DAYANANDA SAGAR UNIVERSITY

A+ GRADE ACCREDITED BY NAAC

Build a Career that Safeguards the Future

B.Tech CYBERSECURITY

Index

A Place to Grow, Excel, Invent & Innovate!

About DSU

Dayananda Sagar Institutions founded in the 60's by a visionary, Late Sri. R. Dayananda Sagar (Barrister-at-Law) 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 Kanakapura Road, Bengaluru South District., 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.

University Accreditation and Rankings

TIMES ENGINEERING — TIMES ALL INDIA ENGINEERING INSTITUTES RANKING SURVEY 2023 — NUMBER ONE
- Top Emerging Engineering Institutes
- Emerging Engineering Institutes - Placement
- Emerging Engineering Institutes - Research Capability

IIRF -2025 — EDUCATION IMPACT AWARD — Promising Private University for Academic Excellence & Learning

ICARE RATINGS KSURF — Teaching Excellence ★★★★★ Research Excellence ★★★★★

- Emerging engineering institute
- Emerging engineering Institute Placement 2022
- Emerging Engineering Institute Research Capabilities

DSU has Rank No. 1 By TIMES OF INDIA 2022

ET THE ECONOMIC TIMES 2023 — Excellence in Academic Facilities & Learning Resources

IIRF -2024 — NATIONAL RANK–9 — TOP PRIVATE UNIVERSITIES IN INDIA (OVERALL) — STATE RANK 3 — SOUTH ZONE RANK 3

IIRF -2026 — EDUCATION IMPACT AWARD — Excellence in Employability & Placement Performance

TIMES BUSINESS AWARDS — BEST EMERGING UNIVERSITY 2021

34th ETLETS WORLD EDUCATION SUMMIT 2025 CHENNAI — OUTSTANDING UNIVERSITY WITH BEST PLACEMENTS

Message from the Dean

Be You Be The Difference!

Welcome to the new way of learning at School of Engineering (SoE) of Dayananda Sagar University (DSU). At SoE, we are committed to helping you to make a positive difference in the world. We at SoE are immensely proud to provide all of our students with an outstanding education that equips them with the skills, experience, and confidence required to stand out from the crowd. The school promotes Culture of Excellence including the culture of Interdisciplinary, Research, Creativity, Innovations, and Entrepreneurship on various Cutting-Edge Technologies.

We at SoE, provide the World-Class Education that is Student-centric, Research-centric, and educational space where all of our students will have a transformative education, learn to be independent critical thinkers, be societally and ethically responsible, and to have a broad understanding of the world.

We value ability, not background, and we support all of our students to achieve their potential. We want you to enjoy your time here, confident that, upon completion of the Engineering degree program under SoE, you will have the knowledge, expertise, and employability skills to set you on your chosen career path. The decision you make about where to study is an extremely important one. I am pleased you are considering the School of Engineering at DSU, and hope that you choose to continue your education with us.

Dr. Udaya Kumar Reddy K R
Dean, School of Engineering

About School of Engineering (SoE)

The School of Engineering (SoE) was established in the year 2015 offering B.Tech, M.Tech and research programmes in various disciplines including Computer Science and Engineering (CSE), CSE(Artificial Intelligence & Machine Learning), CSE(Data Science), CSE(Cyber Security), Computer Science and Technology, Electronics and Communication Engineering, Aerospace Engineering and Mechanical Engineering. The Artificial Intelligence and Robotics branch was established in 2023. At SoE, your studies in each of these disciplines will focus on innovation.

School Vision

Transform lives through excellence in engineering education, research, and innovation with an emphasis on sustainability, inclusive technologies, and global needs.

School Mission

1. Design and deliver contemporary engineering curricula to address regional and global needs while emphasizing ethics, values, integrity, and regional relevance.

2. Carry out high-impact academic research, industry projects, and innovation activities with active student engagement to advance science and engineering knowledge and state-of-the-art industry practices.

3. Develop regional and national leaders to advance the society and economy.

About CSE (Cybersecurity) Department

The CSE (Cybersecurity) Department at DSU is committed to building a secure, resilient, and attack-free digital world by empowering students with both theoretical foundations and practical skills in cybersecurity. The department's vision is to ignite and nurture young learners on a research-centric educational platform, focusing on sustainability, ethics, and digital safety.

Vision

Ignite and nurture young learners to provide a sustainable, humane, and research-centric educational platform in the domain of cybersecurity for building a robust, resilient, and attack-free digital universe.

