PROSPECTUS
2024-25

ST JOSEPH ENGINEERING COLLEGE
An Autonomous Institution

Affiliated to VTU, Belagavi | Recognised by AICTE, New Delhi | Accredited by NAAC with A+ Grade

B.E. (CSE, ECE, EEE, ME, CIV) & MBA Accredited by NBA, New Delhi

Vamanjoor, Mangaluru - 575 028

" ST JOSEPH ENGINEERING COLLEGE

St Joseph Engineering College (SJEC) - Mangaluru, a premier educational institution and a hub for Creativity and Innovations in Engineering, was established in the year 2002 with an aim to educate the youth in Engineering & Technology. SJEC is an Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi, in the Karnataka State and recognized by All India Council for Technical Education (AICTE), New Delhi.

SJEC is professionally managed and forms a part of over 250 educational institutions of the Diocese of Mangalore. The Institution has been secured the NAAC Accreditation with A$^+$ Grade. Programmes (CSE, ME, ECE, EEE, CV, MBA) offered by the Institution have also been accredited by NBA, New Delhi.

SJEC is located in an idyllic place at Vamanjoor, just 10 km away from Mangaluru city.

MOTTO OF THE COLLEGE
SERVICE & EXCELLENCE

VISION
To be a global premier Institution of professional education and research.

MISSION
- Provide opportunities to deserving students of all communities, the Christian students in particular for quality professional education.
- Design and deliver curricula to meet the national and global changing needs through student-centric learning methodologies.
- Attract, nurture and retain the best faculty and technical manpower.
- Consolidate the state-of-the-art infrastructure and equipment for teaching and research activities.
- Promote all round personality development of the students through interaction with alumni, academia and industry.
- Strengthen the Educational Social Responsibilities (ESR) of the institution.

Benefits of **Autonomy**

government.

v) Evolve methods of assessment of students' performance, conduct of examinations and notification of results.

vi) Use modern tools of educational technology to achieve higher standards and greater creativity, i.e. to frame their curricula, devise methods of teaching, examination and evaluation.

vii) Promote healthy practices such as community service, extension activities, projects for the benefit of the society at large, neighbourhood programmes, etc.

For Students:

i) An Autonomous Institute will be able to offer more updated courses relevant to the local needs, in contrast to the University offered courses that mostly serve the general purpose. The market-oriented curricula to be offered by an Autonomous Institute will attract better job prospects for the students.

ii) University curricula have a fixed structure with little scope for variation, whereas an Autonomous Institute will be able to offer a flexible curricula structure which will give the students opportunities to complete the courses as per their convenience.

iii) Autonomous Institute will have the authority to formulate curricula for in depth teaching which will equip the students with the required skills. Students at an autonomous Institute will be at an advantage in the job market vis-à-vis a student at other affiliated Institutes.

iv) An Autonomous Institute will be able to introduce more objective & continuous assessment system to help the students to become aware of their short comings, as well as required space to improve.

St Joseph Engineering College has been granted Autonomous Status by the UGC from the academic year 2021-22.

An autonomous Institute will have the freedom to:

i) Determine and prescribe its own courses of study and syllabi, and restructure and redesign the courses to suit local needs. Autonomy will cover all the courses at UG and PG level.

ii) Offer student-centric courses, with a wide range of electives and the freedom to choose desired courses.

iii) Periodical changes in syllabus as per changing needs.

iv) Prescribe rules for admission in consonance with the reservation policy of the state

Visionary Leadership

Most Rev. Dr Peter Paul Saldanha
President
Bishop of Mangalore

Right Rev. Msgr Maxim Lawrence Noronha
Vice President
Vicar General, Diocese of Mangalore

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CONTENTS

Quality Assurance for EDUCATION

SJEC has established an Internal Quality Assurance Cell (IQAC) to enhance and sustain the quality of teaching-learning process. The IQAC conducts Faculty Development Programs (FDPs) related to quality assurance, accreditation, and OBE (Outcome Based Education) under various themes such as:

- 'Integra' (FDPs aimed at promoting OBE and Accreditation objectives)
- 'Spandana' (FDPs aimed at the development of Technical Staff of SJEC)
- 'Spoorthi' (FDPs with focus on Motivational and Inspirational aspects)
- 'Cornea' (FDPs with an emphasis on building the skill level of faculty) to ensure continual quality improvement in the system.

Each Department has Program coordinator/s, Module Coordinators, Program Assessment Committee (PAC), and Department Advisory Board (DAB) to ensure continuous quality improvement at departmental level whereas, IQAC drives the quality mechanism at Institute level.

The college has ensured the life-long learning of faculty members through the Performance Based Appraisal System (PBAS). Every faculty member, every semester, undergo professional courses through online platforms such as NPTEL, Coursera, Edx, etc. which has enabled the college to become NPTEL nodal centre and has also subscribed to many other learning platforms. Besides, the college encourages faculty members to undergo courses through professional partners such as IUCEE (Indo

ACCREDITED with **A+** Grade

by
National Assessment and Accreditation Council (NAAC)

for a period of Five Years from 23-02-2021
CGPA: 3.39/4 in the First Cycle of Assessment.

