







COMPUTER SCIENCE &
TECHNOLOGY

Index

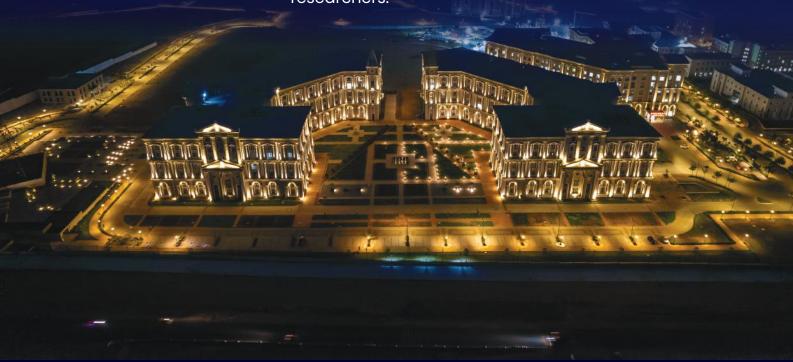
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A Place to Grow, Excel, Invent & Innovate!

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























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) 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.

Vision

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

Mission

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

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.

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

About Computer Science & Technology (CST) Department

The Department of Computer Science & Technology has a unique structure to respond to the vibrant progress in Information to Intelligence Technology. The Department focuses on theoretical and application development to equip students, to acquire skills and competencies, to envision products and make them a reality. It includes Computer science applications framework and entrepreneurship.

The philosophy to integrate business and Computing Skills equips one to become the driving force in creating innovative applications of Technology. Students are encouraged to acquire a deeper understanding of hardware, software, networks, databases and other elements through experimentation and practical work in small groups. Students acquire competencies in critical thinking, problem exploration, and problem solving with a focus on 'Project based learning. The Department consists of well-qualified professionals with extensive experience and specialization in different subjects.



Vision

To be recognized globally as a premier department in the field of computer science and Technology that fosters excellence in academics, research, innovation, and entrepreneurship with a focus on a sustainable ecosystem.

Mission

To impart high-quality education rooted in sustainable learning practices, instilling ethical values, fostering leadership qualities, nurturing research skills, and promoting lifelong learning.

To promote innovation and entrepreneurship through cutting-edge research and startups in technology, offering our students a dual-career path that encompasses both technology and entrepreneurship.

To equip our graduates with multi-disciplinary practices and a mindset needed to contribute to society.



Program Overview

Computer Science & Technology (CST) programme teaches its students skills in two areas:

Software Automation Tools

Deployable Intelligent Applications

The curriculum is designed to help students deliver innovative ideas quickly by focusing on:

Building computing frameworks where generic functionality can be customized with user-written code.

Reducing the software development life cycle while maintaining speed, quality, and reliability.

Collaborating in small, agile teams with the enterprise community to develop intelligent applications that scale effectively.

Emphasizing modern practices such as programmable software development, workflow automation, container orchestration, CI/CD pipelines, and infrastructure deployment.

Fostering innovation, technology, and entrepreneurship by instilling the skills and confidence to address everyday and strategic challenges with an entrepreneurial mindset.

Program Objectives

The CST Programme aims to develop professionals who can:

Design and build intelligent systems.

Develop and manage websites and networks.

Enhance and optimize existing software solutions.

Establish startups and technology ventures.

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 Program Stand Out?

This Program at DSU aims to develop our students with Practical Exposure with the following initiatives:

Internships Opportunity

With the inclusion of Summer Internships, students get practical exposure to a professional work environment. Students have an opportunity to take up the Internship Program in reputed industry/academic institute/R&D/Government organizations.

The department has an MoU with top companies to benefit students by carrying out research projects and internships.

Namaskara Media provides internships for our students in the Game Development and Animation Field as a part of their MoU.

Student Live Projects

Students carry out mini projects in many courses across the semesters to strengthen their understanding of fundamentals through the practical application of theoretical concepts. Minor projects are included in the curriculum for the overall development of students, which shape them for a better future.

There is a Major project to be carried out in the final year to enhance the technical caliber of students.

