

**SIES GRADUATE SCHOOL OF TECHNOLOGY, NERUL, NAVI MUMBAI**  
**Department of Electronics and Telecommunication**  
**Annual Report 2023-24**

**Department Achievement:**

- Copyright Registered for title “a voice activated mobility wheelchair powered by solar energy “.
- Filed and published a patent on “Wearable Coplanar Waveguide Antenna for Wireless Body Area Network “ .

**Collaboration (MoUs and other extra ordinary achievements)**

- Signed MoU with Greenshift energy Pvt. Ltd.
- MoU with Septu ,Gurgaon ,Delhi
- Signed MoU with Meta Craftlab Pvt. Ltd., Mumbai .
- Departmental advisory board meeting was conducted on 25/2/2024.
- Organized Techopedia-12 Technical event during 1/2/2024 to 3/2/2024.

**Institutional Social Responsibility (ISR)**

- Faculties and students participated in NSS camp at Bursunge Village ,Asangaon.
- Students conducted STEM lectures at NMMC School .

**Initiatives:**

- Industry persons involved in final year project review process.

**Academic/Technical achievements of students:**

- Ms.Vinitha Odiyar and Mr.Varad Patil third year students qualified the GATE 2023 examination.
- Mr.Saurabh Kanase ,Ms.Sayali Maske, Ms.Shreya Kadam, Ms.Sakshi Kadam final year students received First prize in Techxter organized by SIES GST,Third prize in Intech by Somaiya College of Engineering and in Prakalpa by SFIT project competitions.



- Mr. Atharva Kotkar , Mr. Argya Das , Mr. Rushikesh Sawant and Mr. Harsh Khanderao participated in CIIA3 innovations project exhibition on 31/2/2024 and got internship at Septu ,Gurgaon Delhi.
- Mr. Atharva Kotkar , Mr. Argya Das , Mr. Rushikesh Sawant and Mr. Rahul Ganoliya won inter college project competition held at Saboo Siddhiki college of Engineering on 2/6/2024.



### Paper Publications by Students:

Sr. No.	Group Members	Title of the Paper	Conference/Journal Name
1	Jinendr Poojary	Visualization and prediction of real time sensor data	Journal of emerging Technologies and Innovative Research JETIR July 2023, Volume 10, Issue 7 (ISSN-2349-5162)
	Pradnya Talekar		
	Pranjal Thakur		
	Rithik Patil		
2	Triveni Thorat	Bus Headcount Analysis App Using Deep Learning	world Conference on communication & Computing (WCONF) 14-16 July 2023
	Tushar Ninawe		
	Anagha Upparna		
	Yogesh Gulle		
	Tanisha Sheikh		
4	Vighnesh Shivkumar	Raspberry Pi-based reader for blind	Strad Research VOLUME 10, ISSUE 6, 2023
	Yash Jain		
	Shaikh Rahil Mohd Sajid		
	Syed Afzal Hussain		
5	Pavlin Fernandes	Violence Detection using Human Action Recognition	Journal of emerging Technologies and Innovative Research JETIR July 2023, Volume 10, Issue 7 (ISSN-2349-5162)
	Chetna Pradhan		
	Pooja Guchait		
	Chaitali Nimse		
7	Patkar Kunal	Performance and safety enhancement in high speed vehicles.	Journal of emerging Technologies and Innovative Research JETIR July 2023, Volume 10, Issue 7 (ISSN-2349-5162)
	Lokhande Anvesh		
	MendonManas G		
	Marla Vignesh		
8	Anusha Ganapathy	Design of PIFA for 5G Application	14 th International Conference on computing Communication and Networking Technologies (ICCNT)
	Dinesh Nadar		
	Hiten Sharma		
	Khush patil		
9	Amit Chaurasiya	Vending machine for blind	International Journalof Innovative reserch in computer and communication engineering(IJIRCCE)
	Mansi Deshmukh		
	Sahil Kelaskar		
	Shruti Wamorkar		
10	Rohan salvi		