Universal Collaboration for Engineering Education).

Owing to the OBE practiced at the college, SJEC has already been accredited by the National Board of Accreditation (NBA) for five of its B.E. Programs and MBA program. Also, SJEC has been awarded the prestigious A+ grade by the National Assessment and Accreditation Council (NAAC) for five years (valid up to February 2026). With a Cumulative Grade Point Average (CGPA) of 3.39 on a 4-point scale, SJEC has joined the elite list of colleges accredited with an A+ grade by NAAC in its first cycle.

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Head - IQAC
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Programmes Offered

▶ B.E. Degree Programmes

Four-Year Degree Programmes
Autonomous under VTU-Belagavi

- Artificial Intelligence & Machine Learning
- Civil Engineering
- Computer Science & Business Systems
- Computer Science & Engineering
- Computer Science & Engineering (Data Science)
- Electronics & Communication Engineering
- Electrical & Electronics Engineering
- Mechanical Engineering

ELIGIBILITY :

Admission to First Semester B.E.:
The candidates should have passed second year Pre-University or XII standard or equivalent examinations with minimum 45% (40% for SC/ST and OBC Karnataka candidates) marks in Physics and Mathematics along with one of the following subjects: Chemistry, Bio Technology, Computer Science, Biology, and Electronics. Candidates must have studied English as one of the subject in PUC. CET score card is made mandatory for the students taking admission in B.E. programmes. A few seats are reserved under NRI quota.

Admission to Third Semester B.E. (Lateral Entry):
A candidate who has passed diploma examination or equivalent examination and obtained an aggregate minimum of 45% marks taken together in all the subjects of the final year (fifth and sixth sem) diploma examination is eligible for the admission to II year B.E. programmes. The eligibility is 40% in the case of SC / ST and OBC Karnataka candidates.

▶ Post Graduate Degree Programmes

● **MBA Degree**
▶Finance ▶Human Resource ▶Marketing (Dual Specialisation)
▶ Innovation, Entrepreneurship & Venture Development
Two-Year Management Degree
Autonomous under VTU–Belagavi

Eligibility: Graduate in any discipline.

Government Quota: Candidates should appear for PGCET and the seats are filled through centralized counseling.

Management Quota: Seats are based on the percentage scored in the graduation course and the percentile obtained in the KMAT /CMAT entrance test.

● **MCA Degree**
Two-Year PG Degree in Computer Applications Affiliated to VTU–Belagavi

Eligibility: Passed BCA / Bachelor Degree in Computer Science and Engineering or equivalent Degree.

OR

Passed BSc/BCom/B.A. with Mathematics at 10+2 Level or at Graduation Level (with additional bridge Courses as per the norms of the concerned University).

▶ PhD Programmes

● Physics
● Chemistry
● Mathematics

Eligibility: MSc Degree with minimum 60% marks in related discipline.

● Mechanical Engineering
● Computer Science & Engineering
● Civil Engineering
● Electronics & Communication Engineering
● Electrical & Electronics Engineering

Eligibility: MTech in related discipline.

● Management

Eligibility: MBA degree with a minimum CGPA of 6.75 out of 10 or 60% aggregate marks.

The above PhD programmes are offered by the respective Research Centres recognized by VTU Belagavi.

Department of
Computer Science and Engineering

The Department of Computer Science and Engineering was setup during the inception of the college in 2002. The primary objective of this program is to prepare students for successful careers in Computer and Information technology industies that meet the needs of Indian and multinational organizations.

The program involves wide variety of courses which enable the students to formulate, solve and analyze computer engineering problems, prepare them for graduate studies and develop the ability to synthesize data and technical concepts for application design & implementation of real time software products. The faculty of the department is actively involved in teaching and research with specializations in Cloud Computing, Computer Vision, Computer Networks, Machine Learning, Process Mining, Natural Language Processing, and Soft & Evolutionary Computing.

The Department was provisionally accredited by NBA for 2 years in the first cycle from June 2013 to May 2015, in the second cycle for six years from July 2016 to June 2022, and is reaccredited by NBA in the third cycle from July 2022 to June 2025.