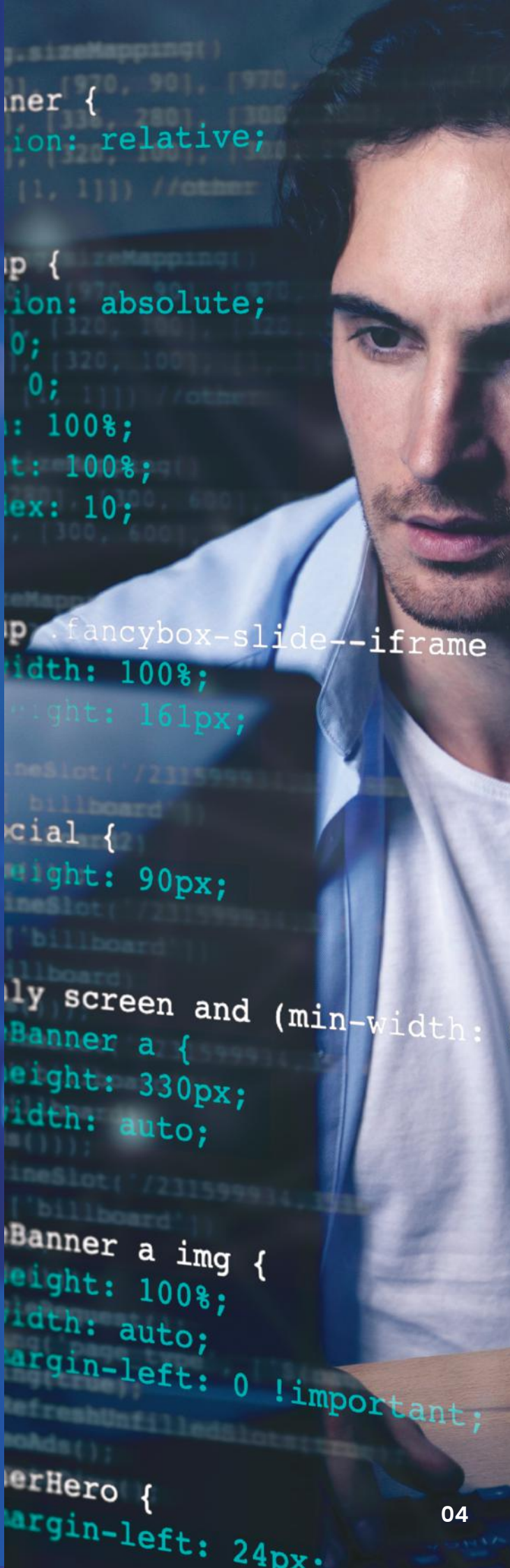
Mission

Provide committed and competent faculty and educational infrastructure to impart the theoretical and practical foundation of cybersecurity in the emanating youth.

Establish MoUs and Centre of Excellences (CoEs) with Information Technology Sector to provide industry-ready cybersecurity graduates with research instinct imbibed for the sustainable development of young learners

Build collaborative and teamwork-centric project-oriented learning environment, to address global challenges whilst preserving human and ethical values.

Encourage young minds to educate society to restore nationwide human safety and security in the digital world.



Program Overview: B.Tech in CSE (Cybersecurity)

B.Tech. CSE (Cybersecurity) is designed to address the industry's increasing demand for skilled security professionals in the public and private sector, both in the Data Security and in the Network/Cloud Security domains.

The program covers core computer science subjects as well as cybersecurity specific courses. The emphasis of the program is to nurture students with the knowledge and skills required to secure computers, detect and analyse attacks and threats, respond to attacks, develop security policies, procedures, and standards.

The four-year undergraduate curriculum includes a sound preparation in Basic Sciences, Mathematical Foundations, Cybersecurity, Cryptography and Network Security, Secure Programming and Ethical hacking.

The design imparts 21st century skills having the following component: Liberal education aspects for all round development, courses that trigger new age skills, project based learning, special topics (hands-on sessions on multiple topics with mentoring from experts), option for MOOC, UG Research Project/Product Development/Internships. The curriculum focuses on Liberal art courses, Foundation Courses, Professional Courses, and Electives that help them build expertise in some specialized areas. The curriculum also developed emphasis on design oriented thinking, Communication, Collaboration and Creativity right from 1st year.

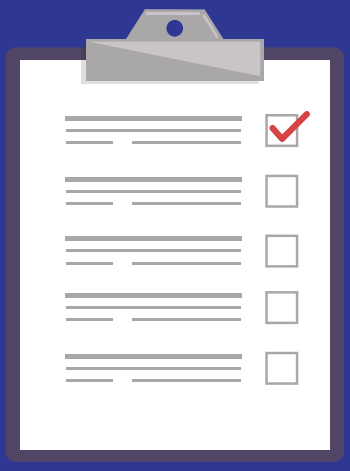
Program Objectives

The B.Tech CSE (Cybersecurity) Program will enable students to:

- Apply conceptual and practical knowledge of Cybersecurity along with tools and technologies to avoid, identify, counter, and recover from cyber attacks
- Utilize their knowledge in the domain of Computer Science Engineering and Cyber Security to lead a successful career as experts in Industry or other fields.
- Design cybersecurity tools and security applications in the field of Information technology and security analysis

Program Eligibility

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.



University offers prestigious merit scholarships based on your IIT-JEE Scores as per university cut off

Program Duration : 4 YEARS (8 Semesters)

What Makes the CSE (Cybersecurity) Program Stand Out?

- Curriculum aligned with National Cyber Security Policy and global standards (NIST, ISO/IEC 27001).
- Innovation Labs & Studios: Features Cyber Range, IoT Security, and Blockchain & FinTech Security labs for hands-on learning in real-world attack simulations and secure digital systems.
- Integration of AI-driven security, blockchain, and cloud security modules.
- Industry projects, internships, and certifications (CEH, CISSP, CompTIA Security+).
- Flexible curriculum with core, electives, and specialization tracks.
- Startup ecosystem to translate idea into business models
- Research & Learning Hubs: Includes CACR, Digital Forensics Hub, and Cloud Lab with AWS and Azure collaborations for advanced cybersecurity research and training.

Program Outcome

The B.Tech in Computer Science and Engineering (Cyber Security) program at DSU is designed to produce skilled professionals equipped with technical expertise, analytical thinking, and ethical values. Graduates will be prepared to address complex engineering challenges, contribute to technological innovation, and adapt to evolving global trends in cybersecurity and computing.

