

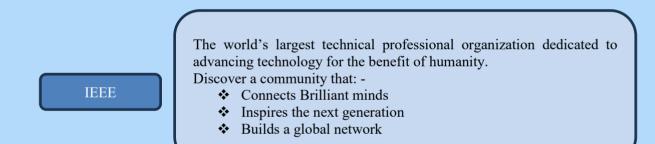




# Institute of Engineering & Technology, Lucknow

An Autonomous Constituent Institute of Dr. A.P.J. Abdul Kalam Technical University Uttar Pradesh, Lucknow

# Institute of Electrical and Electronics Engineers (IEEE) Student Branch (STB62961)



WIE

Empowers and Support women worldwide

# **ABOUT IEEE**

The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical organization, dedicated to advancing technology for the benefit of humanity.

With over 400,000 members globally, IEEE spans key domains like electronics, AI, IoT, and communication.

On campus, IEEE student branches offer workshops, hackathons, seminars, and project showcases.

Students gain exposure to real-world applications, leadership roles, and research opportunities.

IEEE Xplore provides access to top-tier journals and conference papers for academic excellence.

It also develops global tech standards, including Wi-Fi and Bluetooth.

Initiatives like Women in Engineering (WIE) promote inclusion and diversity in STEM.

IEEE supports innovation through funding, mentorship, and competitions.

Membership opens doors to a global network of engineers, internships, and career resources.

Whether you're into coding, circuits, or research, IEEE helps you grow beyond the classroom.

Join IEEE — and be part of shaping the technology of tomorrow.

## **ABOUT IEEE STUDENT BRANCH**

The IEEE Student Branch at IET Lucknow continues to be a vibrant hub of technological enthusiasm and professional development. Guided by the vision of advancing technology for humanity, the branch actively engages students in meaningful activities beyond the classroom.

Throughout the academic year, the branch has successfully organized a wide range of events, including expert lectures by industry leaders, panel discussions on emerging technologies, and technical competitions that challenge creativity and innovation.

Student-led innovation programs and idea contests have encouraged young minds to think critically and propose impactful solutions to realworld problems. These initiatives not only build technical competence but also enhance confidence, teamwork, and leadership.

The branch is led by Er. Pallavi Pant (Chairperson) and supported by Prof. Neelam Srivastava (Branch Counselor) and Prof. Vineet Kansal (Director & Patron), whose continuous encouragement has strengthened its activities.

With a focus on lifelong learning, IEEE IET Lucknow remains committed to building a strong community of engineers who are ready to lead in the ever-evolving world of technology. In line with its vision to promote diversity and inclusion in STEM, the IEEE Student Branch at IET Lucknow proudly launched its Women in Engineering (WIE) Affinity Group. This initiative is part of IEEE's global mission to empower women in science, technology, engineering, and mathematics.

The WIE Affinity Group aims to create a supportive ecosystem where female students can learn, lead, and grow. It focuses on mentorship, technical skill-building, and inspiring the next generation of women in engineering.

Under the guidance of Prof. Neelam Srivastava (WIE Advisor) and Mrs. Jaspreet Kaur (Chair – WIE), the group is committed to organizing impactful events and outreach activities.

Key initiatives for 2025 include:

- Mentorship programs with women professionals and IEEE leaders
- Coding and robotics workshops for schoolgirls
- Hands-on technical sessions in AI, IoT, and circuit design
- Talks by successful women engineers to inspire students

By fostering confidence and providing opportunities, WIE IET Lucknow is paving the way for a more inclusive future in engineering—one where women are equally represented, empowered, and celebrated.

### Message from Director



It gives me immense pleasure to witness the continued growth and enthusiasm of the IEEE Student Branch at IET Lucknow. In today's rapidly evolving technological landscape, it is crucial for students to not only gain academic knowledge but also to be actively involved in professional communities that foster innovation, critical thinking, and global collaboration.

IEEE, being a leading organization in the advancement of technology, offers our students a valuable platform to explore emerging trends, engage in hands-on projects, and connect with industry leaders and academicians across the world. I congratulate the student leaders and members of the branch for their commitment and creativity in organizing impactful events, workshops, and outreach programs.

I am confident that this branch will continue to inspire young engineers to think beyond boundaries and contribute meaningfully to society. My best wishes to the team for continued success and excellence.

> Prof. Vineet Kansal Director, IET Lucknow Patron, IEEE Student Branch – STB62961

## Message from HOD ECD



It gives me immense pleasure to witness the continued growth and excellence of the IEEE Student Branch and the WIE Affinity Group at IET Lucknow. These platforms serve as incubators of innovation, learning, and leadership for our students. Through expert lectures, technical competitions, workshops, and outreach initiatives, the branch has actively contributed to building a strong engineering ecosystem within the institute.

The involvement of our students in IEEE activities is a testament to their commitment to stay at the forefront of technology. I am especially proud of the efforts taken to promote diversity through the WIE Affinity Group, which plays a vital role in empowering women in engineering and inspiring future changemakers.

I encourage all students to make the most of the opportunities IEEE offers — to learn, collaborate, and lead with integrity and curiosity. Let us continue working together to shape a brighter, more innovative future. Wishing the IEEE community at IET continued success in all their future endeavors.

> Prof. Subodh Wairya Head of Department, ECE Institute of Engineering and Technology, Lucknow

### Message from Branch Counselor



It is a matter of great pride and satisfaction to serve as the Branch Counselor of the IEEE Student Branch and the Advisor of the Women in Engineering (WIE) Affinity Group at IET Lucknow. Over the years, IEEE has become a powerful platform for our students—encouraging innovation, technical excellence, and professional growth.

Our branch has consistently engaged in organizing impactful workshops, technical sessions, and outreach activities that keep students aligned with global technological trends. As the WIE Advisor, I am particularly proud of our efforts to promote gender equity in engineering through various women-centric initiatives and leadership programs. These platforms provide our female students with the confidence, mentorship, and opportunities they need to thrive in the STEM ecosystem.

I congratulate all the dedicated student members and office bearers for their relentless enthusiasm and creativity. Let this magazine serve as a reflection of our achievements and a source of inspiration for many more to come. Together, we continue to empower minds, break barriers, and shape a better technological future.

