



DAYANANDA SAGAR
UNIVERSITY



DECADES LEGACY
IN EDUCATION & HEALTHCARE



B.Tech in Electronics & Communication Engineering

SCHOOL OF ENGINEERING

Fusing Tech and Talent
for Future Innovators



Promising Private University for Academic Excellence & Learning



Teaching Excellence
★★★★★
Research Excellence
★★★★★

THEWEEK

BEST EMERGING B-SCHOOLS : ALL INDIA
Dayananda Sagar University-2021



BEST EMERGING UNIVERSITY 2021



AAA Ranking 2021



Excellence in Academic Facilities & Learning Resources



IIRF-2024
NATIONAL RANK - 9

TOP PRIVATE UNIVERSITIES IN INDIA (OVERALL)

STATE RANK **3** SOUTH ZONE RANK **3**

*A Place to
Grow, Excel,
Invent &
Innovate!*

About DSU

Dayananda Sagar Institutions founded in the 60's by one such visionary, late Sri Dayananda Sagar committed to take knowledge to the people, transforms today's students into responsible citizens and professional leaders of tomorrow. Dayananda Sagar University created by an Act of the Karnataka State in 2014,

built on this adorable legacy and inspired by its own milestones, meeting the needs of quality higher education in this part of the world. This main campus is thoughtfully planned on 130 acres, with a picturesque site and a blossoming green environment, making it free from city crowds and pollution. Being a completely self-contained campus adjacent to Harohalli (45kms from Bengaluru city), it is equipped with all the modern state-of-the-art infrastructure, creating a conducive environment for progressive experiential learning and transforming you into next-generation innovators, explorers, leaders, and researchers.





*It has become
appallingly obvious
that our technology
has exceeded our
humanity.*

About School of Engineering

Welcome to the cutting-edge realm of engineering excellence at the School of Engineering (SoE), Dayananda Sagar University (DSU). School of Engineering (SoE) at Dayananda Sagar University (DSU) offers provide world-class education and experiential training in engineering, with a focus on innovation across various disciplines such as Computer Science, Artificial Intelligence, Robotics, and more. the unique and multidisciplinary learning here is backed by some of the world's best state-of-the-art infrastructure, job-role based emerging specialisations, innovative pedagogy, contemporary curriculum, multifaceted faculties, strong industry collaborations, and impeccable placements.

It has emerged as the top choice for students who want to become the next- generation technocrats, innovators, developers, and creators. Our advanced and exceptional M.Tech programs are meticulously designed to propel you into the forefront of evolving technologies. It offers specialised majors, allowing students to delve deep into their areas of interest and expertise, whether its in computer science, electronics, or other engineering disciplines. The students are exposed to knowledge beyond their specialisation, which helps broaden their horizons of thought.

About ECE Department

The Department has highly skilled faculty members who specialize in subjects aligned with the latest industrial demands. Our educators bring cutting-edge research, development, and design expertise directly into the classroom, ensuring that students receive the most relevant and up-to-date instruction. The department has an exclusive BOSCH ETAS lab integrated into the curriculum and students have the opportunity to work in this niche lab to carry out projects. The industry-sponsored Analog Devices Lab also provides students with opportunities to carry out research in the Communication Domain.

About Electronics & Communication Engineering

Electronics and Communication Engineering (ECE) is an interdisciplinary field that intersects electrical engineering and computer science. It involves the creation, advancement, and implementation of electronic devices, systems, and communication technologies that are essential to modern living. ECE experts are instrumental in influencing technology progress, facilitating advancements across a wide range of industries, including telecommunications, healthcare, automotive, and more.

Program Overview

The Electronics and Communication Engineering (ECE) program at DSU is designed to create innovative engineers and entrepreneurs equipped with technological excellence, professional commitment, and a strong sense of social responsibility. We prioritize building technical aptitude, entrepreneurial spirit, and leadership skills in our students to empower them to navigate the complexities of globalization and technological advancements. With a foundation in the psychology of students, socio-cultural considerations, and interdisciplinary approaches, we provide a holistic education that goes beyond traditional boundaries and empowering our graduates to confidently address the ever-changing demands of the global industry. The program also emphasizes postgraduate studies and research, fostering a culture of continuous learning and innovation. Overall, the ECE program at DSU stands out for its practical orientation, industry-aligned specializations, and commitment to research, innovation, and ethical practices, empowering graduates to contribute significantly to the electronics and communication field and society as a whole.

