



Department Newsletter
January 2023 – June 2023



Sattva

Department of ECE News Letter - Issue 1, 2023



Vision

To be a leading global centre of excellence in Electronics and Communication Engineering, producing skilled and innovative engineers to contribute to the betterment of humanity.

Mission

M1: To educate and empower students with cutting-edge technologies and innovation in Electronics and Communication Engineering to meet global challenges.

M2: To foster a culture of research, innovation, and ethical practices by creating a conducive ecosystem for faculty and students to address societal needs.

M3: Promoting collaboration with academia and industry to empower students as socially responsible, globally competent professionals and potential entrepreneurs.



About Sattva

We are always on the go at the Electronics and Communication Engineering at Sai Vidya Institute of Technology, whether it's conducting Workshops, Webinars, Events, Competitions, or a range of other activities for our **students to broaden their horizons beyond the classroom**. We are proud of our students, staff's, and department's accomplishments in a variety of technical and non-technical activities.

In 2016, our department introduced a Sattva to capture all of our activities and accomplishments. **Sattva is a bi-annual newsletter that chronicles a variety of accomplishments and events.**

The editorial team is thankful to all those who contributed to this edition. We appreciate your support and feedback.

Editorial Board

Chief Editor:

Dr. Venkatesha M

Editorial Board Member :

Dr. Chaya B M

Prof. Akshith Monappa

Prof. Nisha S K

Student Editorial Board

Mr. Mohan Kumar N Student (4th B)

Mr. Rohan Kukkiyar Royachan Student (4th B)

Ms. Moka Rakshitha Student (4th B)

Mr. Prajwal.N Student (6th B)

Mr. Sohan S Student (6th A)

Ms. Aishwarya K Student (6th B)

Print Edition

ISBN-13: 978-93-5980-706-5

Published Date: 8th September 2023



Happy Reading!

College Intellectuals

Director's Message

Prof M R Holla



I am delighted to note that Department of **Electronics and Communication Engineering, SVIT is bringing out Department Newsletter.** I appreciate the enthusiasm of eminent members of the Department who have contributed to the Newsletter.

Department newsletter definitely provides a light on activities and achievements of the students and staff such as: conferences attended by staff members and students, competitions won by students, innovative projects carried out by students with the guidance of staff, among others. I wish the students and staff of Department of Electronics and Communication Engineering, all success..

Additional Director's Message

Dr. A M Padma Reddy

I am delighted to address you through the Department of Electronics and Communication Engineering (ECE) News Letter - Issue 1, 2023. As the Additional Director of Sai Vidya Institute of Technology, **I am truly proud of the exceptional efforts and dedication displayed by the ECE community.** Your commitment to excellence in both academic and extracurricular pursuits is truly commendable. Academic excellence is the cornerstone of any educational institution, and I am pleased to see our students excelling in their studies and securing outstanding results in university examinations.

Remember, this is just the beginning of a journey that holds boundless opportunities for growth and learning. Research is the bedrock of innovation, and **I extend my appreciation to the faculty members of the ECE department for their contributions to research-oriented initiatives.** Your dedication to advancing the field of Electronics and Communication Engineering through research publications and conference presentations is truly commendable.



Dean Academic's Message

Dr. Y Jayasimha



I am extremely happy to address you through the **Department of Electronics and Communication Engineering (ECE) News Letter - Issue 1, 2023**. It brings me immense joy to witness the progress and achievements made by our department during the period from January 2023 to June 2023. The Department of ECE has always been at the forefront of academic excellence and research innovation. This issue of the newsletter showcases the remarkable endeavors of our students and faculty members in both curricular and co-curricular activities.

First and foremost, I extend my heartfelt appreciation to all the faculty members for their unwavering dedication to **teaching, research, and mentorship**. Your commitment to academic rigor and your efforts in nurturing our students' talents are truly commendable.

To our dear students, your accomplishments make us proud. Your academic achievements in the university examinations reflect the hard work and determination you have put into your studies. Congratulations on these remarkable results, and I encourage you to continue pursuing excellence in your academic journey.

As the Founder Trustee and Dean Academics, **I am immensely proud of the progress the department has made over the years. Our vision of providing quality education** and fostering an environment of holistic growth is coming to fruition through your collective efforts.

I extend my gratitude to the entire ECE community for your continued support and dedication to academic and research excellence. Let us continue to work together, inspiring and guiding our students to become innovative leaders and problem solvers. I congratulate everyone associated with the Department of ECE for the achievements highlighted in this newsletter. May this success inspire us to reach even greater heights in the future.

Wishing you all a bright and promising future ahead!

Principal's Message

Dr. M S Ganesha Prasad



Dear Faculty, Students, and Esteemed Readers,

Greetings to all of you!

It gives me great pleasure to address you through **the Department of Electronics and Communication Engineering (ECE) News Letter - Issue 1, 2023.**

At Sai Vidya Institute of Technology, we firmly believe in **providing our students with holistic education that goes beyond the boundaries of textbooks.** Our commitment to nurturing well-rounded individuals has once again been demonstrated through the achievements showcased in this newsletter.

I extend my heartfelt **congratulations to all the students who have excelled in their academic endeavors, securing exceptional results in university examinations.** Your hard work and dedication serve as a shining example to others, and I applaud your accomplishments.

I encourage all our students to **embrace research-based projects and problem-solving activities, utilizing the latest technologies in ECE.** Innovation is the driving force behind progress, and I am confident that our students' passion and dedication will lead to groundbreaking solutions that benefit society at large.

I am proud of the ECE department's accomplishments, and I firmly believe that together, we will shape the future of technology and contribute to society's betterment.

May each of you find inspiration in the stories of success within this newsletter and continue striving for excellence in all your endeavors.

Wishing you all a prosperous and fulfilling journey ahead!

Vice Principal's Message

Dr. Lakshminarayanachari K

Greetings to everyone!

As we embark on a new year filled with aspirations and opportunities, it **gives me great pleasure to address you all through the Department of ECE News Letter - Issue 1, 2023.**

At Sai Vidya Institute of Technology, we take immense pride in fostering an environment that nurtures academic excellence and all-round development. **The Department of Electronics and Communication Engineering (ECE) has been at the forefront of our institution's commitment to producing well-rounded individuals, capable of making meaningful contributions to society..**

As we look ahead, **I encourage our students to embrace research-based projects and problem-solving activities.** The world is evolving rapidly, and we need individuals who can drive innovation and find solutions to real-world challenges. By leveraging the latest technologies and knowledge in ECE, we can create a better future for all.

I extend my gratitude to the entire ECE community for their **collective efforts in making our department a hub of academic and co-curricular excellence.** Your commitment and passion play a pivotal role in shaping the future of our students and the society they will impact.

I extend my **best wishes to all the students and faculty members.** Let us continue to work together, support one another, and inspire greatness. The Department of ECE at Sai Vidya Institute of Technology is committed to nurturing talent and fostering an environment where students can flourish.

Wishing you all a fulfilling and successful journey ahead!



HOD's Message

Dr. Venkatesha M



It is with great pleasure and pride that I present to you the Department of ECE News Letter - Issue 1, 2023. **This newsletter highlights the remarkable achievements of our students and faculty members in both "Co-curricular Activities" and "Extracurricular Activities"** during the period from January 2023 to June 2023.

In the pursuit of academic excellence, our department remains steadfast, and once again, our students have proven their mettle by securing outstanding results in university examinations. To all the students who have excelled in their studies, my heartfelt congratulations. Your accomplishments have brought honor and pride to our institution. However, we believe that education goes beyond

the classroom, and we are committed to nurturing the holistic development of our students. Throughout this period, we witnessed numerous commendable performances in a wide array of co-curricular activities. **Our students enthusiastically engaged in prestigious IEEE Flagship conferences**, technical symposiums, workshops, and seminars, both within our campus and on national and international platforms. The recognition and appreciation they received from peers and experts have reinforced our belief in their potential.