> Prof. Neelam Srivastava Professor, ECE Department Branch Counselor & WIE Advisor, IEEE Student Branch – STB62961



It is an honor and privilege to serve as the Chairperson of the IEEE Student Branch at IET Lucknow. Being a part of this globally recognized professional organization has been a transformative journey for both me and our vibrant community of student members.

IEEE offers more than just access to research and technical knowledge —it nurtures leadership, encourages innovation, and builds a sense of responsibility toward using technology for the greater good. Throughout the year, our branch has worked tirelessly to conduct impactful events, hands-on workshops, and awareness programs that have fostered both technical growth and team spirit.

A special highlight has been our active Women in Engineering (WIE) Affinity Group, which continues to empower aspiring female engineers through mentorship, leadership training, and meaningful dialogue.

I extend my heartfelt thanks to our Director, Prof. Vineet Kansal, our Branch Counselor and WIE Advisor, Prof. Neelam Srivastava, and every dedicated member of our branch. Your constant support and enthusiasm fuel our progress. Let us continue to dream big, collaborate, and innovate—upholding the IEEE vision of advancing technology for humanity.

> Er. Pallavi Pant Chairperson, IEEE Student Branch – STB62961 IET Lucknow

## Message from Affinity Group Chair



It is a true honor to serve as the Chair of the Women in Engineering (WIE) Affinity Group at IET Lucknow. I firmly believe in the power of collaboration, and I feel privileged to work with a dedicated team of passionate individuals who are equally committed to driving positive change.

At WIE, our mission is clear: to empower women in STEM, foster professional growth, and promote technical excellence. We strive to create an inclusive environment where every voice is valued, and where students—especially young women—are inspired to explore, lead, and innovate.

Through a blend of technical events, outreach initiatives, mentorship programs, and innovation-driven projects, we aim to contribute meaningfully to both our campus and the wider community. I look forward to continuing our journey of growth, impact, and inspiration, while upholding the values and vision of IEEE WIE.

> Mrs. Jaspreet Kaur Chair, IEEE WIE Affinity Group IET Lucknow

# IEEE Student Branch STB62961 – IET Lucknow (2024 Office Bearers)

- Patron: Prof. Vineet Kansal (Director, IET Lucknow)
- Counselor: Prof. Neelam Srivastava
- Dean: Dr. Seethalekshmi K
- Chairperson: Er. Pallavi Pant
- Department Chair: Er. Anurag Yadav
- Vice-Chair: Er. Kirti Prakash
- Vice-Chair: Er. Jaspreet Kaur
- Secretary: Er. Sheetal Singh
- Treasurer: Er. Rahul Singh
- Webmaster: Er. Akhya Pandey

# IEEE WIE Affinity Group SBA62961 – IET Lucknow (2024 Office Bearers)

- Advisor: Prof. Neelam Srivastava
- Chairperson: Er. Jaspreet Kaur
- Vice-Chair (Technical Activities): Er. Pooja Nishad
- Secretary / Webmaster: Er. Sheetal Singh
- Treasurer: Er. Maneesha Dwivedi
- Webmaster: Er. Namrata Singh

### WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY

World Telecommunication Day has been celebrated annually on 17 May since 1969, marking the founding of ITU and the signing of the first International Telegraph Convention in 1865. It was instituted by the Plenipotentiary Conference in Malaga-Torremolinos in 1973 as Resolution 46. In November 2005, the World Summit on the Information Society called upon the UN General Assembly to declare 17 May as World Information Society Day to focus on the importance of ICT and the wide range of issues related to the Information Society raised by WSIS. The General Assembly adopted a resolution (A/RES/60/252) in March 2006 stipulating that World Information Society Day shall be celebrated every year on 17 May. In November 2006, the ITU Plenipotentiary Conference in Antalya, Turkey, decided to celebrate both events on 17 May as World Telecommunication and Information Society Day.



The purpose of World Telecommunication and Information Society Day (WTISD) is to help raise awareness of the possibilities that the use of the Internet and other information and communication technologies (ICTs) can bring to societies and economies, as well as ways to bridge the digital divide. World Telecommunication and Information Society Day 2024 offers the chance to explore how digital innovation can help connect everyone and unlock sustainable prosperity for all. With 2.6 billion people still unconnected, glaring digital gaps hinder innovation across much of the world. Many countries – lacking key policies, investments, and digital skills – are struggling to keep up in today's fast-changing digital landscape. WTISD 2024 reminds the world of the progress yet to be made to ensure that everyone can benefit from digital technologies.

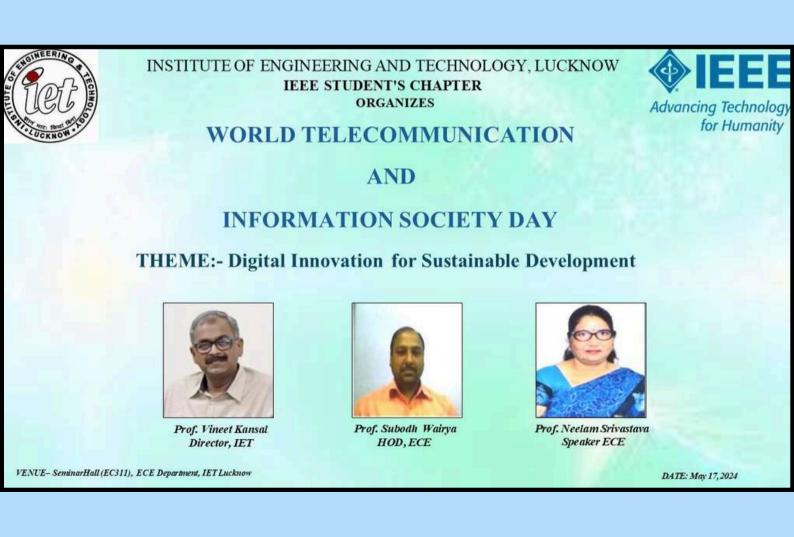
On 17th May 2024, the Institute of Engineering and Technology celebrated World Telecommunications and Information Society Day under the IEEE Student Branch. This year's theme was Digital Innovation for Sustainable Development. On this occasion, Er. Jaspreet Kaur, Vice Chair of IEEE, welcomed all the distinguished guests. She provided an overview of the day and explained the purpose of the gathering. The event began with the lighting of the lamp and offering flowers to Goddess Saraswati. Director Professor Vineet Kansal was the Chief Guest of the event. He emphasized the importance of prioritizing in-person interaction alongside digital connectivity. He also motivated students to vote and led everyone in taking an oath.