▶ **Programmes offered**
 BE – Computer Science and Engineering with 240 intake
 PhD

The Department has entered into MOUs with

- VMWare
- Blue Prism - Robotics & Process Automation (RPA)
- Infosys Campus Connect
- CISCO Networking Academy – NetCad
- Kakunje Software Pvt Ltd (KSPL)
- Ardelis Technologies
- Manipal School of Information Sciences (MSIS)

▶ **Best Practices in the Department**
- Monitoring the attendance and performance of students
- Remedial classes for slow learners
- Workshops and seminars as part of continuous learning for staff and students
- Peer-to-Peer learning
- Alumni interaction with students

▶ **Technical Clubs**

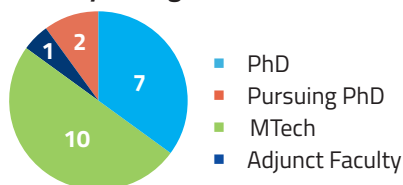GDSC   CSI – SJEC   Cipher   sceptix Liberate the Mind

▶ **Faculty Strength**

Pie chart values:
- PhD: 7
- Pursuing PhD: 2
- MTech: 10
- Adjunct Faculty: 1

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Department of
Intelligent Computing and Business Systems

The Department of Intelligent Computing and Business Systems established in the year 2022 hosts three programs namely, Artificial Intelligence & Machine Learning, Computer Science & Business Systems, and Computer Science & Engineering (Data Science).

▶ **Programmes offered**

BE - Artificial Intelligence and Machine Learning with 60 intake

BE - Computer Science and Business Systems with 60 intake

BE - Computer Science and Engineering (Data Science) – 60 intake

▶ **Best Practices in the Department**

- Mentoring system to monitor the attendance and performance of students
- Remedial classes for slow learners
- Innovative teaching learning practices
- Workshops and Seminars for staff and students to facilitate knowledge enhancement.
- Peer to peer learning

BE in Artificial Intelligence and Machine Learning

BE in Artificial Intelligence & Machine Learning at SJEC is a four-year degree programme established in the year 2020 with an intake of 60.

Artificial Intelligence (AI) and Machine Learning (ML) are being looked as the drivers for the next industrial revolution happening in the world today. Artificial Intelligence has been utilized in various fields like Medicine, Language processing, Finance, Education, Transportation, Business, Agriculture, Manufacturing, Cyber Security, Law and more. Artificial Intelligence is the branch of Computer Science that emphasizes the development of intelligent machines which think and work like humans. More and more companies are investing resources in ML indicating a robust growth in AI products and apps in the near future. AI and ML are integral parts of data science, where techniques such as regression, predictive analytics and more

are applied for insight generation. Job opportunities for AI & ML engineers such as - Business Intelligence Developer, Research Scientist, Big Data Engineer/ Architect, Software Engineer, Data analyst, Data Scientist, Data Mining & Analysis, NLP Engineer, AI Engineer, Cyber Analyst, and Product manager are highly demanding. Demand for AI and ML engineers is projected to be 2.3 million by the end of this decade.

The four-year engineering course in AI and ML at SJEC offers subjects like ML with Python, Big Data Analytics, Natural Language Processing (NLP), Applied Statistics, Expert Systems, Virtual Reality, Robotics Process Automation (RPA), Internet of Things (IoT), Speech Processing, Computation Intelligence, Knowledge and Data Engineering, ML and AI for Healthcare & Agriculture, Deep Learning, Game theory etc.

BE in Computer Science and Business Systems

SJEC takes pride to launch in partnership with India's leading IT Service and Consulting Company – TCS, an industry ready BE Programme titled Computer Science and Business Systems (CSBS) to cater to the rising need of engineering talent with skills in Business Systems. This Four-Year undergraduate degree programme is offered with an intake of 60, Autonomous under VTU -Belagavi. This state of-the-art programme aims to impart knowledge of cutting-edge technologies and business skills with hands-on exposure to help the students be industry-ready.

The Computer Science and Business Systems programme in collaboration with TCS aims to expose students not only to the core topics of Computer Science but also develop an equal understanding of humanities, human values and management sciences. This programme is an apt choice for students aspiring to be business leads in the IT industry. Students will also gain excellent industrial exposure on emerging topics such as Business Analytics, Machine Learning, Cloud Computing, Internet of Things etc. For more details on the programme, please explore: https://info.tcs.com/computer-science-business-systems.

▶ **Key Objectives**

- Learning Common Business Principles along with Computer Science
- Exploring Business Discipline and Service Orientation
- Ability to Innovate
- Strong Human Ethics and Values
- Understanding Technology Abstraction
- Active mentoring by Experts from TCS

- A multi-disciplinary course with high credibility
- Understanding of Contemporary Technology

▶ **Highlights**

- The curriculum is designed by faculty members closely working with eminent professionals from TCS and Academia and is approved by AICTE.
- The syllabus is prepared based more on skills than theory which most of the big MNCs require so that skillful engineer will be produced. This will make them to stand out from the crowd.
- Business-related topics like humanities, management science were added which would help students to enhance their skills in multiple fields.
- Industrial Training & live projects supported by TCS.
- Students who complete the course successfully will have more scope for being preferred for recruitment by TCS.

▶ **SJEC CSBS Benefits**

- Offer students an opportunity to learn Computer Science with a blend of Business Studies.
- Novel and unique academic programme in the region and offered under the autonomous platform.
- The expertise of the faculty in CSE and MBA will be utilized for all interdisciplinary subjects.