Graduates of this program will demonstrate:

Engineering Knowledge: Apply the principles of mathematics, science, and engineering fundamentals to solve complex cybersecurity and computing problems.

Problem Analysis: Identify, formulate, and analyze technical challenges using research-based knowledge and logical reasoning.

Design/Development of Solutions: Design effective solutions, systems, or processes that meet safety, security, and societal needs.

Conduct Investigations of Complex Problems: Utilize research methods to collect, analyze, and interpret data, drawing valid and reliable conclusions.

Modern Tool Usage: Use appropriate engineering tools, technologies, and modern IT resources to design and analyze secure computing systems.

The Engineer and Society: Apply contextual understanding to assess societal, legal, and ethical aspects of professional engineering practice.

Environment and Sustainability: Recognize the impact of engineering solutions on the environment and promote sustainable technological development.

Project Management and Finance: Apply engineering and management principles to plan, execute, and lead projects efficiently.

Specialisation Track Offered

- Networking and Communications
- Cybersecurity
- IoT and Data Science
- Cyber Physical System

Core Courses - CSE (Cybersecurity)

Linear algebra and differential equations,Engineering graphics and design thinking, Chemistry for CS cluster / ECE / MECH cluster,Single and multivariate calculus,C programming for problem solving,Physics for CS cluster / ECE / MECH cluster,Introduction to sustainable engineering, Biology for engineers,Transforms and numerical techniques, Data structures,Digital logic design,Discrete mathematics and graph theory,Introduction to computer networks,Embedded system design,Probability & statistics,Design and analysis of algorithms,Database management system,Introduction to cyber security, AI essentials for cyber security,Computer organization and architecture,Introduction to automata and compiler design,Security engineering and project management,Operating systems,Cryptography and network security,Security operations and cyber defense, Innovation and entrepreneurship,Cloud security,Tools and techniques for ethical hacking,Risk management, and few more

Professional Elective Courses

Domain- wise	Domain - Clusters	PROFESSIONAL ELECTIVE COURSES				
		PEC-I	PEC-II	PEC-III	PEC-IV	PEC-V
		5th Semester	6th Semester		7th Semester	
Domain-1	Networking & Communications	Wireless Security	Telecommunication Security	Blockchain Technology	Vulnerability Management & Penetration Testing	Quantum Cryptography and Communication
Domain-2	Cyber Security	Secure Programming	Application Security	Cyber Ethics, Privacy and Legal Issues	End Point Security	Mobility Security
Domain-3	IoT and Data Science	Big Data	Internet of Things	MOOC COURSE	IoT and IIoT Security	Big Data Security
Domain-4	Cyber Physical System	Database Security	Image Processing and Data Privacy	Hardware Security	Operating System Security	Embedded System Security

Project/Thesis Components

- Semester-wise mini projects
- Final year capstone project with industry mentorship
- Option for startup incubation or research thesis

Program Industry Insights (Market Demand)

According to the ISC² Cybersecurity Workforce Study 2024, the global cybersecurity workforce has reached 5.5 million professionals, yet there remains a shortfall of 4.8 million trained experts needed to meet current security demands. (Source: ISC², 2024)

The same report notes that 67% of organizations face staffing shortages, and 90% report cybersecurity skills gaps, highlighting urgent hiring needs for qualified graduates. (Source: ISC², 2024)

In India, cybersecurity job postings grew by 14% year-over-year (Sep 2023–Sep 2024), led by Bengaluru with around 10% of total listings, indicating robust domestic demand for cybersecurity professionals. (Source: Indeed India Report, 2024)

Global spending on cybersecurity is projected to exceed USD 300 billion by 2027, showing sustained investment and job creation potential in the field. (Source: Statista, 2024)

As per NASSCOM (2024), India's cybersecurity workforce demand is expected to reach 1.5 million professionals by 2026, driven by digital transformation and rising cyber threats. (Source: [NASSCOM, 2024])

What are the Emerging Career Paths that you can Expect?