Projects related to societal, cutting-edge edge and research areas are currently being pursued by our students. The students are also encouraged to carry out projects in industries/reputed organizations

Start-up: Innovation, Technology & Entrepreneurship

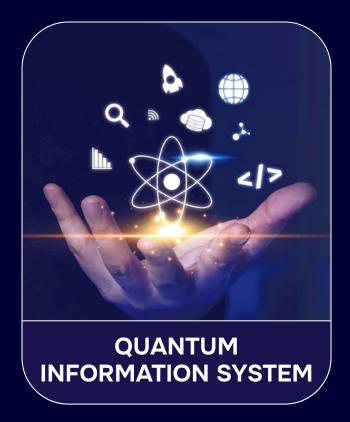
This stream is designed for individuals who:

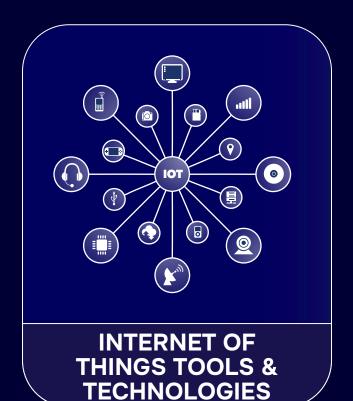
Demonstrate creativity, leadership, and a drive to inspire and motivate others while constantly seeking ways to improve processes and achieve impactful results.

Are tech-savvy, dynamic, and passionate about exploring innovative solutions, embracing challenges, and pursuing a personalized learning journey that transforms ideas into reality.

Specializations Offered









Core Courses

C programming, Engineering Graphics and Design Thinking, Object Oriented Programming with Python, Full Stack Development, Data Structures, Design and Analysis of Algorithms, Operating Systems, DBMS, Introduction to Artificial Intelligence, Computer Organization and Architecture, Product Design and Development, Machine Learning, Software Engineering and Product Management, Supply Chain Management and Operations, Computer Networks, Lean Start Up Methodology, Product Analytics.



ise		PROFESSIONAL ELECTIVE COURSES				
Domain-wise	Domain Clusters	PEC-I	PEC-II	PEC-III	PEC-IV	PEC-V
Dom		5th Semester	6th Semester		7th Semester	
		Course Name	Course Name	Course Name	Course Name	Course Name
Domain -1	GAMING AND ANIMATIONS/A R&VR	Interactive Art and Creative Coding	Gaming Design Fundamentals	Game Development using Unity/Game Development Using Godot	AR/VR & Game-Theoretic/ Algorithmic Game Theory	Unreal Engine Game Development for Beginners
Domain -2	QUANTUM INFORMATION SYSTEM	Quantum Computing Fundamentals	Fundamentals of Quantum Cryptography/ Quantum Algorithms and Cryptography	Qiskit and Quantum Circuits: A Hands-On Approach	Quantum Artificial Intelligence	Quantum Computing with PennyLane/ Quantum Machine learning with TensorFlow Quantum
Domain -3	INTERNET OF THINGS TOOLS & TECHNOLOGIES	loT Fundamentals: Architecture to Analytics	Edge Computing with IoT	Building Intelligent IoT Systems/ Foundations of Cloud IoT Edge ML	Cyber-physical systems/ Foundations of Cyber-physical systems	Real-Time Cyber-Physical Systems Design using MATLAB
Domain -4	DATA ANALYTICS	NoSQL Database Fundame ntals	DataEngineering / Data Science for Engineers	Effective Data Transforma tion with DBT	Introduction to Data Visualization	Tableau for Data Analysts/Power Bl for Data Analysts

Project/Thesis Components

Semester-wise mini projects)

Final year capstone project with industry mentorship

Option for startup incubation or research thesis

Salient Curriculum Features

Outcome-based education with project-based learning

Embedded certifications (AWS, Azure, Google Cloud)

Hackathons, innovation challenges, and startup boot camps

Multilingual computing and regional tech modules



What are the Emerging Career Paths that you can Expect?

