

SHRI G. S. INSTITUTE OF TECHNOLOGY AND SCIENCE, INDORE

GOVT. AIDED AUTONOMOUS INSTITUTE ESTD. IN 1952

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

NEWS LETTER

(1 ST JAN - 31 ST JUNE 2024)



VISION:

The department is committed to providing a holistic education that transform the students into responsible engineers and facilitate them to build successful careers and excel in the field of electronics and instrumentation with social and ethical standards.

MISSION:

To prepare emerging electronics and instrumentation engineers to possess good communication skills with the ability to work in multi-disciplinary groups, lead teams, and understand their professional and ethical responsibilities for serving the needs of society.

Editors: Dr. Rajesh Khatri (Asso. Prof. & Head), Dr. Gireesh G. Soni (Asso. Prof), Ms. Kirti Bhargava (Asst. Prof.),

Student Editors: Ms. Sanika Borgaonkar (III year) , Madhur Jain (II-year)

ॐ सरस्वति नमस्तुभ्यं वरदे कामरूपिणि ।
विद्यारम्भं करिष्यामि सिद्धिर्भवतु मे सदा ॥



Basant Panchami Puja in EI department

MOU WITH VLSI SOCIETY OF INDIA



Department has signed MOU with VLSI Society of India (VSI) on 18th March 2024. The MoU defines a partnership that will work together in developing talents, research, Start-ups , employment opportunities in the area of VLSI Design and Semiconductors.

VSI will provide all technicals regarding the EDA tools training, organizing conference, short term courses, chip design and facilitating the Semiconductor know-how with the Institute.

The signing ceremony was held at IIT Indore.

Left to right: Ms. Chitra Hariharan (Secretary-VSI), Mr. Piyush Saxena (RRCAT), Dr.S. Vishwakarma (IIT-Indore), Dr. Satya Gupta (President-VSI), Dr. Rajesh Khatri (Head & Co-Cl,C2S) and Dr R.C. Gurjar (Co-Cl,C2S)

EDUCATIONAL TOUR- SEMICONDUCTOR LAB -MOHALI, CHANDIGARH



Group Photograph at SCL Mohali with all the students and Faculty members

On January 2nd, 2024, the Department of Electronics and Instrumentation Engineering embarked on a visit to two esteemed institutions: the **CSIR – Central Scientific Instruments Organization (CSIO)** and the **Semiconductor Laboratory (SCL)** located in Mohali, Chandigarh.

the Semiconductor Laboratory (SCL), an autonomous entity under the Ministry of Electronics and Information Technology (MeitY), Government of India, emerged as the sole Integrated Device Manufacturing Facility in the nation. Our tour of the fabrication sector, including the 180 nm CMOS process line, provided invaluable insights into the meticulous steps involved in wafer preparation.



CSIR- CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION (CSIO)



Group Photograph at CSIR-CSI, Chandigarh; all the students, Faculty members and CSIO experts



Final Year at CSIR-CSIO



Faculty of SGSITS along with experts at CSIO

CSIO, operating under the aegis of the Council of Scientific & Industrial Research (CSIR), stands as a premier national laboratory dedicated to the research, design, and development of scientific and industrial instruments. During the visit, our delegation received comprehensive insights into various laboratories housed within CSIO, including the Instrumentation Lab, Embedded System Lab, Mechanical Lab, and Industrial Automation Lab.

The visit served as an enlightening source of practical knowledge, fostering a deeper understanding of the intricacies within the realm of electronics. It inspired students to embark on a journey of exploration and innovation, recognizing the pivotal role played by these institutions in shaping the landscape of electronics and technological advancement.

EXPERT LECTURE



Dr. Rajesh Khatri at Oriental University



Dr. Rajesh Khatri (Asso. Prof & Head) delivered an expert lecture on “Use of Digital VLSI in Wireless Mobile Communication”, at Oriental University Indore. The lecture was conducted by Faculty of Electronics & Communication engineering in association with IETE sub center, Indore.

INTRODUCING B.I.S. CLUB



Bureau of Indian Standards (BIS) has taken the initiative of creating a Standards Club in educational institutions comprising teachers and students as members.

A quiz competition was conducted based on general awareness and science. Secondly, Standard writing competition was held under BIS focusing on standards and tests required under BIS.

ALUMNI LECTURE SERIES

As an exciting new initiative, the department announced a series of Alumni Lectures, presented in collaboration with an esteemed alumni network of EI dept. The lectures are offered in both online and offline formats, providing a valuable opportunity for our students to directly interact with experienced professionals. The objective of the lecture series is to gain valuable knowledge and insights into the current job market, while also developing a deeper understanding of the skills and requirements sought after in the professional world.