BE in Computer Science and Engineering (Data Science)

BE in Computer Science & Engineering (Data Science) at SJEC is a four-year degree program established in the year 2022 with an intake of 60, Autonomous under VTU-Belagavi.

Computer Science and Data Science are two interrelated fields that have become increasingly important in today's digital age. While Computer Science focuses on the study of computers and computational systems, Data Science is concerned with the extraction, analysis, and interpretation of complex data sets. Data Science has emerged with the growth of data and involves collecting, cleaning, and analyzing large data sets using statistical techniques and machine learning algorithms to identify patterns and trends for better decision-making.

Combining Computer Science and Data Science will play an essential role in the digital age. As more and more data are generated, the demand for skilled professionals in these fields is only going to increase. As a result, students and professionals need to gain knowledge and skills in both Computer Science and Data Science to stay competitive in today's job market such as Business Intelligence Developers, Research Scientists, Big Data Engineer/ Architect, Software Engineer, Data Analyst, Data Scientist, Data Mining & Analysis, NLP Engineer, AI Engineer, Cyber Analyst, and Product manager are highly demanding. Demand for CSDS engineers is expected to grow to 27.9% by 2026.

The four-year engineering course in CSDS at SJEC offers subjects like ML with Python, Big Data Analytics, Natural Language Processing (NLP), Applied Statistics, Expert Systems, Internet of Things (IoT), Computation Intelligence, Knowledge and Data Engineering, ML and AI for Healthcare & Agriculture, Virtual Reality or Simulated 3-D Environment, Robotics Process Automation (RPA), Deep Learning, etc.

▶ **Faculty Strength**

- PhD — 2
- Pursuing PhD — 7
- MTech / ME /MSc — 5
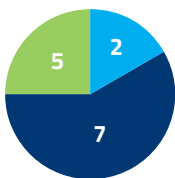
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Department of
Mechanical Engineering

The Department of Mechanical Engineering was established in the year 2002 with the vision of nurturing technically competent and socially responsible Engineering Professionals. The Department strives to help graduates become more innovative and creative and provide fundamental training in 21st-century skills such as critical thinking, problem-solving, design thinking, collaboration, communication, and lifelong learning.

The autonomous curriculum offered by the Department possesses emerging technical courses such as Smart Manufacturing, Python Programming, Artificial Intelligence, and Internet of Things Applications in Manufacturing Processes, and Nanoscience and Technology. The Department promotes multidisciplinary education with strong focus on Mechatronics, Automation & Robotics, Internet of Things, and Programming Skills. The Department anchors the SJEC SAEINDIA Collegiate Club that designs and develops ATVs for both mBAJA and eBAJA Competitions. The Department also anchors the Automation & Robotics Club that develops Autonomous Bots and related projects with implications in Healthcare Industry.
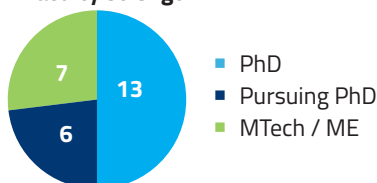
The academic year 2023-24 witnessed record Campus Placements for Mechanical Engineering students with 60% Placements (Placement season is currently ongoing). Students were able to secure a good mixture of core mechanical jobs, IT, and Business Development jobs.

The Mechanical Engineering program is accredited by the NBA, New Delhi and the Department has permanent affiliation status from VTU Belagavi for the academic year 2019 - 25.

► **Programmes offered**
   BE – Mechanical Engineering with 120 intake
   PhD

Industry & Academic Collaborations

- FESTO India Pvt Ltd
- V&G Industrial Testing Laboratories Pvt Ltd
- SKF Boilers and Driers Pvt Ltd
- Karnataka German Technical Training Institute (KGTTI)
- Malnad College of Engineering
- Christ (Deemed to be University)

► **Best Practices in the Department**
- Vehicle Development for SAEINDIA Competitions
- Festo Center for Industrial Automation
- Immersive Training for Campus Placements
- Tutorial / Remedial Classes
- Simulation based learning through Virtual Labs
- Enriching Course Materials by Faculty
- Interdisciplinary Mini-Projects
- Innovation & Entrepreneurial Support

► **Faculty Strength**

- 13 PhD
- 6 Pursuing PhD
- 7 MTech / ME

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Department of Electronics and Communication Engineering

The Department of Electronics and Communication Engineering was established in the year 2002. The department strives to empower students with the skills required to thrive in the field of Digital System Design, VLSI, Wireless Communication, Optical Communication, Embedded Systems, Biomedical Engineering, IoT, Artificial Intelligence and Robotics. The department has state-of-the-art laboratories, industry-standard tools like Cadence VLSI Design Suite, Xilinx Vivado-2018.2, MATLAB 2023.b, ARM Cortex M3 LPC1768, LabVIEW, Multisim NI 14.2, NEXYS 4 DDR Artix-7 FPGA Board, Analog Discovery, Digital Storage Oscilloscopes, and Workstations.

