

Department of Electronics Engineering NEWSLETTER

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Top News



Expert Talk on "Process of Innovation Development, Technology Readiness Level (TRL); Commercialization of Lab Technologies & Tech Transfer"

Online Expert Talk on "Design Aspects for Next Generation Communication Antennas"

Online Workshop on "Role of Sensors & Development Boards in the Implementation of IoT Systems"

Our students bagged Scholarships from Cummins Foundation India

Vision

To contribute in service of humanity and nations development by fulfilling the needs of industry and society through technically enriched and competent professionals with social values, entrepreneurship skill, leadership quality and capability of research in the area of Electronics and Instrumentation/ Electronics and Communication.

Mission

M1: By offering well balanced curriculum to impart quality technical knowledge.

M2: By providing them facilities for hands on practice and research.

M3: Inculcating Social values, leadership, ethics, self-confidence, entrepreneurship skills and providing platform to explore their creativity and hidden talents.



Department offers immense scope to explore and expand your horizons.

**Three-day workshop on Embedded Systems and IoT devices
(26.03.2024-28.03.2024)**



Programme Outcomes/Objectives

Programme Outcomes (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Educational Objectives (PEOs)

1. **PEO 1.** To prepare graduates with strong foundation in Engineering, Science and Technology for successful career choice in both public and private sectors in the field of electronics & communication engineering.
2. **PEO 2.** To prepare students to crack various state/national level competitive examinations like GATE, IES etc. and to prepare for higher studies or to become researcher or successful entrepreneurs in life.
3. **PEO 3.** To inculcate a sense of ethics, professionalism and effective communication skills amongst graduates.



Expert Talk on "Process of Innovation Development, Technology Readiness Level (TRL); Commercialization of Lab Technologies & Tech Transfer (07.02.2024)"

An expert talk by Dr. Ashutosh Datar, Professor and Head of the Department of Electronics Engineering was organized under the Institute Innovation Council (IIC), SATI on "Process of Innovation Development, Technology Readiness Level (TRL); Commercialization of Lab Technologies & Tech Transfer" on Wednesday, 7th February 2024. The session aimed to enlighten students on the crucial aspects of innovation, technology readiness, and the commercialization process.



The event commenced with the traditional ceremony of lamp lighting and Saraswati Vandana, symbolizing the pursuit of knowledge and wisdom. Dr. Sweety Jain, IPR Coordinator of IIC, extended a warm welcome to all dignitaries & attendees. Dr. Pankaj Agarwal, Chairman of IIC, shared valuable insights into the journey of innovation development.



Dr. Datar took the stage to elucidate the nuances of innovation. He delved into the significance of patents, highlighting their role in protecting intellectual property rights. He elucidated on various types of technologies and their relevance in contemporary contexts.

The session witnessed active participation from 59 students eager to enhance their understanding of innovation and technology transfer processes. The interaction between Dr. Datar and the attendees fostered a dynamic exchange of ideas, enriching the learning experience.

Online Expert Talk on "Design Aspects for Next Generation Communication Antennas" (14.02.2024)

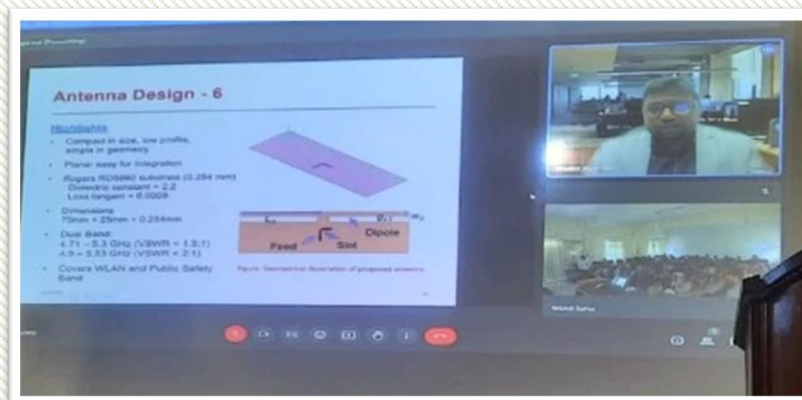
On February 14, 2024, the Department of Electronics Engineering at the Institute hosted an online Expert Talk on the topic of "Design Aspects for Next Generation Communication Antennas". The event was conducted online and featured Dr. Shobit Agarwal, Research Analyst from GreyB Research Pvt. Ltd., Mohali Punjab, as the invited speaker.

The session commenced with the traditional ceremony of lamp lighting, symbolizing the enlightenment of knowledge. Following this auspicious start, Dr. Sweety Jain, Assistant Professor, and Coordinator of the Expert Talk, extended a warm welcome to the



distinguished guests. This included expert speaker Dr. Shobit Agarwal, as well as Professor & Head of the Department (HOD) Dr. Ashutosh Datar, Senior Faculty Dr. Alok Jain, faculty members, and students. Dr. Jain's welcoming remarks and introduced the speaker to set the stage for an engaging and informative discussion, encouraging active participation from all attendees. Dr. Shobit Agarwal delved into various crucial aspects of communication antennas for the next generation, particularly focusing on the requirements for 5G networks. He

elucidated on the frequency bands allocated for 5G communication and presented the different types of antennas, with special emphasis on phased array antenna systems.



