

Lecture Series
By
Top Experts



(20th March, 2024)



Organized by
Department of Physics
(The Vedanta Physics Society)
Under the aegis of

**Research and Incubation Cell &
IQAC**
Neta Ji Subhash Chander Bose Memorial
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**Neta Ji Subhash Chander Bose Govt. College, Hamirpur
(HP), India**

Lecture Series
by
Top Experts

On

**Advanced Materials for Emerging
Electric Vehicle Technology**

(20th, March, 2024)



(INVITED SPEAKER)

Prof (Dr) Mahavir Singh
Department of Physics
Himachal Pradesh University, Shimla (India)

Ph. D. (IIT, Delhi)
Visiting Fellow (LNCMI, France)
Ex-Vice Chancellor-IEC University, Baddi (HP)



THE VEDANTA PHYSICS SOCIETY

EXPERT LECTURE

REPORT

On 20th March 2024, our institution had the privilege of hosting a distinguished expert lecture by Dr. Mahavir Singh a renowned authority in the field of advanced materials for emerging electrical vehicle (EV) technology. The lecture aimed to shed light on the latest advancements, challenges, and future prospects in this rapidly evolving domain.

During the lecture, Dr. Mahavir Singh provided a comprehensive overview of the role of advanced materials in shaping the future of EV technology. Key topics covered included:

1. **Current Trends in EV Technology:** The speaker discussed the current landscape of EV technology, highlighting the growing importance of advanced materials in enhancing performance, efficiency, and sustainability.
2. **Importance of Advanced Materials:** Dr. Mahavir Singh emphasized the crucial role of advanced materials, such as lightweight composites, high-performance batteries, and novel nanomaterials, in overcoming key challenges faced by EVs, including range anxiety, charging infrastructure, and environmental impact.
3. **Innovations in Material Science:** The lecture delved into recent innovations and breakthroughs in material science that are driving advancements in EV technology. Topics included the development of new materials with superior conductivity, durability, and energy storage capabilities.
4. **Challenges and Opportunities:** Dr. Mahavir Singh highlighted the various challenges, such as cost, scalability, and supply chain constraints, that need to be addressed to accelerate

the adoption of advanced materials in the EV industry. Additionally, the lecture explored the vast opportunities for research, collaboration, and innovation in this burgeoning field.



