### International Journal of Engineering, Science and Technology (IJEST)

## **Call for Papers**

# Special Issue on: "Recent Developments and Key Issues in Wind Science, Engineering and Technology"

Wind energy as a power source is attractive as an alternative to fossil fuels because it is plentiful, renewable, widely distributed, clean, and produces no greenhouse gas emissions during operation. Wind power is the conversion of wind energy into a useful form of energy, such as using wind turbines to make electricity, wind mills for mechanical power, wind pumps for pumping water or drainage, or sails to propel ships. Among the various types of renewable energy sources, wind energy is said to be the most suitable choice for the future.

Wind engineering is best defined as the rational treatment of interactions between wind in the atmospheric boundary layer and man and his works on the surface of Earth. Assessing the effects of wind on various earth-fixed structures, vehicles and other bluff bodies need good knowledge in the wind environment for a practicing wind engineer.

Most of the wind farms are away from the end-users, it is efficient and cheap option to generate electricity from wind energy and transmit over the transmission line to reach end users for its utilization. Earlier the wind power generation was very small and hence, the impact of wind farm on the grid was very small. Nowadays, the increased level of wind penetration produces lots of new challenges to the power engineers. Electric vehicle and demand response seem to be appropriate and a lot of research work is going on in several countries. This necessitates the requirement of suitable new grid code for promotion of wind power for pollution free society. The objective of the issue is to invite contributions from researchers, academicians and practitioners from industries and research establishments in the area of wind energy and engineering. The topics to be covered include, but not limited to:

- Wind energy, wind and air turbines, wind energy structures
- Aerodynamics: including buildings, vehicles, structures and bluff bodies
- Codification, norms and standards
- Wind loads on buildings, towers, bridges and other structures
- Experimental and computational wind engineering
- Pedestrian level winds and outdoor human comfort
- Case studies and analysis related to wind energy and its utilization, extreme wind events, etc.
- Application of emerging technologies in wind power engineering
- Issues related to wind forecasting, hybrid generation system, grid code
- Identify the challenges, opportunities, and solutions in Testing, Legal & Compliance
- Grid connected and stand-alone wind power generation: Planning, design, operation, control and analysis
- Transport, dispersion and deposition of pollutants

#### **Submission Guidelines and Important Dates**

Manuscripts should be in English and normally not exceed 7000 words in length (single column, 10 pt running text, double spacing, Times New Romans) in MS word and PDF files. All contributions will be subjected to a peer review process. Manuscripts must be sent electronically to the email addresses: <a href="mailto:snsingh@iitk.ac.in">snsingh@iitk.ac.in</a>, <a href="mailto:debojyoti.mitra@spsu.ac.in">debojyoti.mitra@spsu.ac.in</a>, <a href="mailto:jgsingh@ait.ac.th">jgsingh@ait.ac.th</a>, <a href="mailto:sa\_oke@yahoo.com">sa\_oke@yahoo.com</a>. The official website of the journal is <a href="mailto:www.ijest-ng.com">www.ijest-ng.com</a>. Important dates are as follows:

Deadline for full paper submission:

First turn of paper review:

Second turn of paper review:

Final (Camera-ready) paper and copyright submission:

October

15, 2010

15, 2010

15, 2010

20, 2011

February

28, 2011

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