Program: Electronics and Telecommunication Engineering (NBA Accredited)

Year of establishment: 1999 Current intake: B.Tech: 180, M.Tech.: 9, Ph.D.: 10

Program Curriculum:

Core Domain

- · Signal Processing, Communication Systems
- Embedded Systems, RF & Microwave

Project base Learning DJ Strike (collaborative learning) – Students from SE & TE with a mentor from BE class work on project a whole year

Skill based labs

- Python, Data Structures & Algorithms
- Industrial Automation
- Database Management Systems, SAS
- Big Data Analytics, Neural Network and Fuzzy Logic
- · Artificial Intelligence and Machine Learning
- Advanced Robotics, Computer Vision
 - IoT & Sensor Networks

Mandatory

- · Constitution of India
- Universal Human Values
- Professional & Business Communication
- · Environmental Engineering
- Indian Knowledge Tradition

- ➤ Affiliated to University of Mumbai
- > Academic Autonomy, since 2019

The thoughtfully designed autonomy syllabus blends core courses like electrical circuits, signals and systems, embedded systems, advanced communication systems along with plethora of elective courses. Also, to bridge the gap between industry and curriculum, and to introduce latest industry trends courses are included to improve programming skills and imparting need based training to the students. This enhances employability and entrepreneurship.

Resources:







State-of-the-art infrastructure

- Smart boards
- Air conditioned classrooms
- Laboratories with modern equipment
 - Radio Frequency Lab
 - Wireless Network Lab
 - Basic Communication Lab
 - · Advanced Communication Lab
 - Electronics Devices Lab
 - Simulation Lab
 - Embedded Systems Lab
 - Signal Processing Lab
 - Project Lab

Because of highly qualified & dedicated faculty members, well-planned academic activities and equipped laboratories, the students get better exposure to the recent technologies.



Departmental Activities & Achievements:

DJS Arya

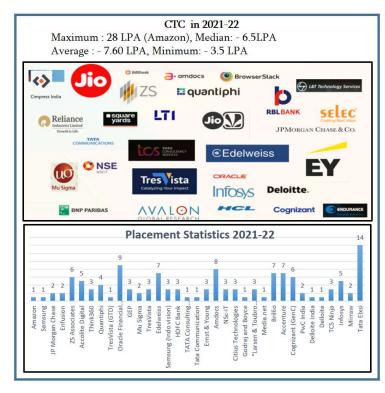
- Official cannister satellite (CanSat) team
- Participate each year at the annual International CanSat competition, conducted by the American Astronomical Society (AAS) in collaboration with NASA.
- CanSat Competition 2021-22
 Overall Rank 12 Worldwide

DJS Antariksh

- Enthusiastic space exploration and robotics team
- Participated in 4 major competitions:
 - ➤ European Rover Challenge (ERC) 2021: 1st Rank Worldwide
 - ➤ International Planetary Aerial Systems Challenge (IPASC) 2021: 2nd Rank Worldwide
 - ➤ International Mars Hackathon (IMH) 2020: Overall Rank 8th
 - European Rover Challenge (ERC) 2020: Overall 3rd Position globally



Potential employability avenues and higher studies



Many of our students pursue their post graduation in various domains like AIML, Data Science and MIS from esteemed foreign universities and renowned national institutes like IIT, IISc & NIT etc.



For further details contact us at: Dept. of EXTC, D. J. Sanghvi College of Engineering, Opp. Cooper Hospital, Vile Parle (W), Mumbai 400056. Tel. No.: 022-26123892, 022-42335000

Website: www.djsce.ac.in E-mail: hod.extc@djsce.ac.in



Dwarkadas J. Sanghvi College of Engineering

Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)



Department of Mechanical Engineering

Year of establishment: 2011

Current Intake: OB.Tech. – 180 (FY) + 12 (direct SY)

(A.Y. 2022-23) OM.Tech. – 18

○ Ph.D. – 10

Major curriculum areas/courses:

o Computer Aided Design and Analysis

o IT enabled Manufacturing

o Mechatronics and Automation

Operations Research and Supply chain

o Additive manufacturing

o Thermal Engineering and Refrigeration

Resources: o Fully air-conditioned multimedia classrooms

Well-equipped laboratories

o State of the art CNC facility

o Bosch Rexroth Centre of Excellence

Potential employability avenues:

Mechanical Engineers find ample opportunities in sectors, such as Automobile, Aviation, Acoustics, Refrigeration and Air-conditioning, Power Generation and Transmission, Consumer goods, Construction, Defence, Electronics, Energy Management, Fabrication Plants, Chemical Plants, Marine, Pharmaceuticals, Rail and Utilities, Petrochemicals, Oil and Natural Gas, Management Consultants, Hospitality, Computational Technology Companies, Space Administration, Cement and Steel Plants, Nuclear Science & Technology and other allied areas.