On this occasion, Prof. Neelam Srivastava, Counselor IEEE delivered a lecture on the theme where she discussed various innovation techniques that contribute to achieving the UN's sustainable development Goals. Digital Innovations transforming society in various dimensions like environmental innovation, making society environmentally friendly. Corporate social responsibility becomes an important component of every MNC. Telecom Industries promotes digital innovation for reshaping industries and promoting sustainable practices to make every life comfortable and safe.

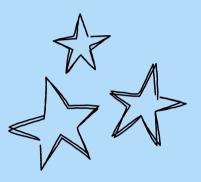
Students and faculty members participated in the events to share their views. One PG student Nimisha Srivastava and faculty Mr. Anurag Yadav enlightened about Digital Innovation in Smart Agriculture and the Role of Electronics in telecommunications.

Prof. RCS Chauhan Associate Professor ECD and Er. Rahul Singh faculty ECD enlighted the students about the IEEE student branch and how The IEEE (Institute of Electrical and Electronics Engineers) Student Branch plays a vital role in fostering technical, professional, and personal growth among students in the fields of electrical, electronics, computer science, and related disciplines.

About 150 students and 30 faculty members, along with IEEE student branch representatives participate in the event. The students were coordinated by Er. Kirti Prakash. The student's record during this event was managed by Er. Sheetal Singh. The event concluded with Professor Subodh Wairya, the Head of the Department, sharing inspiring ideas on enhancing the branch's activities to make them more beneficial and widely accessible to both in-house and outside. A vote of thanks was given by Ms Pallavi Pant Chair IEEE student branch.

















## IEEE WOMEN IN ENGINEERING DAY

IEEE Women in Engineering (WIE) was established on June 29, 1997. Since then, WIE has proudly supported an ever-growing community of women in STEM (Science, Technology, Engineering, and Mathematics) and has taken steps to promote change in the industry. Its mission is to raise the profile of women who are making a difference in engineering, celebrating their hard work and accomplishments, and inspiring others to join the field and contribute to technological advancements. During the 2024 IEEE WIE Day celebrations (running from June 23 to July 12), local Affinity Groups and Student Branch Affinity Groups organize events globally to support the advancement of women in STEM.



The purpose of IEEE Women in Engineering (WIE) Day is to celebrate and recognize the contributions of women in the field of engineering, aiming to raise awareness about the importance of gender diversity in STEM (Science, Technology, Engineering, and Mathematics) and inspire more women to pursue careers in engineering. During this day, various events and activities are organized globally to promote networking, mentorship, and professional development for women engineers.

On June 25th, 2024, the Institute of Engineering and Technology celebrated IEEE Women in Engineering Day under the IEEE Student Branch. This year's theme was "Engaging More Women in AI and 4IR". The event was held in hybrid mode. Er. Sheetal Singh, Secretary of IEEE, welcomed all distinguished guests, providing an overview of the day and explaining the purpose of the gathering. The event was co-hosted by Er. Shahleena Kidwai Assistant Professor ECD. Prof. Subodh Wariya, Head of the Department of ECD, also welcomed all distinguished guests in both online and offline modes. The event commenced with the lighting of the lamp and offering of flowers to Goddess Saraswati. Mrs. Anupama Singh, President of IETLAA and a notable alumna of IET, Lucknow, graced the occasion as the Chief Guest. Director Professor Vineet Kansal, along with Prof. Subodh Wariya and Prof. Neelam Srivastava, participated in the rituals, joined by our experts Dr Parul Yadav, Dr. Pragati Shukla, Dr. Arunima Verma, and Ms. Vandana Sharma. During the event, Prof. Vineet Kansal addressed the audience and emphasized the role of women in engineering. He also motivated the students about technological advancements from different industrial revolutions. This was followed by a talk from Prof. Neelam Srivastava, Branch Counsellor IEEE, who highlighted the event's themes, emphasizing "Engaging More Women in AI and 4IR".

Mr Sudip Bhattacharya, Co-founder and CTO of RB Innovate and Interview Cracker, delivered a keynote address on Inclusion in AI. Dr Ranjana Rajnish (Professor, Amity University) and Nagadeepthi (Technical Coach, HCL) shared valuable insights and motivated the audience. Dr Parul Yadav shared insights on the transformative impact of AI and the 4IR, and the importance of increasing women's participation in these fields Dr. Divya Sharma, Assistant Prof. in ECE, and Er. Shahleena Kidwai, Assistant Prof. in ECE, delivered a technical talk on the roles of women in technological advancements in 4IR. The technical talks were followed by a Panel discussion themed "Challenges and Disparities of Women at Workplaces". Ms. Neha Singh and Er. Jaspreet Kaur (Vice Chair, IEEE) moderated the panel discussion, which included both male and female participants who shared their thoughts and perspectives. The panelists included Mrs Anupama Singh (Chief Guest), Prof. Neelam Srivastava, Dr RCS Chauhan, Dr Abhishek Nigam, Dr Pragati Shukla, Ms Vandana Sharma, and Ms. Nimisha Srivastava. Students and faculty actively participated in the panel discussion, contributing their thoughts and views. Er. Rahul Singh, faculty from ECD, enlightened the students about the IEEE Student Branch and how it plays a vital role in fostering technical, professional, and personal growth among students in the fields of electrical, electronics, computer science, and related disciplines. Approximately 150 students and 30 faculty members, along with IEEE student branch representatives participated in the event. The event was coordinated by Er. Kirti Prakash Vice Chair IEEE. A vote of thanks was given by Er. Pallavi Pant, Chair IEEE student branch, thanking all the dignitaries and attendees present, both online and offline.













