

**22-23 SEPT  
 2021**

**SEMINAR ON  
 NANOMATERIALS AND  
 ENERGY STORAGE**



FREE Registration at <https://bit.ly/37SkRyF>

or scan QR Code



**ABOUT SEMINAR**

Energy storage technique is considered as a solution to bridge the gap between energy demand and supply. A critical challenge in solar energy is ensuring adequate storage and recovery of this energy for uninterrupted energy supply as Solar energy is intermittent in nature. Solar energy can be stored as electrical energy using batteries or as thermal energy using Phase Change Materials which is also known as Thermal Batteries. Using various types of Nano materials further enhances the electrical and thermal output. This seminar is organized within the framework of International Research Network Grant involving Sunway University and ASEAN country collaborators. Nano materials and Energy Storage seminar is the first in a series of 2 days program to present and discuss the most recent innovations, trends and concern as well as practical challenges encountered and solution adopted for Energy Storage and advanced roles of Nano materials in Energy Storage.

Speakers are leading expert in the field of Nano Materials and Energy Storage from Denmark, Australia, UAE, Indonesia, India, Philippines, Bangladesh and Malaysia. This seminar demonstrates the commitment to support the United Nations (UN) Sustainable Development Goal (SDG), particularly SDG7 on ensuring access to affordable and clean energy, SDG9 on industry innovation and infrastructure and SDG13 on climate action.

**SPEAKERS**



Prof. Yogendra Kumar Mishra  
 Mads Clausen Institute  
 University of Southern Denmark



A/Prof. Zhenjun Ma  
 University of Wollongong  
 Australia



Prof. Saidur Rahman  
 Sunway University  
 Malaysia



Dr. V.V. Tyagi  
 Shri Mata Vaishno Devi University  
 India



Dr. Zafar Said  
 University of Sharjah  
 UAE



A/P Dr. Saleh Ahammad  
 Jagannath University  
 Bangladesh



Dr. Krismadinata  
 Universitas Negeri Padang  
 Indonesia



Dr. Drandreb Earl O. Juanico  
 Technological Institute of Philippines  
 Philippines



A/Prof. Adarsh Kumar Pandey  
 Sunway University  
 Malaysia

**TENTATIVE PROGRAMME**

**Day 1: 22nd Sept. 2021/ Wednesday**

09:00am - 09:30am	Opening Remarks
09:30am - 10:15am	Exploiting opportunities and advances of thermal energy storage and renewables in future HVAC systems <i>by Assoc. Prof. Zhenjun Ma, University of Wollongong, Australia</i>
10:15am - 11:00am	Multi-physics perspective of the poroacoustic enhancement of active nanomaterial transport in commercial energy storage cell elements <i>by Dr. Drandreb Earl O. Juanico, T.I.P. Philippines</i>
11:00am - 11:45am	MXene in energy storage and heat transfer applications <i>by Prof. Saidur Rahman, Sunway University, Malaysia</i>
11:45am - 02:00pm	Break
02:00pm - 03:00pm	Tetrapods based Smart Materials for Advanced Technologies <i>by Yogendra Kumar Mishra, University of Southern Denmark (SDU), Denmark</i>
03:00pm - 03:45pm	Nanofluids: Stability, thermophysical properties and applications <i>by Dr. Zafar Said, University of Sharjah, U.A.E.</i>
End of Day 1	

**Day 2: 23rd Sept. 2021/ Thursday**

10:00am - 10:45am	Renewable energy storage policies in Indonesia and role of power electronics <i>by Dr. Krismadinata, Universitas Negeri Padang, Indonesia</i>
10:45am - 11:30am	Nano Thermal Energy Storage Batteries <i>by Assoc. Prof. Dr. Adarsh Kumar Pandey, Sunway University, Malaysia</i>
11:30am - 12:15pm	Solar Thermal Energy Storage Materials: Advancements and Future prospects <i>by Dr. V.V. Tyagi, Shri Mata Vaishno Devi University, India</i>
12:15pm - 02:00pm	Break
02:00pm - 02:45pm	Porus Carbon Materials for Electrochemical Energy Storage <i>by Assoc. Prof. Dr. Saleh Ahammad, Jagannath University, Bangladesh</i>
02:45pm - 03:30pm	Discussions and Closing Remarks
End of Day 2	

**ORGANIZING COMMITTEE**

- Chairman : Professor Saidur Rahman
  - Covener : A/P Dr Adarsh Kumar Pandey
  - Organizing Secretaries : Dr Lingenthiran Samyilingam | Dr Tan Kim Han
  - Organizing Members : Mr. Kalidasan B | Ms. Teo Wei Nie | Ms. Aisha Ridzuan | Ms. Atikah Aini Abdullah
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