Students have been placed in companies, such as Reliance Industries, Godrej & Boyce, Larsen & Toubro, Technip, MuSigma, Blue Star, Tata Consulting Engineers, Petrofac, Burns & McDonnell, WorleyParsons, Imaginarium, TCS, Infosys and Capgemini, etc.

Departmental Activities and Achievements:

- o S.A.E., I.S.M.E., I.S.H.R.A.E. and R.A.S. student chapters
- DJS Skylark overall 3rd in both Regular and Micro class in SAE Aero Design (Texas).
- DJS Phoenix overall 8th in virtual COEX Competition 2022 (Moscow).
- DJS Racing overall 4th in Formula Bharat 2022.
- DJS Kronos Champions in virtual dynamics event in e-BAJA 2022.
- o DJS Kronos overall 9th in m-BAJA 2022.
- ODJS Miles 2nd in Future Rider Competition (Asia-Pacific & Middle-East Region) in Shell Eco-Marathon 2022.
- DJS Karting Champions in combustion vehicle category and overall 3rd in electric vehicle category in Go Kart Design Challenge Concept 2021.
- o DJS Helios 2^{nd} in Design Report in Electric Solar Vehicle Championship 2021.
- DJS Speedsters 2nd Runner-up in FMAE Moto Student 2020.
- 03 patents and 07 design registrations granted by the Indian Patent and Trade Marks Office and other International agencies.
- The 3rd International Conference ICIMA 2022 to be organised on 18th and 19th November to foster research in the field of advances in Intelligent Manufacturing and Automation.
- o 06 seminars/ webinars organised during the AY 2021-22.
- DJS Nirmiti a tech fest consisting of events like Bull Run, B Plan, CADD Challenge, Treasure hunt and Cricket auction, organised from 8th March to 11th March 2022.
- o 122 placement offers received from 39 reputed organizations and industries for the bath of 2021-22.





Dwarkadas J. Sanghvi College of Engineering

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Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)

Department of Information Technology

Information Technology is the study, design, development, implementation, support or management of computer-based information systems particularly software applications and computer hardware. To keep pace with the current technological trends and to sharpen their skills, faculty development workshops are carried out regularly. A highly skilled, dynamic, and technologically sound faculty endows the IT department. IT students have striven hard to achieve many awards and laurels for the college and many of the department alumnus work for big MNCs.

Year of establishment: 1999

Current Intake: 180

Major Courses of the curriculum:

- Algorithms and Programming Paradigms
- System Fundamentals, Networking and Security
- Artificial Intelligence and Machine Learning
- Big Data Analytics, Business Analytics
- Human Computer Interaction, UI/UX
- Design Thinking
- Blockchain Technology
- Parallel and Distributed Computing, Quantum Computing
- Internet of Things (IoT)
- Innovative Product Development

Resources:

- Fully air-conditioned multimedia equipped classrooms.
- Wi-Fi enabled laboratories with advanced software and hardware.

Potential employability avenues in JP Morgan Chase, ZS Associates, Quantiphi, Oracle, Deloitte, Capgemini, Morgan Stanley, Amazon, Google, LinkedIn as:

- Software Developers/Tester
- Database/Network Administrators
- System Analyst/ Data Scientists, Business Analyst

Departmental Activities and Achievements:

- Organized various competitive programming contests such as: Code
 Shastra and State level project competition DJASCII.
- DJCSI has organized Graphic Designing and UI/UX Inter-College Competition titled PIXEL PARANOI.
- GDSC DJSCE has organized various events such as "Open Source 101",
 Android Student Jam.
- Training and guiding workshops for Internships, Placements, Competitions, Competitive Exams and recent technologies.
- Winners at National Level Hackathons, JPMC Code for Good Hackathon, KJSCE Hack 6.0, RGIT Recursion 3.0, LOC 4.0.
- Students getting selected for internship at Harvard's Digital Soul Team.
- **Best Paper Awards** at various International Conferences.