	Prathamesh shahapure Gaurav patil Rajendra undire	Nav Cap: Visual Narratives for the Visually Impaired	International Journal of Innovative research in computer and communication engineering(IJIRCCE)
11	Sanya Sharma Aman Chavan Saakshi Rajput Anirudh Sharma	Voice activated mobility wheel chair powered by solar energy	International Journal of Innovative Science and Research Technology
12	Pradnya Talekar Pranjal Thakur Jitendr Poojari Rithik Patil	Visualization and prediction of real time sensor data	Journal of Emerging Technologies and Innovative Research
14	Rahul Bala l Nibin Varghese Sairaj Parkhe Sanket Salekar	A Self-Contained ECG Classification and Arrythmia	International Journal of Scientific and Research Publications
15	Charudatta Bonde, Shrinivas Hunnur Ishaana Karmakar Nidhi Kulkarni	User centric online library system using PHP	International Journal of Creative Research Thoughts
16	Gaurav Gujjeti Balsubramanian Konari Ganesh Gujjeti Faizan Rawther	Self Stabilizing Spoon	International conference on Emerging Trends in Automation, Communication and Security(ICETACS-2023) organized by N. B. Navale Sinhgad college of Engineering,Pune
17	Khushi Singh Aakash Chavan Pranali Salvi	PCB Defect Detection Methods: A Review of Existing Methods and Potential Enhancements.	Journal of Engineering Science & Technology Review in Jan 2024

### Sports achievement:

- Mr. Umair Khan and Mr. Aryan Thakur second year students secured second prize in Basketball competition organized by University of Mumbai.
- Ms.Prerana Aswal our third year student was a Winner of Badminton tournament organized by University of Mumbai.



- Mr.Amir Mithagari ,final year student secured second prize in Carrom competition organized by Decathlon.



- Mr.Amir Mithagari final year student secured second position in Volleyball competition held at BVRIT, Kharghar.

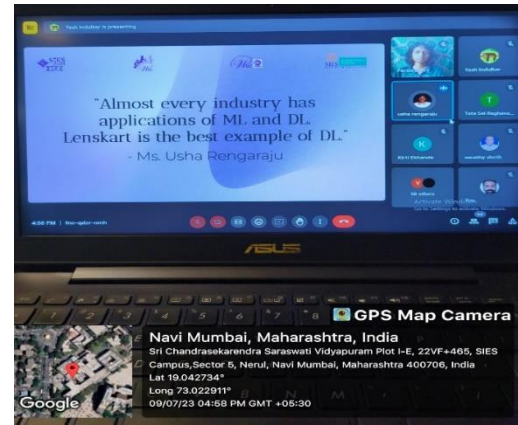


### Cultural achievement

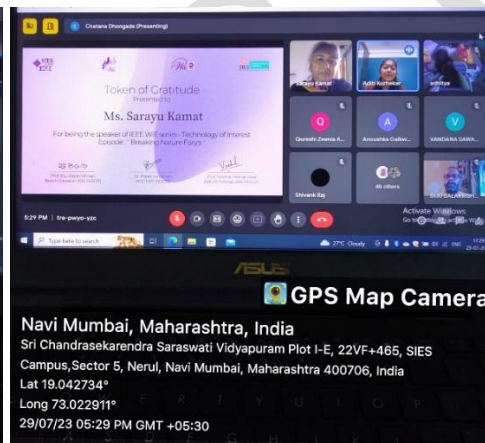
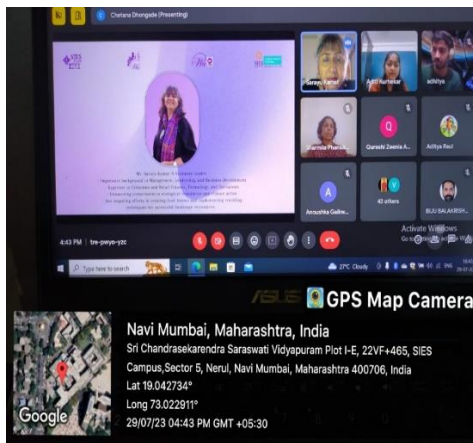
- Ms. Kritika Pandey final year student secured second rank in Western Vocal Solo at Youth Festival 2023-24.
- Ms. Gauri Huigol second year secured Consolation prize in Story telling Solo at Youth Festival 2023-24.

