

Department of Electronics Engineering **NEWSLETTER**

<https://satiengg.in/departments/electronics-engineering>



Quarterly Edition: July-September 2023



Top News



Our great Alumnus 1988 Batch Dr. Prafulla Kumar Jain, Director, IN-SPACe, ISRO brought laurel to the institute. He was the key member in making ISRO's CHANDRAYAN-3 mission successful.

2 Patents published/granted by Dr. Sweety Jain.

Our final year student Miss Chinmayi Shrivastava was selected as Research and development Intern at Ministry of Electronics and Information Technology (MEITY).

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.



Two-Week in-House Internship Program was organized on Electronic Circuits Design (10.07.2023 to 21.07.2023).



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.

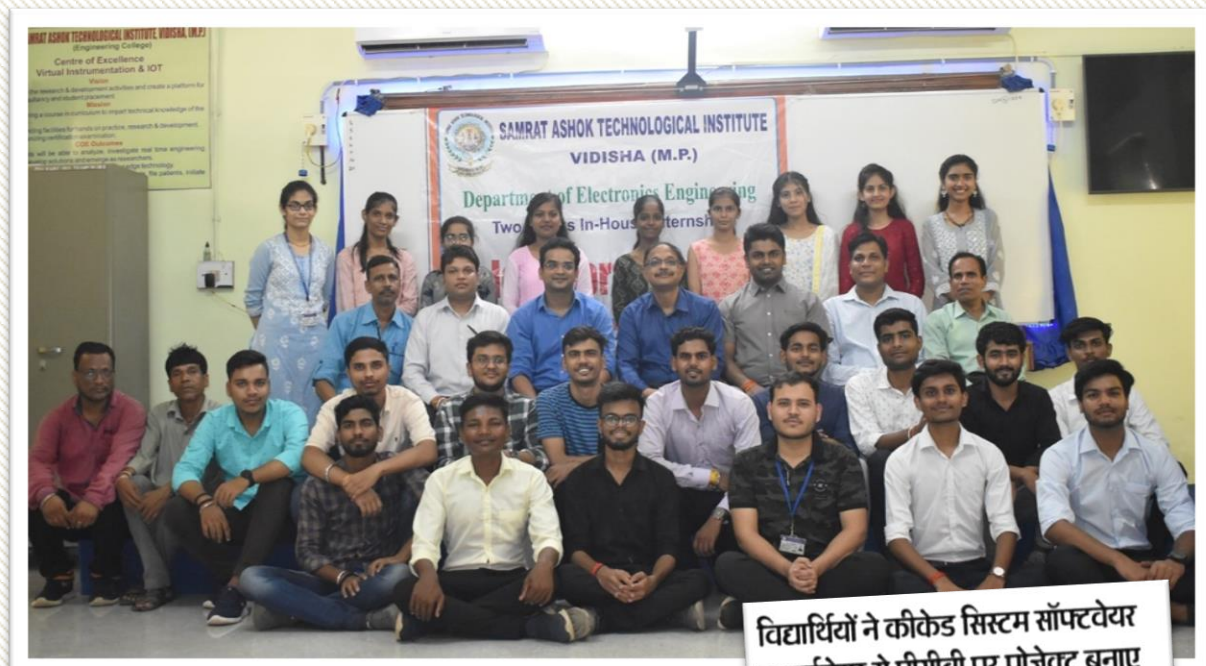


Activities



Two-Week in-House Internship Program on Electronic Circuits Design (10.07.2023 to 21.07.2023)

The two-week in-house internship program on Electronic Circuits Design was organized by the Department of Electronics Engineering from 10.07.2023 to 21.07.2023. In this two-week training program, first year students of various streams were taught all the tricks of making electronic circuits. Students made projects on PCB with both KiCAD system software and hardware, in which traffic light controller, emergency light, mobile charger, water level indicator etc were prominent. During this training, Head of the Department Dr. Ashutosh Datar also took sessions on personal interview and technical subjects. The valedictory programme was held on 21.07.2023 which was graced by Deputy Director Dr. Y. K. Jain and Dean Academic Dr. Jetendra Parashar. Coordinators of this internship were Prof. Abhishek Jain, Prof. Naveen Malviya, Prof. Neeraj Kumar Dhakad and Prof. Aditya Singh Bais.





