

VIDYUT

November-2022

The Official Newsletter of Department of
Electrical and Electronics Engineering at SVCE

Optical Current Transformer (OCT)



CONTENT

S.No	TITLE
1	Achievements and Awards Received by the Faculty Members
2	Achievements and Awards Received by the Students
3	Participation of Faculty Members in FDP/Workshops
4	Events Conducted
5	Events Conducted by Professional Societies
6	Industrial Visit
7	Line Voltage vs Low Voltage

SRI VENKATESWARA COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACHIEVEMENTS AND AWARDS BY THE FACULTY MEMBERS

Interaction between SVCE and IIT Madras:

Faculty members from the Department of Electrical and Electronics Engineering got selected to execute projects at IIT Madras under Indian NanoElectronics User Program (INUP) supported by the Ministry of Electronics and Information Technology (MeitY), GOI. They will execute various projects under INUP scheme, and utilize the nano fabrication and characterization facilities established at the Centre for Nanoelectromechanical Systems and Nanophotonics (CNNP), IIT Madras for a maximum period of 6 months.

Faculty members selected:

Mr. S.Sudharsanam,
AP/EEE

Mr. M.Ranjith Kumar,
AP/EEE

Mrs.S.Sinthamani,
AP/EEE



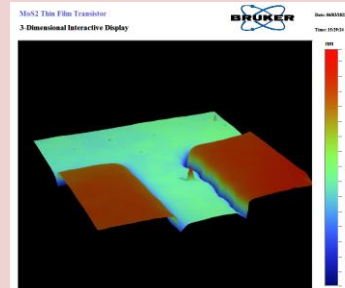
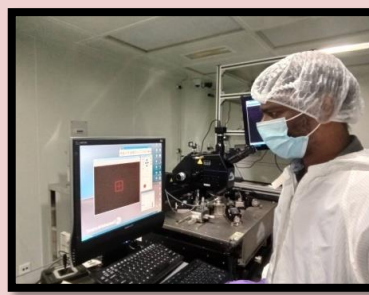
Supervisor:

Dr.Sudhakar K B, Professor /EEE and Coordinator /INRC

iNRC, SVCE

CNNP, IIT Madras

Nano Device



DESIGN PATENT GRANT RECEIVED

□ Dr. C. Gopinath and Dr.T.Annamalai, Associate Professors/EEE and Dr. C. Yaashuwanth, Associate Professor/INT, filed a Design patent titled “Detachable Solar Heater”, in IPR; Kolkata.

PATENT FILED

□ Dr. C. Gopinath, Associate Professor, Mr. D.S. Purusthothaman, Assistant Professor, EEE with final year students Mr. A. Ramanathan, MEC, Mr. N.S. Sribalajy, ECE, Mr. MFJ. Irfan Abdullah, Mr.MA. *Mohamed Ashiq Ilahi filed a patent titled “A System and Method for Ensuring Safe Drive in the Vehicle using Pollution-Less Ultrasonic Horn”, in IPR; Chennai.

JOURNAL PUBLICATION

□ Dr. R. Kannadasan, Assistant Professor, dept. of EEE, has published an MDPI journal titled “Enhanced Metaheuristic Algorithm-Based Load Balancing in a 5G Cloud Radio Access Network” on 5/11/22.

ACHIEVEMENTS AND AWARDS BY THE STUDENTS

Alumni Association Scholarship

- ♣ Ms. Viswasree. S of II year EEE was nominated and has received a scholarship amount of Rs. 27,500/- sponsored by the SVCE alumni association.



Hackathon

- ❖ Mr.Irfan Abdulla and Mr.Ashiq Mohamed Illahi, both of IV year EEE secured the First position with a cash prize of Rs. 25000/- in ICube Hackathon (Interdisciplinary team) - conducted by students council in association with SVCE Science Club - A national level intercollegiate technical event, Sriperumbudur on 18th November, 2022. They were mentored by Dr. C. Gopinath, Associate Professor and Mr. D. S. Purushothaman, Assistant Professor, Dept. of EEE.