COMPUTING & DATA ANALYTICS WITH AR/VR

Core Skills

Game design, Unity/Unreal development, interactive coding, AR/VR algorithms

Job Roles

Game Developer (Unity/Unreal)

AR/VR Experience Designer

Graphics Programmer

Simulation Engineer

Interaction Designer

Strategic Edge

Ideal for emotion-aware game interventions and immersive mental health tools

OPENING FOLDER...

INFORMATION & CYBERSECURITY

Core Skills

Cryptography, quantum security, AI, computing fundamentals

Job Roles

Cybersecurity Analyst / Penetration Tester

Cryptographic Engineer

Quantum Security Researcher

Al Security Specialist

Security Architect

Strategic Edge

Supports secure data pipelines for wellness platforms and privacy-preserving analytics.

IOT & EMBEDDED SYSTEMS TECHNOLOGIES

Core Skills

(IoT architecture, edge computing, cyber-physical systems, MATLAB-based embedded design)

Job Roles

IoT Solutions Architect

Embedded Systems Engineer

Cyber-Physical Systems Developer

Edge Al Engineer

Real-Time Systems Analyst

Strategic Edge

Enables real-time emotion tracking, adaptive interventions, &hardware-software integration.

DATA ANALYTICS & DATABASE TECHNOLOGIES

Core Skills

NoSQL, DBT, big data engineering, advanced analytics, visualization 🔪

Job Roles

Data Engineer / Big Data Developer

Analytics Consultant

Database Architect (NoSQL/Cloud)

Data Visualization Specialist

IoT Data Analyst

Strategic Edge

Crucial for quantifying impact, stakeholder reporting, and adaptive personalization.

Bonus: Strategic Roles for Research & Innovation

For students aiming beyond technical execution:

Product Analyst (Emotion-Aware Tech)

UX Researcher (Gamified Mental Health)

Innovation Fellow (SDG-aligned Tech)

Academic Researcher (NLP, AR/VR, Cybersecurity)

Technical Evangelist (for institutional outreach and adoption)

Entrepreneurship-Focused Courses

Course Type	Semester	Course Code	Course Name	Entrepreneurial Focus
SEC- I	III	23CT2307	Design Thinking & Ideation	Creative problem-solving, user-centric innovation
SEC- I	III	23CT2308	Innovative Businesses & Breakthrough Technologies	Exposure to disruptive models and tech trends
SEC- I	III	23CT2407	Small E-Business Launch	Hands-on micro-venture creation

Course Type	Semester	Course Code	Course Name	Entrepreneurial Focus
SEC-II	IV	23CT2408	ldea Generation and Validation	Market research, feasibility testing
PCC	V	23CT3504	Product Design & Development	MVP building, prototyping, product-market fit
PCC	VI	23CT3603	Lean Startup Methodology	Agile venture building, iterative scaling
OEC-I	VI	230E0019	Small E-Business Launch	Repeat offering for broader access
OEC-I	VI	230E0020	Product Engineering & Entrepreneurship	End-to-end product lifecycle with business lens
PEC	VII	23CT4701	Product Analytics	Data-driven decision-making for product growth
OEC-II	VII	230E0021	Lean Startup Methodology	Strategic scaling & pivoting
OEC-II	VII	230E0022	Product Analytics	Metrics for retention, engagement, monetization

Note:

These courses are ideal for student-led ventures, KSCST-backed prototypes, and SDG-aligned startups. You could structure interdisciplinary venture teams around these electives—pairing AR/VR devices, data analysts, and embedded engineers with entrepreneurial lead

KPMG

Duration: 6–8 weeks (Summer) + 6 month final semester internship Domains: AI/ML, Cloud, Full Stack, Product Development

List of companies providing Internships for CST Students:

1 Stop-Ai	LaunchED Global
ABInBev (GCC)	LearnFlu
Accelteck	LeadSquared
Bhuyantra Waste Management Ltd.	Leica Biosystems (Beckman Coulter India Pvt. Ltd)
Bosch Limited	Lumen Technologies
Broadridge	Nth Space Solutions
CellStrat	Oasis Infobyte
Clinisys	Pega Systems
Codsoft	Prajnan Solutions
Corpusit Consultancy Services Pvt Ltd	Pratilipi India
Droit	Saraswa
Durvah IT Consulting	Scontinent Technologies Private Ltd
Daimler Truck Innovation Center India	SEG Automotive Private Limited
Digi Tech	SISA Information Security
Edgeverve	StoneX
EDU TANTR	Stixis Technology Pvt. Ltd
Edunet	Tata Elxsi
EVERTZ INDIA	Tribe. best
Full Circle Reality Co	Trip Factory
GCE (Guru Construction & Engineering)	Uniqode Phygital India Pvt. Ltd
Globiva Services Private Limited	Unified Mentor
Greenway Health	Unisys India Pvt Ltd
HEARTIN TECH	Versa Networks
Hewlett Packard Enterprise	Wpify
Ilander Private Limited	XenVeda Technologies
Infidata Technologies	Zanskar Securities
Instant WebZ	Zidio Development
Intellipaat Software Solutions Pvt. Ltd	ZScalar Softech India Pvt. Ltd
Iron Mountain	Softserve Global
JLL Technologies	
1/2110	

Industry Tie-Ups & Projects

Our Board of Studies members are highly qualified and come from diverse backgrounds of industry and academia. We have MoU with Namaskara Media Pvt. Ltd., Saraswa, Faculty Startups, and Student Startups. Students complete Industry-sponsored projects in AI, DevOps

Internship Payouts

Avg: ₹15,000/month

Max:₹50,000/month

(2025 data)

Student-Led Research and Development Projects

Scheme / Agency	Project Title	Collaborators	Focus Area
Seed Money (DSU)	loT-based flood monitoring & alert system	Prof. Bhaskar Venugopalan	Disaster management using loT
CDOT Avishkar Yojana (StartUp India & CDOT)	Smart optimized routing & fleet management	Prof. Baskar,Dr. Pramod, Dr. Ravinder Singh Kunthal	Intelligent transportation systems
Pratiksha Trust EMSTAR (IISc)	AI/ML analysis of Brainstem Evoked Response Audiometry	Prof. Baskar, Dr. Basavaraj N Hiremath, Dr. Pramod	Aging brain research and neuro-audiology
GRE (VGST – Under Submission)	EV verification and validation lab with industry partners	Prof. Baskar, Dr. Pramod, Dr. Ravinder Singh Kunthal	Electric mobility infrastructure
Continental Pvt Ltd	Al model for night vision	Prof. Baskar, Dr. Basavaraj, Dr. Pramod	Automotive safety and perception
Dassault Systems Pvt Ltd	Computer vision-based driver assistance system	Prof. Baskar, Dr. Rammohan, Dr. Basavaraj, Dr. Ravinder, Dr. Pramod	Advanced perception technologies
Axiom Systems Pvt Ltd (Hyderabad	COE setup for DC-DC charging and powertrain (MOU pending)	Prof. Baskar, Dr. Gopal Krishna Joshi, Dr. Basavaraj, Dr. Pramod, Dr. Ravinder	EV power systems and infrastructure

Themes Across Projects:

≫ AI/ML Integration

From neuro-audiology to automotive vision systems.

≫ IoT & Smart Systems

Applied in flood monitoring and fleet management.

≫ EV Ecosystem Development

Infrastructure, validation labs, and powertrain R&D.