Network & Infrastructure Security

SOC Analyst
Cloud Security Architect
Ethical Hacker

Application & Data Security

Secure Software Engineer
DevSecOps Engineer
Data Privacy Officer

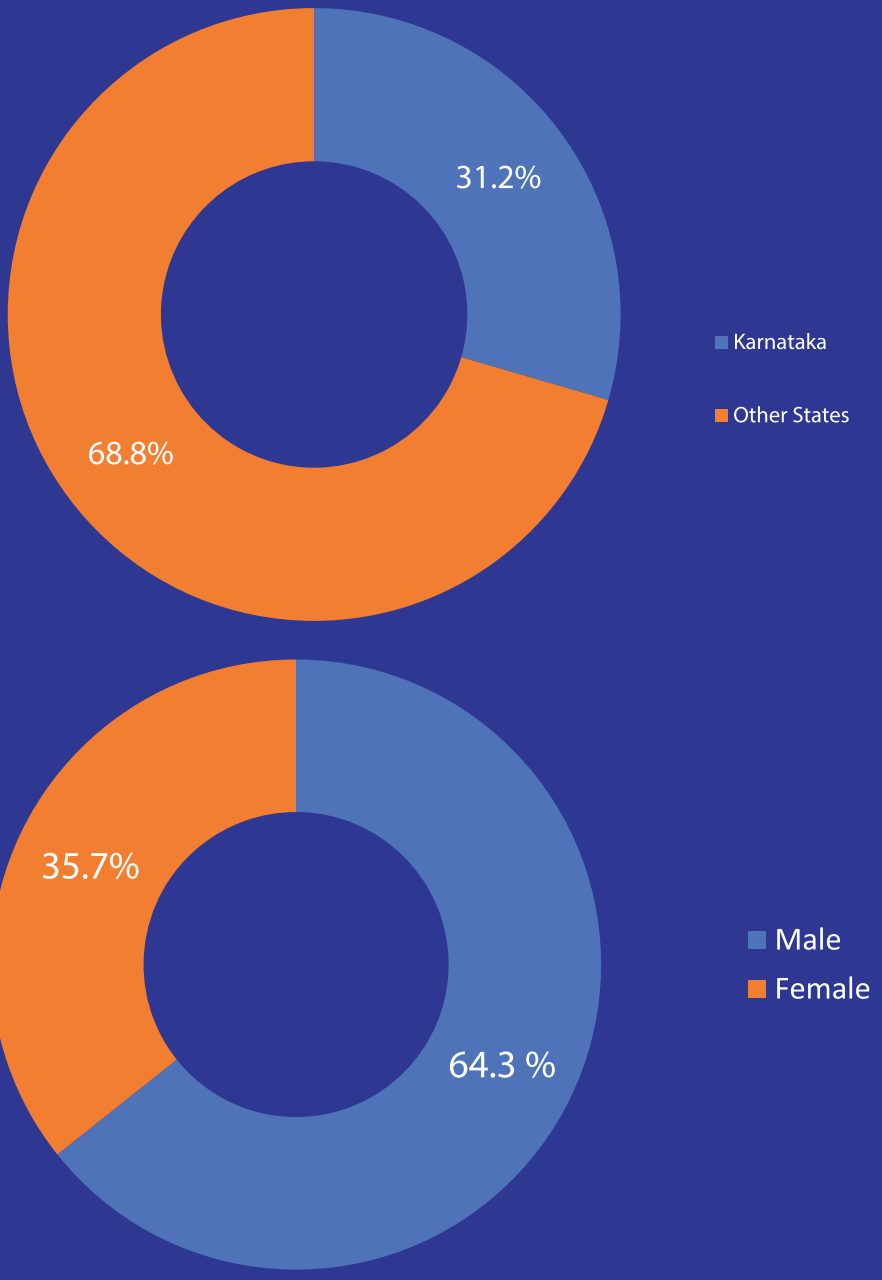
Cyber Forensics & Incident Response

Digital Forensics Expert
Incident Response Consultant
Cybercrime Investigator

Emerging Fields

AI Security Specialists
Blockchain Security Analysts
OT/IoT Security Engineers

DSU B.Tech 2025 – A Glimpse into Our Diverse Student Landscape



University offers prestigious merit scholarships based on your IIT-JEE Scores

Scholarship Highlights

2025- **INR 6.24 Cr.** awarded to **780** Students

2024- **INR 6.79 Cr.** awarded to **905** Students

2023- **INR 5.80 Cr.** awarded to **806** Students

Internship

- DSU CSE (Cybersecurity) has active industry linkages (notably an MoU / Centre of Excellence with SISA Infosec.
- The School of Engineering placement pages list many recruiters (domestic & some international offers reported across the School of Engineering).

Companies offering internships

BigBasket, Xpheno, Adtran, Bristlecone, Oracle-GSC, IBM (Health Flex), INRY, Blue Tree, StoneX, Mathco, CloudSek, Capgemini (FISERV), EdgeVerve, Internz Valley, LeadSquared, Academor, Ruddo Ed Solutions (Mphasis), ANZ India, Tata Elxsi, LTIMindtree, Simple Energy, etc.

Internship Duration

- Short (mini): 4–6 weeks — tool prototyping, workshops (suitable for 2nd Year students).
- Standard summer: 8–12 weeks — applied projects, pentests, cloud infra.
- Semester/credit research: 4–6 months — ML/malware, DFIR, quantum research. (Departments can map course credit and COs to these durations.)

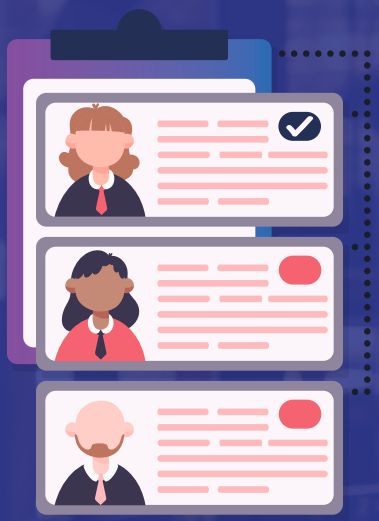
Internship Payouts

- Basic-level technical (cloud/devsecops/pentest): ₹20k–₹35k/month
- Specialist research/ML or high-value audits: ₹35k–₹70k/month (rare; depends on company).