Best Male RYLarian

- ❖ Dhanush Ragav P, III year EEE, participated in a Leadership Program organized by the District Rotaract Council, Chennai from 07th to 9th Oct 2022 and won the Rotary Youth Leadership Award 2022-23 and received a trophy for the 'Best Male RYLarian' award for the excellent Leadership Qualities exhibited by him.



Sports Achievements

- ❖ Harini N of III year EEE secured third position in the Anna University zone-II Badminton (Women) tournament held at Rajalakshmi Engineering College on 08/11/2022.



- ❖ Mohana Vishwam R of IV year, EEE, bagged third position in the Anna University Table Tennis (Men) Inter zone tournament held at KLN College of Engineering, Madurai on 23/11/22.



PARTICIPATION BY THE FACULTY MEMBERS

- ❖ Dr. Venkatesan CV and Ms. Sinthamani S, participated in the training workshop on teaching Tamil language syllabus from November 7-11, 2022. Our college management has approved the teaching of the Tamil language syllabus in the first two semesters pertaining to R2022 for engineering students for the academic year 2022-2023.
- ❖ Professor & Head Dr. KR.Santha, Dr. Sudhakar K Bharatan, Dr. R. Karthikeyan, Dr. S G Bharathidasan participated in the Two-day National Level Seminar on NAAC - Revised Assessment and Accreditation Framework on November 24th & 25th at Dr. A.C. Muthiah Central Library Seminar Hall. More than 20 faculty members from different institutions participated in the seminar followed by campus tour to DST -FIST sponsored Inter-disciplinary Nano Research Center (iNRC) addressed by Dr. Sudhakar K Bharatan, Coordinator/iNRC.
- ❖ Dr. SG Bharathidasan, Dr. S Kumaravel and Ms. S Arulmozhi attended MathWorks Training workshop on “Modeling and Control of Electric Vehicles using Simulink and Simscape” from 23-25 November, 2022, conducted by Mathworks Inc.
- ❖ PALS, along with NITK, organized PALS-VLAB Initiative, with the Faculty Development Program scheduled for three half-days, from November 9th – 11th, Nov, 2022, in Virtual mode. It was attended by Dr. S Kumaravel and Ms. S Arulmozhi. The FDP focused on training the faculty on General and Discipline specific Virtual Labs.
- ❖ Mr. DS Purushothaman attended the Faculty Development Training Program on “Internet of Things (IoT) and Cloud Interface” from 21 – 23, Nov, 2022.

- ❖ Mr. S. Bharadwaj attended a five days online workshop on "Renewable Energy and Plug in Vehicle Integration in Micro-Grid" from 14 - 18 Nov, 2022, organized by O P Jindal University, Raigarh, Chhattisgarh.

EVENTS CONDUCTED

PARENTS DAY MEET – I (SENIORS)

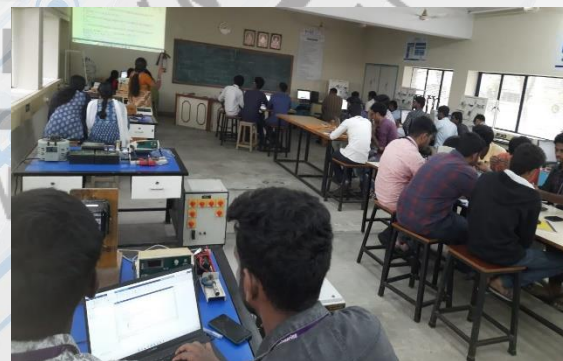
- ❖ Parents' day meet for senior students for the ODD semester of academic year (2022-2023) was held on 05/11/2022, Saturday. The reception desk was managed by Mrs.S.Akila and Mr.Balakrishnan. The parents were directed to assemble in Electrical machines I laboratory of the EEE department.
- ❖ Faculty advisors carried out vigorous counseling as instructed by HoD/EEE. After meeting with subject teachers, the parents were directed for HoD's address. Dr.KR.Santha, HoD/EEE addressed the gathering and discussed elaborately about the autonomous stream and importance of regular class attendance, Laboratory class attendance, CAT exams, Special classes and Career planning. Parents clarified their doubts through interaction with HoD/EEE and parents have been invited to meet her in person for any specific discussion.
- ❖ Dr.R.J.Venkatesh, Mr.E.Naveenkumar and Mrs.M.Sasikla received and recorded the feedback from parents. Dr. T. Annamalai and Mr. S. Bharadwaj captured the moments. Parents were served high tea. Suggestions given by the parents were counseling for higher studies and more number of class tests for better retention and more Industry visits.

