

Department of Physics

Workshop Report

One Day Virtual Workshop on Energy Storage Devices

Date: October 1, 2022

Duration 10:00 AM to 02:30 PM

Platform: Zoom Meet

Introduction: The Department of Physics at Velammal Institute of Technology, located in Chennai, Tamil Nadu, organized a one-day national virtual workshop on Energy Storage Devices on October 1, 2022. The workshop aimed to provide a platform for researchers, scientists, and students to enhance their knowledge and understanding of energy storage devices, with a focus on 2D materials, batteries, and supercapacitors. Around 40 participants actively took part in the workshop, representing various academic institutions, research organizations, and industries. To support the workshop's logistics and arrangements, a nominal registration fee of INR 200 was charged to the participants. In return, the participants were provided with an E-Certificate of participation, acknowledging their active involvement in the workshop. The event featured renowned resource persons from esteemed institutions who shared their expertise and insights on these subjects.

Resource Persons:

1. Dr. R. Jayavel

Dean, ACTECH

Anna University, Chennai,

Tamil Nadu

2. Dr. Srinivasan Anandan

Senior Scientist-E

International Advanced Research Centre for Powder Metallurgy & New Materials

Hyderabad, Telangana

*****One Day Virtual Workshop on Energy Storage
Devices on 1st October 2022*****

Workshop Poster:

**VELAMMAL**
INSTITUTE OF TECHNOLOGY
Approved by AICTE - New Delhi, Affiliated to Anna University - Chennai
Accredited by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
"Velammal Knowledge Park", Chennai - Kolkatta Highway, Porur - 601206

**NBA**
NATIONAL BOARD OF ASSOCIATION
**NAAC**
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

**INSTITUTION'S INNOVATION COUNCIL**
(Ministry of Education Initiative)

Department of Physics Organises

**ONE DAY VIRTUAL WORKSHOP ON
ENERGY STORAGE DEVICES**

1st October 2022

The workshop will benefit beginners and advanced level researchers who are interested to expertise in energy storage applications. Faculty members, research scholars and PG students working or planning to work in the field of photocatalyst, fuel cell, supercapacitor and material science can avail this opportunity. Workshop will have two sessions

1. Speaker session
2. Electrochemical workstation demonstration

REGISTRATION FEE DETAILS:
Students & Research scholars: 200/-
Faculty Members/Scientists: 500/-
Industrial Participants : Rs.1000
International Participants: \$ 50
For cash transfer: Online payment only
A/C Name : Velammal Institute of Technology
A/C No : 874745198
IFSC No : IDIB000A076
Bank Name: Indian Bank, Andarkuppam
Note: After the payment, please send the transaction details to
vitphysicsdepartment@gmail.com

IMPORTANT DATES:
Last date for Registration : 26.09.2022
Work shop date : 01.10.2022

REGISTRATION LINK: <https://forms.gle/cgNLRHmx9gixiANA>

RESOURCE PERSON

Dr. R. Jayavel
Dean
ACTECH, Anna University,
Chennai.

Dr. Srinivasan Anandan
Senior Scientist-E
International Advanced Research
Centre for Powder Metallurgy &
New Materials [ARCI],
Hyderabad.

Dr. N. Balaji, Principal
Dr. S. Soundararajan, Vice Principal
Dr. B. Balamurugan, HOD- S & H

CONVENER
Dr. V. Sindhu Sukumaran
HOD-Physics,
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ORGANISING COMMITTEE
Dr. A. Subashini, Asst. Professor.
Dr. R. Saraswathy, Asst. Professor.
Mr. A. Arun dinesh, Asst. Professor.
Dr. N. Marimuthu, Asst. Professor.

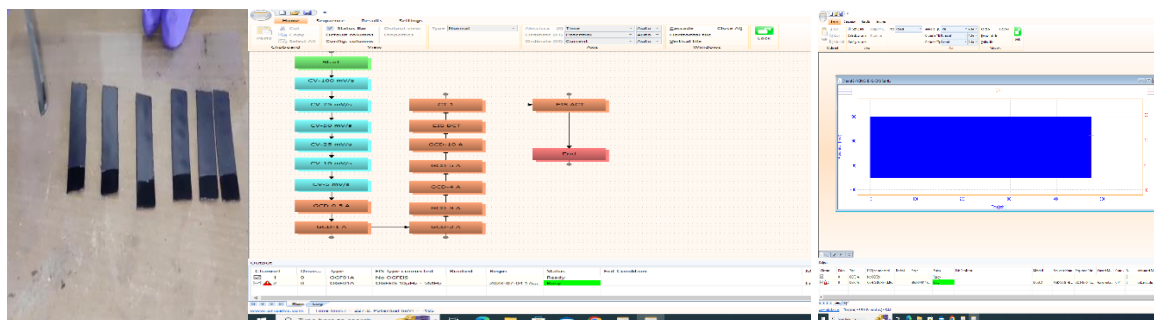
CO-ORDINATOR
Mr. S. Suresh, Research Scholar

Event Details: The workshop commenced with a warm welcome address by Dr. V. Sindhu, the organizer of the event. Dr. Sindhu expressed her gratitude to the participants and set the tone for an enriching day of learning and collaboration. The first technical session was conducted by Dr. R. Jayavel, Dean of ACTECH at Anna University. Dr. Jayavel delivered an insightful lecture on the application of 2D materials in energy storage devices. He discussed the unique properties and potential of 2D materials, such as graphene, in revolutionizing energy storage technologies. The presentation provided a comprehensive overview of the synthesis, characterization, and performance of these materials in various energy storage applications.