Our research-oriented initiatives have flourished, and our esteemed faculty members have made significant strides in their respective domains. Their contributions to the field of Electronics and Communication Engineering have been recognized through research publications in reputed journals and presentations at conferences. **I extend my heartfelt appreciation to all the faculty members for their unwavering commitment to research** and for guiding our students in their academic pursuits.

To all our students embarking on research-based projects and problem-solving activities, I extend my sincere best wishes. Remember, it is your passion and dedication that will propel you to surmount challenges and make meaningful contributions to your field of study. **Together, we inspire and nurture the next generation of innovators and problem solvers**, fostering a culture of continuous growth and development.

As we embrace a future filled with possibilities, let us strive to make a positive impact on society through the cutting-edge technologies of Electronics and Communication Engineering.



ELECTRONICS AND COMMUNICATION ENGINEERING

M R Holla

About the department

The Department of Electronics and Communication Engineering (ECE) at this institution was established in 2008, and since then, it has been providing quality education to students in the field of electronics and communication. The department has an annual intake of 120 students and accredited by the National Board of Accreditation (NBA). The department is mentored by the National Board of Accreditation (NBA). The department is mentored by Dr. Y. Jayasimha, Dean Academics and Professor, who is a well-known author of several Electronics and Communication Engineering books with over 30 years of experience. The department is headed by Dr. Venkatesha M, Professor and Senior Member IEEE, having 14 years of teaching experience and 8 years of research experience. He has a strong focus on research and development and dedicated to promoting research and a culture of innovation, academic excellence.

Department of Electronics and Communication Engineering (ECE) provides a comprehensive education to students, and it encourages students to engage in Participative learning, experiential learning and problem-solving methodologies. Department also supports students for research and development activities. The department has advanced computing tools and multiple active technical clubs and IEEE student branch societies that provide relevant exposure to the students for their overall development and progress. The department has a strong focus on emerging technologies and industrial training, which helps students gain exposure to technology in practice and an industrial environment.

The 4-year undergraduate course offered by the department had adopted NEP curriculum and includes core electronics subjects, professional electives, laboratory courses, open electives, industrial training, and project work. The syllabus is framed by Visvesvaraya Technological University (VTU). The curriculum is designed to equip students with knowledge in emerging technologies such as Applied Photonics, Optoelectronic devices, VLSI, Nanotechnology, signal and image processing, wireless and fiber-optic communication, embedded system design, IoT applications. The internal assessment component is mapped to relevant NPTEL courses and/or Infosys Spring Board courses to enhance problem-solving ability and induce strong subject knowledge. Under the supervision and mentorship of our faculty members who are professional IEEE members and Research supervisors, more than 20 students have visited abroad and presented their papers at Tier 1 international conferences held in the USA, China, Canada, Germany, Portugal, and the Czech Republic. Many students have also received international travel grants of 7400 USD and Rs. 2,25,000 from IEEE Photonics Society, SPIE, IEEE Bangalore section, and AICTE-INAE.

Program Educational Objectives (PEOs)

PEO1: Design & Develop Innovative electronic systems.

PEO2: Effectively communicate technical information, successfully lead and participate in a multi-disciplinary team environment.

PEO3: Engage in lifelong learning through continuing education and industrial practice.

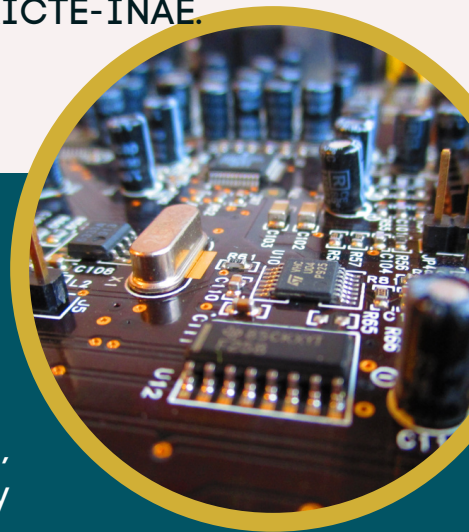
PEO4: Demonstrate professional ethics and social awareness.

Program Specific Outcomes (PSOs)

Graduates will be able to:

PSO1: Design and simulate Electronics and Communication systems using concepts and tools of electronic circuits, signal processing, VLSI technology and communication.

PSO2: Architect, partition and select appropriate technologies for implementation of a specified electronics & communication system.



Faculty



Teaching staff:

Dr. Y Jayasimha, Dean Academic & Professor
Dr. Venkatesha M, Professor & HOD
Dr. Chaya B M, Associate Professor
Dr. Vani B P, Associate Professor
Prof. Suryanarayana N K, Asst Professor
Prof. Pavithra G S, Asst Professor
Prof. Nayana K, Asst Professor
Prof. Darshan R V, Asst Professor
Prof. Akshith Monappa, Asst Professor
Prof. Prabha K, Asst Professor
Prof. Advait P R, Asst Professor
Prof. Nagayya Hiremath, Asst Professor
Prof. Divya T M, Asst Professor

Prof. Tejashree S, Asst Professor
Prof. N Ajay Kumar, Asst Professor
Prof. K Manjuvani, Asst Professor
Prof. Jahnavi D M, Asst Professor
Prof. Shruthi. N, Asst Professor
Prof. Nisha SK, Asst Professor
Prof. Shashank S B, Asst Professor
Prof. Sriramu D S, Asst Professor
Prof. Kalayani K, Asst Professor

Technical staff:

Mr. Kumar Shetty
Mr. Harisha G T
Mr. Anand Kumar
Mr. David S Y

Advisory Board Members



Dr. T Srinivas
Professor, Dept of ECE
Indian Institute of Science, Bangalore
R&D.

Dr. Sripadaraja K
Director
Intellisense software Private Limited, Bangalore
Industry Expert



Dr. Divyashree A
Staff scientist
IBM labs (ISDL), Bangalore
Industry Expert

Dr. Malathi S
Professor and Head, Dept of ECE
Ramaiah University of applied sciences
Academic



Dr. Rajendra Prasad Shukla
Institute of Nanotechnology
University of Twente
Academic

Advisory Board Members



Dr. Preeta Sharan T
Professor & Dean(R&D), Dept of ECE
The Oxford College of Engineering
Academic



Dr. Rajini V H
Associate Professor, Dept of ECE
RNSIT, Bangalore
Academic



Ms. Ananya N
Technical Solutions consultant,
Hewlett Packard Enterprise, Bangalore
Alumini

Activities Conducted

Technical Event/WorkShop/Seminar

- Electronics is one of the most dynamic and rapidly evolving fields of engineering. To keep up with the pace of change and innovation, it is essential for electronics engineers and students to update their knowledge and skills regularly. That is why we are organizing a technical events, workshops and seminars.

