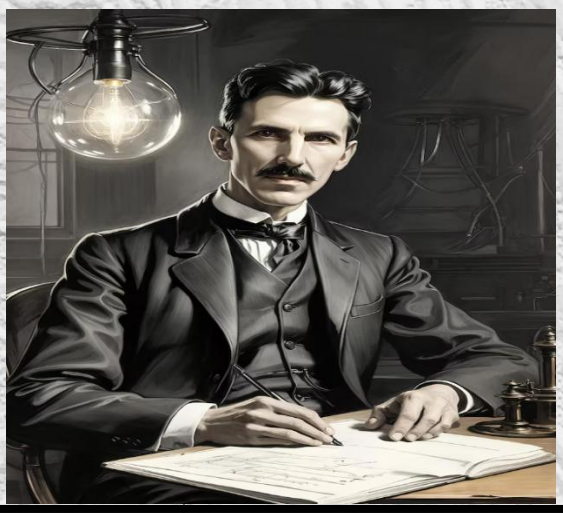
SRI VENKATESWARA COLLEGE OF ENGINEERING

ISSUE: 01

SCIENTIA

2023-24 ODD SEMESTER NEWSLETTER

ELECTRICAL AND ELECTRONICS ENGINEERING



The day science begins to study non-physical phenomena,
it will make more progress in one decade
than in all the previous centuries of its existence.

Thank you for your inspiration sir.

Jai

Let me define a leader

He was the brilliant mind who lit up the world—an inventor, visionary, and pioneer of the modern age. His genius gave birth to technologies far ahead of his time, shaping the future of electricity and innovation.

-Nichola Tesla

Department of Electrical and Electronics Engineering

Vision of the department

To prepare the learners globally competent, dynamic and multi talented young leaders with skill set & knowledge in Electrical and Electronics Engineering field with a focus on higher education, professional practice, research and technical consultancy competence ethical concern.

Mission of the department

- To prepare the learners professionally deft and intellectually adept in the field of Electrical and Electronics Engineering with an excellent infrastructure, core values and qualified & experienced teaching faculty.
- To inculcates kill, knowledge and behavior to cater the dynamic requirements in the field of Electrical and Electronics Engineering.
- To motivate and prepare the learners for career guidance, placements and higher education with a focus on MoUs with premier institutes and industries.

Program Educational Objectives (PEOs)

- PEO1: Solve challenging technological issues in the field of Electrical and Electronics Engineering for the betterment of the living standards of the society as valuable and productive engineers.
- PEO2: Improve the efficiency and effectiveness of the existing methodologies by adapting out-of-the-box rationalized thinking.
- PEO3: Function ethically and communicate professionally as a team member within multidisciplinary teams.
- PEO4: Continue the process of lifelong learning to cater the dynamically changing requirements in the field of Electrical and Electronics Engineering.

Program Specific Outcomes (PSOs)

- PSO1: Design and develop innovative projects using the domain knowledge of Control Systems, Power electronics, Electrical Machines, Microprocessors and Microcontrollers.
- PSO2: Learn the constantly varying technological developments in their problem solving process.

Message

- Many dreams
- Many ideas to implement
- Many thoughts
- Fear about future

We, SV College of Engineering provide you the platform to go with.

We give wings; let's fly together for the bright future of yours.

Welcome to world of dreams. Let us help you to achieve your dreams.

Have a good stay in the campus.

Dept. of EEE

Message from HOD

It gives me immense pride and satisfaction to pen a few words for this edition of the EEE Department Newsletter. This publication is not just a summary of events, but a celebration of knowledge, creativity, and the enduring spirit of engineering that defines our department.

This newsletter stands as a testimony to the talent, hard work, and perseverance of our students and faculty. It highlights the technical brilliance, research capabilities, achievements, and vibrant culture that we nurture every day. I am particularly pleased to see students engaging in interdisciplinary projects, participating in competitions, publishing papers, and contributing to social initiatives with zeal and responsibility.

As the Head of the Department, I believe that education is not limited to the boundaries of classrooms or laboratories. True learning happens when we explore, question, experiment, and express. This magazine serves as a platform that encourages such exploration and expression.