With a large collection of books and materials for students, faculty, and staff, the department offers a well-organized library. The department has well-qualified faculty with flair for research. The department has been shaping industry-ready graduates who have carved successful careers in the industry with placements almost nearing 100%.

▶ **Programmes offered**

BE – Electronics and Communication Engineering with 120 intake

PhD

The Department has active MOUs with

- Father Muller Medical College & Hospital
- KarMic Design Private Limited
- DST-NUTEC
- Cyclops MedTech Private Limited
- Tessolve Semiconductors
- College of Electrical & Information Engineering, Asia University, Taiwan
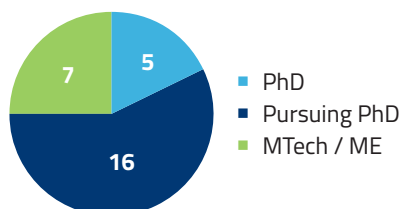
▶ **Best Practices in the Department**

- Implementation of Active Learning Strategies, Collaborative and Project based Learning, Peer Learning and use of Learning Management Systems.
- Bridge courses and Remedial Classes.
- GATE preparatory Coaching.
- Open-ended experiments in all Labs.
- Industrial Visits, Internships & Online Courses through Coursera.
- Alumni and Industry Interactions and Mentorship.
- Unique Mentoring Process.
- Encouraging students for Product and Research oriented Projects.
- Technical Club 'Samarthya' and Student Association 'PRODIGI'

▶ **Faculty Strength**

Pie chart:
- PhD — 5
- Pursuing PhD — 16
- MTech / ME — 7

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Department of
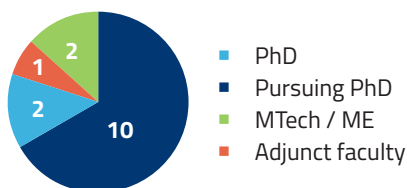# Electrical & Electronics Engineering

The Department of Electrical & Electronics Engineering (EEE) offers a programme in Bachelor of Engineering with an intake of 60. It is a four year (eight semesters) Programme. This programme is autonomous, affiliated to VTU, approved by AICTE and Accredited by NBA. The Department has a well-balanced mix of senior & experienced faculty together with young & dynamic faculty. With the objective of making graduates industry ready, the Department modernized all laboratories using latest Softwares such as MATLab, ETAP etc. and hardware such as Contactors, Industry standard

Relays, DSOs etc.. The Power System Protection Relay Laboratory is a one of its kind laboratory in an educational institute. The laboratory experiments are designed to improve the skills of students in applying knowledge learnt in classroom which builds students confidence in working on various electrical apparatus and equipments.

▶ **Industry based Softwares used**
- ETAP Automations- Power System Simulation Software

▶ **Programmes offered**
BE – Electrical & Electronics Engineering with 60 intake
PhD

The Department has entered into MOUs with
- Decibel Labs, Bengaluru, for training on Electric Vehicles
- TATA Power Skill Development Institute, Pune, for training in power system studies.
- RUSEMP College, Pakshikere for skill development of rural youth.

▶ **Faculty Strength**

- PhD
- Pursuing PhD
- MTech / ME
- Adjunct faculty

(Pie chart values: 2, 1, 2, 10)

▶ **Best Practices in the Department**
- Use of learning management systems to enhance the learning of student outside classroom.
- Regular feedback on Teaching Learning Process to make sure that students are learning.
- Innovative teaching pedagogy to stimulate learning in all types of learners.
- Seminars and Guest Lectures by Industry experts and Alumni to orient students towards industry.
- Regular Industrial visits to experience the industrial work culture and ambience.

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Department of
Civil Engineering

Established in 2012 and accredited by the NBA, our vibrant Civil Engineering Department is dedicated to shaping tomorrow's engineers for both the public and private sectors. We specialize in a range of fields including structural engineering, geotechnical engineering, water resources, transportation, environmental studies, and construction industries. In addition to the standard curriculum, we encourage students to delve into mini-projects across various disciplines. Our learning environment is further enriched by frequent visits from guest faculty and industry experts, providing invaluable insights into the latest advancements. Furthermore, we provide access to industry-standard software like AUTO CAD, STAAD-PRO, ETABS, QGIS, and Microsoft Office Project, equipping our students to tackle real-world challenges with confidence. Notably, we take pride in introducing SHILPA - our cutting-edge Modellin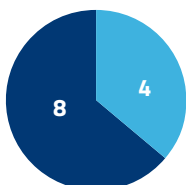g lab, designed to seamlessly integrate AI into the Civil Engineering curriculum and harness AR and VR technologies for construction applications.