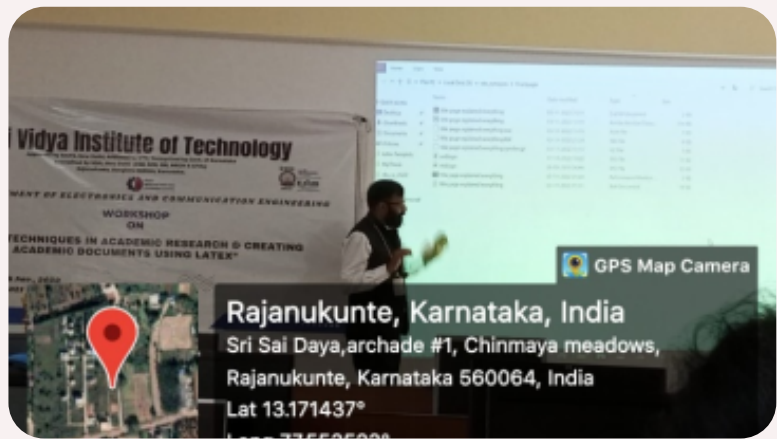
1. Sensitization Program on Virtual labs :



On July 13th, 2022, a sensitization program was held for first-year students on virtual labs, along with a training program on basic electronics lab using virtual labs. Dr. Chaya B M, Associate professor from the Department of ECE, served as the resource person for the event.

2. Tools, Techniques in Academic Research&Creating Academic Documents Using LaTeX :

The Department of ECE recently hosted a three-day workshop focused on "Tools and Techniques in Academic Research" and "Creating Academic Documents using LaTeX", from 2nd November 2022 to 4th November 2022 for Final Year Students of ECE. The aim of the workshop was to equip participants with the skills and knowledge necessary to conduct effective academic research and create professional academic documents using LaTeX.



3. Career Guidance Event: Debunking Myths About Studying Abroad :



Mrs. Vibhashree Ravindra, an Education Abroad Consultant with a track record of placing over 8000 students overseas, presented a seminar in collaboration with the Career Guidance Cell of SVIT. The seminar, titled "Debunking Myths About Studying Abroad," was intended for 7th semester students on November 8th 2022.

4. Seminar on Disruptive Technology :



The Department of ECE at SVIT organized a seminar on January 6th, 2023, with the theme of "Disruptive Technology." The seminar was presented by Mr. Sujay U N, an alumnus of SVIT's Batch of 2012 and the director of DijiSuji Technologies Pvt Ltd.

5. IEEE Membership Drive :

On 18/1/2023, the Department of Electronics and Communication Engineering collaborated with IEEE Student Branch (STB11371) to conduct an IEEE membership drive. Under the coordination of Dr. Venkatesha M, Advisor of IEEE SVIT PS, Dr. Chaya B M, Advisor of IEEE SVIT EMBS, and Prajwal N, Student Vice Chair of IEEE and coordinator from our department, around 90 ECE students successfully enrolled for IEEE membership.



6. Virtual Labs to Learn Digital Electronics - collaboration with NDLI :



On 20th January 2023, the Department of ECE will collaborate with NDLI to offer a one-day hands-on program on Virtual Labs for third-semester ECE students to learn Digital Electronics.

7. Intellectual Property Rights and Its Benefits in India :

The one-day workshop on awareness program on Intellectual Properties and its Protection in India, conducted by Sai Vidya Institute of Technology, Institute Innovation Council SVIT, IPR-Cell SVIT, IEEE SVITSB (STB11371) in association with National Intellectual Property Awareness Mission (NIPAM) was a grand success.

The event was held On February 14, 2023, at the Swami Vivekananda Seminar Hall, Sai Vidya Institute of Technology, and YOUTUBE Live was arranged at Lab.121. The workshop was conducted in association with the National Intellectual Property Awareness Mission (NIPAM).



8. Career Guidance on VLSI, Automotive Electronics, and Resume Building :



On Friday, 31st March 2023, the Department of ECE is partnering with IIC-SVIT, IEEE SVITSB (STB1371), Career Guidance Cell-SVIT, RV Skills, and Nano-Chip Solutions to present a career guidance event that emphasizes VLSI, automotive electronics, and resume building for Pre-Final and Final Year B.E. students in Electronics and Communication Engineering.

9. Exam Crunch :



On Saturday, 22nd March 2023, Sai Vidya Institute of Technology in association with Rotaract Club of SVIT organised a session which focussed on “The causes of stress, and what are the effects of stress on our bodies”. Some ‘Brain Hacks’ were taught in order to make our brains perform better. The session also focused on benefits of meditation and pranayama.






10. Toppers Meet :



The Toppers Meet that was conducted on May 5th, 2023, at the Department of Electronics and Communication Engineering (ECE) at Sai Vidya Institute of Technology. The Toppers Meet was organized to recognize and appreciate the academic achievements of the top-performing students in the department for the academic year 2022-2023.






Student Toppers

II-YEAR Toppers (21USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
1	1VA21EC058	MOHAN KUMAR N	801	89	
2	1VA21EC052	LIKHITH S	798	88.66	
3	1VA21EC096	SHRADDHA U S	795	88.33	
4	1VA21EC026	GAYATHRI M	792	88	
5	1VA21EC075	PRAJWAL S	788	87.55	






Student Toppers

II-YEAR Toppers (21USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
6	1VA21EC087	ROHAN KUKKIYAR ROYACHAN	779	86.55	
7	1VA21EC089	S PRAJWAL	776	86.22	
8	1VA21EC015	BINDU SHREE R	769	85.44	
9	1VA21EC071	P SARAVANA KUMAR	767	85.22	
10	1VA21EC059	MOKA RAKSHITHA	766	85.11	


Student Toppers

III-YEAR Toppers (20USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
1	1VA20EC053	PRAJWAL N	784	87.11	
2	1VA20EC044	MOUNA N RAJ	783	87.00	
3	1VA20EC082	SUCHITHRA D	768	85.33	
4	1VA20EC075	SHRINIDHI ANAND	757	84.11	
5	1VA20EC088	TAPAN G KULKARNI	739	82.11	






Student Toppers

III-YEAR Toppers (20USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
6	1VA20EC012	BHOOMIKA B	729	81.00	
7	1VA20EC083	SUMANTH GOWDA C N	726	80.67	
8	1VA20EC025	HARSHITHA T G	721	80.11	
9	1VA20EC061	ROHIT K L	711	79.00	
10	1VA20EC027	HRUTHIL J	701	77.89	





Student Toppers

IV-YEAR Toppers (19USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
1	1VA19EC034	JANAVI M	708	88.5	
2	1VA19EC018	CHINNA N J	696	87.00	
3	1VA19EC029	HARSHINI V	685	85.63	
4	1VA19EC080	SPOORTHI G	681	85.12	
5	1VA19EC074	SHASHANK C	672	84.00	

Student Toppers

IV-YEAR Toppers (19USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
6	1VA19EC050	MOHAMMED MUVATHASIM AATHIR	663	82.88	
7	1VA19EC027	GONI SAI SNEHA SRI	661	82.63	
8	1VA19EC064	ROHAN A S	660	82.5	
8	1VA19EC066	RUSHALI K	660	82.5	

Student Toppers

IV-YEAR Toppers (19USN)

Sl. No	USN	NAME	MARKS	PERCENTAGE	PHOTO
9	1VA19EC079	SNEHA U	658	82.25	
10	1VA19EC022	DIVYASHREE G	655	81.88	
	1VA19EC058	RADHA G	655	81.88	

Techspardha 2K23

- The Department of Electronics & Communication Engineering organized Project exhibition Techspardha-2K23 on May 22nd 2023 from 11:00 am onwards.
- The main objective of this Project exhibition was to provide a platform to the final year students to exhibit their innovative projects and demonstrate their learning experience.
- There were 24 projects from various domains like Embedded systems, IoT, Robotics, Machine learning, Photonics etc.
- **Mr. Sripadaraja K**, Director, Intellisense Software, Bangalore and Proved Alumina of SVIT, **Dr.Divyashree A**, Staff Scientist at IBM labs (ISDL), Bangalore, were the external expert to evaluate the projects during the exhibition.