The moments captured during the parent day meet are depicted as follows.



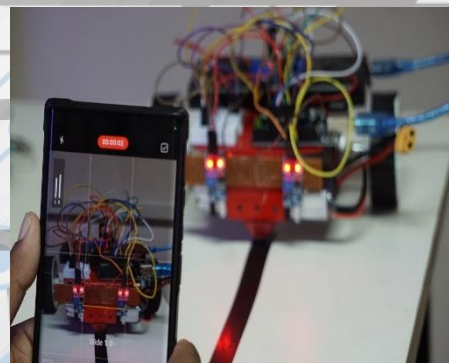
VALUE ADDED COURSE (SESSION-2)

- The Department is offering a 'two credits Value Added Course (Session-2) "VDI8603-Modeling and Simulation of Electrical Systems" during 02/11/2022 to 15/11/2022 in physical mode. This course is exclusively for present II year (2020 admitted batch) students to enable them to expertise in Modeling and Simulation of Electrical Systems.



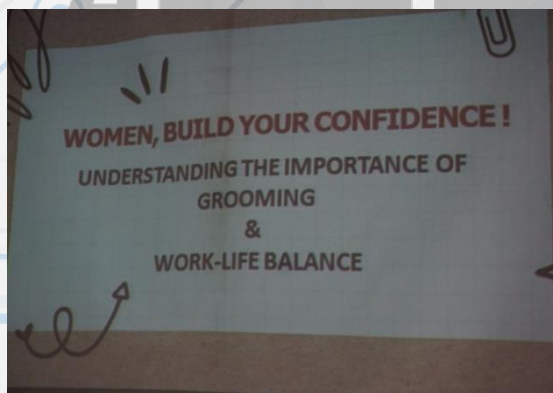
ROBOFEST 2.0

- ❖ The IEEE SVCE student branch conducted a one day technical event titled “ROBOFEST 2.0”, on the 16th of November 2022. The event saw more than 35 people registering from across various departments and years of study. The technical event had three sub-events, namely - Arduino Debugging, Project expo and Line Follower bot challenge.
- ❖ The inauguration was presided over by Dr. K.R.Santha, HoD/EE and also the IEEE Student Branch Chairperson. She addressed the gathering about the importance of technical events and how it can develop one’s resume. She also spoke about emerging technologies like AI and ML and how the future of technology and employment lies in that domain.
- ❖ After the successful completion of all the events, the winners of the same were awarded with cash prizes worth Rs. 9000. The prizes were awarded to the winners by Dr. K. R. Santha, bringing the technical extravaganza to a fulfilling end.



SELF-GROOMING, PRACTICING SELF-CONFIDENCE AND WORK-LIFE BALANCE

- ❖ The Women Empowerment Cell of SVCE organized a motivational lecture on "Self-Grooming, Practicing Self-Confidence and Work-Life Balance" for the girl students on 17th November 2022 at SVCE-Function Hall from 10.00 AM onwards. The event was presided over by Dr. KR.Santha, Vice-Principal, HoD of Electrical and Electronics Engineering department and the WEC Chairperson. She addressed the gathering about the need for self-confidence and level of grooming in our working environment. She gave an introduction about the speaker Ms. Sujaya Rao, Co-founder, Teenr.
- ❖ Ms. Sujaya Rao interacted with the participants and provoked the student's thoughts on the importance of grooming within their safe limits. She discussed few case studies in her work career and in the surroundings.



