

Application form

Name:
Address for communication
Date of Birth & Age:
Residential address:
Gender (M/F):
Phone Nos:
Qualifications:
Mobile no:
Designation:
E-mail id:
Department:
Payment details:
Institution/University:
Mode of Payment: Cash/DD
Fax: DD No:
Date Bank: Amount:
Declaration:
The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations of the workshop.
Date:
Signature of the applicant
Place: Name:

Registration fee:

The participants of the workshop will have to pay an amount of Rs.1000/- (Non-refundable) towards the Registration fee through DD/Cash in favour of- The Director, IST, payable at Hyderabad, along with the application.

For Students registration fee will be Rs.500. (non refundable).

For TEQIP institutes **No registration fee.**

Last Date for Registration: 25th April, 2019
For Further, details contact: Phone: 9441184024, 9912297832

Prof. V. Himabindu,
HEAD and Coordinator,
Centre for Environment, IST, JNTUH

Dr. CH. Shilpa Chakra
Assistant Professor of Nanotechnology
Centre for Nano Science and Technology
IST, JNTUH



One day workshop On *Energy Storage (ES)*

29th April, 2019

Venue:
*Seminar hall
New IST,
JNTUH, Kukatpally, Hyderabad-08*

*Sponsored by TEQIP-III
(Under twinning program)*

Jointly Organized by
Centre for Environment,
&
Centre for Nano Science & Technology
Institute of Science and Technology,
Jawaharlal Nehru Technological University
Hyderabad,
Kukatpally, Hyderabad-500085 (T.S)

In collaboration with

Dayalbagh Educational Institute (Deemed
University)
Dayalbagh, Agra - 282 005 (U.P)

Scope:

The electrical power system is in the process of moving away from fossil fuels to environmentally friendly renewable energy resources. The change is mainly due to the increasing demand for electric power by both developed and developing countries, many developing countries lacking the resources to build power plants and distribution networks, some industrialized countries facing insufficient power generation and greenhouse gas emission and climate change concerns. Renewable energy sources such as wind turbines, photovoltaic solar systems, solar-thermo power, biomass power plants, fuel cells, hydropower turbines, and hybrid power systems will be part of future power generation systems.

The exploitation of renewable energy sources may be problematic due to their variable and intermittent nature. In addition, sudden change of a load, or the occurrence of a line fault can cause sudden momentary dips in system voltage. The energy storage can compensate for the stochastic nature and sudden deficiencies of renewable energy sources for short periods without suffering loss of load events and without the need to start more generating plants. Another issue is the integration of RESs into grids at remote points, where the grid is weak that may generate unacceptable voltage variations due to power fluctuations. Upgrading the power transmission line to mitigate this problem is often uneconomic. Instead, the inclusion of energy storage for power smoothing and voltage regulation at the remote point of connection would allow utilization of the power and could offer an economic alternative to upgrading the transmission line.

Currently, India is one of the fastest growing economies in the world, with current electricity generation capacity of ~345 GW to meet the needs of over 1.25 Billion populations. The rapid adoption of clean energy technologies India's National Energy Storage Mission has created remarkable potential towards energy storage which is up to 15-20 GW by 2020, as per India Energy Storage Alliance. This workshop aims to review state-of-the-art development of energy storage technologies to provide a gainful insight into the working and development energy storage system.

Themes:

- Overview of Energy Storage Technologies
- Integration of Energy Storage
- Battery storage and Electric Vehicle Integration
- Thermal Energy Storage
- Hydrogen Storage
- Solar energy storage

Thrust Areas:

The energy storage on lithium, sodium ion batteries and Pd-H system new way to design materials

About IST, JNTUH

The Institute of Science and Technology is a constituent unit of Jawaharlal Nehru Technological University Hyderabad. It established in 1989 and is currently offering postgraduate and research programmes in interdisciplinary areas of science and technology leading to M.Sc, M.Tech and Ph.D degrees. The units offering academic programmes in the Institute are Biotechnology, Environmental sciences, Spatial Information technology, Chemical science and technology, Pharmaceutical sciences, Water resources and Nano science and technology. All the centres are equipped with state of art laboratories and the faculty members of the institute attract funded research projects.

Centre for Environment

The Center for Environment has established at Jawaharlal Nehru Technological University, Hyderabad in 1991 with the main objective to take up research and development in the areas of environmental pollution monitoring, impact assessment and development of control technologies besides offering higher technological education in Environment. The Center is actively involved in a number of academic and research programmes supported by various national funding agencies.

Centre for Nano Science and Technology (CNST)

Centre for Nano Science and Technology (CNST) was established in 2007 at Institute of Science and Technology, Jawaharlal Nehru Technology University Hyderabad with main focus on teaching and research in the field of Nano Technology under the support of DST-Nanomission. Centre has well equipped classrooms with audiovisual facilities, research and computer facilities. The Centre has modern infrastructure for carrying out research in the advanced areas of Nano science.

Dayalbagh Educational Institute (Deemed to be University): The Government of India declared the Dayalbagh Educational Institute as an institution *Deemed to be a University* from the session 1981-82, under Section 3 of the University Grants Commission Act, 1956 (3 of 1956). The Institute has since been accorded the membership of the Association of Indian Universities. The Institute comprises faculties of Arts, Commerce, Education, Engineering, Science and Social Sciences.

Speakers:

- Prof. Rajeev Ahuja, Uppsala University, Sweden.
- Dr. Wei Luo, Uppsala University, Sweden.
- Prof. Bhagawan Das, DEI, Dayalbagh, Agra.
- Dr. T.S. Balasubramanian, RCI, Hyderabad.

Organizing committee:

Prof. A. Venugopal Reddy	Chairman
Hon'ble Vice-Chancellor, JNTUH	
Prof. Dr. A Govardhan	Member
Rector, JNTUH	
Prof. N Yadaiah	Member
Registrar, JNTUH	
Prof. B. Venkateswara Rao	Member
Director, IST, JNTUH	
Prof. M. Anji Reddy	Member
Director, DRD, JNTUH	
Dr. A Jayashree	Member
Head, CCST, IST, JNTUH	
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Head, CBT, IST, JNTUH	
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Head, CNST, IST, JNTUH	
Dr. S. Shobha Rani	Member
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Dr. C Sarala	Member
Head, CWR and CSIT, IST, JNTUH	
Dr. Ch. Sasikala	Member
Professor CEN, IST, JNTUH	
Dr. T. Vijaya Lakshmi	Member
Ass. Prof., & Coordinator, TEQIP-III	
CEN, IST, JNTUH	

Participants

Students, Research organizations, Entrepreneurs, Public sector Enterprises Consultants, Industry associations and universities, relevant officials from public funded R & D Organizations.

The Coordinators,

Dr. V. Himabindu.
Professor and Head
Centre for Environment,
Institute of Science and Technology
Jawaharlal Nehru Technological University Hyderabad,
Kukatpally, Hyderabad-500 085
E-mail: drvhimabindu@gmail.com Phone: 09849692838

Dr. CH. Shilpa Chakra
Assistant Professor of Nanotechnology
Centre for Nano Science and Technology
Institute of Science and Technology
Jawaharlal Nehru Technological University Hyderabad
E-mail: shilpachakra.nano@gmail.com Phone: 07799438736

Prof. Bhagawan Das
Dayalbagh Educational Institute (Deemed University)
Dayalbagh, Agra - 282 005 (U.P)