Students of II and III year interaction with alumni Ms. Arshi Rizvi under first Alumni Lecture series



Final Year student welcoming the alumna Ms. Arshi Razvi



Online lecture of Mr. Rajat Pashine

Students have shown great interest in these lectures. First in the series was Ms. Arshee R. of 2018 batch working as Data Science Officer at IIT Madras. Her talk focused on career guidance and provided a perspective to shape the professional journey of students.

The second alumnus was from batch of 2016, Mr. Deepak Mandloi. He serves as an embedded software developer in OLA Electric. He shared his views on the subject “Current EV Industry Trends.”

The third lecture was presented online by alumnus of 2005 batch by Mr. Rajat Pashine, Principal Software Engineer at Harman International Pvt. Ltd. He shared his insight on “Technical Opportunities in the Automotive Industry for Engineers”.



Alumna Ms. Arshee R and all senior faculty members of EI department present on the launching of Newsletter for the session July-Dec 2023

BIDDING ADIEU TO THE BATCH OF 2024



Final Year students along with faculty members of the department

As we bid adieu to the distinguished batch of 2024, we reflect on the profound impact they've had on our institution. Each member of this graduating class has contributed uniquely to the tapestry of our academic community, leaving behind a legacy of excellence.

Throughout their time here, the Class of 2024 has exemplified resilience, creativity, and a relentless pursuit of knowledge.

As they prepare to embark on the next chapter of their lives, we extend our heartfelt congratulations and best wishes. May the lessons learned and memories cherished during their time with us serve as guiding lights on the future career path.

SUPERANNUATION



The department bid farewell to Mr. Mohanlal Yadav Ji. He retired after a dedicated service of 40 extraordinary years. His dedicated service, loyalty and integrity towards the department is unforgettable. The department wishes him a healthy and joyful retirement.

The faculty of EI department also bid farewell to Mr. Nandlal Patidar who served as department clerk.



Faculty members of EI department, Honourable Director SGSITS (Prof. R. Saxena) on the farewell of Mr. Mohanlal Yadavji and Mr. Patidar Ji

INTERNSHIP ON “CHIP DESIGN FLOW USING CADENCE”

The department offered a 4-week internship program to the students of EI second and third year on “Chip Design Flow Using Cadence”. The main focus of the program was to make students aware about the design methodology and design tool used for chip designing in industry. It will help students not only in completing the curriculum but also make them industry ready.

The internship comprises of expert session from industry and other VLSI experts along with hands-on session on Cadence every day.

Mr. Shubham Sharma industry expert from Cadance addressed the students and gave them knowldge how RTL to GDS-II flow works in industry.

Dr. Vaibhav Neema, a well known VLSI expert from IET DAVV, Indore appraise students to inculcate the skills needed for placement opportunities in semiconductor industry in coming years.



Dean Academics & HOD EI (SGSITS) addressing students



Mr. Shubham Sharma from Cadence

The hands-on session on Cadance tool is conducted every day by Ms. Mansi Jain (Project Associate C2S)



Dr. Vaibhav Neema from IET DAVV, Indore

MATLAB WORKSHOP



Students performing hands-on MATLAB sessions at CIDI Lab



Certificate distribution for MALAB Workshop by Dr. Rajesh Khatri, Head, EI department

The department organized a one-day workshop on "Digital Signal Processing with MATLAB" on 22nd March 2024, conducted by Mr. Anshuman Prakash, an expert from ARK InfoSolutions Pvt Ltd. It included an informative lecture on DSP and it's fundamental algorithms followed by 2 hours of hands-on work with MATLAB signal processing tool box.

TESTING & CONSULTING

The department has generated revenue of Rs:1,01,775/- (Rs. One Lakh One Thousand Seven Hundred Seventy Five Only) during the FY 2023-24 against the consultancy services given to Nagar Nigam, Dewas for SCADA installation and operations.

STUDENTS ACHIEVEMENTS

NPTEL COURSES

The department is proud to announce the topper's list for NPTEL courses.

1. Industrial Automation and Control- Out of 13 toppers, **10 are students of EI, SGSITS**
2. Biomedical Signal Processing- Out of 21 toppers, **10 are students of EI, SGSITS**

Avneesh Vijay(IV year), Meenakshi Patel (IV year), Harshit Jain (III year), Aman Dhunde (III year), Harsh Jain (II Year) received certification from NPTEL for successful completion of various courses.