Dr. Agarwal elaborated on the diverse designs of antennas, highlighting their performance

parameters essential for mobile communication devices. Throughout the session, Dr. Agarwal actively engaged with both faculty members and students, addressing their inquiries regarding antenna design and functionality. His insightful responses provided clarity on the intricacies of antenna technology, fostering a deeper understanding among the participants. This event was organized by a team of student coordinators from EC 2 Year Aashi Kori, Anuj Mishra, Harendra Singh, Ankush Patel, and Nikhil Sahu. Their dedication and hard work played a pivotal role in ensuring the success of the Expert Talk.

Organized BIS Standard Writing Competition (27.02.2024)

The BIS standard writing competition of BIS student members for the Bureau of Indian Standards Club of Department of Electronics Engineering was successfully conducted on 27.02.2024.

The competition was organized as per the guidelines of BIS, Bhopal and under with the BIS Resource Support Team Member Mr. Anas Ahmed Ansari. Prizes for first four winners are cash amount of Rs.1000/750/500/250/- respectively.



The first place winner up team was Shradhha Tiwari & Ritik Lokhande, EC, VI Sem, the second place winner up team was Anya Joshi & Ananya Dubey, EC, VI Sem, the third place winner up team was Shreya Soni & Bhoomika Chourasia, EI, VI Sem and the consolation prize winner up team was Vivek Tripathi & Manjit Singh Rajput, EI, VI Sem.

BIS mentor for the Electronics Engineering BIS Club is Dr. Ashutosh Datar, HoD, Electronics along with convenor Prof. Abhishek Jain.



Online Workshop on "Role of Sensors & Development Boards in the Implementation of IoT Systems" (12.03.2024)

On March 12, 2024, the Department of Electronics Engineering at the Institute hosted an online workshop on the topic of "Role of Sensors & Development Boards in the Implementation of IoT Systems". The event was conducted online and featured Dr. Sadhana Mishra, Associate Professor, Department of Electronics and Communication Engineering, ITM University Gwalior, Madhya Pradesh, as the invited speaker.



The session commenced with the traditional ceremony of lamp lighting, symbolizing the enlightenment of knowledge. Following this auspicious start,

Dr. Sweety Jain, Assistant Professor, and Coordinator of the Workshop, extended a warm welcome to the distinguished guests.



Dr. Sadhana Mishra provided valuable insights into the role of sensors and development boards in the implementation of IoT systems. Through her practical knowledge, she introduced students to Tinkercad Simulation software, allowing them to engage in hands-on activities. This approach not only enhanced their understanding of IoT concepts but also equipped them with practical skills that are essential for real-world applications. The interactive session left students enthusiastic and empowered with the ability to apply their learning in practical scenarios.



Three-day workshop on Embedded Systems and IoT devices (26.03.2024-28.03.2024)

A three-day workshop on Embedded Systems and IoT devices, was organized by the Department of Electronics Engineering from 26-28 March, 2024. This three-day workshop was geared towards providing participants with insights into the latest trends and technologies in the field of Embedded Systems and IoT devices. During the workshop, participants delved into the intricate world of embedded systems and explored the vast possibilities offered by the Internet of Things.



Throughout this workshop, participants engaged in hands-on activities, learned from expert speakers, and collaborated with peers to deepen their understanding of these cutting-edge technologies. Each session was stepping stone towards mastering the principles and applications of embedded systems and IoT.

On the day 1, Dr. Ashutosh Datar delivered a lecture on Hardware Interface and Arduino Programming followed by a session about Sensors, Actuators and Display Devices by Dr. Shilpa Datar. In the hands-on session

participants implemented some Arduino and ESP board based projects. On the day 2, Prof. K. G. Kirar illustrated ESP8266 Programming with Micropython and its Interfacing. On the third day, a technical session along with the hands-on session



on ESP32 and Thonny IDE. The valedictory function was held on 28th March 2024 at 4.30 p.m. The Director of the institute Dr. Y. K. Jain presided over the function. He congratulated the participants and the organizers for successfully conducting the workshop.

Laptop and Scholarship Distribution of Cummins Foundation India by our Hon'ble BoG member Justice (Former) Shri N. K. Modi and special guest Dr. Laxmikant Markhedkar, Secretary, MJES (01.03.2024)

Cummins Foundation India recently provided laptops, covered course fees, and awarded scholarship certificates to 37 talented second and third-year students from SATI for the AY 2023-24. Chief Guest our Hon'ble BoG member Justice (Former) Shri N. K. Modi and special guest Dr. Laxmikant Markhedkar, Secretary, MJES graced the event and distributed the laptops and scholarships.