▶ **Programmes offered**
   BE – Civil Engineering with 60 intake
   PhD

▶ **Research Facilities**
   ▪ Microbiology lab
   ▪ Advanced concrete lab
   ▪ Environmental engineering lab

▶ **Other Facilities:**
   ▪ Testing and consultancy center
   ▪ SJEC - Centre for sustainable technologies
   ▪ SHILPA -Modelling Lab

▶ **Best Practices in the Department**
   ▪ Continuous motivation by rewarding the top scorers of university examinations
   ▪ Conduction of various technical activities such as Technical Talks, Industrial Visits under departmental association "NIRMAN" .
   ▪ Career Guidance through Motivational Talks by Alumni
   ▪ Innovative Teaching Learning Practices
   ▪ Department E-News Letter

The Department has entered into MOUs with
   ▪ Marian Projects Pvt Ltd
   ▪ Master Plannery Nirmithi Kendra
   ▪ Aapaavani Environmental Solutions Pvt. Ltd.

▶ **Faculty Strength**

- PhD
- Pursuing PhD

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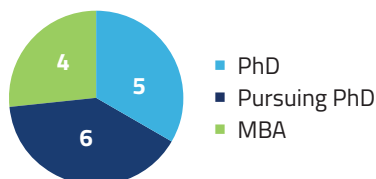
Department of
Business Administration

The Department of Business Administration was started in the year 2007 as a post graduate Department of SJEC. The Department of Business Administration offers a two-year full time MBA programme approved by AICTE, Ministry of HRD, Government of India and is affiliated to Visvesvaraya Technological University (VTU), Belagavi, Karnataka with an intake of 120 students. The Department offers dual specializations (Finance-HR/HR-Marketing and Marketing-Finance). The Department is a recognized research centre of VTU for PhD programme in management studies.

▶ **Best Practices in the Department**

- Free Online Professional Certificate programmes through Coursera.
- 100% placement support through our industry partners-Cocubes and iSkew learning.
- Add on course on IT for business conducted by domain experts.
- Enhancing employability skills through training sessions by Data Science Professionals and industry Oriented Training.
- Bridging Industry-Academia skill gap through organizing Expert talks by Industry persons on a wide range of Management issues.
- Continuous alumni student interaction to appraise the latest trends in the industry.
- Start-up support through incubation centre.
- Organising Management Development Programs on the emerging areas in business for improving productivity at the workplace.
- Bettering managerial and intellectual skills of students through organising Management fest, Student Conference and Business Plan contest.
- Initiating mini research projects for MBA students to equip them with research and analytical skills.
- Nurturing social, ethical and moral values of MBA students through community engagement, outreach programme and volunteering.

▶ **Faculty Strength**

- PhD — 5
- Pursuing PhD — 6
- MBA — 4

The Department has entered into MOUs with
- Kanara Industries Association (KIA)
- Kanara Chamber of Commerce and Industry (KCCI)
- Yenepoya Medical College

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MBA in Innovation, Entrepreneurship and Venture Development -(MBA - IEV)

The MBA (IEV) program is designed to connect theory of innovation and entrepreneurship with practice and enabling students to acquire skills. This program will be delivered in phases and modules. This outcome oriented program will facilitate learning on management of innovation, entrepreneurship and venture development from foundation to advanced stages and simultaneously enable students to apply their entrepreneurial skills in real life situations, validate ideas, build innovations, test market and build a successful venture out of it.

**Eligibility & Selection of Candidate:**

The minimum academic eligibility for a candidate to apply for this program should be a graduate having atleast three years' degree program recognized nationally. The admission procedure of VTU Belagavi is applicable. The intake for this program is 30 students.

Career and Employment Opportunity:

- The objective of this program is to prepare young minds towards self-employment and create employment opportunity for others through enterprise development.

- Bring out more job creators who will start and thrive with their own start-ups launched during the study period.

- Graduates from this program also will find lots of opportunities to team up with start-ups as cofounder or core team because of their close understanding and working experience in innovation and entrepreneurship throughout their study period.

- Furthermore, these graduates will be preferred candidates to get the assignment to coordinate and lead pre-incubation centers in academics such as Entrepreneurship Development Cells (EDC), IEDC, New Gen IEDC, Start-up Cell, Innovation Cell etc.