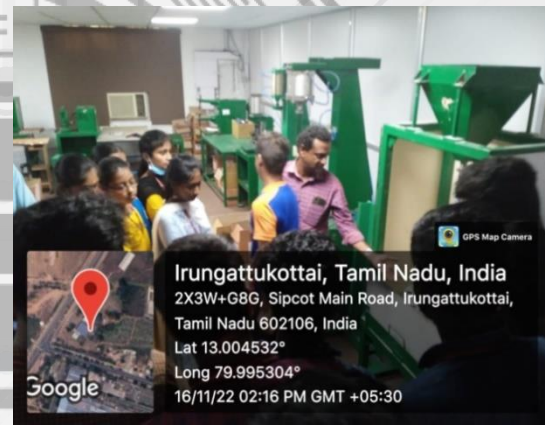
VOLUNTARY BLOOD DONATION CAMP

- ❖ The Youth Red Cross, Rotaract Club, NSS, NCC and RRC together organized a one-day Voluntary Blood Donation Camp on 17th November, 2022 (9:00 am - 3:00 pm) at Class Room Block -I, SVCE. Around 20 students from our department took part in the event as donors and volunteers.



INDUSTRIAL VISIT

- Students of final year, EEE, went on an industrial visit to Pantech Switchgear Private Limited, Irungattukottai, Kanchipuram on 18/11/22. A total of 80 students visited the company. They were accompanied by Dr. C. Gopinath, Mr. S. Bharadwaj, Mr. E. Naveen Kumar and Mr. V. Karthikeyan. The aim of the visit was to educate the students about the working of various industrial equipments. They learnt about the different fuses used in industries for transformers and motors. They also watched the working of off-load and on-load circuit breakers real-time.



LINE VOLTAGE VS LOW VOLTAGE

Today's households also need low-voltage electrical wiring, which is designed to transport 50 volts or less of energy, in addition to larger and more kitchen equipment, televisions, and even personal grooming and hair appliances, which normally operate on 120V or 240V of electricity. Low-voltage wiring provides power to many of the essential appliances we now take for granted. In the 1960s, most homes were unaware of these marvels!

Let's explore low voltage systems, how it differs from line voltage systems, and the Pros and cons of using this type of system in your space.

What is Line voltage?

Line voltage denotes that it is operating at 120 volts, which is the line voltage of the house without a transformer. In Technical aspects, the voltage of a power transmission circuit or distribution circuit up to the point of transformation or utilization.

Fun fact

Although low-volt wiring may be added to an existing home, doing so will cost more than doing so during new construction or renovation since the electrician will need to climb through attics and cut or fix drywall where necessary.

What is low voltage?

Low voltage lighting systems use a transformer to reduce normal line voltage (120 or 277 volts, usually) to 12 or 24 volts.

DID YOU KNOW???????

Low voltage outdoor lighting is better than line voltage?

Yes. Low voltage outdoor lighting delivers more energy efficiency than line voltage because it utilizes a transformer to step down the power consumption. Instead of 120v, low voltage uses 12-24v of power lighting. Bulbs and fixtures are cheaper to purchase; and since you are dealing with lower power. When it comes to outdoor lighting, you can only use as many fixtures as equal the total wattage offered by your transformer. So, there are limitations even with low voltage outdoor lighting. The danger of shock is also reduced significantly. Unfortunately, these bulbs don't last very long and have to be replaced frequently.

Applications of low Voltage systems:

- Smart Doorbells
- Smart Phones
- Thermostats for heating and cooling systems
- Garage Door Opener
- Alarm System Sensors and Control

Line voltage is used in all areas especially in our day to day household appliances.

When choosing between line voltage and low voltage lighting systems for your application, be sure you know the real differences between the way the systems work and are installed.

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS
ENGINEERING**

NEWSLETTER

EDITORIAL TEAM

Dr. KR. Santha, Vice Principal & HOD/EEE

Dr. Sudhakar K Bharathan, AHOD/EEE

Dr. R. Karthikeyan, ASP/EEE

Ms. S .Sinthamani, Asst Professor/EEE

Mr. Bharadwaj, Asst Professor/EEE

Mr. Sabari & Ms. Harini, III year/EEE

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