### Technical Activities:

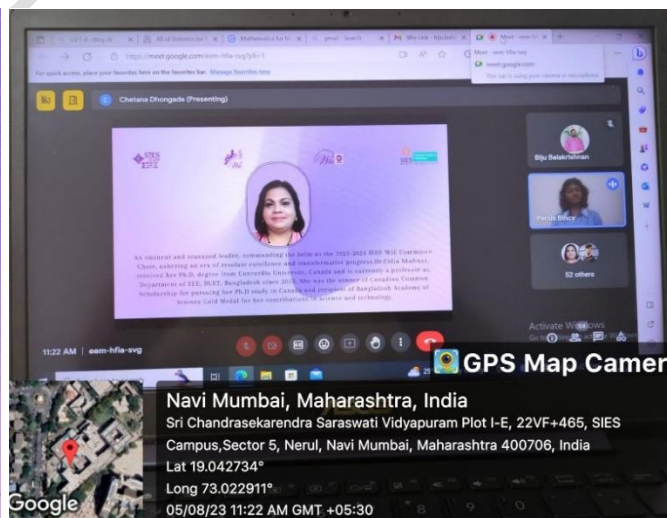
- Prof. Biju Balkrishnan organized a session on After Graduation Season 4: The DARK WEB Untangled by Mr. Kirankumar Subuddi, Security Analyst, Reliance Jio on 5/7/2023.
- Prof. Vaishali M. and Prof. Biju B organized IEEE WIE Series : Episode 1:Cracking Open Innovation: Lets Break the Barriers by Ms.Usha Rengaraju, Data Science research at Exa Protocol on 9/7/2023.



- Prof. Vaishali M. and Prof. Biju B organized IEEE WIE Series : Episode 2: Breaking Natures Fury by Ms. Sarayu Kamat , Raah Foundation ,Mumbai on 29/7/2023.



- Prof. Biju Balkrishnan and Prof. Vaishali Mangrulkar organized webinar on IEEE WiE Series episode 3: Breaking Grounds in Health Tech by Dr. Celia Shahnaz. Topic: Deep Learning for Computing and Biomedical Applications on 5/8/2023.



- Prof. Biju Balkrishnan organized STEM workshop for Vivekanad Sankul School, Sanpada on 28/8/2023 and at NMMC School No 92, Khulshet, Navi Mumbai on 29/8/2023.
- Prof. Biju Balkrishnan organized an industry expert session on Digital Communication for TE EXTC students on 14/9/2023.
- Prof. Biju Balkrishnan organized IEEE Annual Book "Technozine" revealing ceremony on 15/9/2023.
- Prof. Biju Balkrishnan organized IEEE SIESGST EPSILON 2023 during 30/9/2023 to 2/10/2023.



- Prof. Biju Balkrishnan organized Guest Lecture for TE EXTC and TE ECS students. Speaker: Aiyappan Pillai, Founder, Congruent Services on 12/10/2023.
- Prof. Biju Balkrishnan organized IEEEExtreme 17.0 International Programming Competition (24 hrs) on 18/10/2023.
- Prof. Vaishali M. and Prof. Nita Patil organized Expert lecture for BE EXTC and BE ECS students Speaker: Mr. Manoj Kavedia, Kaizen Futurtech on 20/10/2023.

#### **Research Grants/Paper publications:**

- Prof. Swati Rane completed her PhD.
- Prof. Vaishali Mangrulkar presented paper in International Conference on Emerging Trends in Automation, Communication E-Security (ICETACS-2023), Title: "Self Stabilizing Spoon" held between 20th and 21st July 2023 organized by N.B. Navale Sinhgad College of Engineering Solapur.
- Dr. Shubhangi Kharche published paper on "Video recognition" in UGC approved Journal JETIR on 6/7/2023.
- Dr. Shubhangi Kharche Published paper on "Data Visualization" in UGC approved Journal JETIR on 6/7/2023.
- Prof. Biju B presented paper in 9th IEEE international conference on smart computing and communications ICSCC23, August 2023 Kerala, Title: "Data Analytics of Restaurants Using AI."
- Dr. Preeti Hemnani presented paper titled "Building a cells module for retailers" in ICERI-2023 on 22-23rd September 2023.
- Prof. Vandana Sawant published paper in IEEE xplore "Bus Headcount Analysis App Using Deep Learning" on 6/9/2023.
- Prof. Pranavi Nikam published a paper titled "Voice activated mobility wheel chair powered by solar energy" in International Journal of Innovative science and research technology October 2023.