Admission Eligibility Criteria

Pass in PUC / 10+2 examination with Physics and Mathematics as compulsory subjects along with one of the Chemistry / Biotechnology / Biology / Computer Science / Electronics / Technical Vocational subjects and obtained at least 45% marks (40% in case of candidate belonging to SC/ST & OBC category) in the above subjects taken together, of any Board recognized by the respective State Governments / Central Government / Union Territories or any other qualification recognized as equivalent there to.



Electives offered

The curriculum encompasses a diverse range of advanced specializations aligned with emerging technologies and contemporary industry needs. This strategic approach guarantees that our graduates possess the skills and knowledge necessary to meet the demands of the ever-evolving real-world industry landscape.

Automotive Electronics

The specialization in Automotive Electronics delves into the application of electronics in the automotive industry, addressing the increasing integration of electronic systems in modern vehicles.

Key Focus Areas

- ▶ Embedded Systems for Automotive Applications
- ▶ Vehicle Communication Networks
- ▶ Advanced Driver Assistance Systems (ADAS)
- ▶ Automotive Control Systems

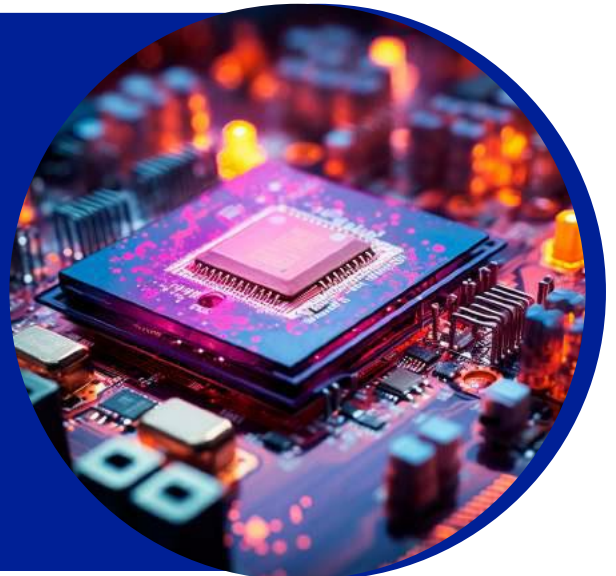


System on Chip (SOC) Design

This specialization focuses on the design and application of Chip Design Integrated Circuits (ICs), and VLSI. SoCs can be applied to any computing task. Specializing in Soc designing opens up a lot of avenues for you.

Key Focus Areas

- ▶ Digital Logic Design
- ▶ Advanced Digital System Design and Verification
- ▶ System-on-Chip (SoC) Design



Evolution of Telecommunications

The Evolution of Telecommunications specialization examines the historical development and the current advancements in communication systems, preparing students for the future of telecommunication technologies

Key Focus Areas

- ▶ Next-Generation Networks (5G and beyond)
- ▶ Fiber Optic Communication
- ▶ Satellite Communication Systems
- ▶ Wireless Communication Standards
- ▶ Telecommunication Protocols



IoT & Wireless Sensor Network

This specialization focuses on the Internet of Things (IoT) and Wireless Sensor Networks, exploring the integration of sensors and communication technologies to create intelligent, interconnected systems

Key Focus Areas

- ▶ IoT Protocols and Standards
- ▶ Wireless Sensor Node Design
- ▶ IoT Security and Privacy
- ▶ IoT Applications in Smart Cities
- ▶ Edge Computing for IoT



Microcontrollers

Microcontrollers are at the heart of embedded systems. This specialization provides a deep understanding of microcontroller architecture, programming, and applications.

Key Focus Areas

- ▶ Microcontroller Programming
- ▶ Embedded System Design
- ▶ Real-time Operating Systems
- ▶ IoT Device Development
- ▶ Control Systems with Microcontrollers



These specializations within Electronics and Communication Engineering offer students the opportunity to tailor their education to specific domains, ensuring a well-rounded understanding and skill set for future career paths in these evolving and niche fields.