Dwarkadas J. Sanghvi College of Engineering



Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)

Department of Information Technology







Dwarkadas J. Sanghvi College of Engineering

Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)



Department of Computer Engineering

Year of establishment: 2001

Current Intake: B. Tech- 180 (F.Y) + 36 (direct S.Y), M. Tech- 18, Ph.D – 10 (AY. 2022-23)

Major Courses of the curriculum:

- Data Structures & Algorithms
- Distributed Computing
- System Security
- Artificial Intelligence & Soft Computing
- Machine Learning & Deep Learning
- Data Science and Analytics
- Open source Technologies
- Internet of Things
- Block chain Technology

Resources:

- Fully air-conditioned multimedia classrooms.
- Wi-Fi enabled laboratories with advanced software and hardware.
- Digital Learning resource sharing through NPTEL (IITs & IISc), Virtual Labs, Student portal and Smart Board.
- Professional training and certification program for SAS and SAP.
- Technical infrastructure and platform to design and develop advanced application.
- Excellent support system for research culture and entrepreneurship.

Potential employability avenues:

- Amazon, Google, Facebook.
- IT Services: Amdocs, ZS Associates, Mu-Sigma, Deloitte, Infosys, Capgemini,
- TCS, Accolite, Edelweiss, EY.
- Banking Sector: Morgan Stanley, JP Morgan, BNP; Consulting: EY, PwC.
- Goldman Sachs, Quantify, RBL Bank.

Departmental Activities:

- ICACTA (International Conference on Computing Applications).
- DJASCII (State Level Project Competition) for students to demonstrate their projects.
- Internship Fair- Students gets opportunity for internship in various domains through this event.
- Total 30 companies offered various paid internships to the students in AY 2021-22.
- Lines of Code (LOC) 4.0(Hackathon). It is a 24-Hour coding competition.
- ACM's 101 In this event, Alumni guide the current students for the preparation of Placement and Higher studies.
- Mock Interviews Mock interviews are conducted to prepare the students for the placement drive.
- Breaking the Blockchain-Workshop on Blockchain technology was organized by the industry experts.

Notable Achievements and Accolades of the students:

- Winner of the Google Girls hackathon, wherein students received prize money of 1000 USD and a preplacement opportunity at Google.
- Students placed in global top tech companies like GOOGLE and AMAZON with attractive packages.
- Student secured internship opportunity at Adobe with a stipend of Rs 1,00,000 pm.
- Winner of JPMC's Code for Good(CFG) hackathon, received winning certificate and an iPad.
- Winner at TVS CREDIT EPIC IT CHALLENGE 3, won a cash prize of Rs.75000.
- Secured 1st place by team StackUnderFlow, won a cash prize of Rs. 25,000 and goodies at LOC Hackathon organized by DJ ACM.
- 2nd position and cash prize of Rs. 20,000 at TSEC Hacks Hackathon organized by TSEC.
- Awarded with "ET Campus Stars 2021".













DJ ICACTA

HACKATHON WINNERS











LINES OF CODE- 2022

DJ ASCII



Dwarkadas J. Sanghvi College of Engineering

Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)



Department of Computer Science and Engineering (Data Science)

About the Branch:

For the last many decades, statisticians and computer engineering professionals have been helping industries to improve their business performance. **Data Science** is a field which combines the advancements in Analytics and Computer Science to bring insights to decision makers by analyzing vast amounts of data at very high speeds. Considering the growing interest and opportunities in this field, Dwarkadas J. Sanghvi College of Engineering has introduced a new AICTE approved branch of engineering named as "Computer Science and Engineering (Data Science)" from the academic year 2020-2021. Total intake of the department is 120.

Major Courses of the curriculum:

- First Year: This year will focus on the foundation courses in Mathematics, Sciences, Mechanics and Electrical/ Electronics. The courses will be a blend of theory, tutorials and workshops which will help the student to strengthen their basics in the fundamental science, engineering and mathematics.
- Second Year: In the second year, we aim to introduce the student to the core concepts of statistics and computer engineering. The focus will be to build skills in algorithm building, database engineering, data visualization and designing intelligent systems.
- Third year: This will be pivotal year in the 4-year course, where the curriculum focuses on various aspects of Artificial intelligence, Deep learning, Time Series Analysis, Recommender Systems and Natural language processing. Concepts of data engineering involving Big Data, Cloud, Data lake, NoSQL, Hadoop will also form a part of the credits during this year.

Final year: Final year focus is to develop niche skills in XAI/QAI, High
Performance Computing, Deep Sequence Modelling, Quantum
Computing, Optimization, Predictive Analysis, Spatial Analysis and
Healthcare Data Science. Institute electives are floated to choose
interdisciplinary subjects such as Finance, Supply chain, Cyber
Security etc.