Activities

Plantation Drive (09.08.2023)

A plantation drive was organized by our NSS students on 9th August 2023. 30 Plants has been planted in SATI campus including hostels contributing green and clean energy concept and fulfilling government's मेरी माटी मेरा देश abhiyan.



An awareness programme on the G20 summit (09.09.2023)

An awareness programme on the G20 summit was held on September 9, 2023, at Durga Nagar Chauk, organised by NCC SATI (D) in association with 14 MP BN. The event featured a slogan-writing competition, a poster-making contest, and a captivating nukkad natak (street play). Attendees, including students and local residents, learned about the G20's global significance. The nukkad natak highlighted global issues and cooperation among nations, The main motive of the street play was 'वसुधैव कुटुम्बकम्' which significantly means one earth, one family, and one future. This programme effectively engaged the community, fostering awareness and responsibility regarding global matters in a successful effort to promote understanding of the G20's role in global governance. In addition with this, an awareness rally was also being organised.





Activities

An orientation program and standards writing workshop in association with Bureau of Indian Standards (BIS) (13.09.2023)

An orientation program and standards writing workshop were organized on 13.09.2023 at Smart Class Room for the student members of standards Clubs, established with the support of the Bureau of Indian Standards (BIS). The institute has established five Standards clubs in Civil, Mechanical, Electrical, Electronics and Computer Science Engg. In this program, Mr. Shridhar Pandey from BIS Bhopal gave a detailed talk about the Standards and its significance. He also briefed students about the writing standards for any item.



Engineer's Day celebration soar to new heights with drone workshop and debate competition (15.09.2023)





Activities

Engineers Day was celebrated on 15th September 2023, to commemorate the birth anniversary of Sir Mokshgundam Viswesvaraya. Our Hon'ble Director Dr. R. K. Pandit, Deputy Director Dr. Y. K. Jain, Dean Academics, Dean Student Welfare, Registrar, Heads of the Departments, faculty members, staff and students paid floral tributes to Sir Mokshgundam Viswesvaraya. This was followed by engaging activities and events in which the importance of engineering in today's world is highlighted. The event was organized by Electronics Department.



The event featured a captivating Drone Workshop, Essay Writing Competition and a thought-provoking Debate Competition, showcasing the remarkable talents of engineers and aspiring minds. Dean Academics Dr. Jetendra Parashar and our Head of the Department Dr. Ashutosh Datar gave away the prizes to the winners.

Blood Donation Drive (30.09.2023)

On the occasion of Punyatithi of our Hon'ble Former Chairman Shrimant Madhav Rao Scindia ji, a Blood Donation Drive is organised by the students under the guidance of NSS program officer Prof. KG Kirar in collaboration with District Hospital, Vidisha. A total of 50 units of blood were collected, contributing to local hospitals and those in critical need. The meticulous planning and dedication and combined efforts of both NSS and NCC unit were evident in this seamless execution of the event.





Faculty Achievements

Patents Published

Faculty Name	Patent	Country
Dr. Sweety Jain	Patent Published (202341047826) on “Machine Learning based Microstrip Patch Antenna Parameter Prediction Model” on 1 September 2023.	India
Dr. Sweety Jain	Patent Granted (6297799) on “Artificial Intelligence based Water Quality Prediction Device” on 1 August 2023.	UK

NPTEL/SWAYAM Certification

Name of faculty	NPTEL/SWAYAM Certification
Dr. Sweety Jain	Successful Completion Certificate with ELITE AND TOPPER in the course “An Introduction to Coding Theory” (8 Weeks) through NPTEL, by IIT Kanpur July-September 2023.

Membership

Name of faculty	Membership
Dr. Sweety Jain	Editorial Board Member of American Journal of Science, Engineering and Technology from 14th July 2023 to till now.