Department Placement Record

Highest Salary

10 Lakhs Per Annum

Average Salary

4.8 Lakhs Per Annum

Unveiling the Advantages of Choosing ECE

Growing Technology Sectors

Rapid development in electronics, audio, and video communication systems offers continuous demand for skilled ECE professionals.

Robotics and Automation

Automation in industries creating a demand for electronic engineers in designing and implementing robotics and automation systems

5G and Telecommunications

The rollout of 5G networks worldwide has increased the demand for ECE engineers with expertise in communication systems, signal processing, and network design.

Globalization and Outsourcing

As technology continues to connect the world, there is a demand for ECE engineers who can contribute to global projects.

Gateway to Innovation

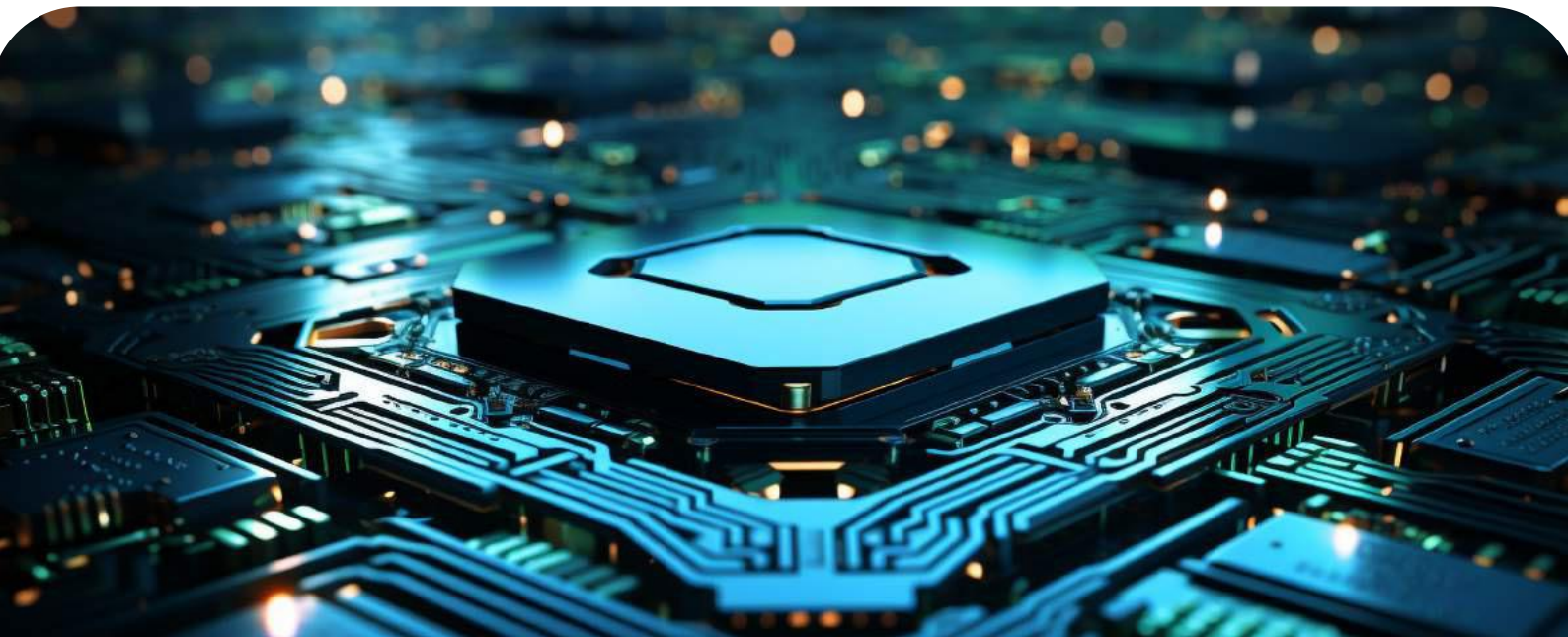
ECE serves as a centre for innovation, providing students with the opportunity to be at the forefront of technological advancements.

High Growth and Job Security

The technology-driven nature of the ECE field ensures continuous growth and job security for professionals. As industries continue to digitize and automate, the demand for skilled ECE graduates is projected to remain robust.

