



St. Thomas' College of Engineering & Technology
Kidderpore, Kolkata, West Bengal

NEWSLETTER



SPARK

Department Of Electrical Engineering

-: July to Sep.: -

Volume: EE-X, Issue-I: Oct. 17, 2024

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St. Thomas' College of Engineering and Technology

4, Diamond Harbour Road, Kidderpore, Kolkata- 700023



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NEWSLETTER

Department:

EE

(NBA Accredited)

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To create a strong research-based teaching and learning environment that will cater to the needs of modern Electrical Engineering.

Vision

Mission

- To impart knowledge and technology to budding professionals and incite their quest for further enhancement of their learning.
- To produce recognized industry-ready professionals in Electrical Engineering, through educational program incorporating practice and project-based teaching-learning processes.
- To enhance knowledge in Electrical Engineering, through research for sustainable development of the society and the nation as a whole.
- To promote social, environmental and technological responsiveness related to electrical energy through dissemination of knowledge.

Program Educational Objectives (PEO)

PEO1- Have skills, in-depth knowledge and proficiency in the core areas of electrical and other related interdisciplinary engineering domains.

PEO2- Become successful practitioners in electrical industries and/or to be ready for entrepreneurship keeping in view of the national and global requirements.

PEO3- Have ethical values, social commitment and leadership qualities towards application areas of electrical energy.

Departmental Milestones

❖ *Publication*

Prof. (Dr.) Sujit K. Biswas, Dr. Krishna Sarker and Dr. Koustuv Sarkar has published the following journals:

- E. Das, A. Banerji and **S. K. Biswas**, "Cloud assisted IOT operated small residential microgrid with collusive model approach for energy trading", Jordan Journal of Electrical Engineering, vol. 10, no. 3, pp. 359-382, Sept 2024.
- N. Chakraborty, S. Chandra, A. Banerji, **S. K. Biswas**, "Priority-based mutual power sharing between microgrids in a community microgrid," Jordan Journal of Electrical Engineering, vol. 10, no. 3, pp. 415-430, Sept 2024.



- P. Bhowmik, S. Saha, S. Bagchi, **K. Sarker**, P.K. Rout, J.M. Guerrero, A Novel Dual-Layer Cascaded Torque Control Mechanism for Improved Drivetrain Performance in Electric Vehicles. Electrical Engineering, Volume: 107, Issue: 1, Pages: 1093–1109, Springer Berlin Heidelberg, Publication Date: 2025 (Received: 7 March 2024 / Published online: 5 July 2024), DOI: 10.1007/s00202-024-01824-5.
- Jayanti Sarker, **Krishna Sarker**, Swapan Kumar Goswami, Debashis Chatterjee (2024). Enhanced Distribution System Performance through Optimal Placement of Hybrid Dynamic Voltage Restorer. Electrical Engineering. Volume: 107, Issue: 1, Pages: 1059–1073, Publisher: Springer Berlin Heidelberg, Publication Date: 2025 (25 December 2023 / Accepted: 18 June 2024 / Published online: 5 July 2024), DOI: 10.1007/s00202-024-01823-6.
- **K. Sarker and K. Sarkar**, “A digital healthcare monitoring system with real-time analysis”, i-manager’s Journal on Electrical Engineering, vol. 18, no. 1, Sept. 2024.
- S. Roy, S. Paramanik and **K. Sarker**, “Advancements in smart meter design and integration for enhanced energy management and efficiency”, i-manager’s Journal on Electrical Engineering, vol. 18, no. 1, Sept. 2024.

❖ **Events**

Anuska Mitra & Ishita Makhil first year students of Electrical Engineering Department (AY- 2024-25) participated in **Model making- Design & Innovation: An Engineer’s Approach** organised by Institution’s Innovation Council (IIC), IEEE Students Branch & Cocurricular Cell of St. Thomas’ College of Engg. & Technology organised on **23rd August, 2024.**





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Technical Workshop

St. Thomas' College of Engineering & Technology
4, D. H. Road Kolkata-23

Jointly Organized by:
Department of Electronics & Communication Engineering
And
Department of Electrical Engineering

In association with
IEEE Student Branch, STCET, Kolkata
IIC, STCET, Kolkata

**Workshop on
Solar Energy:
Innovative Utilization
and Applications**
23rd – 24th August, 2024

Conveners
Mrs. Sumati Mukherjee
and
Mrs. Sakanya Dasgupta

Registration url:
<https://forms.gle/9WV6GmDwR8H4Ud>

Venue: Seminar Hall,
St. Thomas' College of Engineering
and Technology, Kolkata

Advisory Committee:
Prof. G. Goswami (Director, St. Thomas' College of Engineering & Technology, Kolkata)
Dr. S. Choudhury (Dean, Electronics, STCET)
Prof. (Dr.) Shiba Chakrabarti (Former Head of Dept. EE, St. Thomas' College of Engineering & Technology, Kolkata)
Prof. (Dr.) Sanku K. Das (Dean, Electronics, STCET)
Former Head of Dept. EE, St. Thomas' College of Engineering & Technology, Kolkata
Dr. Prasen Choudhury (Assistant Prof. & HOD, IIC Dept., STCET)
Dr. Krishna Sankar (Assistant Prof. & HOD, IIC Dept., STCET)

