



# NEWSLETTER

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## Departmental News

### Poster Exhibition

The Technical Poster Exhibition held on 27th Oct 2023 under Microprocessor lab at EED lobby was a resounding success, providing a platform for students to showcase their technical prowess and fostering a culture of innovation under the theme "Advancement in Electrical Engineering & Modern technology". The event highlighted the impressive work done by 3rd year students done under the guidance of Prof. Arun Parakh and Mrs. Rinki Keshwani and encouraged collaboration and knowledge sharing within the academic community. A panel of judges, comprised of faculty members and industry experts, evaluated the projects based on criteria such as innovation, technical merit and presentation quality, contributing to the overall academic vibrancy of the institution. This interactive component added depth to the event, fostering a spirit of collaboration and knowledge exchange.



Over 26 posters were evaluated by the Jury Panel and Posters on Microelectronic Pill & H<sub>2</sub> based EV jointly clinched 1st position, Pragyan Rover (Chandrayaan-3) & Google Quantum Computer jointly secured 2nd position and Reusable Rockets & Laser Communication Case Study jointly got 3rd position.

### Placement Phase One: EE Students sparkle with Job Offers

EE students proved their merit and so far, 41 students have secured Placements in Core and IT Companies. Top four placement grabbers of EE, Jigyasa Barge got placed in a leading Tech company, got the third highest package in the institute, Gaurav Singh & Priyanshi Jain got employed in a reputed Robotics company and Aahana Saklecha secured placement in a leading Tech company. Currently, the average placement stands at 8.2 LPA, major recruiters included Havells, L&T, Asian Paints & Addverb. These stats confirm the employability and skill set of EE grads, also it shows the Electrical Engineering Department's efforts in exposing students to latest Industry requirements, teaching them with wide-ranging curriculum and mentoring them to maintain their relevance in the ever-changing job market.

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### Industrial Training at NPTI, Shivpuri



The industrial training for electrical engineering students, conducted from 19th to 23rd October 2023 aimed to provide students with hands-on experience in real-world applications of their academic knowledge. The training, a vital component of the curriculum, organized in collaboration with National Power Training Institute (NPTI) CoE-PERE, UIT-RGPV, Shivpuri. This program encompassed a variety of activities, students participated in workshops covering topics such as power plants, their types & operation and smart grids. Interaction with Industry Professionals gave them insights on Practical engineering.

### Industrial Visit to Arihant Transformers



On September 23, 2023, electrical engineering students visited Arihant Transformers, a leading manufacturer. The insightful trip bridged theory and practical, showcasing the entire transformer manufacturing process. Students observed raw material inspection, assembly, and testing, gaining insights into design, winding, insulation, and core assembly. Quality control and safety measures were emphasized. The visit deepened understanding of transformer technology, its role in the power industry, and the precision required in electrical engineering. It sparked interest in power systems and electrical manufacturing careers, adding practical aspect to their academic journey.

## Paper Publications

- Ms. Ritu Saxena , Dr H.K. Verma and Ms. Rinki Rajpal , “ Selective Harmonic elimination of an inverter output using using Enhanced salp swarm-sine cosine Algorithm. International Journal of Research & Analytical Reviews. Published in IJRAR, Aug-2023.”
- Ms. Khushboo Nagar and Mr M. P. S. Chawla, “A survey on various approaches for support vector machine based engineering applications, International Journal of Emerging Science & Engineering. Published in IJESE, Oct-2023.”



## Prof. M.P.S. Chawla awarded in Data Analytics Conference



Professor M.P.S. Chawla has been awarded with certificate of appreciation for imparting his valuable insights and inspiration in 3rd International Conference on data Science & Big Data Analytics as 'Guest of Honour' held on 16th -17th June, at Sri Aurobindo Institute of Technology, Indore.

## IEEE Events

### IEEE Awareness Week



Under IEEE Awareness Week, the SGSITS IEEE Student branch organized an IEEE Awareness Camp throughout the college on 3rd October 2023. IEEE (Institute of Electrical & Electronics Engineers) is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. In this camp, EED faculties Asst. Prof. Harshit Choubey and Mr. Chandrakant encouraged the students to take the IEEE membership because being a member of IEEE, an individual gets access to its highly cited publications, conferences, technology standards, magazines, and professional and educational activities.

### MATLAB Workshop



On October 7th, 2023, the IEEE PELS and the IEEE Student Branch at SGSITS organized a one-day technical workshop on the topic of 'Fundamentals of MATLAB and its Applications'. The event featured Mr. Pemendra Kumar Pardhi, a Senior Design Engineer specializing in Power Electronics (CastNX Pvt. Ltd.), as the expert. 15 students actively participated in this workshop, which was also offered free of charge for IEEE Members. During the workshop, students were instructed on how to successfully run MATLAB applications and utilize it for simulating, analyzing, and designing electrical circuits. This essential guidance is crucial for simulating circuits before their physical implementation.