Over Rs 90.66 lakh has been provided to selected students for the financial years 2022-23 and 2023-24. Congratulations to all the deserving recipients!



विद्यार्थियों को किया छात्रवृत्ति प्रमाण-पत्र एवं लैपटॉप का वितरण



कमिन्स फाउंडेशन के द्वारा एसएटीआई के द्वितीय एवं तृतीय वर्ष के 37 छात्रों को वर्ष 2023-24 के लिए छात्रवृत्ति में चयन किया गया। इस छात्रवृत्ति में छात्रों को संपूर्ण इंजीनियरिंग कोर्स की फीस का भुगतान के साथ एक लैपटॉप एवं प्रमाण पत्र प्रदान किए जाते हैं। इसी क्रम में शुक्रवार को विद्यार्थियों को सर्टिफिकेट एवं लैपटॉप प्रदान किए गए। इस लैपटॉप वितरण कार्यक्रम के मुख्य अतिथि जस्टिस एन के मोदी सदस्य एमजेडएस एवं विशिष्ट अतिथि डॉक्टर लक्ष्मीकांत मरखेडकर सचिव एमजेडएस डॉक्टर वाय. के. जैन निदेशक एसएटीआई

एवं प्रोफेसर केजी किरार समन्वयक कमिन्स फाउंडेशन छात्रवृत्ति कोऑर्डिनेटर मुख्य रूप से उपस्थित रहे। चयनित छात्रों को अभी तक द्वितीय वर्ष 22-23 एवं वर्ष 23-24 में कल 90 लाख 66 हजार रुपए की मदद दी जा चुकी है।

छात्रवृत्ति प्रमाण पत्र व लैपटॉप का किया वितरण

नवभारत न्यूज विदिशा, कमिन्स फाउंडेशन के द्वारा एसएटीआई के द्वितीय एवं तृतीय वर्ष के 37 छात्रों को वर्ष 2023-24 के लिए छात्रवृत्ति में चयन किया गया। इस छात्रवृत्ति में छात्रों को संपूर्ण इंजीनियरिंग कोर्स की फीस का भुगतान के साथ एक लैपटॉप एवं प्रमाण पत्र प्रदान किए जाते हैं। इसी क्रम में आज छात्रों को सर्टिफिकेट एवं लैपटॉप प्रदान किए गए।



इस लैपटॉप वितरण कार्यक्रम के मुख्य अतिथि जस्टिस एनके मोदी सदस्य एमजेडएस एवं विशिष्ट अतिथि डॉक्टर लक्ष्मीकांत मरखेडकर सचिव एमजेडएस, डॉक्टर वाय. के. जैन निदेशक

एस ए टी आई एवं प्रोफेसर केजी किरार समन्वयक कमिन्स फाउंडेशन छात्रवृत्ति कोऑर्डिनेटर मुख्य रूप से उपस्थित रहे। चयनित छात्रों को अभी तक द्वितीय वर्ष 22-23 एवं वर्ष 23-24 में कल 90 लाख 66 हजार रुपए की मदद दी जा चुकी है। कार्यक्रम में सभी छात्र एवं छात्राएं क्रमशः दिव्यांश चौहान, हंसराज राय, दर्शन चित्रांश, सागर सिंह चपेल, मनोष पांडे, शिवांक पांडे, कुलदीप रजक, श्रीनाथ दांगी, भूपेंद्र बिसेन, किशान सिंह, मुस्कान वेणव, ब्रह्मा तिवारी, तनीषा नेम, मांडवी डायंगी, स्नेहा साहू, निकिता नामदेव, लक्ष्मी, निधि, साक्षी एवं कृति आदि उपस्थित रहे।



A Fostering Initiative



Peer-to-Peer Learning

Peer learning is a learning approach which promotes active engagement, enhances social skills, and fosters a sense of community within a learning environment. In peer learning, individuals learn from one another through collaboration, discussion, and shared experiences. In the process they also acquire new knowledge, skills, and insights. It may help the faculty to absorb and integrate diverse perspectives in the engineering domain.



Understanding the strengths of peer learning, the Department of Electronics Engineering has initiated a lecture series for peer faculty learning. Every week, one of the faculty of the department delivers a lecture on a topic of his/her liking, enhancing understanding about the trends, practices and tools used in engineering research and teaching.

Editorial Board

Advisor

Dr. Ashutosh Datar, HoD

Coordinator

Prof. Abhishek Jain

Members

Dr. Shilpa Datar, Dr. Suchi Mishra, Dr. Sweety Jain

Articles/achievements for the subsequent editions can be submitted at newsletter.electronics@satiengg.in

The first lecture under the Peer-to-Peer Faculty Learning Lecture Series was delivered by the Head of the Department, Dr. Ashutosh Datar on Thursday, 15th February 2024 on the topic "Decision Reliability and its pitfalls".

Till now, Dr. Sweety Jain, Dr. D. K. Shukla and Prof. Niraj Kumar have delivered the lectures under the Peer-to-Peer Faculty Learning Lecture Series.