I extend my sincere appreciation to the editorial board for their dedication in compiling this edition, and to all contributors who have shared their insights, experiences, and creativity. Let us continue striving for academic excellence, technical competence, and values that make a real difference in the world.

With best wishes for continued success and innovation.

Dr. V. Lakshmi Devi

HOD, EEE

Dear Readers,

It is with a deep sense of pride and purpose that we bring to you this edition of the EEE Department Newsletter—a reflection of the ideas, energies, and aspirations that flow through the heart of our academic community.

In today's fast-evolving world, where technology shapes societies and innovation redefine boundaries, Electrical and Electronics Engineering continues to remain a pillar of progress. Within our department, we strive not only to stay aligned with this progress but to contribute to it meaningfully. This newsletter is our humble attempt to showcase that journey.

We would like to express our heartfelt gratitude to our Head of Department for the unwavering support, to our faculty for their guidance, and to our fellow students for their enthusiastic contributions.

A special thanks to our editorial and design team, who worked tirelessly behind the scenes. As you turn each page, we hope you are encouraged to reflect, to innovate, and to dream. This newsletter belongs to all of us and it stands as a symbol of our shared growth, resilience, and potential.

Editorial Board

G.Bindu Sri (IV EEE), G.Poojitha (IV EEE)

Faculty advisor

Dr. J.A. Baskar, Professor, Dept. of EEE

Result Analysis

IV-II Results [2019-23 Batch]	
Number of Students Registered	187
Number of Students cleared all Subjects	172
Pass Percentage	91.97%

S.No.	Roll Number	Name of the Student	Percentage
1	19BF1A02E4	SUNKARA LAKSHMIPRIYA	91.5
2	19BF1A0201	A JYOTHEESWAR REDDY	90.25
3	19BF1A02D2	SARLA SUPRAJA	90
4	19BF1A02E2	SOWMYA SHREE S	89.75
5	19BF1A02B3	PALLURU ANUSHA	89.5

III-II Results [2020-24 Batch]	
Number of Students Registered	139
Number of Students cleared all Subjects	120
Pass Percentage	86.33%

S.No.	Roll Number	Name of the Student	Percentage
1	20BF1A0225	GANTA POOJITHA	92.55
2	20BF1A0234	K PAVITHRA	92.14
3	20BF1A0240	KANNA AKHILA	91.43
4	20BF1A0204	AMMAPALLI DHRONIKA REDDY	90.41
5	21BF5A0203	KOPPU REDDY PRASANNA	90.39

II-II Results [2021-25 Batch]	
Number of Students Registered	139
Number of Students cleared all Subjects	102
Pass Percentage	73.38%

S.No.	Roll Number	Name of the Student	Percentage
1	22BF5A0244	TALLAPUREDDY SWETHA	94.90
2	22BF5A0247	THUMMALURU SHASI VARDHAN REDDY	92.60
3	22BF5A0218	GABBI HIMA BINDU	92.12
4	22BF5A0233	MULE SIVA CHANDRIKA	91.25
5	22BF5A0235	NANABALA KUMAR RAJA	89.81