# A SEMINAR ON TCAD ATLAS SILVACO TOOL FOR SEMICONDUCTOR DEVICE SIMULATION

Silvaco, Inc. is a global provider of Technology Computer-Aided Design (TCAD), Electronic Design Automation (EDA) software, and Intellectual Property (IP) for the design and simulation of semiconductor devices and circuits. Founded in 1984, Silvaco serves industries such as semiconductors, electronics, photonics, and more. Its tools are widely used in both academia and industry for developing, analyzing, and optimizing semiconductor devices and integrated circuits. Silvaco's tools are extensively used for research, development, and production in industries like automotive electronics, telecommunications, defense, aerospace, and medical devices. The company's software helps companies to reduce the cost and time of bringing semiconductor products to market.



The seminar focused on TCAD ATLAS, a widely used simulation tool from Silvaco for semiconductor device modeling. TCAD (Technology Computer-Aided Design) tools are essential for analyzing and predicting the electrical, optical, and thermal behaviors of semiconductor devices before their physical fabrication. The ATLAS tool enables the simulation of both 2D and 3D semiconductor devices, aiding in the development and optimization of complex semiconductor structures such as MOSFETs, LEDs, photodiodes, and other microelectronics.

On September 5th, 2024, on the occasion of Teacher's Day, the Institute of Engineering and Technology conducted a seminar on TCAD ATLAS SILVACO tool for semiconductor device simulation under the umbrella of IEEE student chapter. The event was held in offline mode. Er. Pallavi Pant, Chair IEEE student branch, welcomed all distinguished guests, providing an overview of the day and explaining the purpose of the gathering. Prof. Subodh Wariya, Head of the Department of ECD, also welcomed all students. Director Professor Vineet Kansal, along with Prof. Subodh Wariya and Prof. Neelam Srivastava, participated in the event.

During the seminar, our keynote speaker, Er. Sheetal Singh, Secretary of IEEE, delivered an exceptional and insightful seminar on the TCAD ATLAS Silvaco Tool for Semiconductor Device Simulation under the banner of the IEEE Student Chapter. With her deep technical expertise and engaging presentation style, she effectively conveyed the importance of TCAD tools in modern semiconductor device design and development. She walked the audience through the core functionalities of the ATLAS tool, highlighting its application in simulating electrical, optical, and thermal characteristics of advanced semiconductor devices. Her detailed explanation of real-world use cases and practical demonstrations made the session highly informative and interactive, leaving participants with a thorough understanding of the tool's capabilities. The seminar was a resounding success, thanks to her clarity, depth of knowledge, and the seamless connection she established with the audience. Er. Rahul Singh, Treasurer,IET IEEE Student Branch, enlightened the students about the IEEE Student Branch and how it plays a vital role in fostering technical, professional, and personal growth among students in the fields of electrical, electronics, computer science, and related disciplines.

The seminar concluded with an interactive Q&A session where students asked about the following topics:

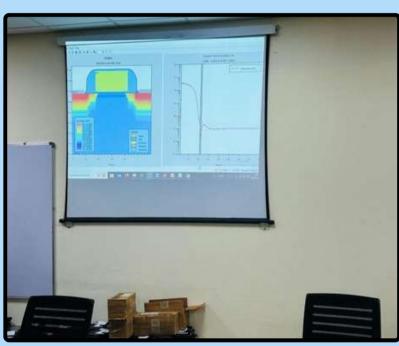
· Integration with Other Tools: ATLAS can be integrated with SPICE and Verilog-A for circuitlevel simulations.

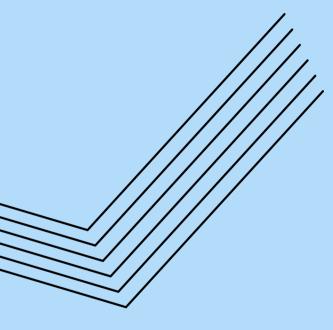
 $\cdot$  Training Resources: Available documentation, online courses, and technical support offered by Silvaco.

 $\cdot$  Licensing and Cost: Participants inquired about the different licensing models and associated costs.

Approximately 50 students and 15 faculty members, along with IEEE student branch representatives participated in the event. The event was coordinated by Er. Kirti Prakash Vice Chair IEEE. A vote of thanks was given by Er. Pallavi Pant, Chair IEEE student branch, thanking all the dignitaries and attendees present.



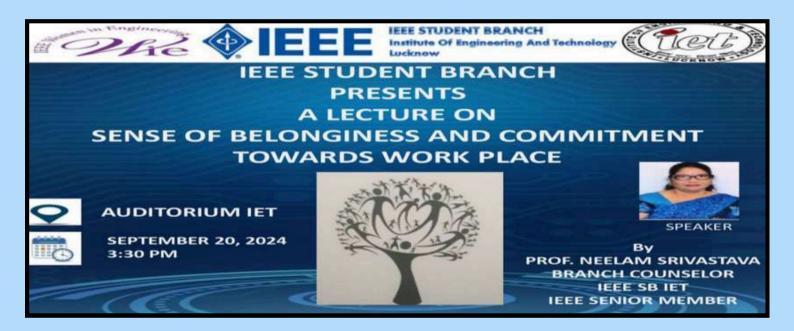






## SENSE OF BELONGINGNESS AND COMMITMENT IN THE WORKPLACE

On 20/09/2024, the Institute of Engineering and Technology (IET) Lucknow hosted an induction program for newly admitted first-year students. The event was graced by various faculty members, IEEE members, and the students themselves. A key highlight of the program was a lecture titled "Sense of Belongingness and Commitment in the Workplace" delivered by Prof. Neelam Srivastava, a senior IEEE member and professor in the Electronics and Communication Engineering department at IET Lucknow.



#### SENSE OF BELONGINGNESS

Prof. Srivastava defined sense of belongingness as the feeling that one is an integral part of a group or community. She explained how this feeling can significantly impact an individual's motivation, job satisfaction, and productivity. Using real-world examples from various industries, she illustrated how organizations that foster a strong sense of belonging among their employees tend to have lower turnover rates and higher employee engagement.

