GNITS IEEE Student Branch	**IEEE GNITS SB ACTIVITIES**	IEEE Hyderabad Section

Latest Trends in Battery Energy Storage Systems

Student Activity Centre: IEEE SB GNITS

President Dr. K. Ramesh Reddy

Name of the Faculty	Designation	Category
Dr. K. Ramesh Reddy	Principal	Principal
Dr. N. Malla Reddy	Professor, EEE	Mentor
Dr. Himabindu.T	Asst. Prof, EEE	SB Counsellor, IES faculty advisor
Dr. Renuka Devi SM	Professor, ECE	WiE, Photonics Faculty Advisor, Financial advisor
Dr. C. Padmaja	Asst. Prof, ECE	Sensors Council advisor
Mrs. K. Swarna Latha	Asst. Prof, EEE	PELS faculty advisor
Mrs. B. Amrita	Asst. Prof, CSM	Group Challan, Web Master
Mrs. D. Vandana	Asst. Prof, IT	Membership Development Committee (MDC) Chair
Mrs. G. Madhavi	Asst. Prof, ECE	Financial advisor, Minutes Of Meeting in charge
Mrs. K. Pranathi	Asst. Prof, ETE	Public relations and Content Writing

Name of the Student	Department	Category
Nasira Banu	ECE	Chair
V. Nanditha Reddy	ECE	Vice-chair, WiE chair
C. Madhuri	EEE	Secretary
G. Jhansi Laxmi	EEE	Treasurer
K. Sahithi	CSE	Public Relations Head
Ch. Poojitha	CSE	Public Relations Co-Head
S. Meenakshi	EEE	Content writing & Designing Head
A.Pranavya	CSM	Content writing & Designing Co-Head
B. Sri Vaishnavi	EEE	Photography Head
B. Usha Sri Chowdary	ECE	Photography Co-Head

EVENT DETAILS

Type of activity: SB Event
Subsection: Hyderabad
Name of the Event: Latest Trends in Battery Energy Storage Systems
Dates/Duration: 25/09/2023
Organized by: IEEE IES chapter GNITS SB
Sponsored by: GNITS
Host Organization: SB GNITS

EVENT HIGHLIGHTS

IEEE IES chapter GNITS SB in association with IEEE IES Hyderabad Section had an excellent technical talk titled **"Latest Trends in Battery Energy Storage Systems"** by Mr.Koti Reddy, Scientific officer, Dept. of atomic energy. This talk provides a comprehensive exploration of BESS with a focus on understanding, implementing, and optimizing this transformative technology. It begins with an introductory overview of BESS, highlighting its pivotal role in the evolving energy landscape. The subsequent section delves into the fundamental terms & definitions and applicable codes associated with BESS. Then elucidates the diverse range of battery technologies available, insights into their characteristics and applications. Real-world applications of BESS are showcased Sizing estimations are provided with practical guidance in this regard. Understanding the charging and discharging characteristics of a Li-ion battery will be discussed. Case studies/success stories showcase real-world applications, demonstrating the tangible benefits of BESS. Will discuss strategies for optimizing BESS performance and potential opportunities in the BESS sector. Latest advancements such as solid state & Li-air batteries and emerging technologies such as Digital Twin, providing an outlook for what lies ahead. In conclusion, this talk equips participants with a holistic understanding of BESS, its current significance & promising future, ultimately empowering stakeholders to make informed decisions in the realm of energy storage and management. Application of softwares tools- E Tap, Python, Matlab and Homer Pro.Practical Demo of Li ion Battery charge and Discharge Curves.

Mr. B. Koti Reddy Garu gave a prototype of "Testing bed of Battery cells under different temperatures" to Dr.Himabindu.T for further applications of the prototype. Guest Dr.Rajgopal, Senior IEEE member also addressed the session in view of benefits about the battery storage devices. Dr.Tripura.P, Chair, IEEE IES HYD SECTION (online mode), Dr.K.Ramesh Reddy, Principal, Dr.N.Malla Reddy, Mentor, IEEE SB GNITS, Prof.P.Ramakrishna, HoD, Dr.Himabindu.T (Vice-Chair, IEEE IES HYD SECTION), SB Counselor, GNITS, Mr.Ramana Reddy, Mrs.K.V.S Sowmya, Mrs.K.V.Dhanalaxmi, faculty and students of EEE dept. participated in the session.

Registered participants:
Attended participants:
IEEE members: 08
Non-IEEE members: 107
Special awards/achievements (if any): Mementos given to guests