Students are given the opportunities to have experiential based learning through **Project work and Internships**. They will be exposed to following softwares.

Tableau	SAS Miner	Matlab	Kafka	Oracle	Python
Amazon Sage Maker	SPSS	Hadoop	Redis	Big ML	Java
SAS Visual Analytics	Rapid Miner	Spark	Neo4j	Protégé	Scala
Base SAS	Mongo DB	HIVE	Power BI	Cassandra	С

Opportunities for Research/Higher Studies

Leading universities in Europe and US offers Post-Graduate and Doctoral programmes in various domains of **Computer Science and Engineering (Data Science)**. Keeping pace with these opportunities, Indian and US government offers grants for research and startups to budding engineers especially in emerging areas of technology. Following are **top US universities** where the students of this branch can apply for higher studies:

- University of California- Berkley
- Carnegie Mellon University
- Massachusetts Institute of Technology
- Stanford University
- University of Washington
- Cornell University
- Georgia Institute of Technology
- University of Illinois- Urbana Champaign

SVKM

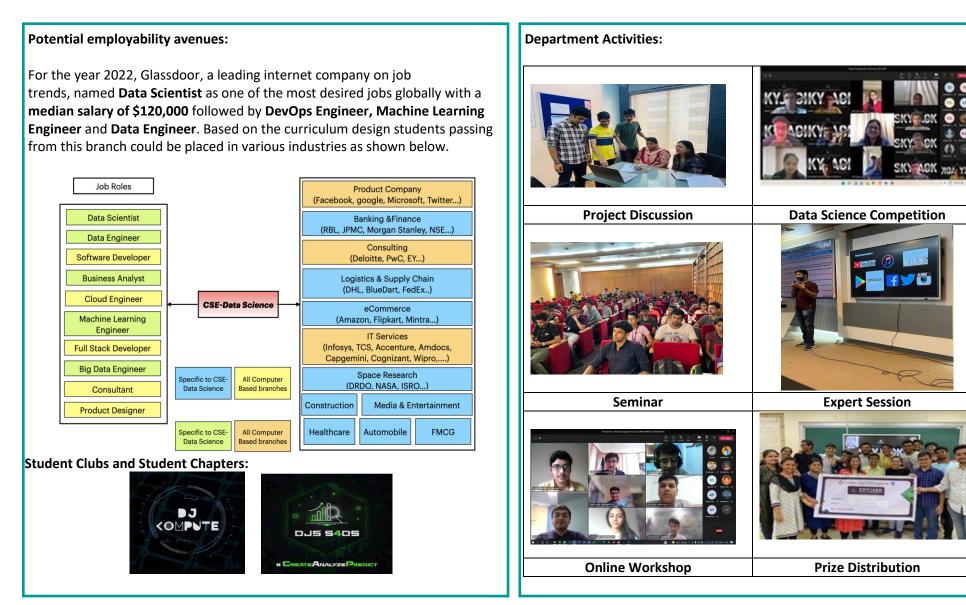
Shri Vile Parle Kelavani Mandal's

Dwarkadas J. Sanghvi College of Engineering



Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)

Department of Computer Science and Engineering (Data Science)





Dwarkadas J. Sanghvi College of Engineering

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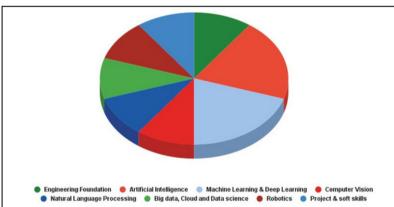
Department of Artificial Intelligence And Machine Learning

Year of establishment: A.Y. 2021-22

Current Intake: 60 students

Coined in the year 1956 by John McCarthy's, the term "Artificial intelligence" (AI) has become exceedingly significant today due to increased data volumes, advanced algorithms, and improvements in computing power and storage. All is a wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence. Machine Learning, a subset of AI, is defined as "the field of study that gives computers the capability to learn without being explicitly programmed" by Arthur Samuel in the year 1959. Artificial intelligence will transform the global economy and opportunities in AI are in high demand.