Faculty Learning

Patent Publications/Grants A.Y 2023-2024

S. No	Name of the Faculty	Title	Status	Date
1	Dr. Kumar K Dr. V Lakshmi Devi C Keerthi	Rechargeable LED Lighting System with Color Modulation, Multiple Illumination levels, and Ultrasound Pest Control	Published	01-09-2023
2	M.Jyothsnadevi K.Prathibha N.Pushpa	Advanced Diagnostic Algorithm for Battery and Motor Anomalies in Electric and Hybrid Vehicles	Published	06-10-2023
3	Dr. Shaik Rafi Kiran	Intelligent Conversational Agent for IoT-Enabled Communication Devices using Natural Language Processing and Machine Learning	Published	06-10-2023
4	Dr. Shaik Rafi Kiran	Durable And High-Performance Lithium Ion Batteries With Nanostructured Cathode Materials	Published	20-10-2023
5	Dr. JA Baskar G. DilliBabu P. Vinod Kumar	Automated Text Composition System Based On Machine Learning And Deep Learning	Published	20-10-2023
6	Dr K Sudheer Dr P Suresh Dr YV Krishna Reddy	Autonomous Agri Rover	Granted	20-10-2023
7	Dr. Kumar K Dr. V. Lakshmi Devi	AI-Driven Electric Vehicle Charging System	Published	01-12-2023
8	Dr. Shaik Rafi Kiran	Artificial intelligence-powered battery drain prediction and optimization for electric vehicles	Published	15-12-2023
9	Dr. Y. V Krishna Reddy Dr. Shaik Rafi Kiran	Advanced 6G Infrastructure and Devices for High-Speed Global Connectivity and Augmented Reality Integration	Published	22-12-2023
10	Dr. Shaik Rafi Kiran	Adaptive Solar-Photovoltaic and Battery Management System for Autonomous Vehicle Operations	Published	22-12-2023

FACULTY R&D PROPOSALS 2023-2024

S. No	Name of the faculty	Project Title	Project Type	Funding Agency	Amount (Rs.)	Date
1	Dr. V Lakshmi Devi Dr. Kumar K	An Intelligent Battery Energy Management System for Fuel Cell fed Electric Vehicle Application	Research	TiHAN- IIT Hyderabad	Rs. 19,01,356/-	27-06-2023
2	Dr. V Lakshmi Devi Dr. Kumar K	Five Day Faculty Development Program on Hybrid Electric Vehicle's Battery Management System- Research Challenges & Opportunities	FDP	JNTUA	Rs. 2,09,000/-	23-09-2023
3	Dr.Shaik Rafi Kiran Dr. YV Krishna Reddy	Seminar on Electric Vehicles: Battery Technologies, Charging Strategies, and Charging Station Placement	Seminar	SERB	Rs. 2,20,000/-	30-08-2023
4	Dr. K. Kumar	Electric Cycle	Research Project	Council for Social Developmen t	Rs. 1,00,000/-	26-07-2023
5	Dr. J.A. Baskar	Integration Of Renewable Energy Sources To Wireless Charger Of Electric Vehicle	Research Project	Council for Social Developmen t	Rs. 1,00,000/-	26-07-2023
6	Dr. Kumar K Dr. V Lakshmi Devi	Workshop on Hybrid Electric Vehicle's Battery Management System Using Heuristic Techniques- Challenges & Opportunities	Workshop	SERB	Rs. 2,25,000/-	13-07-2023

Book Publications 2023-2024

S. No.	Author	Title of the Book	Publisher	Year of Publication
1	Dr. V Lakshmi Devi Dr. Kumar K	Battery Energy Storage Technologies in Electric Vehicles: An Overview and Perspective on the Future	Futuristic Trends in Electrical Engineering	May-24
2	Dr. Kumar K Dr. V Lakshmi Devi	A Review: Issues and Challenges of Electric Vehicle Energy Storage Systems	Futuristic Trends in Electrical Engineering	May-24
3	Dr.Shaik Rafi Kiran Dr. JA Baskar	Electromagnetics for Electrical Machines	Infinite Research	08-04-2024
4	Dr.Shaik Rafi Kiran Dr. YV Krishna Reddy	ChatGPT: Comprehensive Study on Generative AI Tool	Infinite Research	Feb 2024
5	Kumar K, and V Lakshmi Devi	The Art of CAN Protocol Design - Strategies and Practices	Notion Press	Mar 2024