- With their experience and interest, further job opportunities to get absorbed with incubation units, acceleration unit, angel and VC firms etc. Even, these graduates will find preferential space to work with CSR arm, social enterprise arm and spinoff arm of corporate, NGOs, social enterprises.
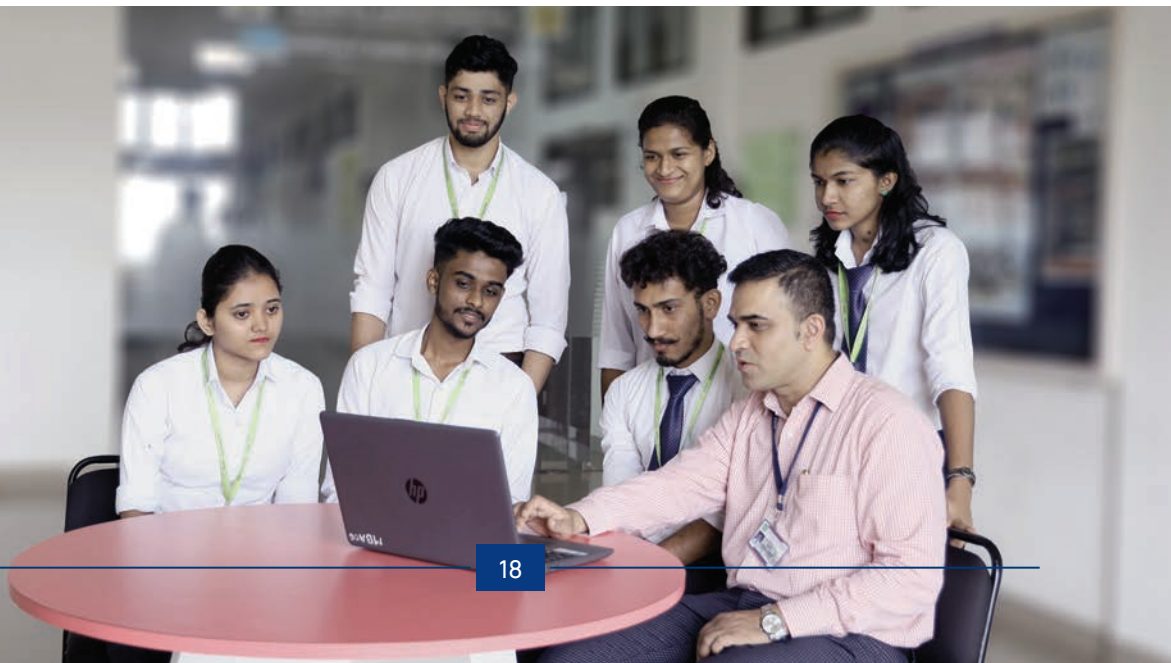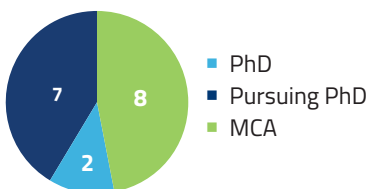
Department of
Computer Applications

The Department of Computer Applications offers a two-year Post Graduate MCA programme affiliated to VTU-Belagavi. The programme is offered with a mission to meet the global needs and challenges through training of professionals who can work with interest to support the society. The Department has a team of experienced and motivated faculty members who are in the process of tuning the young minds to make them globally competitive. The strength of the Department is the highly motivated students who understand the dynamics of the industry and upgrade their skills accordingly. The intake for this programme is 120 students.

▶ **Best Practices in the Department**
- **Career and Employability Support**
  - Project Based Learning
  - Seminars
  - Mentoring
- **Life-Long Learning for Personal Development**
- Encouragement for taking up online courses
- Spoken Tutorials
- Industrial Internships

The Department has entered into MOU with Accolade Tech Solutions

▶ **Faculty Strength**

- PhD
- Pursuing PhD
- MCA

7 | 8 | 2

Dr Hareesh B
Associate Professor & Head
Ph: 0824 2263753 Ext: 142
Email: hod.mca@sjec.ac.in

Basic Science Departments

Physics

The Department of Physics was established in the year 2002 and has maintained a credible record of teaching and research. The Department has highly qualified motivating faculty known for innovative and creative teaching. The Department mission is to impart the basic concepts of science to the evolving engineers, which enables them to be high quality engineers and prepare them to meet the technological needs of the nation. The Department has established a research centre and received multiple research grants of more than 55 lakhs from DAE-BRNS, Govt of India, VGST, Govt of Karnataka and VTU, Belagavi. The research centre has already produced 4 doctorates and 4 Research Scholars are currently pursuing their PhD. The faculty have published more than 50 papers in the international journals and presented more than 80 papers in the national / international conferences. The department association 'Epsilon' conducts various activities to help the students in advancement, dissemination and application of knowledge of physics in engineering applications.

Dr Rajesh Kumar P C
Professor and Head
Ph: 0824 2263754 Ext: 147
Email: hod.physics@sjec.ac.in

Mathematics

The Department of Mathematics provides a strong foundation in the basics of Mathematics, which are the building blocks of all subjects of engineering disciplines. The Department teaches essential subjects for MCA & M. Tech which are helpful for students pursuing a Master's Degree.

The Department has senior and experienced faculty and young, dynamic faculty members. It has a well-established MATLAB where 70 students work at a time to get experiential learning of the concepts learned in the theory class. The Department has four faculty with PhD. degrees, four faculty members pursuing a PhD. degree and a well-established research center with expertise in Algebra, Linear algebra, Graph theory, and other recent theories. Most of the faculty of the department are well trained in modern methods of teaching like active learning, problem-based learning etc. The Department association SIGMATHS contributes substantially towards the growth of individual students by motivating and helping them to clear competitive exams.