Placements

Pre-Placement Training

- Company-Specific Training Programs
- Industry-Partnered Bootcamp 1.0
- Soft Skills Development
- Pre-Placement Talks by Top Recruiters
- Mock Interviews and Aptitude Sessions



Highest Package Companies

Rank	Company Name	CTC Offered (₹ LPA)
1	Toyota Connected	35
2	Hitachi KES	35
3	Intelligent Science	27.5
4	Juspay	27
5	PiCa Corp	27
6	PhonePe	22.5
7	Omnissa	21.07
8	Squad Cast	20
9	Vivnovation	20
10	Autodesk	20
11	Zeta	16
12	Google IT Services India Pvt. Ltd.	16.2
13	The Japan Research Institute	17.5
14	Cradle Point	16.6
15	NEW RELIC	19

Profiles Offered

Analyst | Cybersecurity R&D Intern | Apprenticeship | Associate | BDA Role
Associate Software engineer | Business Analyst | Consulting engineer | Product Support
Data management Coordinator | Graduate Engineer Trainee | Product development Intern
Relationship Manager | ServiceNow Associate Trainee | Software Development Engineer Role
Software Engineer Role | Software engineer | Technical Support | Technical Support engineer
Technical Support Specialist | Trainee -Technology | Trainee Data Engineer

Global Opportunities

- The School of Engineering reported 7 international offers (Since 2023).
- SISA CoE - strong lever for global remote internships.
- Recruiters with a global footprint (Oracle-GSC, ANZ India, CloudSek) can enable remote/offshore security projects.

B.Tech Placement Record (2024-25)

450+	10 L	56 L
COMPANIES VISITED	AVERAGE PACKAGE (LPA)	HIGHEST PACKAGE (LPA)

Top Recruiters (National & International)

Some of the leading recruiters operate on both national and international levels, ranging from top global corporations to innovative startups and specialized firms across diverse industries.

Top Recruiters

Foreign university collaboration for student exchange and internship opportunities*

UNIVERSITY	COUNTRY
University of South Carolina Aiken	USA
The University of Wisconsin–Madison	USA
Northeastern University	USA
German Varisty, Aachen	Germany
Steinbeis University	Germany
RWTH Aachen University	Germany
Indo Eurosynchronisation Pvt Ltd	Germany
Samara National Research University	Russia
The University of Brescia	Italy
Limkokwing University of Creative Technology	Malaysia
James Cook University	Australia
Ming Chi University of Technology	Taiwan
Amazon College International	Srilanka
Worcester Polytechnic Institute	USA
Western Connecticut State University	USA
The University of Huddersfield	England
TUM Asia Pte Ltd	Singapore
THE UNIVERSITY OF WOLVERHAMPTON	UK
Southern Connecticut State University	USA
DSTI - School of Engineering	France
The University of Liverpool	UK
The University of Worcester	UK
Illinois Tech	USA
Dniprovsky State Technical University	Ukraine
Visayas State University	Philippines
Nelson Marlborough Institute of Technology	New Zealand
New Jersey Institute of Technology	New Jercy
INTI International University	Malayasia
Relaince College	Malayasia
Hasanuddin University	Indonesia
LeTourneau University	USA
MIET, Moscow	Russia
Daffodil University	Bangladesh
University of Liberal Arts ULAB	Bangladesh
Multimedia University (MMU)	Malaysia
Mangosuthu University of Technology MUT	South Africa
University of Lay Adventists of Kigali (UNILAK)	Rwanda
Atyrau University	Kazakhstan
MENDEL UNIVERSITY IN BRNO	Czechia
Ernst Abbe University of Applied Sciences Jena	Germany
King Ceasor University	Uganda
Algebra University	Crotia
University of Evansville	USA
Nizhyn Mykola Gogol University	Ukraine
Dmytro Motornyi Tavria State Agrotechnological University	Ukraine
Széchenyi István University	Hungary
Southern Federal University	Russia
Uni La Salle Polytechnic Institute	France

*Applicable as per university terms and conditions

Department Clubs & Societies

CyberHawks Club

Capture The Flag (CTF) competitions, hackathons, and awareness drives.

Forensic Society

Mock investigations and forensic workshops.

DevSecOps Club

Secure coding, app security, and open-source projects.

Events & Fests

TechShield: Annual cybersecurity symposium with industry experts

CTF Hackathons

Intra- and inter-university challenges.

Forensics Week

Cybercrime simulations and case workshops.

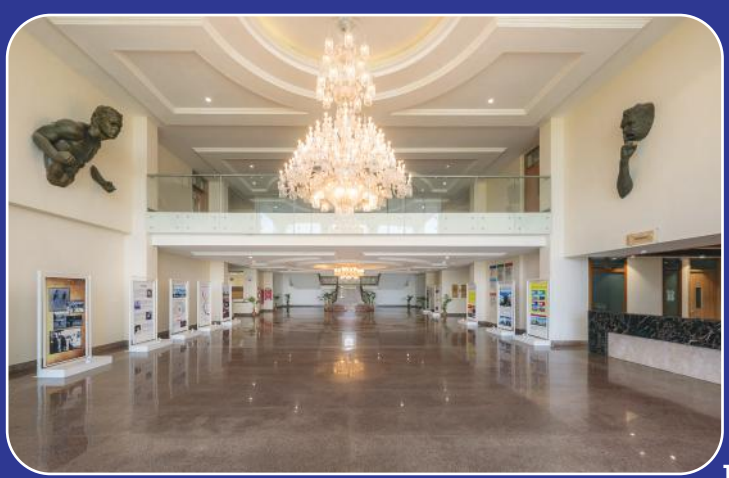
CySec Club

CySec is the official student club under the Department of Computer Science and Engineering (Cyber Security). It acts as the umbrella club with three sub-clubs, each focusing on specialized fields within cybersecurity. The club organizes cultural, technical, and co-curricular activities, while sub-clubs focus on domain-specific technical events.