- Prof. Pratibha Joshi presented paper in IEEE International Conference on Advances in Science and Technology (ICAST-2023) title " Comparative Analysis of different preprocessing techniques for digital mammograms towards breast cancer detection" December 2023.
- Prof. Sonal Hutke filed and published a patent on Wearable Coplanar Waveguide Antenna for Wireless Body Area Network on 15/9/2023.
- Prof. Vandana Sawant , Prof. Priyanka Kadam and Prof. Vaishali Mangrulkar presented paper in IEEE international conference on topic 5.8Ghz ISM band low cost button antenna for smart wearable application December 2023 and paper published in IEEE Explore in March 2024..
- Dr. Preeti Hemnani & Pranavi Nikam organized expert talk on Viksit Bharat and seminar on VLSI application in AI/ML and future opportunities on 13/3/2024.
- Dr. Shubhangi Kharche published a paper PCB Defect Detection Methods: A Review of Existing Methods and Potential Enhancements in JESTR journal .
- Prof. Sonal Hutke published a paper titled "Investigation of SAR reduction and bending effect using a flexible antenna with EBG structure for 2.45Ghz wearable applications" in International Journal of Intelligent systems and applications in engineering.
- Prof. Pranavi Nikam Copyright Registered " a voice activated mobility wheelchair powered by solar energy.
- Prof. Swati Rane published a paper titled "User centric online library system using PHP" in International Journal of Creative Research Thoughts , June 2024

#### **Seminars/Workshops organized/attended by Faculty of GST:**

- Dr. Preeti Hemnani ,Prof. Pratibha Joshi , Prof. Sonal Hutke and Prof. Vaishali Mangrulkar organized visit to AICTE Idea lab at SPIT, Andheri for second year students on 15/3/2024.
- Prof. Biju Balkrishnan organized Industrial Visit to TIFR on 23/3/2024 for third year students.
- Prof. Swati Rane and Prof. Priyanka Kadam organized Industrial Visit to Inventronics ,Bhiwandi for second year students.
- Prof. Biju Balkrishnan organized an Industrial Visit for faculties to Reliance Jio:5G Services and applications on 14/3/2024.
- Dr. Preeti Hemnani and Prof. Pranavi Nikam organized and conducted value added course on Digital system design on FPGA using Verilog during 1/1/2024 to 5/1/2024.



- Prof. Pratibha Joshi ,Prof. Nita Patil and Prof. Vaishali Mangrulkar organized and conducted value added course on Introduction to Arduino ,R-Pi and IoT during 1/1/2024 to 6/1/2024.

- Prof. Biju Balkrishnan Invited as a visiting expert for Department Quality Assurance Committee on 3/1/2024 at Fr. C. Rodrigues Institute of Technology, Navi Mumbai.
- Prof. Biju Balkrishnan organized Seminar on Carrier Guidance and Profile Building by Tanvi Sharma, Collegepond on 31/1/2024.
- Prof. Vaishali Mangrulkar and Prof. Sonal Hutke attended webinar on Integrating life skills in curriculum by Dr. Shilpa Kankonkar, associate professor and start up specialist at Neville Wadia Institute of Management and Research Pune on 31/1/2024 organized by SIESLLD.
- Prof. Biju Balkrishnan successfully completed 12 weeks NPTEL certified course on Modern Digital Communication Techniques in November 2023 and secured Elite Silver Certificate and is a Topper in this course.
- All faculties attended and completed STTP on "National Education Policy 2020 and Autonomy in Higher Education Institutions" during 18/12/2023 to 23/12/2023 organized by SIESGST
- Prof. Biju Balkrishnan received certificate of appreciation for volunteered as proctor to guide and oversee competing teams for the IEEE Xtreme 17.0 programming competition.
- Dr. Preeti Hemnani and Prof. Biju Balkrishnan Invited as an expert speaker on topic Outcome based education and NAAC/NBA Preparation at SS Johndale College of Engg and Technology, Asangaon on 10/10/2023.
- Prof. Vaishali Mangrulkar attended FDP on Blooms Taxonomy and constructive Alignment by Dr. A. K. Sengupta on 18/8/2023.
- Prof. Pranavi Nikam attended VLSI design workshop on 4/8/2023.
- Prof. Pranavi Nikam successfully completed course on Linux Fundamentals by Coursera on 4/8/2023.
- Prof. Biju Balkrishnan attended orientation of EEE-EBSCO Knowledge Feast 2023 on 2/8/2023.
- Dr. Preeti Hemnani, Prof. Swati Rane, Prof. Shyamala Mathi and Prof. Madhuri Kulkarni organized expert lecture in value added course -Image processing and machine learning on topic "Use and Applications of AI and ML" by Mr. Abhay Phanshikar, Business Development Director at Azilen Technologies Pvt Ltd, Mumbai on 3/7/2023.
- Prof. Pranavi Nikam participated in Webinar "How to write a book and get it published as an Author" organized by Next Gen Publications on 2/7/2023.
- Prof. Biju Balkrishnan attended one week IEEE Bombay section sponsored CBP on "Sustainable Development Through Traditional Way" by TCET Mumbai during 23/6/2023 to 1/7/2023.
- Prof. Biju Balkrishnan attended one week STTP on "Performance Analysis of Wireless Communication System PWCS-2023" by Annant Gyan, Dr. Satyam Agrawal IIT Ropar Punjab during 26/6/2023 to 1/7/2023.
- Prof. Vaishali M, Prof. Swati Rane, Prof. Pratibha Joshi, Prof. Priyanka Kadam and Prof. Sonal Hutke attended seminar on POSH at Workplace by Dr. Swati Kulkarni organized by WDC SIESGST on 5/2/2024.
- Prof. Biju Balkrishnan organized a seminar on Technical Paper Writing in IEEE format on 15/2/2024 by Dr. Mini Rajeev, Associate Professor and Associate Dean, FCRIT, Vashi.
- Prof. Biju Balkrishnan organized a seminar on Achieving Problem-Solution Fit and Product-Market Fit on 27/2/2024 by Alumni Mr. Abhishek Singh, Product Manager, reliance Jio.