#### COMMITMENT

The second part of her lecture focused on commitment in the workplace. Prof. Srivastava distinguished between different types of commitment—continuance commitment (staying due to perceived costs), normative commitment (feeling obligated to stay), and affective commitment (staying because one wants to). She highlighted that affective commitment is the most desirable form as it leads to genuine dedication and loyalty towards the organization.

#### • Practical Applications

To make her points more relatable to the audience, Prof. Srivastava shared several practical strategies that can be implemented to enhance both sense of belongingness and commitment:

#### • Inclusive Work Culture:

Encouraging diversity and inclusion helps create an environment where everyone feels valued. Open Communication: Regular feedback sessions and open communication channels foster trust and transparency.

#### • Recognition & Rewards:

Acknowledging achievements through recognition programs or rewards boosts morale.

#### • Professional Development Opportunities:

Providing training programs or mentorship opportunities shows investment in employees' growth.

Awareness About IEEE Student Branch

Following her lecture, Prof. Srivastava also conducted an awareness session about the IEEE Student Branch at IET Lucknow. She explained how being part of such professional organizations can provide students with numerous benefits including access to cutting-edge research papers, networking opportunities with industry professionals, participation in international conferences, and involvement in various technical projects.

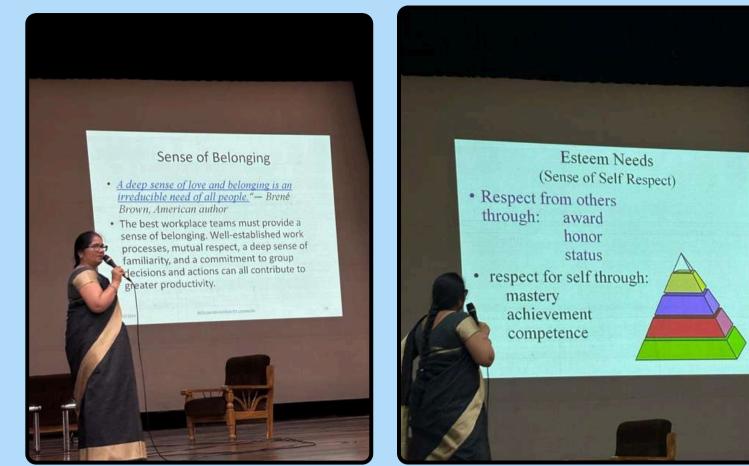
She encouraged first-year students to join the IEEE Student Branch to enhance their academic experience through extracurricular activities that align with their engineering interests. The session included details on how to become a member, upcoming events organized by the branch, and testimonials from existing members who have benefited from their involvement.

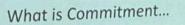
#### Conclusion

The lecture by Prof. Neelam Srivastava was well-received by both students and faculty members present at the induction program. Her insights into fostering a sense of belongingness and commitment resonated deeply with everyone in attendance. The additional awareness about the IEEE Student Branch added value by highlighting opportunities for professional growth available right on campus.

In conclusion, this event not only welcomed new students warmly but also set a positive tone for their academic journey ahead by emphasizing key aspects that will contribute to their future success in both personal and professional spheres.

#### SOME PICTUIRES OF THE EVENT





 "Commitment is the enemy of resistance, for it is the serious promise to press on, to get up, no matter how many times you are knocked down". David MCNally

•"Only one who devotes himself to a cause with his whole strength and soul can be a true master. For this reason mastery demands all of a person" – Albert Einstein

•"Encourage your people to be committed to a project rather than just be involved in it". Richard Pratt





LEVERAGING TECHNOLOGY FOR A BETTER TOMORROW

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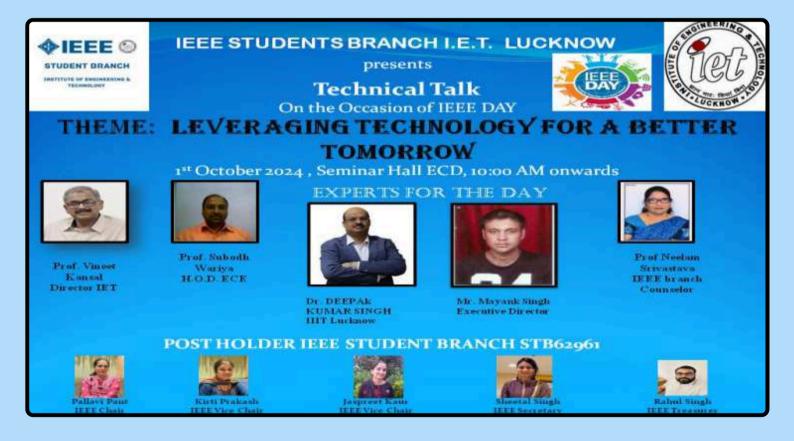
EVENTS •TECHNICAL TALK 1<sup>st</sup> October •TECHNICAL QUIZ 1<sup>st</sup> October •ADVERTISEMENT MANIA 4th October •E-AUCTION 5<sup>th</sup> October •IEEE Networking drive 5<sup>th</sup> October

ItEE 50 10.00 - 1.00 PM Extension And Con-Begarment 1º, 4º, and 5º Registration

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## IEEE DAY 2024: LEVERAGING TECHNOLOGY FOR A BETTER TOMORROW

IEEE Day is an annual event that celebrates the first time in history when engineers worldwide gathered to share their technical ideas in 1884. One of IEEE Day's objectives is to showcase how IEEE members, in local communities, come together to collaborate on ideas that leverage technology for a better tomorrow. In the spring of 1884, a small group of individuals in the electrical professions met in New York, USA, and formed a new organization—the American Institute of Electrical Engineers (AIEE)—to support professionals in this nascent field. That October, the AIEE held its first technical meeting in Philadelphia, PA, USA. Many early leaders, such as founding President Norvin Green of Western Union, came from telegraphy. IEEE Day is celebrated on the first Tuesday of October each year, and in 2024, it took place on October 1st.



The IEEE Student Branch STB62961 of the Institute of Engineering and Technology (IET) celebrated IEEE Day over three exciting days—October 1st, 4th, and 5th, 2024. The events brought together students, faculty, and distinguished guests to celebrate innovation, technology, and collaboration in line with IEEE's vision. The celebration aimed to foster technological advancement, leadership development, and collaboration among IEEE members and students.