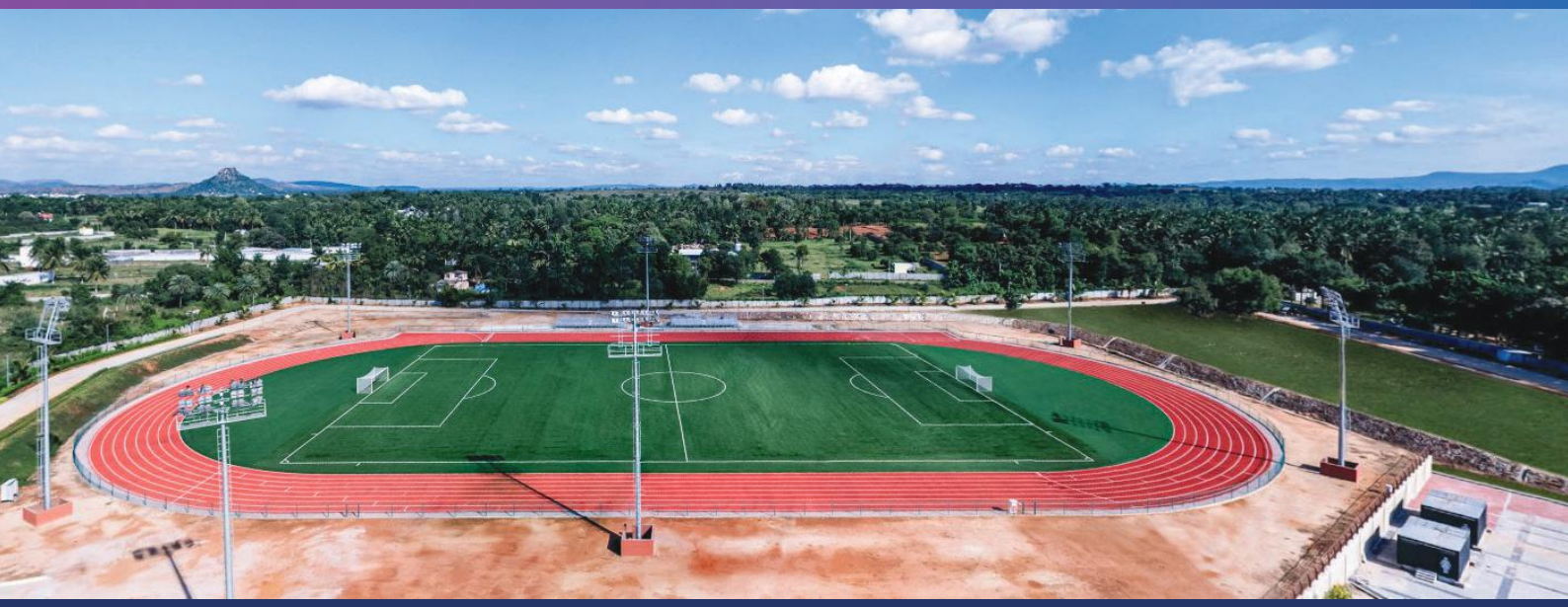
Key Activities

- Cyber Awareness Campaigns and Seminars (2022–2024)
- Bootcamps on Cybersecurity and Ethical Hacking (2023)
- Workshops on Linux, Network Management, and Forensics

Infrastructure and Facilities



Sports Facilities



Library

About Library

The Library, established alongside DSI and expanded with Dayananda Sagar Institutions (1969), Dayananda Sagar College of Engineering (1979), and Dayananda Sagar University (2014), was envisioned by the founder, Late Sri R. Dayananda Sagar, as a world-class knowledge hub. Built systematically, it accommodates 560 users and houses an extensive collection of books, CDs, DVDs, periodicals, and digital resources. Serving undergraduates, postgraduates, research scholars, and faculty, the Library reflects the University's academic excellence and is managed by a team of skilled and dedicated professionals.

School of Engineering Collections

Titles	6385
Volumes	21305
Book Bank	433
Bound Volumes	139
Book CD's	643
Periodical CD's	17
Educational Video's	47
National & International Print Journals	60
News Papers	10
Magazines	15
E-Books	12579

DSU Main Campus Hostel



About Hostel

Our hostel, located within the heart of the DSU main campus, offers a perfect blend of comfort, safety, and convenience. Designed to meet the needs of today's students, our state-of-the-art facilities ensure that you have everything you need for a successful and fulfilling college experience. With a secure environment and a focus on student well-being, our hostel provides the ideal space for both academic focus and relaxation. Whether it's modern amenities, dedicated support for your studies, or a community that fosters growth, our hostel is your home away from home—helping you thrive every step of the way!

Facilities

- 24/7 Assistance
- 24/7 Handyman
- 24/7 Concierge
- Face recognition & Biometric
- 24/7 Handyman
- Upper/lower bunk bed
- 24/7 Handyman
- Wi-Fi
- Vending Mechines
- RO Drinking Water
- CCTV Monitoring
- Study Zones
- Business Center
- Break-Out Zones
- F & B Partners
- Retail Cafeteria
- Gym Room
- Meditation Room
- Theatre
- Scenic natural views
- Sports Facilities
- Cupboard with a locker
- Parking
- Music Room
- Yoga Room
- Indoor Game Rooms
- Discussion Rooms
- Parcel Service

7+ BUILDINGS

5000+ STUDENTS ACCOMMODATION

100% SATISFACTION

2 Tier Rooms

In this tier, 2 students will be living together in an en-suite apartment with an access to all the common facilities.