External jury members visited all the batches and evaluated them for awarding for First, Second and Third place winners based on several criteria.

The following projects were selected as winner by the jury members.

Winners



- The first prize was bagged by **Sharat Hiremath (1VA19EC073)**, **B Yamini(1VA19EC014)**,**Tejashwini M N(1VA19EC090)**,for the project '**Automation of library Management System using Autonomous Robot**' under the guidance of Prof.Prabha K.

Techspardha 2K23

Runner up



- The second prize was bagged by **Rahul Kumar K (1VA19EC060)**, **Anjans(1VA19EC009)**, **Nikhil M N (1VA19EC043)** for the project 'Synthesis of Pure Oxide and Doped Metal Oxide Based Nano Materials for Display and Gas Sensor Applications' under the guidance of Dr. Venkatesha M/ and Dr. Shruthi D L

2nd Runner up



- The third prize was bagged by **Subash S (1VA19EC082)**, **Tejas B M (1VA19EC089)**, **Vasanth R (1VA19EC095)** for the project 'CNN based Stress Detection System' under the guidance of Dr.Vani B P

Faculty achievements

Dr. Venkatesha M been awarded with "Research Excellence award".



Certificate of Recognition InSc Institute of Scholars

Connecting Scholars Since 2014

ISO 9001:2015 certified & Registered under Ministry of MSME & Corporate Affairs, Govt. of India
UAM: KR-09-0001606 CIN: U80904KA2021OPC143961

Research Excellence Award 2023

awarded to

Dr. Venkatesha M

SMIEEE, LMISTE

Professor and HoD,

Department of ECE

Sai Vidya Institute of Technology

Rajanukunte, Bangalore

Karnataka, India



For the work with the following details

Publication Type: Journal

Paper Title: Modelling, design and optimization of compact taper and gratings for mode coupling to SOI waveguides at C-band

Journal Name: Journal of Modern OpticS

Volume: 67, Issue No: 12

Month of Publication: August

Year: 2020, Page No: 1112-1119

ISSN: 09500340, 13623044

Nanjesh Bennur
Chairman, InSc



20233REA160

Dr. Chaya M is officially recognized as Research Supervisor in VTU in the Department of ECE, from 15/05/2023 onwards.



Prof. Vani B P, Completed her Colloquium on 21th Jan 2023, under VTU for the research title "Novel Framework of Cognitive Radio network for Efficient Resource Management in 5G Communication".

She completed her Ph.D Final Defense Viva Voce on 05th May 2023, under VTU for the research title "Novel Framework of Cognitive Radio network for Efficient Resource Management in 5G Communication".

She has served as Reviewer at IEEE Flagship conferences.

Faculties interaction with outside world :

Reviewer Details

- **Dr. Venkatesha M** , served as reviewer for Results in Optics Journal, SPIE Optical Engineering Journal, Frontiers in Physics.
- **Dr. Chaya B M**, served as a reviewer for OPTICAL ENGINEERING, SPIE Journal during the calendar year of 2022.
- **Dr. Asha K**, served as reviewer for HINDWAI portfolio of journals during the calendar year of 2022.
- **Prof. Pavithra G S**, served as reviewer in IEEE 3rd International Conference on " Technology, Engineering, Management for Soceital impact using Marketing, Entrepreneurship and Talent 2023".

Faculty Members delivered Talk:

- **Dr. Venkatesha M** , was Resource person at ,SJCIT on 28/11/2022, for the topic " Latest Advancements in Communication systems".
- **Dr. Venkatesha M** , was a Resource person for the Workshop "Tools, Techniques in Academic Research & Creating Academic Documents using LaTeX", held between 2nd to 4th Nov 2022, organised by the Department of ECE, SVIT.
- **Dr. Chaya B M** , was a Resource person for the Workshop "Tools, Techniques in Academic Research & Creating Academic Documents using LaTeX", held between 2nd to 4th Nov 2022,organised by the Department of ECE, SVIT.
- **Dr. Chaya B M** , was a Resource person SVIT "Virtual Labs to learn Digital Electronics", held On 20/1/2022, organised by the Department of ECE, SVIT
- **Dr. Asha K**, was a Resource person for the Workshop "Tools, Techniques in Academic Research & Creating Academic Documents using LaTeX", held between 2nd to 4th Nov 2022, organised by the Department of ECE, SVIT.
- **Dr. Asha K**, was a Resource person for the Event "Virtual Labs to learn Digital Electronics", held On 20/1/2022, organised by the Department of ECE, SVIT.

- **Prof. Pavithra G S**, was a Resource person for the event “Virtual Labs to learn Digital Electronics”, held on 20/1/2022, organised by the Department of ECE, SVIT.
- **Prof. Advait P R**, was a Resource person at Department of ECE, SVIT for the One day workshop on “Quartus tool, Pspice and Multisim”, held on 24/1/2023, organised by the Department of ISE, SVIT.
- **Prof. Surya Narayana N K**, was a Resource person for the Workshop “Tools, Techniques in Academic Research & Creating Academic Documents using LaTeX”, held between 2nd to 4th Nov 2022, organised by the Department of ECE, SVIT.
- **Prof. Prabha K**, was a Resource person at Department of ECE, SVIT for the One day workshop on “Quartus tool, Pspice and Multisim”, held on 24/1/2023, organised by the Department of ISE, SVIT.
- **Dr. Vani B P**, was a Resource person for the Two days workshop on “ Network Simulator- 2”, held between 15/12/2022 and 16/12/2022, organised by the Department of ISE, SVIT.

Faculties who have completed AICTE-UHV 1 and UHV II Training

Name of the UHV trained faculty	Certificate Number
Dr. Chaya B M	F.No AICTE/FDP-SI/OnlineWorkshop/201/166709 F.No AICTE/FDP-SI/OnlineWorkshop/201/180590
Prof. Pavithra G S	F.No AICTE/FDP-SI/OnlineWorkshop/201/150162
Dr. Vani B P	F.No AICTE/FDP-SI/OnlineWorkshop/201/149561
Prof. Akshith Monnappa K	F.No AICTE/FDP-SI/OnlineWorkshop/201/84460 F.No AICTE/FDP-SI/OnlineWorkshop/201/120937
Prof. Nayana K	F.No AICTE/FDP-SI/OnlineWorkshop/201/120688 F.No AICTE/FDP-SI/OnlineWorkshop/201/83963
Prof. Divya T M	F.No AICTE/FDP-SI/OnlineWorkshop/201/123544 F.No AICTE/FDP-SI/OnlineWorkshop/201/187265
Prof. Darshan R V	F.No AICTE/FDP-SI/OnlineWorkshop/201/84595
Prof. Tejashree S	F.No AICTE/FDP-SI/OnlineWorkshop/201/122350
Prof. Jahnvi.D.M	F.No AICTE/FDP-SI/OnlineWorkshop/201/175091
Prof. N Ajay Kumar	F.No AICTE/FDP-SI/OnlineWorkshop/201/176716

Name of the UHV trained faculty	Certificate Number
Prof. Prabha K	F.No AICTE/FDP-SI/OnlineWorkshop/201/88031 F.No AICTE/FDP-SI/OnlineWorkshop/201/175576
Prof. Advait P R	F.No AICTE/FDP-SI/OnlineWorkshop/201/122359
Prof. Nisha S K	F.No AICTE/FDP-SI/OnlineWorkshop/201/181510

- **Prof. Suryanarayana N K** , Assistant Professor, Department of ECE, has completed 5 days **Face-to-Face UHV –II** Organised by AICTE at Rajeev Gandhi Memorial college of Engineering and Technology, Autonomous, Nandyal.
- **Certificate number:** F. No AICTE /FDP-SI/ERO/242/147532