FDP/Workshops/Training Programmes

- **Dr. Alok Jain** attended a workshop on VLSI to System Design: Silicon to End Application Approach organized by AICTE, Arm Education and ST Microelectronics from 31 July to 4 August 2023.
- **Dr. Sweety Jain** attended 8 Week FDP on “An Introduction to Coding Theory” from July-Sept, 2023, organized by NPTEL-AICTE.
- FDP on “Trends in Technological Intelligence 2023 (T2I-2023)” held on 21st August to 25th August 2023, organized by Departments of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT.
- FDP on “Enhancing Research Impact: Grant Writing, IPR and Publication Strategies” held on 31st July- 5th August 2023, organized by School of Technology Management & Engineering NMIMS Indore in association with Central Training SVKM.
- She has also attended International FDP on “Impact of Information Technology in Diverse Domain” held on 17th -24th July 2023 organized by Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.
- An FDP on “Pedagogy on Effective Teaching and Professional Development” held on 27th June to 3rd July 2023, organized by ITM University, Gwalior.
- FDP on “Technology Driven Application” held on 13th July to 15th July 2023 organized by Sathyabama Institute of science and Technology.
- An International Workshop on “RaoS Phased Array and Reflector Antenna Design and Analysis” held on 22th July, 2023 organized by Raghu Institute of Technology (A) and Raghu Engineering College (A), Dakamarri, Visakhapatnam, Andhra Pradesh.



Student Achievements



Our proud student of EI Engineering **Rashid Iquebal** got selected through 14 SSB in Allahabad for the SSC (Tech)-61 Batch with an impressive AIR 5.

We wish him all the luck for his upcoming journey at OTA Chennai! In the coming months, he will also deliver a talk and address the students.

Chinmayi Shrivastava, VII Sem was selected as Research and development Intern in System Design at Ministry of Electronics and Information Technology (MEITY) under the Digital India Internship Scheme (DIIS).

There were 20 Lakhs+ aspirants out of which only 20 gets selected from pan India. The internship was of about 2 months (July-August).

This internship leads her to understand the diversity of technologies that our nation is using these days for navigations, satellite communication, defence systems etc. She is currently writing the research report about the new tech system she is developing.



Sonali Singh Parihar and **Ashutosh Singh Sengar**, V Sem were selected in Prestigious SURGE (Students undergraduate Research Graduate Excellence) Program 2023 IIT Kanpur.

They carried out research at IIT Kanpur under this program from 11/05/2023 to 14/07/2023 on the topic "Analog Circuit Simulation using MOSFETs, BJTs and Diodes".



Academic Audit Report

Academic audit of all the departments of the institute was conducted by the external members during July 28-29, 2023. The purpose of the audit was to assess the performance of the departments on the basis of the various parameters falling into following different categories.

Criterion I: Availability of Records & Data Management

Criterion II: Teaching Learning Practices

Criterion III: Quality Improvement Initiatives

Department of Electronics Engineering fared well in the audit and secured highest points for the session 2022-23 and was placed in third position for the session 2021-22. The department also scored highest points in the criterion of Teaching Learning practices in both the sessions.



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



A Special Blog dedicated to Dr. Prafulla Jain

It's my immense pleasure to contribute some student life experience with my close friend and batchmate Dr. Prafulla Kumar Jain, who played an important role in the most successful landing of Chandrayaan-3 on Moon by the ISRO on 23th August 2023.

Dr. Prafulla Kumar Jain is an alumnus of the first batch of Electronics & Instrumentation Engineering dept. at Samrat Ashok Technological Institute, Vidisha, graduating in the year 1988. Dr. Jain was curious about the space science from the student life. During 1980s, the satellite communication was the thrust area in the field of science and engineering. We, the final year students, viz., Dr. Prafulla Kumar Jain, Dr. Ram Kumar Soni (Formal Principal, SATI (Poly), Er. Manoj Jain (presently working in Ministry of IT) and myself did the major project on "Design of Satellite Communication Receiver" under the guidance of late Prof. J. C. Gupta, the founder Head of Electronics & Instrumentation Engg Dept and a renowned professor in the field of telecommunication.

Due to his interest in the field of space science and communication, Dr. Jain joined the ISRO and presently he is deputed at Indian National Space Promotion and Authorization Centre (IN-SPACe - GoI) at Ahmedabad and hold the post of founder Director. In its present role, as Director, IN-SPACe, he vitally contributed in authorizing various stages of Chandrayaan-3 mission, including the Satellite (including Vikram Lander and Pragyaan Rover) as well as the launch.

Dr. Alok Jain, Professor

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