3 Tier Rooms

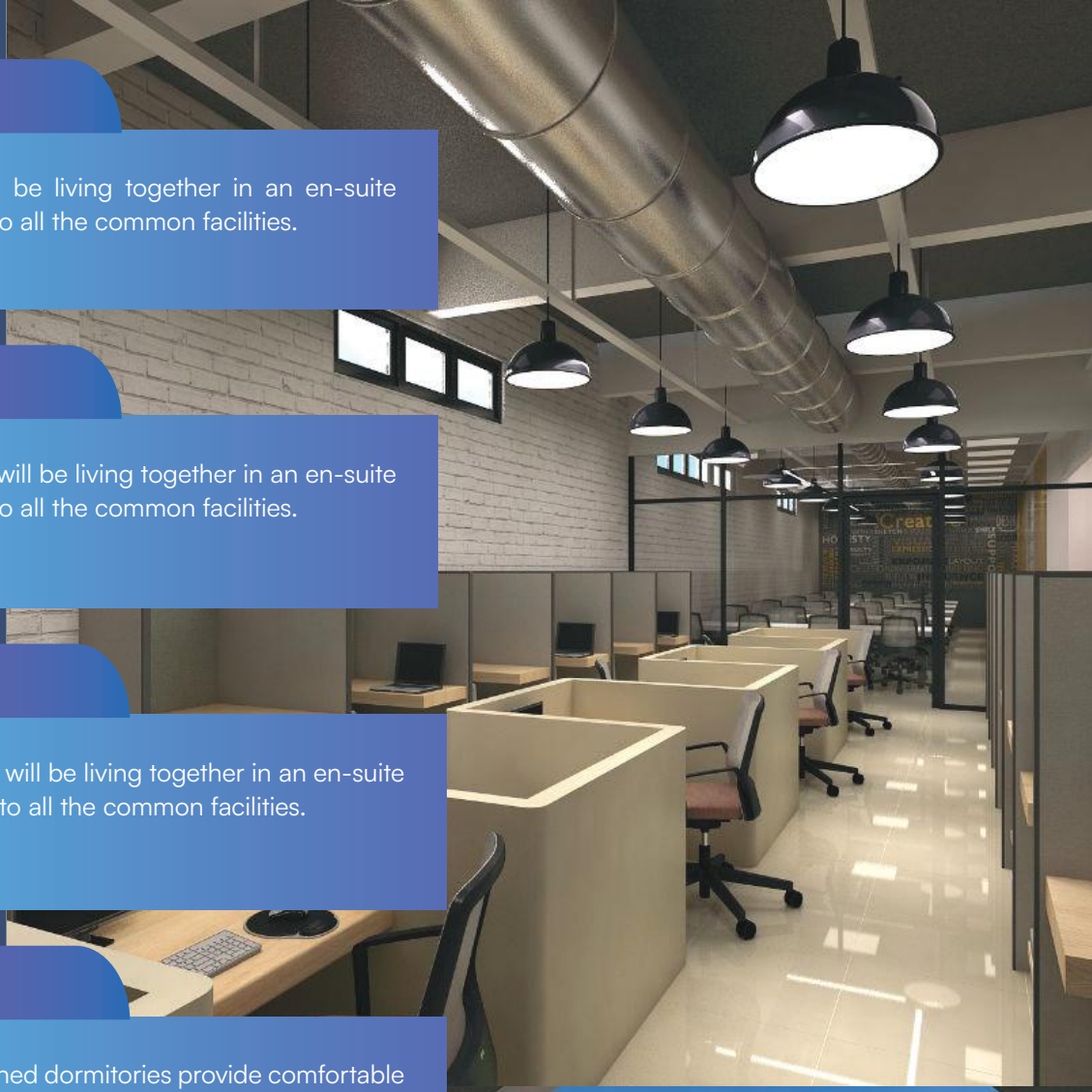
In this tier type, 3 students will be living together in an en-suite apartment with an access to all the common facilities.