#### Day 1: October 1st, 2024

The inaugural day of the IEEE Day celebration featured expert lectures and an engaging technical quiz competition. The event began with the formal welcome of distinguished guests, including Prof. Vineet Kansal, Director of IET; Prof. Subodh Wariya, Head of the Department of Electronics and Communication Engineering (ECE); and Prof. Neelam Srivastava, Senior IEEE Member and Branch Counselor. The event was hosted by Bhanavee and Namit of the ECE 3rd year, who warmly welcomed the distinguished guests.

The event commenced with Saraswati Vandana and the ceremonial lighting of the lamp by the guests and faculty. Their presence added great value to the celebrations, underscoring the importance of such initiatives for the academic and professional development of students. Prof. Subodh Wariya, HOD of ECE, welcomed the guests and motivated the students to actively participate in the various student activities and gain knowledge. Director IET, Prof. Vineet Kansal, addressed the gathering, commending the students' enthusiasm and participation. Prof. Neelam Srivastava highlighted the significance of IEEE Day and discussed how IEEE helps students develop not only technical knowledge but also overall personality development.

The highlight of the day was an insightful keynote address by **Dr. Deepak Kumar Singh** from IIIT Lucknow, followed by the presentation of a memento to him by **Prof. Subodh Wariya HoD ECE and Prof. Neelam Srivastava IEEE branch Counselor** as a token of appreciation. Dr. Singh's talk revolved around the transformative role of Artificial Intelligence (AI) in modern society. He explored cutting-edge AI tools like PRO-GEN and vibes.AI, demonstrating their potential to drive innovation across various sectors. Dr. Singh emphasized how AI is not a threat but can be a productive and helpful tool for humanity. He discussed AI's applications in flood warning systems and agricultural production enhancements.

Following Dr. Singh's keynote, Mr. Mayank Mani Singh, Executive Director of Future Tech Embedded Solutions, delivered an engaging talk on the intersection of AI and embedded systems. He was presented with a memento by **Prof. Neelam Srivastava IEEE Branch counselor** and **Er. Pallavi Pant**, the IEEE Branch Chair, in recognition of his valuable contribution. He discussed how AI integration is revolutionizing industries such as healthcare, automation, and IoT. Mr. Singh's insights provided students with a deep understanding of harnessing these technologies for real-world applications.

The day concluded with an exciting technical quiz competition, titled "TechQuest." Teams of students demonstrated their technical prowess by answering questions on electronics, communications, AI, and engineering principles. Teams "TRKN," "Quantum Quizzers," and "Technerds" won top honors. The quiz fostered a competitive yet collaborative spirit among participants.

### Day 2: October 4th, 2024

The second day's event, Advertisement Mania, was hosted by Bhanavee and Nikita. First- and second-year students showcased their creativity by pitching innovative ideas. Judges, including Dr. R.C.S. Chauhan, Dr. Divya Sharma, Dr. Anurag Verma, and Er. Anurag Yadav, evaluated teams on content, innovation, feasibility, impact, and coordination. Teams "Innovation Infusion," "Ectronauts," and "Wired Wizards" earned top honors for their creativity and presentation skills.

#### Day 3: October 5th, 2024

The final day of celebrations began with the welcoming of keynote speaker Prof. Rafik Ahmad, Chair of the IEEE UP Section, by hosts Namit and Bhanavee. Prof. Ahmad discussed effective IEEE branch management, benefits of branch and institutional collaboration, and how students can collaborate globally. Er. Hitansh Dwivedi elaborated on the tools available to IEEE student branches and how they can be utilized for the branch's growth.



The day's events included an E-auction on Tinkercad, followed by a project-building competition. Teams were judged on their innovative project ideas, functionality, and presentation. Judges Er. Amit Kumar, Dr. Abhishek, and Er. Anurag Yadav evaluated the projects, with teams "Strangers," "J.A.R.V.I.S," and "Tech Futuronics" winning top accolades.

The 3-day program significantly enhanced participants' technical knowledge, leadership skills, and networking opportunities. All winning team members were awarded gold, silver, and bronze medals. The event concluded with a vote of thanks by Bhanavee, recognizing the coordination by IEEE members and the participation of approximately 200 attendees, including students and faculty.

#### SOME PICTUIRES OF THE EVENT















A three-day technical fest ANKURAN 2024 is organized by the students of IEEE WIE Group and SEED Society in the Department of Electronics and Communication Engineering, IET Lucknow on 12, 13 and 14 November 2024. In this program, various technical activities like Robo Soccer, Robo Sumo, Water Bottle Rocket, Robo Race etc. and various cultural and sports related activities were organized and students studying in various courses of the institute participated. In the series of activities organized in the program, under the IEEE Women Section and the department, to encourage women power and small scale industries, an art and craft exhibition was organized by Kalakari Bazar on 13 and 14 November 2024 in which the teachers of the institute The stall organizers were encouraged by their enthusiastic participation and their members. Organization of this exhibition promoted innovation Women family in Entrepreneurship and Innovation. Along with this, a Kavi Sammelan was also organized in the Shri Ram Prasad Bismil Auditorium of the Institute on 13 November 2024. A special presentations by famous poets of humour, magic and makeup. The exhibition and poetry conference organized on this occasion became the main center of attraction of this technical fest.



#### SOME PICTUIRES OF THE EVENT









# LEVERAGING TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT

WIE Affinity Group of IET IEEE Student branch hosted "Technovation", on 19–20 Nov. 2024.The event started with lightening lamp and garlanding to Maa Saraswati. Professor Neelam Srivastava Center Councellor IEEE SB highlights about the event and its Importance among students. She motivates students towards Innovation and experiential learning methods and informs about startups and innovation happening in their related fields in the nearby region. Hon'ble Director IET, Prof. Vinit Kansal, our Guest of Honor emphasize the importance of sustainable goal of education and how we can improve the skills of students by training and participating in such technical activities. Prof. Virendra Pathak, Head Civil Engineering discusses the importance of civil engineering in attaining a sustainable society and importance of technology in improving design of smart city for safe environment.