Contribution to Sustainable Solutions

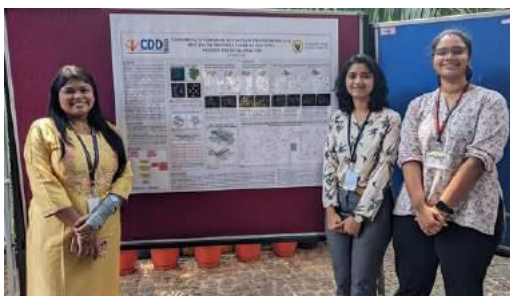
ECE is increasingly focused on developing sustainable and environmentally friendly technologies. Graduates have the opportunity to contribute to green engineering practices, aligning with the global shift towards sustainability.



Research Projects funded by Government and Non-government Agencies

The Department of Electronics and Communication Engineering hosts several specialized research laboratories, generously funded by both government and non-government agencies. Students are strongly encouraged to utilize these state-of-the-art facilities to further their academic and research endeavors.

- Dr. Arungalai Vendan S has developed Magnetic Impelled Arc Butt (MIAB) Welding Lab with the support of DST funds. DSU is the only private organization throughout India among all streams to have this Magnetically Impelled Arc Butt (MIAB) Welding lab created with DST funds. Welding Research Institute (BHEL) and IIT Madras are the two more organizations within India to have this facility.
- Dr. RUPAM BHADURI, Professor, is executing the prestigious Collaborative Project of Mission Innovation (International Apex Body) and DST, Ministry of Science & Technology, Govt. of India - Funded Project on Integrated Clean Energy Material Acceleration (IC-MAP): An INDO - CANADIAN Joint Venture.
- Dr. BM Ashwin Desai Project got the research fund as Principal Investigator for the project title: Investigation and optimization of factors influencing the high voltage electrical discharge-based extraction of protein from peanut meal from SERB-DST Government of India.



Job Prospects for ECE Engineers

Electronics Engineer

Create and enhance electronic systems and components. Contribute to projects involving circuit design, testing, and troubleshooting.

Communication Systems Engineer

Design and fine-tune communication networks for seamless data transmission. Implement technologies that enable effective data exchange.

Embedded Systems Engineer

Develop embedded systems for diverse applications, integrating hardware and software.

VLSI (Very Large-Scale Integration) Design Engineer

Innovate and construct complex integrated circuits for advanced electronic devices.

Network Engineer

Strategically plan and manage computer networks for organizational efficiency. Ensure smooth communication systems operation within the workplace.

Control Systems Engineer

Design and implement control systems essential for industrial automation. Contribute to projects involving robotics and automation technology.

Signal Processing Engineer

Analyze and manipulate signals to enhance various types of data. Develop signal enhancement algorithms for practical applications.

IoT (Internet of Things) Specialist

Design and implement IoT systems, driving the advancement of smart homes, cities, and industries. Lead sensor integration, data analysis, and connectivity projects.

Robotics Engineer

Contribute to the design and construction of robotics systems for diverse industries. Engage in projects involving automation, artificial intelligence, and machine learning.

RF (Radio Frequency) Engineer

Optimize RF systems to facilitate wireless communication. Contribute your expertise to antenna, transmitter, and receiver projects.

Telecommunication Engineer

Plan and manage telecommunication networks to support evolving communication technologies. Drive the deployment of innovative communication solutions.

Power Electronics Engineer

Design and implement power electronic systems for efficient energy conversion. Spearhead projects in the realm of renewable energy systems and electric vehicles.

Biomedical Engineer

Apply ECE principles to create medical devices and equipment for healthcare. Contribute to projects focused on technical solutions for medical diagnosis and treatment.

Research and Development Engineer

Engage in research to develop and enhance new technologies. Contribute to advancements in both academic and corporate research settings.

Entrepreneur/Start-up Founder

Pursue entrepreneurial endeavour's based on innovative ECE solutions. Explore entrepreneurial opportunities in fields such as IoT, electronics manufacturing, and communication technologies.

These job prospects showcase the diverse opportunities available for ECE engineers, enabling them to contribute to a variety of industries and work on cutting-edge technologies that shape the future. The continuous evolution of technology ensures that ECE professionals remain in demand around the world.