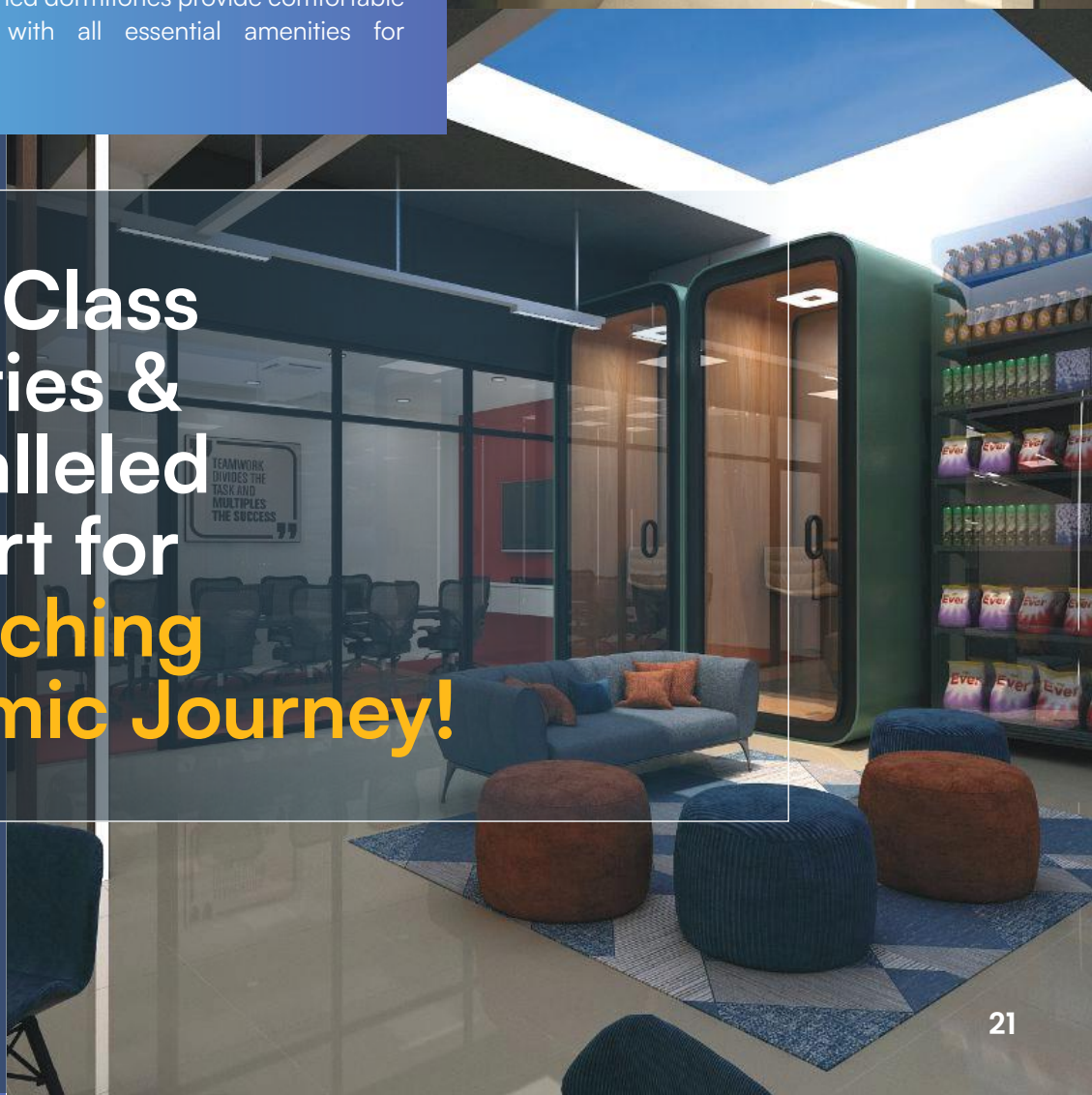
4 Tier Rooms

In this tier type, 4 students will be living together in an en-suite apartment with an access to all the common facilities.

Dormitory

Spacious and well-maintained dormitories provide comfortable shared accommodation with all essential amenities for students.





World-Class Amenities & Unparalleled Comfort for an Enriching Academic Journey!

Labs

Digital Circuit Lab

Common Computer Lab

Analog Circuits Lab

Structures Lab

Electronic Lab

Composites Lab

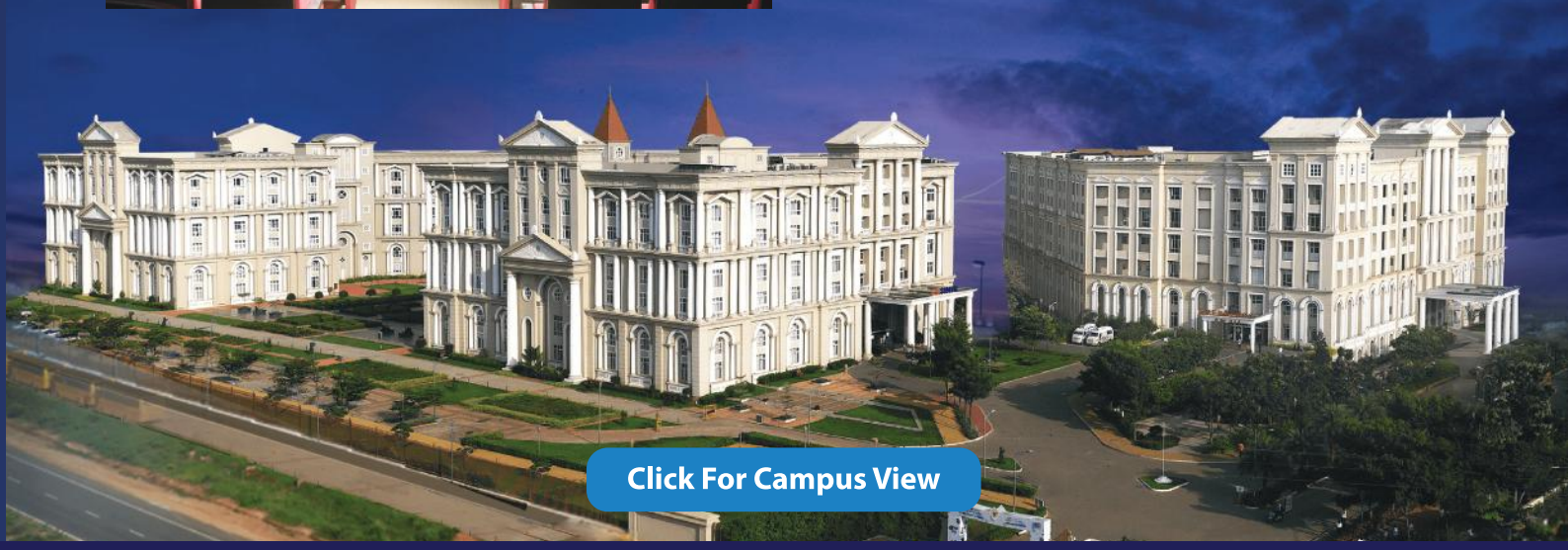
Physics Lab

Tutorial Room

Glimpse of DSU Main Campus at Harohalli





DSU Main Campus :

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

www.dsu.edu.in admissions@dsu.edu.in