Conference Publications A.Y 2023-2024

S.No	Name of the faculty	Title of the paper	Name of the conference publisher	Month & Year
1	Raju Kuruva	Wavelet Transform based Statistical Feature Extraction of Power Quality Disturbances	AIP Publishing	12-09-2023
2	Dr. Kumar K Dr. V Lakshmi Devi M.Jyothsnadevi Dr. JA Baskar	Performance Analysis of PV System with DC-DC Converter under Different Solar Irradiations Conditions.	2023 Second International Conference on Trends in Electrical, Electronics, and Computer Engineering (TEECCON), REVA UNIVERSITY, Bengaluru.	23-08-2023
3	Dr. V Lakshmi Devi Dr. Kumar K Dr.Shail Rafi Kiran NM Girish Kumar	Analysis of Energy Management System in Micro Grid Operations, Load Support, and Control Hierarchy	2023 Second International Conference on Trends in Electrical, Electronics, and Computer Engineering (TEECCON)	23-08-2023 & 24-08-2023
4	Dr.Shaik Rafi Kiran	Performance Analysis of Satellite Image Classification Using Deep Learning Neural Network	ICSISCET 2022 proceedings (International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology)	24-09-2023

Placements

S.No	Name of the student Placed	Enrollment no.	Name of the Employer
1	SIBBALA MANOJINI	19BF1A02E0	Focus Edamatics
2	POTU VENKATA PRAKASH	20BF5A0213	Focus Edamatics
3	A RAJU	19BF1A0202	Focus Edamatics
4	A VIKAS	19BF1A0203	Focus Edamatics
5	ADDALA KUMARASWAMY	19BF1A0204	Focus Edamatics
6	A S VENKATA SAI KUMAR	19BF1A0205	Focus Edamatics
7	ALLA PAVANTEJA	19BF1A0206	Focus Edamatics
8	B M PAVAN KUMAR	19BF1A0209	Focus Edamatics
9	BEGADA BHARGAVI	19BF1A0218	Focus Edamatics
10	BYNA GREESHMA PRIYA	19BF1A0224	Focus Edamatics
11	DANDUBOINA SREENATH	19BF1A0232	Focus Edamatics
12	DASARI SAMPATH	19BF1A0233	Focus Edamatics
13	GODUGU SAI BHAVANI	19BF1A0245	Focus Edamatics
14	K HIMABINDU	19BF1A0255	Focus Edamatics
15	KODAGALA RAMYA	19BF1A0266	Focus Edamatics
16	KORLAGUNTA VENKATESH	19BF1A0274	Focus Edamatics
17	MALLARAPU POOJITHA	19BF1A0287	Focus Edamatics
18	BATHALA MADHU	19BF1A0216	Greentech Industries (India) Private Limited
19	CHEEKATIPALLI KEERTHI SAGAR	19BF1A0227	Greentech Industries (India) Private Limited
20	TAGIRISEPU VIKRAM KUMAR	19BF1A02E7	Greentech Industries (India) Private Limited
21	TENNERI RAJENDRAN CHAITHANYA	19BF1A02F0	Greentech Industries (India) Private Limited
22	AVALA RAVITHEJA REDDY	20BF5A0201	Greentech Industries (India) Private Limited
23	DEMA JAGADEESH	20BF5A0204	Greentech Industries (India) Private Limited
24	DANDU HARIPRASAD REDDY	20BF5A0224	Greentech Industries (India) Private Limited
25	U RAMVARUN REDDY	20BF5A0226	Greentech Industries (India) Private Limited
26	M YASHASWI	19BF1A0283	HEXARWARE
27	UDITA ROY	19BF1A02F3	HEXARWARE
28	POONAMALLI D RESHMA	19BF1A02C1	India Cements
29	CHENNUPATI HARIKA	19BF1A0228	NEOLYNC