- Prof. Biju Balkrishnan organized Techopedia-12 Technical event during 1/2/2024 to 3/2/2024.
- IEEE SIESGST organized a seminar workshop on COLORS: A Tool for Wellness by Ms.Nikita Prabhu Founder, Ikigai For The Soul, Mumbai on 8/3/2024.
- IEEE SIESGST organized seminar on LUDO in the corporate World by Ms. Ramya Rajeevan, HR professional at Hindustan Uni Lever Ltd, Mumbai on 8/3/2024.
- Prof.Pratibha Joshi and Prof.Vaishali Mangrulkar organized expert lecture for final year students on Recent trends in networking and security protocol by Mr. Ashish Sahu, Product Manager at Reliance Jio on 28/3/2024 for the subject WN and NMT.
- Prof.Pranavi Nikam organized Industry Expert talk and Hands on session on .SQL essentials by Mr. Umesh Mahind on 28/3/2024 for third year students.
- Dr.Preeti Hemnani & Pranavi Nikam organized expert talk on Viksit Bharat and seminar on VLSI application in AI/ML and future opportunities on 13/3/2024.
- Prof.Swati Rane organized expert talk on “Roadmap to Entrepreneurship and challenges in It” by Mr. Kunal Godambe, Founder and Managing Director-GreenShift Energy Pvt. Ltd., Mumbai, Maharashtra for TE and BE students on 15/3/2024.
- Prof.Sonal Hutke organized expert talk on RF Antenna Trends by Mr. Abhishek Tambulwadkar, DIGINTEL INFOSOL LLP, Mumbai, on 20/3/2024.
- Prof..Swati Rane , Prof. Shyamala Mathi and Prof. Priyanka Kadam organized expert talk on “Chat bot implementation using Open AI” in Value added course on “Applications of ML:IP & NLP” on 6/7/2024 by Ms. Pranita Mahajan, Sr. data analyst at Elsevier Mumbai.
- Dr. Preeti Hemnani and Pranavi Nikam organized expert talk on Career opportunities in Data Science on 8/4/2024 by Ms. Pranita Nagpurkar ,Big Data Engineer .Hexaware Technologie for third year students.
- Prof. Vaishali Mangrulkar and Prof. Priyanka Kadam completed one month FDP by cyber security of India in May 2024.
- Prof. Swati Rane , Prof. Shyamala Mathi and Prof. Priyanka Kadam conducted Value added course on “Applications of ML:IP & NLP” during 24/6/2024 to 29/6/2024.
- Prof..Vandana Sawant , Prof..Sonal Hutke and Prof..Hema Gawali conducted Value added course on “Advanced Antenna Design ” during 24/6/2024 to 29/6/2024.



- Prof. Pratibha Joshi attended Five days FDP on competency building in soft skills organized by SSLD & SISCOSM during 24/6/2024 to 28/6/2024.

### **Alumni Activities:**

- Mr. Kunal Godambe, Greenshift Energy Pvt.Ltd.,our Alumni 2008 batch was invited to take expert talk in subject IPMV.

- Ms. Prachi Jain, our alumni 2013 batch invited as a alumni member in Department Advisory Board meeting
- Mr. Abhishek Singh , Reliance Jio, our alumni 2020 batch invited as a Alumni Member in Department Advisory Board meeting .
- Mr.Ashish Sahu ,Reliance Jio, our alumni 2020 batch was invited to take expert session on topic Current trends in networking and security protocols for subjects wireless network and Network Management in Telecommunication.

SIES GST