### ANSYS Webinar



The IEEE Student Branch at SGSITS Indore organized a two-day ANSYS webinar on August 3rd and 4th, 2023, aimed at students, researchers, and industry professionals. On first day Keynote speaker Mr. Ajay Sekhar Reddy Agarala, an Application Engineer at ARK Infosolutions Pvt. Ltd., covered ANSYS fundamentals, electrical machine design, battery and BMS challenges, and 2D and 3D Maxwell processes. The second day focused on fluid dynamics and ANSYS applications in electric vehicles, providing valuable insights. This event offered essential knowledge for academic and professional development, enriching their engineering journey.

### Power Electronics Webinar

**WEBINAR ON**  
POWER ELECTRONICS PRODUCT DEVELOPMENT PROCESS AND CHALLENGES  
Mr. Manoj Modi  
Chief Technology Officer, CastNX Pvt. Ltd. Dewas

**Schedule**  
Date: 16 July 2023  
Time: 10:30AM to 11:30AM  
Mode: Online

**Organized by:**  
IEEE PELS SBC and IEEE Student Branch  
SGSITS Indore  
**Link to Join:**  
[meet.google.com/rzr-zgha-ldh](https://meet.google.com/rzr-zgha-ldh)



IEEE PELS SBC and IEEE student branch, SGSITS Indore organized an insightful webinar on power electronics product development process and challenges, which was held on July 16th 2023. Mr. Manoj Modi, an esteemed professional in the field, served as the speaker for the event. As the Chief Technology Officer at CastNX Pvt. Ltd. Dewas, he brought practical industry experience and expertise to the webinar. The event was centered on the product development process and challenges in this domain, and the attendees gained insights into the practical aspects of creating power electronics products.



# Council of Electrical Engineers (CEE) Events

## CEE's Annual General Meet



The 2023 Annual General Meeting of the Council of Electrical Engineers (CEE) began with a warm welcome, offering a platform to reflect on past achievements, discuss the department's current state, and chart a future course. A dynamic video showcased the department's innovative spirit, featuring glimpses of past events, and the upcoming annual calendar was presented. In the end, 4th-year position holders transferred their positions to 3rd year and got promoted to the Advisory board along with a secretary position, concluding with heartfelt sentiments reinforcing the commitment to excellence in producing engineers poised for real-world impact.

## Breaking the Barrier: A Session on Mental Wellbeing



On October 11, 2023, the Council of Electrical Engineers organized a mental well-being session for first-year students, themed "Breaking the Barriers." Led by psychologist Shruti Seth, the session included interactive exercises to break stagnant thinking and encourage broader perspectives. Group activities identified leaders, and a game underscored the risks of misinterpretation. The session concluded with a powerful blindfolded "sheep and shepherds" activity, emphasizing unity and reliance on peers. The session inspired students to embrace diversity, trust, and collaborate for a more open-minded and empathetic future.

## Teacher's Day Celebration

The Electrical Engineering Department came together to celebrate Teachers Day on 5th September 2023 with a warm welcome for all attendees, especially to the dedicated teachers. The event served as a heartfelt tribute to the educators who have guided students over the years. The celebration featured a variety of activities, including dance, singing, stand-up comedy, and to add some fun there were games conducted by students and played by teachers, all supported by inspirational words from the teachers. Students were fortunate to receive motivating speeches from the dean and the teachers, who shared their experiences and offered guidance for bright future. The celebration concluded with a special cake cutting to mark the occasion, ending up strengthening the bond between teachers and students.



## 1<sup>st</sup> Year Co-curricular Activities

The induction program for first-year Electrical Engineering students, was designed to foster comprehensive growth through a series of six events:

- **Launch Event & Engineer's Day Celebration** - September 15, 2023: A motivational film honoring Sir M. Visvesvaraya was shown during the program kickoff.
- **Spontaneous Speaking Exercise** - September 20, 2023: Students gained confidence and enhanced their ability to talk.
- **Creative Writing with photos** - September 27, 2023: Students were encouraged to tell innovative stories based on given photos.
- **Impromptu speech session** - Oct. 4, 2023: Students improved their articulation and logical reasoning and extemporaneous speaking.
- **Mental Health Workshop: Breaking the Barriers** - October 11, 2023: Psychologist Shruti Seth hosted this mental health workshop, which focused on helping participants become more self-aware.
- **The Tree Plantation** - November 1, 2023: Students participated in planting and caring for saplings.