Faculties who have completed 5 Days Workshop

- **Dr. Venkatesha M** participated 5-days Faculty Development Program on “Next Generation Wireless Networks for Autonomous Intelligent Communications” Organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateshwara College of Engineering, Bengaluru and technically sponsored by the Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26-12-2022 to 30-12-2022.
- **Dr. Chaya B M** participated 5-days Faculty Development Program on “Next Generation Wireless Networks for Autonomous Intelligent Communications” Organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateshwara College of Engineering, Bengaluru and technically sponsored by the Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26-12-2022 to 30-12-2022.
- **Dr. Asha K** participated 5-days Faculty Development Program on “Next Generation Wireless Networks for Autonomous Intelligent Communications” Organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateshwara College of Engineering, Bengaluru and technically sponsored by the Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26-12-2022 to 30-12-2022.
- **Prof. Suryanarayana N K** participated 5-days Faculty Development Program on “Next Generation Wireless Networks for Autonomous Intelligent Communications” Organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateshwara College of Engineering, Bengaluru and technically sponsored by the Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26-12-2022 to 30-12-2022.
- **Prof. Divya T M**, participated 5-days Faculty Development Program on “Analog VLSI Design using EDA Tools” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 20-03-2023 to 25-03-2023.

- **Prof. Pavithra G S**, participated 5-days Faculty Development Program on “Next Generation Wireless Networks for Autonomous Intelligent Communications” Organized by Department of Electronics & Communication Engineering in association with IQAC and IIC, Sri Venkateshwara College of Engineering, Bengaluru and technically sponsored by the Institution of Electronics & Telecommunication Engineers (IETE), Bengaluru held from 26-12-2022 to 30-12-2022.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Amazon Web Services” Organized by Sri Venkateshwara College of Engineering, Bangalore in collaboration with Brainovision Solution India Pvt. Ltd. AICTE held from 22-08-2022 to 27-08-2022.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Introduction to Python Programming and Its Applications” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 13-03-2023 to 17-03-2023.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Analog VLSI Design using EDA Tools” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 20-03-2023 to 25-03-2023.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Introduction to Internet of Things(IoT)” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 17-04-2023 to 21-04-2023.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Robotics & Artificial Intelligence” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 17-04-2023 to 21-04-2023. Prof. Vani B P, participated 5-days Faculty Development Program on “Introduction to Python Programming and Its Applications” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 13-03-2023 to 17-03-2023.
- **Prof. N Ajay Kumar**, participated 5-days Faculty Development Program on “Robotics & Artificial Intelligence” Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 17-04-2023 to 21-04-2023.

- **Dr. Vani B P**, participated 5-days Faculty Development Program on "Introduction to Python Programming and Its Applications" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 13-03-2023 to 17-03-2023.
- **Dr. Vani B P**, participated 5-days Faculty Development Program on "Introduction to Internet of Things(IoT)" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 17-04-2023 to 21-04-2023.
- **Prof. Advait P R**, participated 5-days Faculty Development Program on "Analog VLSI Design using EDA Tools" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 20-03-2023 to 25-03-2023.
- **Prof. Nisha S K**, participated 5-days Faculty Development Program on "Fundamentals of Data Science & Analytics" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 05-06-2023 to 09-06-2023.
- **Prof. Nisha S K**, participated 5-days Faculty Development Program on "Introduction to Cyber Security" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 22-05-2023 to 26-05-2023.
- **Prof. Prabha K**, participated 5-days Faculty Development Program on "Introduction to Cyber Security" Organized by AICTE-VTU Joint Teachers Training Program, VIAT, Muddenahalli, Chikkaballapur held from 22-05-2023 to 26-05-2023.

Student Achievements

1. Best Research Paper Award



- **Ms. Sneha U (1VA19EC079):** Received BEST PAPER AWARD at AICTE, SERB-DST Sponsored 2023 IEEE International Conference on Nanoelectronics, Nanophotonics, Nanomaterials, Nanobioscience & Nanotechnology (5NANO 2023), receiving from Dr. Manpreet Singh Manna held at VISAT Engineering College, Erakulam, Kerala, India on 27th & 28th April 2023.
- Paper Title: **Optical Design of a PMMA Sensor Film for Organic Light Emitting Diode**
- Research Supervisors: **Dr. Chaya B M** and **Prof. Pavithra G S**



2.Travel Grant

IEEE

- **Mr. SHASHANK C (1VA19EC074), Ms. SNEHA U (1VA19EC079), and Mr. SHARAT HIREMATH (1VA19EC073)**, IEEE 5NANO 2023 Travel Grant Award Winners. They have been selected to present their research work at the IEEE 5NANO 2023 International Conference on Nanoelectronics, Nanophotonics, Nanomaterials, Nanobioscience & Nanotechnology, technically co-sponsored by IEEE PHOTONICS SOCIETY, USA.
- **Mr. Dhanush C, Ms. Sai Snehasri and Ms. Shravani** of 7th semester got selected for internship in M/s AutoliV.



- **Mr. Dhanush C, Ms. Sai Snehasri and Ms. Shravani** of 7th semester got selected for internship in M/s AutoliV.

Best Outstanding Student -2023



Shashank C, 1VA19EC074, is awarded Best outgoing student of the Department of ECE. 2022-23 batch felicitated on Graduation day

Student Publications

- 26 students of final year ECE were able to succeed in converting their final year project into IEEE conference papers indexed in scopus or Web of Science. Student authors are added to scopus/IEEE author database.

Name Of the student	Guide	Title of the paper	Name of the Journal/Conference publication details
Shashank C, 1VA19EC074 Anvith Sharma 1VA19EC012 Samyak Darshan 1VA19EC069 Kalyan S Nayaka 1VA19EC036	Dr. Venkatesha M	Analysis of Propagation length for nanowire infused hybrid plasmonic waveguide	5NANO 2023 VISAT engineering college, Ernakulam, Kerala
Vinay kumar K S 1VA19EC096 Shravani V 1VA19EC075 Spoorthi G 1VA19EC080 Udith K S 1VA19EC093	Dr. Venkatesha M	Design ,Modeling and Analysis of 2 X 2 Microstrip patch antenna array system for 5G Applications	INCET 2023
C Dhanush 1VA19EC015 Inti Sai Srikar 1VA19EC033 Chirag Gowda R 1VA19EC019 Akula Pavan Parvatalu 1VA19EC006	Dr. Chaya B M	Optical Design and Modeling of Micro light emitting diodes for display applications	CONIT 2023 3rd International Conference on Intelligent Technologies
Sameera Nataraja 1VA19EC068 Pruthvi V 1VA19EC057 Hemanth P 1VA19EC031	Prof. Divya T M	Encrypted Instant Messaging Service using XMPP protocol	INCET 2023 DOI: https://doi.org/10.1109/INCET57972.2023.10170430