Following Dr. Jayavel's session, Dr. Srinivasan Anandan, a Senior Scientist-E at ARCI, took the virtual stage. He delivered a captivating lecture on batteries and supercapacitor research. Dr. Anandan shared his expertise on the entire journey of battery development, from synthesis to fabrication, and the crucial aspects of technology transfer to industry scale. He highlighted the ongoing research activities at ARCI and discussed the challenges and opportunities in the field.

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Electrochemical Workstation Demonstration: After a brief break, the workshop entered the afternoon session, which focused on the practical aspects of electrochemical workstations. Suresh S., a research scholar from the Department of Physics at Velammal Institute of Technology, conducted a hands-on demonstration of electrochemical workstations. He explained the electrode preparation, electrochemical cell assemblies and how to study electrochemical performances of the prepared electrode using electrochemical workstation.



Q&A session: The presentations were followed by interactive question-and-answer sessions, where participants had the opportunity to seek clarifications and engage in insightful discussions with the resource persons. The virtual platform facilitated seamless communication and knowledge sharing among the attendees. The participants exhibited enthusiasm and actively engaged in the lectures and discussions, contributing to the overall success of the event.

Dr. N. Marimuthu, a faculty member from the Department of Physics, delivered the vote of thanks at the end of the workshop. Dr. Marimuthu expressed gratitude to the resource persons for their valuable contributions and commended the efforts of the organizing team in successfully conducting the workshop.

Feedback and Satisfaction: The webinar received overwhelmingly positive feedback from the participants. According to the survey conducted post-webinar: 72% of the participants rated the speakers as excellent, highlighting the quality and expertise demonstrated by the speakers. The feedback form sample is given as following,

7903, 12:14 PM FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

ORGANISED BY FACULTY OF SCIENCE AND HUMANITIES, DEPARTMENT OF PHYSICS,
01.10.2022

Email *
shakshu73@gmail.com

FULL NAME *
KRISHALINI

7903, 12:14 PM FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

The session delivered the information I expected to receive *

☐ Strongly disagree
☐ Disagree
☐ Neutral
☐ Agree
☒ Strongly agree

The subject matter was presented effectively *

☐ Strongly disagree
☐ Disagree
☐ Neutral
☐ Agree
☒ Strongly agree

7903, 12:14 PM FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

DESIGNATION *

☐ PROFESSOR
☐ ASSOCIATE PROFESSOR
☐ ASSISTANT PROFESSOR
☒ RESEARCH SCHOLAR
☐ STUDENT

INSTITUTION NAME WITH PLACE *

Annamalai University Chidambaram

7903, 12:14 PM FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

The pace of the FDP was satisfactory *

☐ strongly disagree
☐ Disagree
☐ Neutral
☐ Agree
☒ Strongly Agree

The duration of the FDP was sufficient for the material covered *

☐ Strongly disagree
☐ Disagree
☒ Neutral
☐ Agree
☐ Strongly agree

7903, 12:14 PM FEEDBACK FORM FOR THE "ONE DAY VIRTUAL WORKSHOP ON ENERGY STORAGE DEVICES"

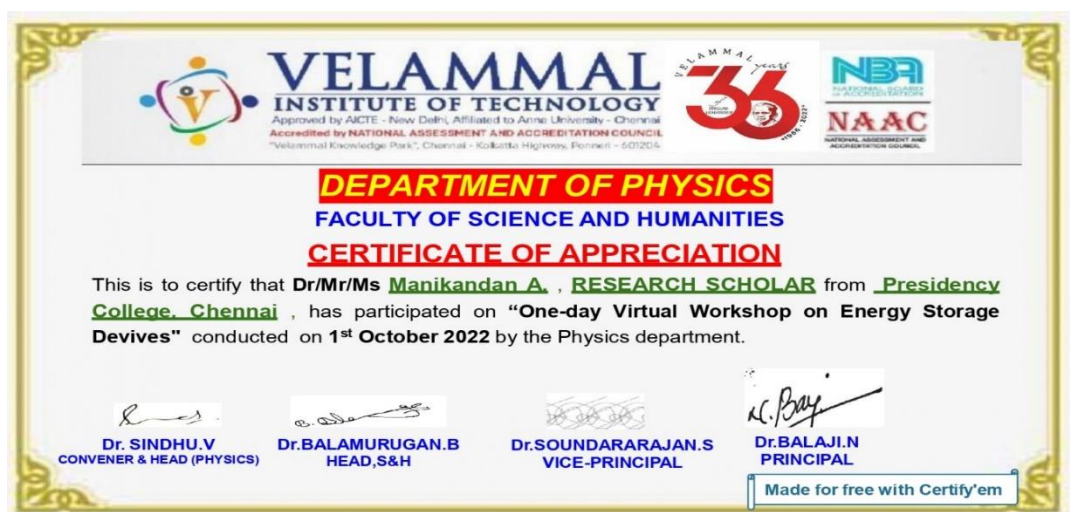
As a result of this FDP, I gained new knowledge applicable to my work *

☐ Strongly disagree
☐ Disagree
☐ Neutral
☒ Agree
☐ Strongly agree

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E-Certificate sample: E-certificates were sent to all the participants as a recognition of their attendance and active participation in the webinar.



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Conclusion: The One Day National Virtual Workshop on Energy Storage Devices provided a valuable learning experience for participants interested in 2D materials for supercapacitors. Dr. R. Jayavel's lecture shed light on the potential of 2D materials in energy storage applications, while Dr. Srinivasan Anandan's presentation provided a comprehensive understanding of battery and supercapacitor research using Carbon based materials.

Co-ordinator