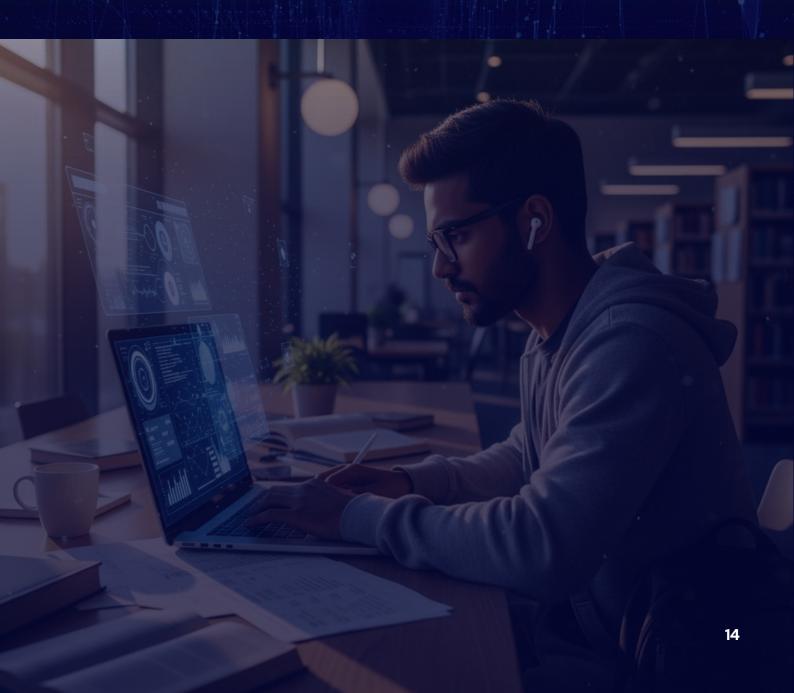
≫ Industry-Academia Collaboration

Strong partnerships with Continental, Dassault, Axiom, and others.

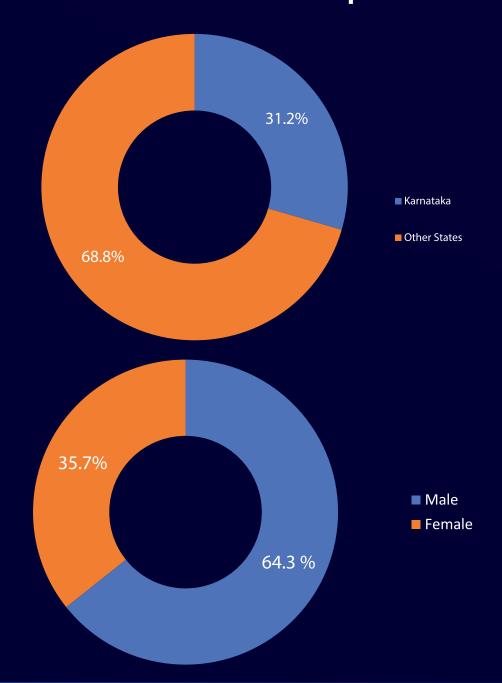
Placements

Pre-Placement Training

- ➤ Aptitude, coding, resume building, mock interviews
- ➤ Domain-specific bootcamps (Al, Cybersecurity, DevOps)



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

B.Tech Placement Record (2024-25)

450+

COMPANIES VISITED

10L

AVERAGE PACKAGE (LPA) 56L

HIGHEST PACKAGE (LPA)

Top Recruiters (National & International)

Some of the top recruiters for CST engineers operate on both national and international scale, with a strong presence in countries leading the tech industry. They range from major tech giants to specialized startups and staffing agencies.