The Key note speaker Senior Member IEEE, Dr. Sumita Mishra, from Amity University, Lucknow presented on the theme, "Leveraging Technology for Sustainable Development", exploring the role of cutting-edge technologies like, AI, ML, IOT etc in addressing global challenges. She expanded upon SDS 2 i.e. No hunger where precision agriculture using AL and IOT address the challenges. She emphasizes on SDG 3 on Good health and well being where remote health monitoring and AI driven diagnostic can play a crucial role. AI-driven city planning, and sustainable education system is the need of an hour. Dr. Mishra showcased innovations like smart agriculture tools, AI-based healthcare solutions, and traffic management systems, emphasizing the transformative potential of technology in building a sustainable future. The event also featured Inter College poster-making competition and a debate competition to inspire creativity and critical thinking among participants. Around 400 students participated in the event. The debate and poster making competition was judged by a panel of judges of Esteemed Professors. In the debate competition out of 13 selected teams, the team comprising Avneesh Mishra and Utkarsh from the CSE-IT branch of BBD College, Lucknow, secured the 1st position, while the team of Aditya Singh and Drishti Rana from the Chemical Engineering branch of IET Lucknow achieved the 2nd position. In the digital poster-making competition, among 89 selected teams, the team led by Harsh Mishra from the CSE-SF branch of IET secured the 1st position, and the team led by Mayank Tripathi from the Chemical Engineering branch of IET won the 2nd position.

On November 20, 2024, all the winners were felicitated by Prof. Neelam Srivastava and the esteemed judges, and concluded by WIE Chair Jaspreet kaur by vote of thanks. The event successfully fostered critical thinking and creativity among participants, shedding light on innovative solutions and diverse perspectives in technological advancements. It provided platform to debate ethical challenges, showcase future ideas, and enrich knowledge in engineering and technology.





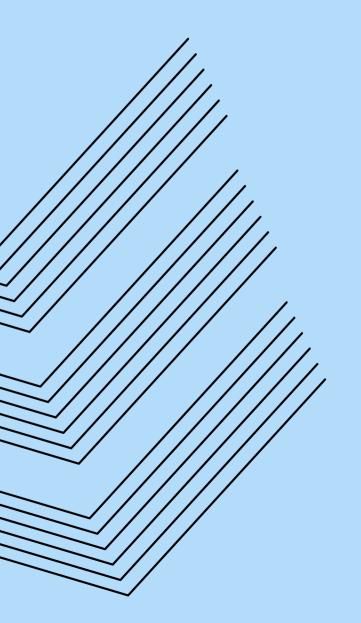
















This program was initiated by the project UDAAN of Dainak Jagran .It was conducted in IET under the umbrella of IEEE WIE in association with Internal Complaint Committee(ICC) of college whose chair Professor Neelam Srivastava for femaile students and Staff.It was attended by 150 Girls,10 female staff and all WIE members.

Dr. Liyana Khatoon gynacologist addressed the students on the importance of menstrual hygiene, emphasizing the need to maintain cleanliness during menstruation to prevent infections and other health issues. She provided detailed insights into proper nutrition, the use of hygienic sanitary pads, and other essential aspects of personal hygiene during menstruation. Her lecture helped raise awareness and instill a sense of confidence among the students about their health.

#### SOME PICTUIRES OF THE EVENT

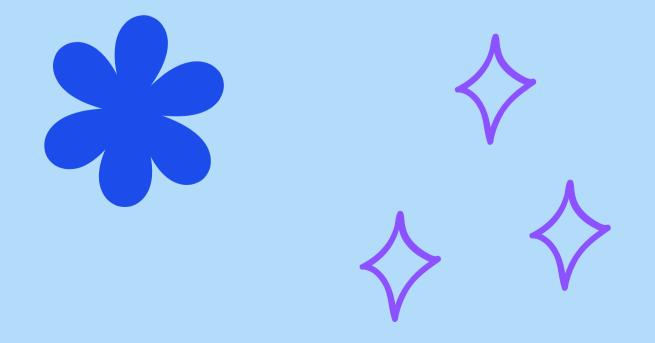












### **EXPERT LECTURE SERIES**

The IEEE Student Branch organized Expert Lecture Series from 13th November 2024 to 28th December 2024, featuring eminent speakers from Academia and industry. These experts shared their insights, addressed queries, and inspired students and faculty alike.

The event was formally inaugurated on 19th November 2024 in presence of Prof. Vineet Kansal, Director of IET, Prof. Subodh Wairya, Head of the ECE Department; Prof. Neelam Srivastava, IEEE Branch Counsellor, Prof. D.S. Yadav, Dean of Alumni; and other distinguished faculty members, research scholars, and students.

The lecture series, conducted in hybrid mode, provided a platform for knowledge exchange, highlighting advancements in technology and career opportunities. Below are the highlights of the sessions:

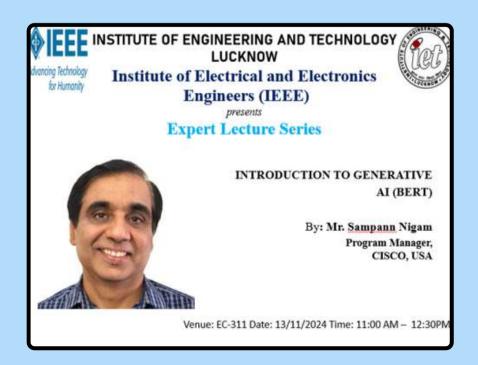
### Expert Talk 1: 13th November 2024

### Speaker: Mr. Sampann Nigam, Program Manager at CISCO, USA Topic: Introduction to Generative AI (BERT)

Mr. Sampann Nigam, a distinguished IET Lucknow alumnus and accomplished data scientist, shared his expertise on generative AI and its applications. He highlighted the transformative potential of tools like ChatGPT-4 and BERT in natural language processing.

The session included a hands-on demonstration of machine translation and chatbot functionalities, offering practical insights into AI technologies. The event concluded with an engaging Q&A session, where Mr. Nigam addressed questions on generative AI and its impact across industries.

The session was highly interactive, with enthusiastic participation from faculty, Ph.D. scholars, and B.Tech and M.Tech students of ECE and CSE streams.