Student Publications

<p>Tejas B.M 1VA19EC089 Subash S 1VA19EC082 Vasanth 1VA19EC095</p>	<p>Dr. Vani B P</p>	<p>CNN & ARDUINO based stress level detection system</p>	<p>INCET 2023 DOI: https://doi.org/10.1109/INCET57972.2023.10170119</p>
<p>Sharath Hiremath 1VA19EC073 B Yamini 1VA19EC014 Tejaswini M N 1VA19EC090</p>	<p>Prof. Prabha K</p>	<p>Automation of library management system using Autonomous Robot</p>	<p>INCET 2023 DOI: https://doi.org/10.1109/INCET57972.2023.10169902</p>
<p>Sharath Hiremath 1VA19EC073 Sarvepalli srikrishna 1VA19EC071</p>	<p>Prof. Pavithra G S Dr. Chaya B M</p>	<p>Optical and Electrical Performance Analysis of New Polymer Layer in Organic Solar Cell</p>	<p>5NANO 2023 VISAT engineering college, Ernakulam, Kerala</p>
<p>Chinna N J 1VA19EC018 P S Srivatsa 1VA19EC054 Harshitha H N 1VA19EC030 Sandhyas-hree R 1VA19EC070</p>	<p>Prof. Pavithra G S</p>	<p>Implementing a Robust Iris Recognition System using Feedforward Neural Network Techniques</p>	<p>ViTECoN, TamilNadu https://doi.org/10.1109/ViTECoN58111.2023.10156989</p>
<p>Sneha U 1VA19EC079</p>	<p>Dr. Chaya B M Prof. Pavithra G S</p>	<p>Optical Design of a PMMA Sensor Film for Organic Light Emitting Diode</p>	<p>5NANO 2023 VISAT engineering college, Ernakulam, Kerala</p>

Research Centre Details

The ECE Department has Research & Development Centre which encourages the faculties and students to engage in R & D activities. Currently Department has received a sum of Rs.63.55 Lakhs from DST-SERB Government of India, VGST Government of Karnataka.

At present, Research Centre Department of ECE has 5 Research scholars and two Research supervisors

NAME OF RESEARCH SUPERVISOR	RESEARCH SCHOLAR NAME	YEAR OF REGISTRATION	STATUS
Dr. VENKATESHA M	1. SURYANARAYANA N K	2016	COMPREHENSIVE VIVA COMPLETED
	2. PAVITHRA G S	2019	COMPREHENSIVE VIVA COMPLETED
	3. AKSHITH MONAPPA K	2023	REGISTRATION COMPLETED
	4. DIVYA T M	2023	REGISTRATION COMPLETED
Dr. NARAYAN K	DARSHAN R V	2020	APPLIED FOR PH.D COURSE WORK

Faculty Publications:

- **M. A. Ibrar Jahan, Venkatesha Muniswamy, Ciro Rodriguez, Rajini V. Honnungar,** Bragg grating based nanophotonic biochemical sensor with enhanced light matter interaction, *Optoelectronics and Advanced Materials - Rapid Communications*, 17, 3-4, March-April 2023, pp.99-105 (2023).
- **Chaya, B.M., Guha, K., Venkatesha, M., Vaishnavi, A., Narayan, K. (2023).** Optical Analysis of Far-Field Intensity on Organic Light-Emitting Diode to Reduce Surface Plasmon Losses. In: Lenka, T.R., Misra, D., Fu, L. (eds) *Micro and Nanoelectronics Devices, Circuits and Systems. Lecture Notes in Electrical Engineering*, vol 904. Springer, Singapore. https://doi.org/10.1007/978-981-19-2308-1_7, https://doi.org/10.1007/978-981-19-2308-1_7
- **Likhith, C.S., Asha. K, Krishnaswamy, N. (2023).** Design and Simulation of Parallel Plate-Comb Type Mems Capacitive Accelerometer Using COMSOL. In: Lenka, T.R., Misra, D., Fu, L. (eds) *Micro and Nanoelectronics Devices, Circuits and Systems. Lecture Notes in Electrical Engineering*, vol 904. Springer, Singapore. https://doi.org/10.1007/978-981-19-2308-1_40.
- **Asha, K., Krishnaswamy, N. & Suryanarayana, N.K.** Analysis of ARROW Waveguide Based Microcantilever for Sensing Application. *Wireless Pers Commun* 126, 3435–3453 (2022). <https://doi.org/10.1007/s11277-022-09872-y>

Ph.D Awarded in the Department:

- **Dr. Y Jayasimha**, Professor and Dean academics, Department of ECE, has awarded doctorate degree from Reva University Bangalore.
- **Dr. Vikramathithan A C**, completed his Ph.D Final Defence Viva Voce under VTU, for the research title "Breast tumour detection by soft computing tools" on 12/8/2022.
- **Dr. Vani B P**, Completed her Ph.D Final Defence Viva Voce under VTU on 05th May 2023, under VTU for the research title "Novel Framework of Cognitive Radio network for Efficient resource Management in 5 G communications".

Book Publications by Faculty

Dr. Chaya B M, Dr. Venkatesha M

Lecture Notes in Electrical Engineering (LNEE)	Optical Analysis of Far-Field Intensity on Organic Light-Emitting Diode to Reduce Surface Plasmon Losses	2022	DOI: https://doi.org/10.1007/978-981-19-2308-1_7	International
--	--	------	---	---------------

Dr. Asha K

Lecture Notes in Electrical Engineering (LNEE)	Design and Simulation of Parallel Plate-Comb Type Mems Capacitive Accelerometer Using COMSOL	2022	DOI: https://doi.org/10.1007/978-981-19-2308-1_40	International
--	--	------	---	---------------

Patents Details

2 Indian patents and 1 International patent is filed from the department with the support of institution.

Dept	Patent Title	Inventors	National/ International
ECE	Smart Crop Recommendation Approach	M C Shravan (1VA18EC051) Ashok Kumar S (1VA18EC011) Geetha S (1VA18EC035) Akanksha Venkatesh V B (1VA18EC003) Dr. Vikramathithan A C	International
ECE	Design of a Helmet Integrated Airbag System for Motorcyclists	Raghunandan.S (1VA18EC082) Mayur Reddy V (1VA18EC058) K V Kushal (1VA18EC045) Dhanush R V (1VA18EC027) Dr. Venkatesha M Dr. Asha K	Indian
ECE	Method And System To Improve Calibration of digital energy meter with IoT	Dr. Chaya B M	Indian

Photonics in Medicine: Non-Invasive Optical Techniques for Disease Diagnosis and Treatment

--By Mohan Kumar N , 4th Sem ECE B

Abstract

Photonics is the science of generation, detection, and manipulation of light waves. Photonic-based methods have contributed significantly to public health in terms of developing rapid, cost-effective, personalized interventions. These methods have many advantages due to the high-speed movement of optical photons and the ability of light waves to penetrate various biological barriers without causing unwanted interactions.

Introduction

The use of light has revolutionised biology and medicine several times in History. Back to the 17th century, the optical microscope first reset our knowledge of biological tissues, origin of diseases, and our ability to diagnose & cure them. With advancements in technology, numerous solutions have been found to treat various medical diagnoses. In this article, we will discuss different techniques/treatments developed with the help of photonics that have contributed to the improvement of mankind's healthcare.

1 Optical Coherence Tomography (OCT)

OCT is an imaging technique that uses low-coherence light to obtain cross-sectional images of tissues with micrometer resolution. It works by measuring the interference between the light reflected from the tissue and a reference mirror. OCT can image up to several millimeters deep into tissues, depending on the wavelength and power of the light source. OCT has been widely used for ophthalmology, dermatology, cardiology, gastroenterology, and oncology.

2 Diffuse Optical Tomography (DOT)

DOT is an imaging technique that uses near-infrared light to reconstruct the spatial distribution of optical properties (such as absorption and scattering) of tissues . It works by measuring the diffuse light transmitted through or reflected from the tissue at multiple source-detector pairs. DOT can image up to several centimeters deep into tissues, depending on the number and configuration of the source-detector pairs. DOT has been used for brain imaging, breast cancer detection, and functional imaging.

3 Photoacoustic Imaging (PAI)

PAI is an imaging technique that uses pulsed laser light to induce acoustic waves in tissues . It works by measuring the time-resolved acoustic signals generated by the thermoelastic expansion of the tissue due to the absorption of light. PAI can image up to several centimeters deep into tissues, depending on the wavelength and energy of the light source. PAI has been used for vascular imaging, tumor imaging, molecular imaging, and functional imaging.