International Recruiters























National 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



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 &



24/7 Handyman



24/7 Handymar



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+

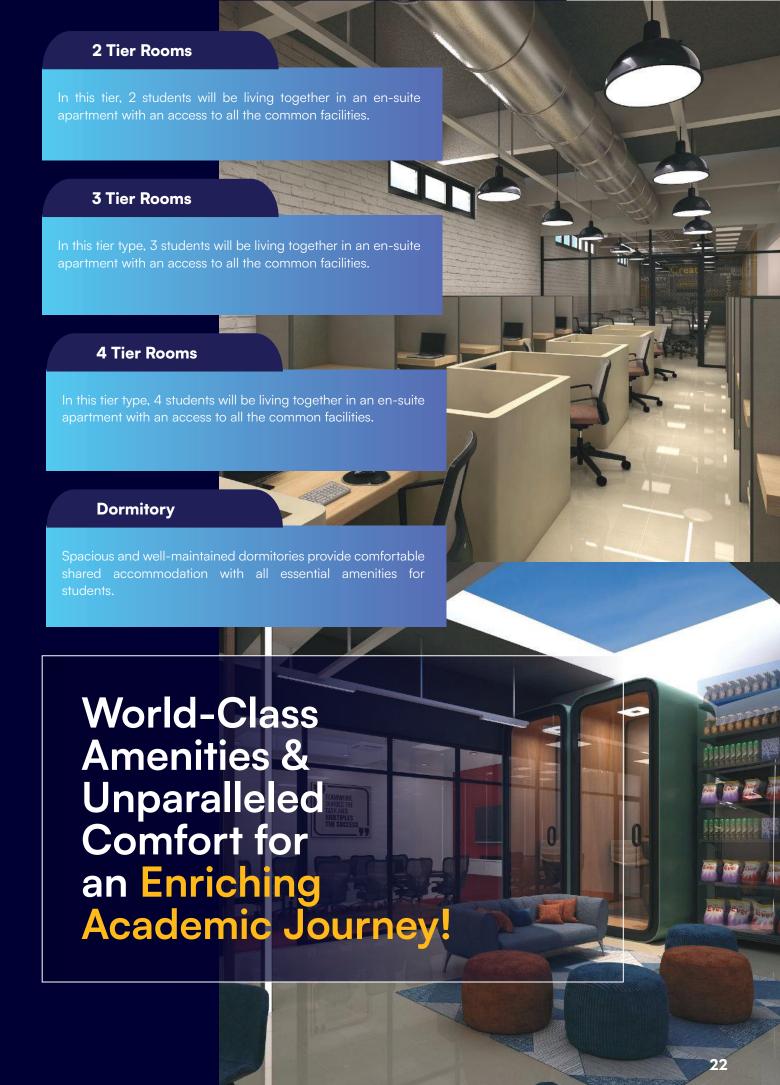
BUILDINGS

5000+

STUDENTS ACCOMMODATION

100%

SATISFACTION













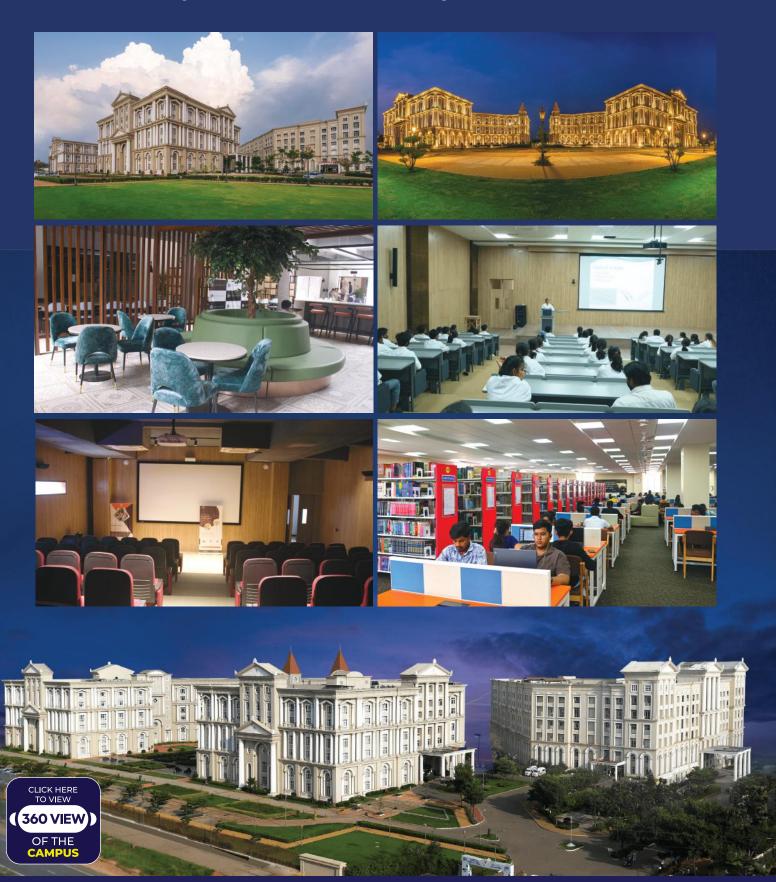








Glimpse of DSU Main Campus at Harohalli



DSU Main Campus: Devarakaggalahalli, Harohalli, Kanakapura Road, Bengaluru South - 562112