### Expert Talk 2: 18th December 2024

### Speaker: Dr. Arun Kumar Singh, Dean Academics, HOD Electronics Engineering, REC Kannauj

#### **Topic: Fundamentals of Semiconductor Memories**

Dr. Arun Kumar Singh provided an in-depth overview of memory systems, microprocessors, and embedded systems. He discussed memory architecture, address allocation, and practical connections in memory systems.

As the Chair of the IEEE UP Section Humanitarian Activities Committee, Dr. Singh also introduced IEEE grants available for research, offering valuable insights into funding opportunities.

The session concluded with a vibrant Q&A, where students and faculty gained deeper knowledge about semiconductor memories.







#### Expert Talk 3: 21st December 2024

### Speaker: Mr. Gaurav Dixit, Strategic Alliances Manager, Lefdal Mine Datacenter, Norway.

#### Topic: Market and Career Scope in IT & Allied Hardware Industries

Joining remotely, Mr. Gaurav Dixit, another illustrious alumnus of IET Lucknow, shared his expertise in data centre, its architecture and operations. He narrated the concept of Green Data Centres and how new Data Centres are designed to utilizing its emitted energy into useful energy and save environment. He discussed emerging trends, career opportunities in IT, and how India can tap into these growing industries.

The session emphasized market dynamics and the potential of sustainable technology in data centres.











#### Expert Talk 4: 23rd December 2024

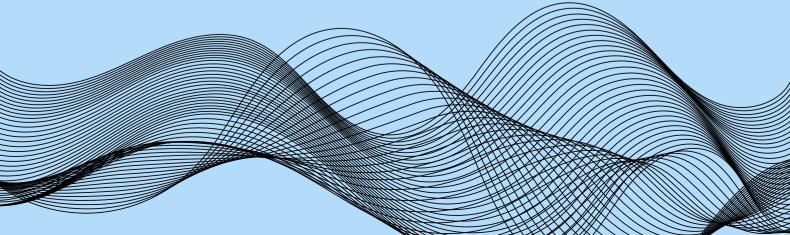
#### Speaker: Dr. Ashutosh Kumar Singh, HOD ECE, Dr. RML Avadh University

#### **Topic: Fault Management Scheme in Survivable Optical Networks**

Dr. Ashutosh Kumar Singh provided a detailed exploration of fault management in optical networks, covering techniques like path and link protection/restoration. These strategies ensure reliability and service quality in network operations.

The session offered valuable technical insights into optical network survivability.





#### Expert Talk 5: 28th December 2024

#### Speaker: Dr. Rajiv Kumar Singh, Assistant Professor, ECE Department, IET Lucknow

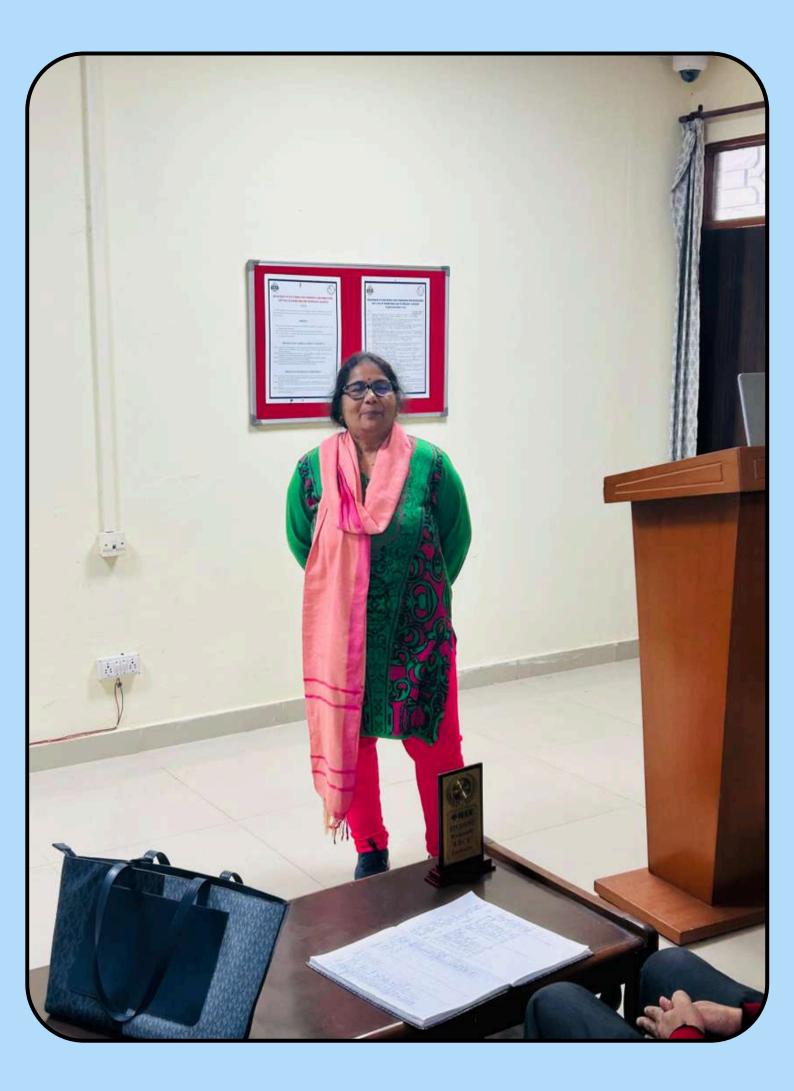
#### **Topic: Assessment of Electromagnetic Field Radiation from Cellphone Towers**

Dr. Rajiv Kumar Singh presented an insightful talk on the health hazards associated with electromagnetic radiation from cellphone towers. He discussed the government's safety measures and practical methods for assessing radiation levels through case studies. Conclusion

The Expert Lecture Series concluded with a closing address by Prof. Neelam Srivastava, IEEE Branch Counsellor. She emphasized the importance of staying updated with technological advancements and how such expert sessions can guide students and researchers in their pursuits.

The series was a resounding success, equipping attendees with knowledge, inspiration, and tools to navigate the evolving technological landscape.





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