IEEE Student Branch Conveners:
Dr. Anind Pal (Joint Prof. IIC Dept., STCET)
IIC, STCET Conveners:
Mr. Anup Das (Joint Prof. IIC Dept., STCET)

Program Schedule:
09:30 AM – 10:00 AM: Registration
10:00 AM – 10:30 AM: Inauguration
10:30 AM – 11:00 AM: Prof. Sujit Biswas
11:00 AM – 11:30 AM: Tea Break
11:30 AM – 12:00 PM: Second Lecture Session
12:00 PM – 12:30 PM: Lunch Break
02:30 PM – 03:00 PM: Tea Break
03:00 PM – 03:30 PM: Mrs. Sumati Mukherjee
03:30 PM – 04:00 PM: Mrs. Sakanya Dasgupta
04:00 PM – 04:30 PM: Prof. Sujit Biswas
04:30 PM – 05:00 PM: Prof. Shib Sankar Saha
05:00 PM – 05:30 PM: Award Ceremony & Vote of Thanks
07:45 PM – High Tea

| Our Speakers | About the Workshop | Vision of the Institute: |
|---|--|--|
| <p>Prof. (Dr.) Sujit K. Biswas</p>  <p>Dean (Academic), St. Thomas' College of Engineering & Technology, Kolkata, India</p> | <p>Energy is a crucial driver of economic growth, but the environmental impact of conventional energy sources—such as pollution and resource depletion—pose significant challenges. As global warming becomes an increasing matter of concern, the interconnection between environment, economy and energy becomes ever more evident. Renewable energy sources, particularly solar power, offer a sustainable solution by providing clean, non-polluting energy.</p> <p>This workshop aims to explore innovative applications and utilization of solar energy, a key player in the transition to greener energy systems. Held on 23rd – 24th August, 2024 at STCET, Kolkata, India, the event will feature seasoned speakers who will cover fundamental concepts of solar power systems and present cutting-edge technology. Organized by the Departments of Electronics & Communication Engineering and Electrical Engineering, in collaboration with IEEE Student Branch & IIC, the workshop promises to provide valuable insights into the present and future of solar energy in electricity generation and its applications.</p> | <p>To evolve as an industry oriented, research based Institution for creative solutions in various engineering domains, with an ultimate objective of meeting technological challenges faced by the Nation and the Society.</p> |
| <p>Prof. (Dr.) Shib Sankar Saha</p>  <p>Professor, Electrical Engineering Department, Kalyani Government Engineering College, West Bengal, India.</p> | <p>After attending the workshop, the students will be able to:</p> <ul style="list-style-type: none"> Understand the fundamental principles of solar energy harvesting. Analyze different devices & their principles used for the utilization of solar energy. Apply different techniques used for an efficient solar powered system. Design an efficient and innovative model of a converter based systems using solar energy. | <p>Mission of the Institute:</p> <ol style="list-style-type: none"> To enhance the quality of engineering education and delivery through accessible, comprehensive and research oriented teaching-learning-assessment processes in the state-of-art environment. To create opportunities for students and faculty members to acquire professional knowledge and develop managerial, entrepreneurial and social attitudes with highly ethical and moral values. To satisfy the ever-changing needs of the nation with respect to evolution and absorption of sustainable and environment friendly technologies for effective creation of knowledge based society in the global era. |
| <p>Mrs. Abhinanda Basu</p>  <p>Regional Head, Business Development (East) Tata Power, India.</p> | | |

Prof. Sujit K. Biswas, Professor, Electrical Engineering Dept., St. Thomas' College of Engineering & Technology delivered a technical talk on Applications of Solar Energy in the field of Electrical Engineering & the other speaker Prof. Shib Sankar Saha, Professor, Electrical Engineering Department, Kalyani Government Engineering College also delivered a technical talk on Applications & Utilization of Solar Energy in the field of Electrical Engineering. Mrs. Abhinanda Basu, Regional Head, Business Development (East) Tata Power, India also interacted with the students providing an insight & discussed the development of Solar Energy in industrial sector in India. The students of Electrical Engineering Department participated in the Technical Workshop along with hands-on session titled "Solar Energy: Innovative Utilization and Applications" on 23rd-24th August, 2024 jointly organized by Department of Electrical Engineering & Electronics & Communication Engineering of St. Thomas' College of Engineering & Technology.

***“The true laboratory is the mind, where
behind illusions we uncover the laws of
truth”***

- Jagadish Chandra Bose