## EE Students Clinched Top Position in Sports

SPORT	PLAYERS	TOURNAMENT	POSITION
Badminton	Anupam Shukla (4th Year)	Varchasva	Winner
		Nodal's	Runner-up
Basketball	Gargi Maheshwari (3rd Year) Vikas Singh Sikarwar (3rd Year) Admya Jaiswal (2nd Year) Vikas Sharma (2nd Year)	R.G.P.V. Basketball Nodal's at IIST	Winners
Chess	Tanmay Mehta (4th Year) Gaurav Sahu (4th Year)	Varchasva	Winner
	Sushrut Shah (3rd Year)	Nodal's at SVCE	Runner-up
Football	Kushagra Ahujha (4th Year) {Represented RGPV Football team in West zone University Tournament }	RGPV State Nodal's	Winner
		"The Champion League" at Medicaps	Runner-up
Lawn Tennis	Sarthak Shukla(2nd Year)	Nodal's at IPS	Runner-up
Netball	Sajal Tiwari(4th Year) {Represented RGPV Netball Team at All India Inter University Tournament}	RGPV State Level & Nodal's	Winner
Table Tennis	Daksh Verma(2nd Year)	Nodal's at SAIT	Runner-up
Volleyball	Abhishek Sharma(2nd Year) Nitin Alawe(2nd Year)	IIM-Atharva Ranbhoomi	Quarter Final

## Know Your Lab

### Network Lab



The Network Lab serves as a dynamic space for hands-on exploration, guiding students through a comprehensive study of fundamental electrical network theorems. These include reciprocity, Norton, Thevenin, maximum power transfer, and the superposition theorem. Practical studies encompass low-pass and high-pass filters, series and parallel resonance, configurations like star-delta connections, and the study of transients in RC circuits. Additionally, students delve into the analysis of two-port networks. Through experiential learning, they bridge theoretical knowledge with real-world applications, enhancing problem-solving skills and understanding the practical implications of network theorems. The lab thoroughly prepares students for the demands of electrical networks.

## Application of Inductors as Transducers



By Shreeveer Patel  
2nd Year

Transducers refer to devices that convert one form of energy into another. Transducers play a crucial role in electrical and electronics engineering, enabling the creation of instruments to measure unknown quantities. From domestic to research purposes, using instruments is essential. Inductors, passive elements resisting current changes, store energy in a magnetic field. Inductance depends on factors like coil turns, length, and core material. AC current induces impedance proportional to inductance. Physical factors affecting inductance allow measurement of voltage drop, transducing physical quantity.

Currently, inductors function as displacement transducers, with the LVDT measuring core displacement between primary and secondary coils. Inductive Proximity Sensors use inductance changes due to metallic presence, commonly used in industry to monitor the speed or presence of moving metallic objects on conveyor belts. This technology enhances automation and efficiency in various industrial processes. (Scan QR for full article)

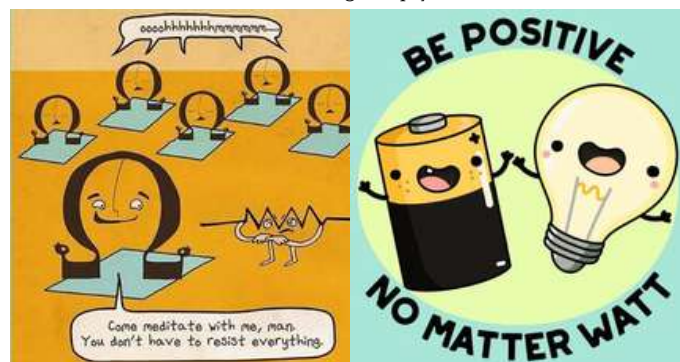
## EE Grad's Group Medley Grabs Gold

RGPV Indore Nodal Singing Competition organized by Chameli Devi Group of Institutes on 7th November 2023. Team SGSITS has won gold medals and has qualified for the RGPV State-Level Singing Competition. One of the group participants was Sujal Jain from B.Tech 2nd year (EE) (Vocals).



## The Humour Circuit

By Kunal Sharma, 3rd year  
Two memes to light up your face.



Source: unearthed.com & MyPunnyBone

## Valuable Contributions :

Prof. H.K. Verma (Dean Academics), Prof. Arun Parakh (HOD, EED), Prof. R.S. Mandloi (Mentor, CEE), Prof. Deepti Rai (Professor Incharge, Publications)  
Aniruddh Sharma (Editor-in-chief), Deepika Mangrol (Executive Editor), Rishabh Tiwari (Managing Editor)