PUBLICATIONS

Ayush Porwal of final year published 2 research papers associated with MANIT Bhopal, on IEEE Xplore.

- “ Comparative Analysis of Filtering Noise From Voice Signal by Different Decomposition Methods.”
- “Comparative Analysis of Different Neural Network Models for Speaker Gender Recognition by Voice”
- Sanika Borgaonkar of 3rd Year received acceptance for her research publication titled “Analysis of Coaxial Microstrip Patch Antenna using Artificial Neural Network” from ICEAA-IEEE APWC Conference 2024.



Sanika Borgaonkar (III year)

PLACEMENTS

The final year EI students showed a remarkable performance in placements of 2023. out of total eligible students of the class around 88% students are placed in various companies. The highest package recorded is 24 LPA to Ms. Somya Sahu in Goldman Sachs Services Pvt Ltd. Out of many companies like Genpact Ltd, Larsen & Toubro Ltd , Deloitte Consulting India Pvt Ltd , GreyB Research Pvt Ltd, Adani Enterprises Ltd etc. students are also placed in core companies like Digicomm Semiconductor Pvt Ltd, Asian Paints Ltd., CG Power and Industrial Solutions Ltd, National Engineering Industries Ltd etc.

HIGHER STUDIES

- Final Year students Shrey Pathak, Vedansh Laad, Arvind Ahirwar, Akash Mishra qualified GATE 2023 with flying colours.
- Prateek Gadekar, Devesh Jeswani showed a good performance in CAT 2023. Nishit Jain of final year qualified SNAP 23 with 91.50 percentile score.
- Vedant Sheshker of EI III Year student showed a good performance in GATE 2023.



Vedant Sheshker III year(GATE Qualified)



Shrey Pathak
(GATE Qualified)



Vedansh Laad
(GATE Qualified)



Nishit Jain
(SNAP Qualified)



Akash Mishra
(GATE Qualified)



Arvind Ahirwar(GATE Qualified)

STUDENT'S PARTICIPATION

- Chaitanya Buwade of 3rd Year served in E-BAJA team as Captain, Electronics Power Transmission Head, and Driver.
- Siddharth Choudhary of 2nd Year participated in M-Baja and E-Baja (GSRACERS) competition hosted by SAEINDIA and was awarded Certificate of Participation.



Chaitanya Buwade-Captain, Rashi Singhai and Faculty members of EI Dept. E-BAJA



Chaitanya Buwade-Captain E-BAJA Team

- Aagam Jain of 3rd year certified for BAJA'24 event, as the Head of Steering Department where he participated in sales presentation given by the top 5 teams only
- Ajeet Sahni and Priyansh Bharani, II-year students, represented SGSITS Indore at the TinkerHub competition organized by IIT Indore. Despite 135 entries, they were selected as one of the top five finalists to present their innovative project. Their project, "Smart Waste Separation and Detection System," ultimately secured the prestigious *first* position, earning them a generous prize of ₹20,000.
- Madhur Jain of second year won First prize in singing competition in Moonstone 2k24, the cultural fest of Medicaps University, Indore.
- Dipesh Prajapati of 2nd year, along with his team mate participated in the Hackathon organized by HackITSapiens in Jaipur, Rajasthan.



Ajeet Saini & Priyansh Bharani at IIT Indore



Dipesh Prajapati at Hackathon, Rajasthan



Madhur Jain won 1 prize in singing

- Harsh Jain of second year participated in E-Summit organized by E-Cell as a member of Roomzy startup and got featured in daily newspaper.
- Sanyam Parmar of 2nd year participated in Python course provided by Cisco Networking Academy in collaboration with OpenEDG Python Institute.
- Goutam Chouhan of 1st Year, was volunteer in the India's Smart City Awards 2023.
- Pradeep Batti of 1st Year cleared the assessment for the role of "Field Technician" NSQF level 4 course aligned to National Occupational Standards set by Electronics Sector Skills Council of India.
- Arnav Poddar of first year participated in RGPV NODALS for table tennis and karate and won silver medal in table tennis.
- Arjav Dariya of 1st Year attended the seminar for blockchain technology and web3, conducted by computer club of SGSITS Indore.
- Our 3rd Yr students Ashwin Singh, Basu Jain, Aman Dhunde, Chaitanya Buwade and Rashi Singhai won the JURY award in IDEATHON 2.0 (an IIC event) held at SGSITS.