30	P GOWTHAM KUMAR REDDY	19BF1A02C0	NEOLYNC
31	PASALA HARSHAVARDHAN	20BF5A0212	NEOLYNC
32	SINGAVARAM VENKATA KISHOR	20BF5A0216	NEOLYNC
33	V SAHITHI	20BF5A0220	NEOLYNC
34	SUNKARA LAKSHMIPRIYA	19BF1A02E4	NEOLYNC
35	TADA DEEPAK	19BF1A02E6	NEOLYNC
36	V VISHNU SAI REDDY	19BF1A02G0	NEOLYNC
37	VIJAY KUMAR AKHILA	19BF1A02G2	NEOLYNC
38	VUDHAYAGIRI VENKATESH	19BF1A02G3	NEOLYNC
39	YATAGIRI SANDHYA	19BF1A02G5	NEOLYNC
40	BADIGINCHALA LIKHITH	20BF5A0202	NEOLYNC
41	KAMMITI VAISHNAVI	20BF5A0205	NEOLYNC
42	GODALA HARISH REDDY	19BF1A0244	TCL
43	K TEJASRI	19BF1A0259	TCL
44	MADDU THARUN	19BF1A02G9	TCL
45	KOTHA SUNIL KUMAR	20BF5A0208	TCL
46	BATHALA SURYAPRAKASH	19BF1A0214	TCS
47	INTHA DIVYA MEGHANA	19BF1A0217	TCS
48	K ANUDEEP	19BF1A0251	TCS
49	KADIRI SUGUNA	19BF1A0254	TCS
50	KARANAM CHARAN KUMAR	19BF1A0260	TCS
51	S NIVEDITHA	19BF1A0261	TCS
52	K RUCHITHA	19BF1A0258	TORRY HARRISION
53	K VIDHYA CHOWDARY	19BF1A0272	TORRY HARRISION
54	S FATHIMA MOBIN	19BF1A02C8	ZOHO

STUDENTS ACHIEVEMENTS

S.No	Name of the student	Event	Organized by	Date	Prize (I/II/III)/ Awards
1	A. Mounisha	Project expo	SVCE	24-04-2024	I
2	Ch.SasiPravalika	Project expo	SVCE	24-04-2024	II
3	C.Sruthi	Project expo	SVCE	24-04-2024	III
4	E.KoushikGowd	Paper presentation	SVCE	24-04-2024	I
5	B.Eswar	Paper presentation	SVCE	24-04-2024	I
6	J .Pavani	Paper presentation	SVCE	24-04-2024	I
7	G.Sujana	Paper presentation	SVCE	24-04-2024	II
8	B.Kushwanthsai	Paper presentation	SVCE	24-04-2024	III
9	P. Santhosh	Poster presentation Apex-2023	Adithya college of Engineering, Madanapalli	26-10-2023	II
10	A.Mydeesh	Poster presentation Apex-2023	Adithya college of Engineering, Madanapalli	26-10-2023	III
11	D.Sailaja	Poster presentation Apex-2023	Adithya college of Engineering, Madanapalli	26-10-2023	III
12	K. Supraja	Poster presentation Apex-2023	Adithya college of Engineering, Madanapalli	26-10-2023	III

STUDENT PARTICIPATIONS

S.No	Name of the student	Event	Organized by	Date
1	K. Likhitha	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
2	K. Nitya	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
3	Lohitha Nambi	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024

4	M. Dinesh	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
5	M. Madhu	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
6	A. Esha Sanjana	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
7	K. Venkata Sai	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
8	N. Deepika	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
9	M. Sravan	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
10	Shaik Afsana Mehathaj	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
11	K. Likhitha	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024
12	K. Nitya	CRATE-2024	VEMU Institute of Technology (Autonomous), Chittoor	26-04-2024 & 27-04-2024

Solar Power

Solar Power is a form of renewable energy that is harnessed from the sun's rays. It is one of the cleanest and most abundant energy sources on Earth. Using **photovoltaic (PV) cells**, sunlight is directly converted into electricity, making it a sustainable alternative to fossil fuels.

Working Principle of Solar Power System

1. **Sunlight Hits Solar Panels**: The PV cells in the panel absorb sunlight.
2. **Photovoltaic Effect**: The absorbed sunlight excites electrons, generating direct current (DC) electricity.
3. **Inverter Conversion**: The inverter converts DC into alternating current (AC) used in homes and industries.
4. **Distribution**: The electricity is either used immediately, stored in batteries, or fed into the power grid.

Types of Solar Power Systems

1. Grid-Tied System

2. Hybrid System

3. Off-Grid System

Solar power is a powerful and sustainable solution to meet the world's growing energy needs. With technology advancing and costs reducing, it has the potential to become the backbone of the global clean energy movement. Encouraging its use helps us move toward a greener, healthier planet.