Advantages of pursuing ECE @ DSU

- >> **DSU, SOE ranked no. 1 by TOI 2022 as**
 - **Emerging Engineering Institute**
 - **Emerging Engineering Institute Placement 2022**
 - **Emerging Engineering Institute Research Capabilities**
- >> **Engaging and innovative industry-aligned curriculum as per Industry 4.0.**
- >> **Faculty with Ph.D. credentials from elite institutions in India and abroad bring academic excellence and strong R&D backgrounds to the program**
- >> **The BOSCH ETAS lab integrates hands-on experience with state-of-the-art automotive technology, emphasizing applications in embedded systems and automotive electronics.**
- >> **The Analog Devices Lab, sponsored by the industry giant, facilitates research in the Communication Domain, exposing students to advanced technologies in signal processing and communication systems.**
- >> **Financial aid through rewarding scholarship accolades (DSAT)**
- >> **National and international internships & research opportunities.**
- >> **Collaborations with BOSCH and Analog Devices align the curriculum with industry needs, ensuring students gain practical insights and real-world skills.**
- >> **DERBI empowering young entrepreneurs having innovative ideas.**
- >> **Club activities for enhancing and shaping the personal interests and hobbies.**

DSU shapes the next-gen of ECE engineers, blending expertise, innovation, and dedication for impactful careers. Join us on a journey where innovation meets impact.

What our students say



Syed Heena

DSU transformed my confidence and character through Personal Effectiveness programs and Interpersonal skill training. The well-equipped labs facilitated projects like the Smart Trolley system using Deep Learning. The ECE department encouraged exposure through India Electronics Week Exhibition and internships. I earned a Merit Certificate from IIT Delhi as a Student Ambassador and excelled in the Yadupati Singhaniya Award 2018 for "The Solar Paint" at IIT Kanpur. Our team won the International Climate Design Challenge and participated in the Valeo Innovation Challenge 2018. Thanks to DSU's support, I presented a technical paper at an international conference and received offers from prestigious universities abroad. DSU is a beacon of education, research, and innovation that enriched my creativity and problem-solving skills. I am proud to be a DSU-ite.



Anita R. Shirur

The best decision made by me is selecting DSU to do my bachelor's degree. Here in our university from Dean to all faculty members are so cooperative, that they help us in Curricular and Extra Curricular activities. The projects which we did in our college helped me in my placements as well as carrying out my internship project in Indian Institute of Science. And we will have summer internships every year in our university, soon after the Internship we got opportunity to participate in Hackathon which was conducted by U C Berkley in Vijayawada our project was selected for finals and we got Runner up position. We also published Research paper, which was selected for ICRTET-2018 under the guidance of Dr. Payal Varma. We have well equipped labs in our university like Bosch, VMware, IBM, Autodesk, Nvidia. These labs inspire us in doing Innovative projects.



Abhinav G.A.

Throughout my 4 years of engineering at 'DSU', I had countless opportunities to develop analytical skills, leadership and proactive thinking for various programs and events. For, which I thank my teachers for their constant encouragement and support. They challenged and pushed me to be better and creative in my projects and for the cultural events, because of which I now have enough confidence to tackle any problem. The placement cell of the college has guided us throughout our curriculum for getting better opportunities during placements. All of these helped me to have two offer letters at the end of the placement season, each offer letter being from a well-known MNC. My sincere appreciation and gratitude to the Electronics & communications department for their steadfast support and encouragement.

Scholarship Exam

DSAT

Our exceptional B.Tech programme offers specialised majors, allowing students to delve deep into their areas of interest and expertise, whether it's in computer science, electronics, or other engineering disciplines. Students are exposed to knowledge beyond their specialisation, which helps broaden their horizons of thought. They will gain advanced knowledge in cutting-edge specialisations like AI & ML, Data Analytics, Blockchain Technology, Full Stack Development, etc. and our programs are led by professors of practice coming from top-notch companies, preparing students for better academic and professional fields through real-time project experience at our in-house DERBI foundation and for different job roles requiring stronger skills in research, design, and development.