4 Photodynamic Therapy (PDT)

PDT is a therapeutic technique that uses light to activate a photosensitizer drug in tissues . It works by generating reactive oxygen species (ROS) that can damage or kill cells upon illumination of the photosensitizer. PDT can treat up to several millimeters deep into tissues, depending on the wavelength and dose of the light source. PDT has been used for cancer treatment, infection control, wound healing, and cosmetic applications.

Conclusion

Photonics offers a variety of non-invasive optical techniques for disease diagnosis and treatment. These techniques have different advantages and limitations in terms of depth, resolution, contrast, specificity, safety, and cost. They can also be combined or integrated with other modalities, such as ultrasound, MRI, or PET, to enhance their performance and applications. Photonics is expected to play an important role in advancing medicine in the future.

"ELECTRIC VEHICLES": NAVIGATING EMISSION ISSUES ON THE PATH TO SUSTAINABILITY"

-----By **GAYATHRI M,4th Sem ,ECE-B**

As the world embraces the transition to Electric Vehicles (EVs), there is a sense of optimism for a cleaner, greener future. Indeed, EVs offer the potential to save vast amounts of non-renewable energy and reduce harmful emissions like carbon dioxide and carbon monoxide, which are typically associated with petrol and diesel vehicles. However, a closer examination reveals that achieving a pollution-free vehicle landscape is not as straightforward as it may seem.

While EVs themselves produce zero tailpipe emissions during operation, their environmental impact is not entirely emission-free. One of the significant contributors to emissions in the EV lifecycle lies in the manufacturing of Lithium-ion batteries, which are crucial components of these vehicles. As the demand for EVs increases, so does the production of these batteries, leading to a substantial release of carbon dioxide into the atmosphere.

The carbon dioxide emissions in the manufacturing of Lithium-ion batteries and the energy required to charge them are a concern that must be addressed. Furthermore, improper disposal of these batteries can result in the continued emission of carbon dioxide, further exacerbating the greenhouse effect and contributing to rising global temperatures.

As we look to the future, it is crucial for us and our future engineers to focus on finding innovative solutions to minimize emissions in the entire EV lifecycle. Developing new battery technologies that minimize or eliminate carbon dioxide emissions during manufacturing and charging is a promising avenue. Additionally, optimizing recycling and disposal processes can significantly reduce the environmental impact of EVs.

While EVs do present emission challenges, they remain a vital step towards a sustainable transportation future. We must recognize that every technological advancement comes with its challenges and work collaboratively to address them.

Cultural activities by ECE



Winning moment of **Overall Rolling Trophy** by Department of Electronics and communication Engineering held during Sanchalana 2023.

- **Sohan S** has actively participated and won First place in event "Aircrash" and Second place in events "Navarasa" and "Mood n Moves" held during Sanchalana 2023.

Cultural activities by ECE



Aishwarya K , Shrinidhi Anand, Sumukha K S participated and won Second prize in event "CHITRAMANJARI" held during Sanchalana 2023

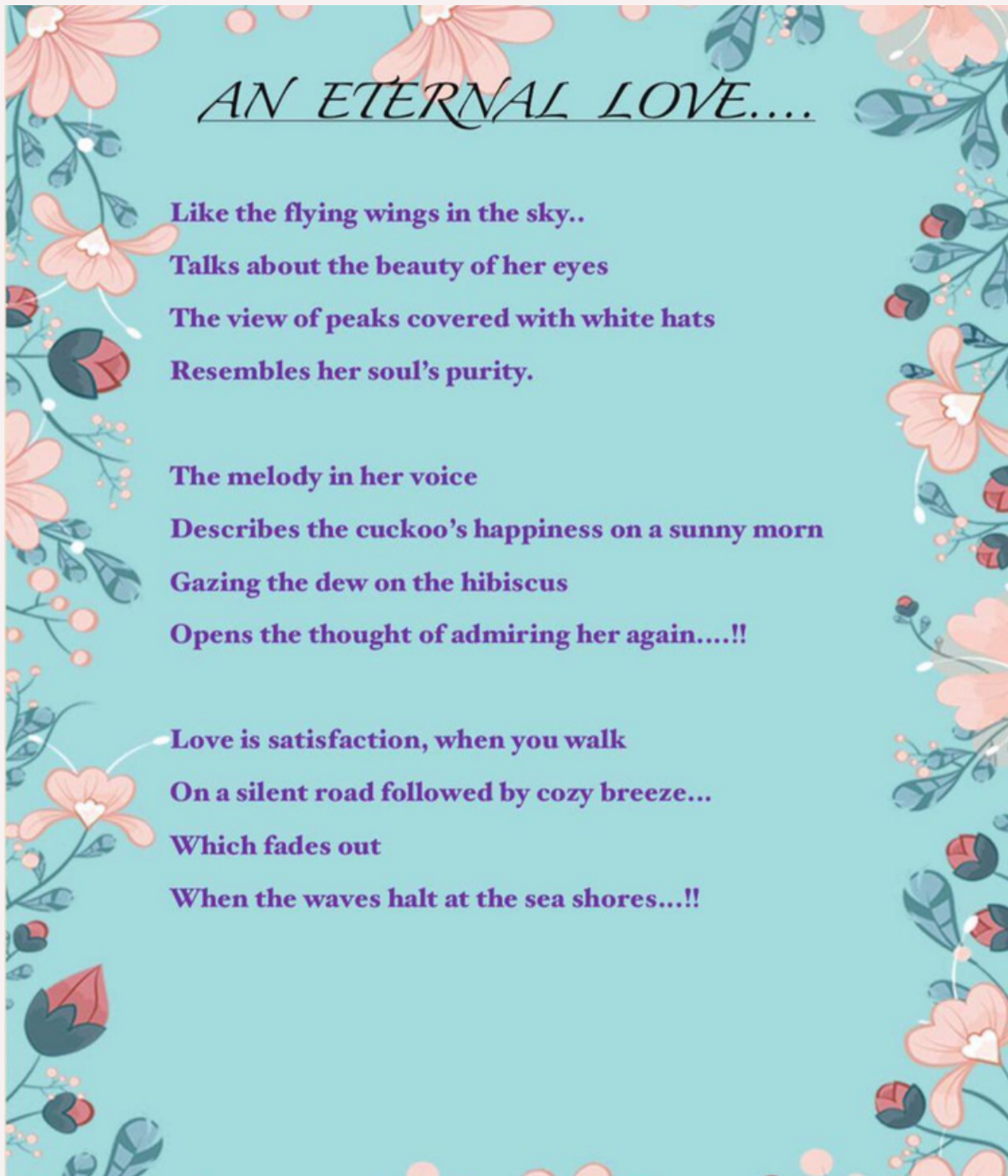
Tharun R participated and won Second prize in event "THERMOCOL MODELLING" held during Techvidya 2023



Sohan S and Tharun R participated and won Second prize in event "NAVARASA" held during Sanchalana 2023



Articles by students



A poem on "**AN ETERNAL LOVE**" by Sohan S, 6th ECE-A, 1VA20EC079.



Pencil Art by Monika.M, 6th ECE-A,
1VA20EC043.



Sports and NSS activities by ECE



Manvit Shantakumar has actively participated and have won Third place in Karnataka Karate Championship held at University of Mysore.



Prateek Dhulkhed has actively participated and is a runner up of football north zone (VTU).

Sports and NSS activities by ECE



Preethi D R has actively participated and has won 2nd position in Badminton in College Sports Day.



Vinay Kumar has actively participated in All India Trekking Expedition by NCC.



