Department of Electronics Engineering
NEWSLETTER

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Quarterly Edition: July-September 2024

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.

Top News

SATI Appointed as Virtual Labs Nodal Center by IIT Kanpur

Dr. D.K. Shakya, Assistant Professor, Electronics Department has been nominated as the Nodal Coordinator.

Workshop and hands-on bot-building session organized by Technical Club "FLUX" in Collaboration with IIT Bombay.

Memorandum of Understanding (MoU) with Anudip Foundation.

Alumni Visit of 1999 Batch of Electronics & Instrumentation Engineering.

Department of Electronics Engineering, Samrat Ashok Technological Institute, Vidisha (M.P.)

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.

Activities

SATI Appointed as Virtual Labs Nodal Center by IIT Kanpur

Dr. D.K. Shakya, Assistant Professor, Electronics Department has been nominated as the Nodal Coordinator

We are happy to announce that our institute has been officially appointed as a Nodal Center for Virtual Laboratories at IIT Kanpur under the Ministry of Education's Virtual Labs project!

Elevating Education: SATI JOINS IIT KANPUR'S VIRTUAL LABS

Samrat Ashok Technological Institute, Vidisha, has been officially appointed as a Nodal Center for Virtual Laboratories at IIT Kanpur under the Ministry of Education's Virtual Labs project!

Dr. D.K. Shakya, Assistant Professor, Electronics Department, has been nominated as the Nodal Coordinator to lead our efforts in advancing virtual learning and laboratory experiences.

This prestigious recognition reflects our unwavering commitment to innovation and excellence in education. Let's continue to explore, learn, and grow together!

Alumni Visit of 1999 Batch

The alumni of the 1999 batch of Electronics & Instrumentation Engineering made a memorable visit to Samrat Ashok Technological Institute (SATI), reconnecting with their alma mater. During their visit, they had the opportunity to meet and interact with Dr. Y.K. Jain, the esteemed Director of SATI, and Dr. Ashutosh Datar, the Head of the Department of Electronics & Instrumentation Engineering. The visit was a nostalgic journey down memory lane, fostering heartfelt conversations and reflecting on the institute's growth and achievements. The alumni expressed their gratitude to the institute for laying a strong foundation for their successful careers and discussed ways to contribute to the development of their department and SATI as a whole.

Activities

Memorandum of Understanding (MoU) with Anudip Foundation

We are happy to announce that Samrat Ashok Technological Institute (SATI) has signed a Memorandum of Understanding (MoU) with Anudip Foundation on 10th August 2024 under the CSR project of renowned multinational companies like Accenture, IBM, Axis Bank etc! This collaboration opens up incredible opportunities for our final-year students, who will now receive professional training in cutting-edge fields like Java Fundamentals, Data Analytics, Web Development, IT Fundamentals, Cyber Security, Artificial Intelligence, and Soft Skills.

🚀 What Does This Mean for SATI Students?

Professional Training: Learn from industry experts and gain practical knowledge that will set you apart.

Certification: Earn certificates that will enhance your resume and open doors to new opportunities.

Increased Employment Opportunities: Boost your career prospects with skills that are in high demand.

Internship Opportunities: Third-year students can look forward to hands-on internships, paving the way for a successful career.

This initiative is part of a larger mission to bridge the gap between academia and industry, ensuring our students are well-prepared for the competitive job market. Anudip Foundation's strong ties with around 130 multinational companies will be a significant advantage in this endeavor.

The MoU was signed in the presence of our esteemed Director Dr. YK Jain, Dean Academics Dr. Alok Jain, T&P Advisor Dr. Ashutosh Datar, and TPO Prof. Abhishek Mathur. A special thanks to Dr. Deepa Yadav from Anudip Foundation and Accenture CSR Project, who not only facilitated this collaboration but also addressed our third and final-year B.Tech students in an engaging seminar, answering their queries and offering valuable insights into professional training and career opportunities.

Our Director, Dr. YK Jain, provided inspiring directions for the future, emphasizing the importance of this collaboration as a stepping stone towards more such partnerships. He highlighted the critical role that industry-aligned training plays in enhancing employability and urged students to take full advantage of these opportunities to shape their careers.

Activities

Tug of War Competition on National Sports Day 🏅

SATI celebrated National Sports Day on 29th August 2024 with immense enthusiasm and energy! To mark this significant occasion, a spirited Tug of War competition was organized, bringing out the true essence of teamwork and sportsmanship among our engineering students.

Before the competition, a respectful Pushpanjali was offered in honor of the legendary Major Dhyan Chand Ji, whose contributions to Indian sports continue to inspire us all.

The event was organized by Prof. Neeraj Sen, our Sports PIC, and Mr. Sachendra Singh, PTI Sports, both of whom encouraged the participants and emphasized the importance of sports in building character and unity.