Exceptional Benefits of DSAT

Financial assistance for exceptional students

Recognition of Merit:
Validating academic excellence

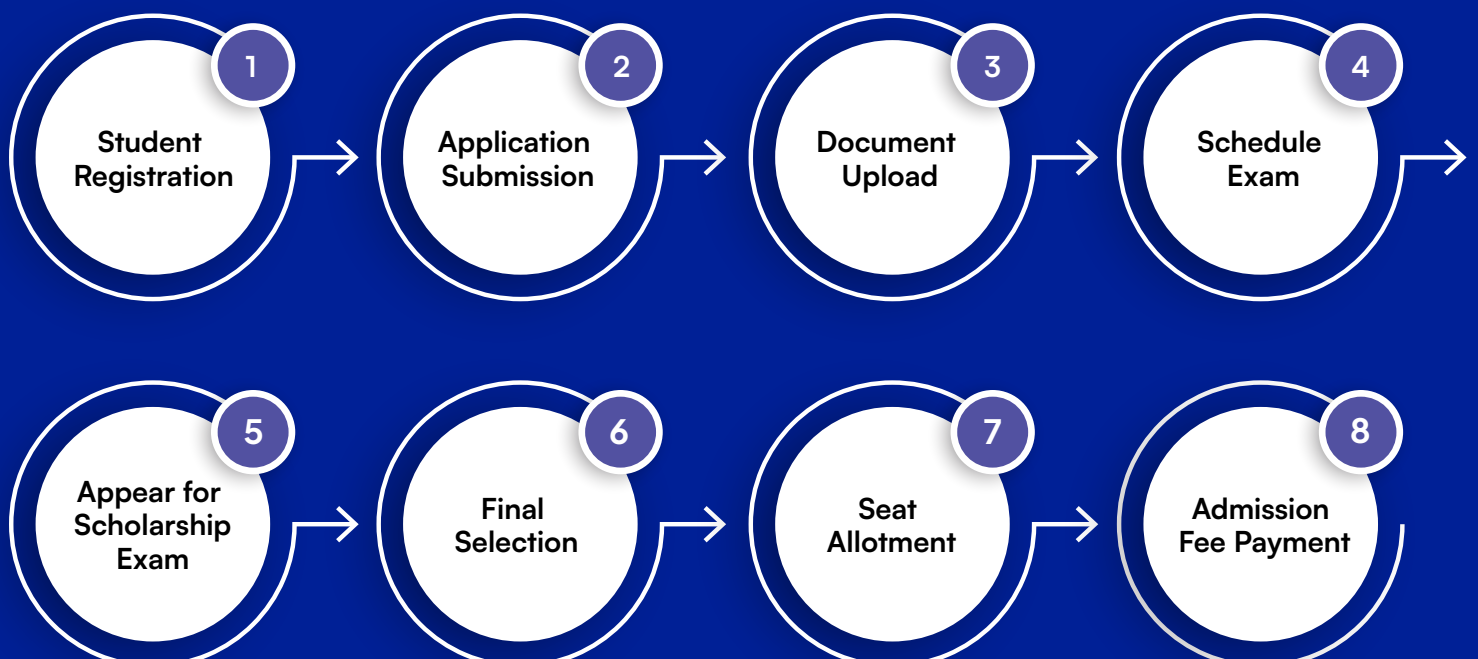
Opportunity for Higher Education:
In leading university with cutting-edge specializations

Enhanced Motivation: Inspiring excellence in future endeavours

Access to Quality Education:
Pursue education aligned with industry trends

Career Advancement: Elevate resume & future career prospects

DSAT Selection Process



Career & Placements*

The Training & Placement Centre (TPC) plays a vital role in making Dayananda Sagar University (DSU) the most favourite destination for many national and international companies to recruit fresh talent every year. The training & placement is the centralised activities for all Dayananda Sagar Group of Institutions.

Therefore, there is a humongous opportunity for students of DSU to get placements in various companies. More emphasis is on institute-industry interaction, pre-training learning initiatives, participating in industrial exhibitions, distinguished lectures by eminent speakers from industries, preplacement talks, written tests, group discussions, alumni activities and so forth. The TPC ensures smooth functioning of the placement activities in the campus and they get placed in the best of both national and international companies.



Top Recruiters



Glimpse of DSU Main Campus at Harohalli



DSU Main Campus : Devarakagalahalli, Harohalli, Kanakapura Road, Bengaluru – 562 112

Admissions Helpline Nos: ☎ **080 4646 1800** 📞 **+91 636 688 5507**

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