



# **KRISHNASAMY**

College of  
**ENGINEERING & TECHNOLOGY**

Approved by AICTE & Affiliated to Anna University  
Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.  
☎ (04142) 285 601 - 604    🌐 www.kcet.in    ✉ info@kcet.in

A Seminar entitled on “High Voltage Engineering & its Research Awareness” held on 23.03.2023 conducted by Department of Electrical and Electronics Engineering, KCET, Cuddalore.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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*Cordially invite you to the*  
*Technical Seminar*

—

**“HIGH VOLTAGE ENGINEERING  
its RESEARCH AWARENESS”**

*On Thursday, the 23<sup>rd</sup> March, 2023 by 10.00 a.m. at A-Block seminar hall in the college campus*

**Mrs . E. Kalaiarasan, ME.,(PhD)**  
**SUZLON MICRO TECH PV LTD**  
*has kindly consented to deliver the key note address*

**Dr. K. RAJENDRAN, M.S., FCS., FAIS.,**  
Chairman,  
Krishnasamy College of Engineering & Technology,  
*presides.*

**Mr. N.VIJAYAKUMAR, B.A., B.L.,**  
Secretary,  
Krishnasamygroup of Educational Institutions,  
*Felicitates.*

**Er.E.Rajasekaran**                      **Dr.S.Sivasakthi**                      **Dr. G. Elango**  
Co-ordinator                              HOD-EEE                                  Principal



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**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

SL NO	REG NO	NAME OF THE STUDENT		SIGNATURE
1	421320105001	AJAY	I	
2	421320105002	ANANDH	N	
3	421320105003	ARAVINDHAN	J	
4	421320105004	ARUNA	M	
5	421320105005	BEHARANIDHARAN	S	
6	421320105006	GOKULAKRISHNAN	T	
7	421320105007	GUNALAN	M	
8	421320105008	LADADURAI	S	
9	421320105009	KARAN	C	
10	421320105010	KARNARUPATHY	S	
11	421320105011	KARTHIGU RAJA	R	
12	421320105012	KISHORE	S	
13	421320105013	KSHIRKANDAN	R	
14	421320105014	MANOJ	M	
15	421320105015	MOHAMED JHAVID	M	
16	421320105016	NANDHAKUMAR	N	
17	421320105017	NANTHINIDEVI	V	
18	421320105018	PRADFESH	B	
19	421320105019	PRADFESH	S	
20	421320105020	RAJURAMAN	N	
21	421320105021	RAJESH	R	
22	421320105022	SANJAY	E	
23	421320105023	SUDHARASHAN	H	
24	421320105024	SUGASINI	S	
25	421320105025	THIVAKARAN	N	
26	421320105026	VANANTHAKUMAR	V	
27	421320105027	VIBHOSHNAVI	P	
28	421320105028	VIGNESH	G	
29	421320105029	VIGNESH	S	
30	421320105030	VINITH	V	
31	421320105031	VISHVA	V	
32	421320105032	AKASH	A	
33	421320105033	ANANDHARAJ	R	
34	421320105034	ARJUN	S	
35	421320105035	BALAJI	K	
36	421320105036	BALAJI	R	
37	421320105037	HARISH	R	
38	421320105038	HEMASHREE	U	
39	421320105039	JOSHVA RUSKIN	J	
40	421320105040	MORASHID FAHEEM	H	

41	421320105312	PRAKASHI	N	
42	421320105313	SAI SARAVANAMANI	SS	
43	421320105314	SANJAI	S	
44	421320105315	SARAN	S	
45	421320105316	SUNILKUMAR	K	
46	421320105317	SURYA	K	

**Attendance of the students during the Session**



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## **Programme Report for a Seminar entitled on “High Voltage Engineering & its Research Awareness”**

High voltage engineering is a specialized field of electrical engineering that deals with the study and application of electrical systems operating at voltages above the standard levels. While there's no strict definition of "high voltage," it typically refers to voltages above 1000 volts. Here are some key aspects and applications of high voltage engineering:

### 1. Generation and Transmission:

High voltage is crucial for efficient power transmission over long distances. Power generation plants produce electricity at medium voltage, which is then stepped up to high voltage for transmission through power lines to substations and eventually to consumers

### . 2. Insulation

High voltage systems require special insulation to prevent leakage currents and breakdown. Materials like oil, gas (such as sulfur hexafluoride), and solid insulators are used to insulate components like transformers, cables, and switches.

### 3. Equipment Design and Testing:

Designing equipment that can handle high voltages safely and efficiently is a primary concern in high voltage engineering. This includes transformers, circuit breakers, switches, and insulators. These components undergo rigorous testing to ensure they can withstand high voltage stresses.

### 4. Safety

Safety is paramount in high voltage systems due to the potential hazards associated with high voltages. Proper safety measures, including grounding, shielding, and warning signs, are essential in high voltage installations. 5. High Voltage Direct Current (HVDC) Transmission HVDC transmission is becoming increasingly important for long-distance power transmission due to its lower losses compared to AC transmission at high voltages. High voltage



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engineering plays a significant role in the design and operation of HVDC systems. 6. Environmental Impact High voltage systems, especially transmission lines, can have environmental impacts. High voltage engineering may involve mitigating these impacts through better design and routing of transmission lines. Overall, high voltage engineering is a multidisciplinary field that encompasses aspects of electrical engineering, physics, materials science, and safety engineering to ensure the efficient and safe operation of electrical system

*E. Roy*  
**Coordinator**



*[Signature]*  
**Principal**

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