Major courses of the curriculum:



Resources:

The Department of Artificial Intelligence and Machine Learning is equipped with:

- · Fully air-conditioned spacious classrooms
- · Well-equipped laboratories and workshops
- New age computer facilities
- Well-stocked library providing a stimulating educational environment within the College
- · Qualified and experienced faculty members
- Better infrastructural facilities; the College has been adding new equipment and furniture





Dwarkadas J. Sanghvi College of Engineering

CREAT NO VINONEES

Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)

Department of Artificial Intelligence and Data Science

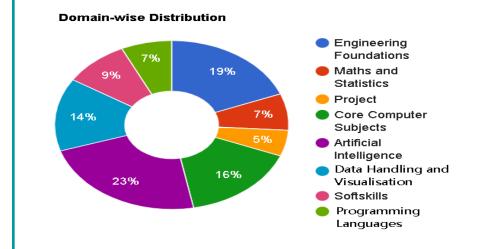
D.J. Sanghvi College of Engineering proudly presents four-year B. Tech course on Artificial Intelligence and Data Science, one of the emerging areas identified by AICTE and MHRD with an ultimate goal to nurture the academic excellence, industry exposure and outstanding career opportunities to our students. The major focus of this programme is to train students on statistical tools, mathematical models, machine learning, knowledge discovery and data visualization skills, so that they are able to apply AI techniques into real world applications and perform intelligent data analysis.

Year of establishment: 2021-22

Current Intake: 60

Major Courses of the curriculum:

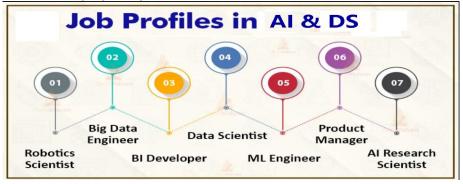
This course is designed to teach the underlying concepts of AI, Machine Learning and Data Science and how they can be used to solve real-world problems



Resources:

- Spacious, air-conditioned classrooms.
- Laboratories and workshops using modern equipment.
- Modern computing capabilities.
- A well-stocked library that offers a vibrant learning atmosphere inside the campus.
- Knowledgeable and Qualified professors.
- Improved infrastructure; the College has been installing new equipment and furniture.

Potential employability avenues:





Dwarkadas J. Sanghvi College of Engineering

Autonomous College affiliated to the University of Mumbai NAAC Accredited with "A" Grade (CGPA: 3.18)



Computer Science and Engineering (IOT and Cyber Security with Block Chain Technology)

This undergraduate programme familiarizes the students with the functional and operational aspects of IoT, Cyber Security and Blockchain Technology.

Why Internet of Things (IoT)?

IoT is a pervasive technology that permits computing devices, to accomplish data transmission over a network, without demanding human-to-human or human-to-computer collaboration. IoT applications like smart industry, smart home, smart city, smart healthcare etc. focus on automating different tasks in these wide-ranging areas. These IoT applications are highly promising to increase the level of comfort, efficiency and automation for the users.

Why Cybersecurity?

As more businesses move their operations online, and with cyberattacks on the rise, the need for skilled cybersecurity professionals is ever increasing, particularly for healthcare and financial organizations. Any industry that transacts online or carries sensitive data needs a Cyber Security professional to safeguard its date from vulnerabilities.

Why Blockchain?

Blockchain technology or Distributed Ledger Technology (DLT) implements a decentralized, distributed ledger that records a digital asset. By its inherent design, the data on a blockchain is safe and protected from modifications. Blockchain has its ability to create more transparency and fairness, while also saving businesses time and money. The demand for people with Blockchain skills is high due to its many-field applications.

Year of establishment: 2021-22

Current Intake: 60

Major Courses of the curriculum:

- Internet of Things
- Programming Languages (C, Java, Python)
- Blockchain Technologies
- Embedded Systems
- Cyber Security
- Vulnerability Assessment and Penetration Testing
- Ethical Hacking
- Cryptocurrencies
- Artificial Intelligence and Machine Learning.
- Deep Learning

Resources:

- Wi-Fi enabled well-equipped laboratories.
- ❖ Air-Conditioned and Multimedia enabled classrooms.
- High end computer systems
- Departmental Library
- Experienced, dynamic, and qualified Faculty members.

Potential employability avenues:

Cyber Security

- Cyber Security Engineer
- Network Security Engineer
- Security Architect
- Security Associate

Blockchain

- · Blockchain Architect.
- Blockchain Project Manager
- · Blockchain quality Engineer.
- Blockchain UX designer.

Cloud and IOT

- Cloud Engineer
- Cloud Architect
- Solutions Architect
- Embedded Engineer

AI, ML & Data Science

- Data Scientist
- M.L Engineer
- Data Architect
- Data Engineer