Sports and NSS activities by ECE



- Our 6th semester student, **Mr. Prashanth S** from Department of ECE, had been selected for the Karnataka state REPUBLIC DAY PARADE-2023
- Our department students **Mr. Shrinidhi Anand** , **Mr. Shrisha P Shetty**, **Mr. Gagan M D**, **Mr. Manvit Shantha kumar** , participated in Call of Duty(COD) mobile gaming event and won second prize at Cultural event held at Sri Venkateshwara College of Engineering, Bangalore.

IEEE Professional Bodies

- IEEE SVIT photonics society(SBC11371A), has received grant of 2500 USD from IEEE photonics society, USA under the leadership of Mr. Prajwal.N, Student chair, IEEE photonics society(SBC11371A) and Faculty advisors.

Antenna and Propagation Society(SBC11371E)



Faculty Advisor	Prof. Divya T M
Chair	Manvit Shantakumar
Secretary	Edwin Nishanth
Treasurer	Akash A
Vice Chair	Bhoomika B
Webmaster	Ananya L



Communications Society(SBC11371I)

Faculty Advisor	Prof. Tejashree S
Chair	Lohith Raju S V
Secretary	Sneha Sindhe
Treasurer	Neha S
Vice Chair	Ramachandra N
Webmaster	Goutham B



IEEE Professional Bodies

Medicine and Biology Society(SBC11371I)



Faculty Advisor	Dr. Chaya B M
Chair	Rachana N
Secretary	C N Anjan Kumar
Treasurer	Prajwal S
Vice Chair	Poornima P
Webmaster	Bindu R



Microwave Theory and Technology Society(SBC11371D)



Faculty Advisor	Dr. Venkatesha M
Chair	Indhushree K N
Secretary	Mouna Raj
Treasurer	Vibha U
Vice Chair	Prajwal N
Webmaster	Gayathri M



IEEE Professional Bodies

Nanotechnology Society(SBC11371G)



Faculty Advisor	Prof. Darshan R V
Chair	Tanuja N
Secretary	Bharav S R
Treasurer	Samskruthi K S
Vice Chair	Rohan Kukkiyar Royachan
Webmaster	Gururaj G



Photonics Society(SBC11371A)



Faculty Advisor	Prof. Pavithra G S & Dr. Venkatesha M
Chair	Prajwal N
Secretary	Suchithra D
Treasurer	Harshitha P S
Vice Chair	Monika M
Webmaster	Kavya I H



IEEE Professional Bodies

Robotic and Automation Society(SBC11371F)



Faculty Advisor	Vani B P
Chair	Amaan S
Secretary	Mohan Kumar N
Treasurer	Moka Rakhitha
Vice Chair	Harshitha T
Webmaster	M Thomas Sebastian



Signal Processing Society(SBC11371H)



Faculty Advisor	Ajaykumar Notom
Chair	Tapan Kulkarni
Secretary	Sumanth Gowda C N
Treasurer	Harsh Singh
Vice Chair	Aishwarya K
Webmaster	Kusuma C





Current trends in ECE

Semicon India 2023

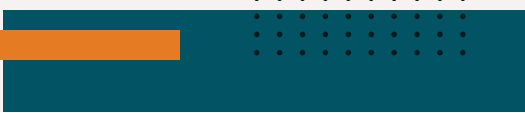
About ISM

- India Semiconductor Mission (ISM) is a specialized and independent Business Division within the Digital India Corporation that aims to build a vibrant semiconductor and display ecosystem to enable India's emergence as a global hub for electronics manufacturing and design. Led by global experts of the Semiconductor and display ecosystem the mission aims to serve as a focal point for the comprehensive, coherent, efficient, and smooth deployment of the Program for Development of Semiconductor and Display Ecosystem in consultation with the Government ministries / departments / agencies, industry, and academia. The Union Cabinet had approved the comprehensive Semicon India program with a financial outlay of INR 76,000 crore for the development of a sustainable semiconductor and display ecosystem in 2021. Semicon India Program aims to provide attractive incentive support to companies / consortia that are engaged in Silicon Semiconductor Fabs, Display Fabs, Compound Semiconductors / Silicon Photonics / Sensors (including MEMS) Fabs, Semiconductor Packaging (ATMP / OSAT) and Semiconductor Design. The program will give an impetus to semiconductor and display manufacturing by facilitating capital support and technological collaborations.

Vision:

- The vision of ISM is to build a vibrant semiconductor and display design and innovation ecosystem to enable India's emergence as a global hub for electronics manufacturing and design in a more structured, focused, and comprehensive manner through various mechanisms.

Objectives:

- **Strategy:** Formulation of a comprehensive long-term strategy for developing semiconductors & display manufacturing facilities and semiconductor design ecosystem in the country in consultation with Government ministries / departments / agencies, industry, and academia.
 - **Supply Chain:** Facilitation in the adoption of trusted electronics through secure semiconductors and display supply chain, including raw materials, specialty chemicals, gases, and manufacturing equipment.
 - **Design & Start up:** Enabling a multi-fold growth of Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools, foundry services and other suitable mechanisms for early-stage start-ups.
 - **Intellectual Property:** Promoting indigenous Intellectual Property (IP) generation and encourage, enable and incentivize Transfer of Technologies (ToT).
 - **Partnership:** Enabling collaborations and partnership programs with national and international agencies, industries and institutions for catalysing collaborative research, commercialization and skill development.
- 



Current trends in ECE

Career Aspects in VLSI

VLSI Engineer is a highly sought-after career in India. It is an abbreviation for Very Large Scale Integration, which entails developing, verifying, and testing integrated circuits. A VLSI Engineer is responsible for designing and creating circuits for computers, cell phones, and other electronic devices.

The scope of design and verification includes various stages, such as design entry, simulation, synthesis, physical design, and verification. As the complexity of VLSI chips continues to increase, the demand for skilled engineers with expertise in VLSI design and verification is expected to grow in the future.

VLSI Engineers in India and overseas are in great demand because of their competence in high-end chip design. The range for VLSI Design jobs salary can vary widely depending on the company, location, and experience level.

Very Large Scale Integration (VLSI) is a solid career choice and offers job opportunities for ECE freshers pursuing core employment. In India and overseas, VLSI provides a variety of employment roles featuring outstanding professional growth and salary incentives. It's all about the design of integrated circuits which is usually referred to as a Chip design. For those who are interested in pursuing a career in the VLSI semiconductor sector and keep wondering if VLSI is a good career, let's take a closer look at the occupation and growth prospects available.

To lay a strong foundation in VLSI, enrolling in a comprehensive VLSI course is the first step. A well-structured VLSI course covers essential concepts, methodologies, and tools required for designing and implementing complex integrated circuits. From the fundamentals of digital design to advanced topics like system-on-chip (SoC) design, VLSI courses equip individuals with the necessary skills to excel in the field.

Specifically, a VLSI design course focuses on imparting knowledge about the design aspects of VLSI, including digital and analog integrated circuit design, RTL coding, verification techniques, and more. By gaining expertise in VLSI design, individuals can contribute to the development of cutting-edge electronic systems



Program Outcomes (POs)

PO1: Engineering Knowledge - Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem Analysis - Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/Development of Solutions - Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigation of complex problems- Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the Information to provide valid conclusions.

PO5: Modern Tool Usage - Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The Engineer and Society - Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability - Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development,

PO8: Ethics - Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

PO9: Individual and team work - Function effectively as an individual, and as a member or leader in diverse (cams, and in multidisciplinary settings.

PO10: Communication - Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: Project management & Finance - Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: Life Long Learning - Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

ISBN-13: 978-93-5980-706-5



9 789359 807065