Six teams from different years participated, showcasing their strength and determination. In a thrilling finale, the Final Year Team emerged victorious and was proudly awarded the trophy.

Our esteemed Director, Dr. Y. K. Jain, shared his message on this occasion: "National Sports Day serves as a powerful reminder of the importance of physical activity, teamwork, and perseverance. Events like today's Tug of War embodies the spirit of healthy competition. I commend all the participants for their enthusiasm and dedication, and I hope to see this spirit flourish in all aspects of life."

Congratulations to the Final Year Team and to all participants for making this event a resounding success! Your commitment to sportsmanship is truly commendable.

Workshop Organized by Technical Club "FLUX" in Collaboration with IIT Bombay

The Technical Club "FLUX" of Samrat Ashok Technological Institute, in collaboration with IIT Bombay, organized a workshop on 22nd September 2024 in the Smart Classroom.

The session, led by Mr. Utkarsh Jain from IIT Bombay's Techfest Management Committee, provided valuable insights into Techfest participation and competitions, sparking enthusiasm among the more than 150 students who participated.

Activities

FLUX also conducted a hands-on bot-building session focused on 'Mesmerize' and 'Cozmo Clench,' led by club convenor Abhijeet Singh (ME, Final Year), with support from club members Mahak Tiwari (EC, Third Year), Sanidhya Sahu (IOT, Third Year), Anuj Mishra (EC, Third Year), and Nikhil Sahu (EC, Third Year), helping participants gain practical skills in bot construction and programming.

Faculty co-coordinators Prof. Neeraj Kumar and Prof. K.G. Kirar were present at the workshop. The entire workshop was organized under the valuable guidance and support from our esteemed Director Dr. Y. K. Jain and club faculty coordinators Dr. Ashutosh Datar and Dr. D.K. Shakya. This workshop was an important step in preparing for Techfest 2024.

Student Achievements

- **Shruti Joshi**, a 6th-semester student (Unit 14 MP BN, Vidisha), proudly represented the institute by participating in the CATC-10/DTE TSC-1 (IGC) camp held at Lakholi, Arang, from July 22, 2024, to July 31, 2024. Her involvement showcases her dedication and commitment to extracurricular excellence.

- **Manju Lodhi** received recognition for her active participation in the Betwa River Cleaning (Shramdaan) initiative, plantation drive, and a visit to the historical Udaygiri Caves, all conducted in Vidisha on July 6, 2024. Her contributions reflect a deep sense of environmental and cultural responsibility.

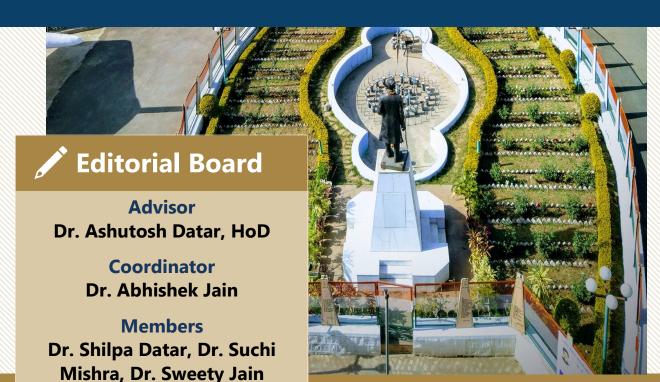# Exciting Career Opportunities in Electronics Engineering Beyond 2024

As the world embraces rapid technological advancements, the field of electronics engineering continues to flourish, offering diverse and promising career opportunities. After 2024, this discipline will remain pivotal in shaping industries, from consumer electronics to cutting-edge technologies like AI, IoT, and renewable energy systems.

One of the most prominent areas is semiconductor design and manufacturing. With the rise of advanced chip technologies for AI and machine learning applications, engineers skilled in VLSI design, ASIC development, and nanotechnology will find abundant opportunities. Similarly, the automotive sector will see a surge in demand for electronics engineers as electric vehicles (EVs), autonomous driving, and smart transportation systems expand.

The Internet of Things (IoT) will also create significant opportunities. As more devices become interconnected, engineers will work on designing robust sensors, embedded systems, and secure communication protocols. Moreover, renewable energy systems will offer roles in developing efficient solar inverters, wind power electronics, and energy storage systems to support the global shift toward sustainability.

Another dynamic avenue is telecommunications. With the evolution of 6G and advanced satellite networks, the demand for engineers in wireless communication and signal processing will grow exponentially. Additionally, robotics and automation will provide opportunities in designing smart robots for industries ranging from healthcare to manufacturing.

Electronics engineering after 2025 is not just limited to traditional industries but also intersects with emerging domains like quantum computing, biomedical devices, and space technology. With the right skills and a forward-thinking approach, electronics engineers can contribute significantly to these transformative fields while building a rewarding career.

✏️ Editorial Board

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Articles/achievements for the subsequent editions can be submitted at
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