakistan at these forums. IEP Karachi Centre is the biggest center of IEP.

IEP Karachi Centre has been organizing International Mechanical Engineering Congresses since 2001.Last congress was held in January 2009.

Fifth International Mechanical Engineering Congress will be a 2 days event, spread over an inaugural and six technical sessions on 09<sup>th</sup> and 10<sup>th</sup> May 2015. This congress will be jointly organized by IEP Karachi Centre and NED University of Engineering and Technology, Karachi (Mechanical Engineering Department).

#### NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY

NED University is one of the oldest engineering institutions in Pakistan. It offers Bachelors, Masters and Doctoral degree programs. The programs are aimed at preparing students to shoulder their professional responsibilities and enable them to contribute in research and development in related fields. Various seminars and conferences are held every year which not only provide practical exposure to students but also a platform for academia-industry collaboration.

#### ROLE OF ENERGY & DESIGN IN NATION'S ECONOMY

Pakistan is undergoing an unprecedented energy crisis with severe shortfalls in the supply of electricity, natural gas and oil to center for the growing industrial and domestic requirements. Electric load-shedding is incessant and is estimated at about 25% of the system demand. Gas load-shedding is now also on the rise due to rapidly depleting natural gas reserves.

These factors have combined to curtail the economic, growth of the country significantly over the past few years. Moreover, our energy mix is heavily dependent on imported oil and as a result, oil import bill of about USD 13 billion is an enormous burden on the economy.

There is an urgent need on national scale to search for viable

indigenous sources of energy – whether conventional or renewable – that can be harnessed without adding to the import bill. Pakistan is blessed with sizeable deposits of natural gas, huge coal resources in Thar region and plenty of potential sites for hydroelectric, solar and wind power plants. Efforts are already underway in this regard and some progress has been made in the development of coal in Thar and wind power in Jhimpir and Gharo Creek. However, more efforts are required to be carried out before Pakistan can move ahead on the road to energy independence and self-sufficiency.

In order to provide a stimulus to the search for solutions to Pakistan's dire-energy problems, IEP and NEDUET have decided to host an International Mechanical Engineering congress with major focus on Energy and Sustainability. However, Mechanical Design and other aspects including Maintenance, Vibration, condition monitoring, material science and optimization will also be incorporated as they also play a vital role in boosting nation's economy.

It is anticipated that participation of experts from related fields in this conference will lead to an exchange of information on recent research and latest technologies. The conference is expected to establish and enhance linkages between energy industry and academia that can provide necessary impetus for new development and research projects.

The 5th International Mechanical Engineering Congress will be held at Expo Center, Karachi. It will also survey the present scenario and future prospects of Mechanical Engineering the development process. This conference will endeavor to highlight Pakistan's achievements in these areas.

### **TOPICS**

Fossil Fuel Power Systems
Renewable and Alternate Energy
Energy Audit and Efficiency
Buildings and Energy
Heat Transfer Systems
Power Distribution
Policy Matters
Vibration and Condition Monitoring
Maintenance Engineering
Mechanical Systems Design & Optimization
Risk Management
Health, Safety and Environment
CAD CAM
Material Science
Other Related Topics

Power Generation

# ENTECH PAKISTAN 2015 AN IEP EXHIBITION MAY 09 – 11, 2015 KARACHI EXPO CENTRE, PAKISTAN

Along the 5th Mechanical Engineering Congress, ENTECH Pakistan a prime engineering exhibition, featuring International and national exhibitors will also be held at the same venue from May 09-11, 2015, where most of the engineering disciplines would be represented. This exhibition would be showcasing Pakistan's Engineering Industry at a recognized platform, where the full range of engineering products and services will be on display.

#### **ABOUT KARACHI**

Karachi is a busting metropolis of over 20 million people, located on the southern coastline of Sindh province next to the Arabian Sea. It is the industrial and commercial hub of Pakistan with several industrial zones, an international airport, two seaports and rail and road linkages to the rest of the country. With several renowned universities located in the city, Karachi is a major center for education and higher learning in South Asia and the Muslim world.

The city is an ongoing bonanza of shopping surprises that dizzies with enchanting sights and sounds of amazing bargains. Most hotels, restaurants and many shops accept international credit cards. Pakistan standard time is Greenwich mean time (GMT) +5 hours. The electrical voltage 220-240 volts.

#### **DEADLINES & REGISTRATION**

#### IMPORTANT DEADLINES

Online Registration At your earliest
Abstract Submission 15th March 2015
Abstract Acceptance 25th March 2015
Full Paper Submission 7th April 2015
Full Paper Acceptance 10th April 2015
Final Manuscript / Camera Ready Paper 13th April 2015

#### REGISTRATION FEE

Authors / Presenters Gratis

Students / Scholars / I EPMembers PKR 500 or USD 5
General audience participation fee PKR 1500 OR USD 15

All participants will get conference proceeding on DVD or they may purchase a hard copy of the same for PKR 100 or USD 10.

#### INSTRUCTION FOR ABSTRACTS

Abstracts must be typed and single spaced having a minimum length of 300 words with a maximum of two pages. Abstracts are required to be self-contained and organized to include objective, methodology, result and conclusions. It must contain presentation title, author's name organization e-mail, phone & fax numbers.

#### RECOGNISED CPD ACTIVITY

This conference is a recognized activity for Continuing Professional Development (CPD) according to the rules of Pakistan Engineering Council (PEC), PEC will award credit points to participating engineers as per their defined criteria.

#### CONTACTS

For further details, kindly follow conference links below: www.neduet.edu.pklmech nediep@neduet.edu.pk

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#### **KEYNOTE SPEAKER**

#### Prof. Dr. Tasneem Parvez

Asstt: Dean of Research & Postgraduate Studies Sultan Qaboos University, Oman.