Dr Jagadeesha B.
Professor and Head
Ph: 0824 2263753 Ext: 148
Email: hod.maths@sjec.ac.in

Chemistry

The Chemistry Department pledges itself in the broadest and most liberal manner to encourage the advancement of all branches of engineering through its practically skilled education and service missions.

The Faculty members of the Department are dedicated to superior teaching and excellence in research activity. The Faculty has evolved a dynamic learning environment that accentuates student-centered learning, flexible interdisciplinary thinking and research.

The well equipped, spacious lab provides safe and comfortable working environment for 35 students at a time. In the laboratory there is seating arrangement for all students during instructions and demonstrations. There is a good stock of chemicals, which is being replenished from time to time. The Department is a VTU recognized research centre promoting research activities.

RESEARCH FACILITIES

UV-Visible Spectrophotometer

- Measurement of Time-dependent Change of Metal Nanoparticles

- Quality Control of Film and Filter
- Measuring the "Color" of Glass Plates
- Micro-Volume DNA Quantization Using TrayCell
- Trace Measurement of Chlorophyll-a - Single-Drop Measurement Using TrayCell and the Utilization of Sub-Micro Cells

Electrochemical Analyzer/Workstation- Model 608E :

Cyclic voltametry, Linear Sweep voltametry, AC Impedance, Impedance –Time, Impedance- potential, chronopotentiometry chronoamperometry, chronocoulometry,

Tafel plot, Multi current steps, Potentiometric stripping analysis, electrochemical noise measurement, open circuit potential- time, bulk electrolysis with coulometry etc.

Dr K Jyothi Damodara
Professor and Head
Ph: 0824 2263753 Ext: 123
Email: hod.chem@sjec.ac.in

Department of Humanities

The English Language Computer Laboratory is equipped with licensed interactive software for mastering the skills of the language in a learner friendly atmosphere. Humanities Department teaches Kannada, Ethics, Environmental and Constitutional studies, helping students to live as good citizens of the Country.

Training and Placement

The Training and Placement Cell of SJEC strives to facilitate the transition from college to professional life and make you industry-ready and in-turn shape the leaders of tomorrow. Our team is dedicated to not only making you employable but also coaching you on important life skills to help you take on any challenge that comes your way. The institutional autonomy marked the beginning of the Campus To Corporate (CTC) program. This 4-year program introduced for the Autonomous batches is already making waves.

The CTC program is a comprehensive journey to unleash your true potential. In the first year, you'll be exposed to communication skills, interpersonal and leadership skills, and problem-solving skills through experiential learning, alongside quantitative aptitude skills. In the second year, you'll learn about business etiquette, workplace etiquette, resume writing, group discussions, team building, certifications, and a specially designed branch-specific language-independent computing course. In the third year, we focus on technology training and interview preparedness, helping you walk along your chosen path, and make a decision on taking up one among a job, higher education, or entrepreneurship. The fourth year particularly focuses on company-specific training to help you gear up for the big day. With rigorous department-specific technology training, mock interviews, practice tests, and feedback, you'll be ready to grab any opportunity that comes along.

At SJEC, we believe in constant training and assessment to ensure you're ready for the industry. Our collaboration with renowned organizations and our strong push for industry outreach have helped us ensure that you get trained and certified

Campus to Corporate Program

The segmented, four-years Campus to Corporate program is conceptualized and implemented with the objective of enabling graduates with the new age skills that would bridge the Industry-Academia gap.

Technology Training & Interview Preparedness
● Career Counselling: Job/ Higher Education/ Entrepreneurship ● Department specific technology training ● Mock interviews ● Practice tests and Feedbacks

Industry Oriented Training
● Communication Skills: Intra & Inter Personal ● Leadership Skills ● Problem Solving Skills ● Quantitative Aptitude Skills

Company specific Training
● Aptitude training ● Technology training ● One-to-one counselling

Business Etiquettes & Computing Skills
● Etiquettes: Personal & Workplace ● Resume Writing
● Group discussions ● Team building ● Certification Courses
● Programming language training (branch specific)

YEAR 1

YEAR 2

YEAR 3

YEAR 4

Industry Supported Trainings & Assessments

coursera Institutional Membership	Infosys Springboard	wipro Talent Next	FESTO Centre for Industrial Automation	TATA STRIVE Google Career Certification Program-TCT
CISCO Network Certification	KPMG Data Analytics Certification	UniCourt UniCourt Workshops	JVGlobal Corporate Training Partner	CoCubes An Aon Platform Assessment Partner

salesforce + MuleSoft

in the domains of your choice. Our institutional membership with Coursera enables you to access courses offered by reputed institutions across the globe. Our partnership with Infosys Springboard has grown stronger over the years and still continues to cater to the needs of circuit branches. Programs like Wipro Talent Next, CISCO and Salesforce certifications assist in upskilling you in niche technical areas. FESTO industrial automation training ensures that Mechanical Engineering students are exposed to modern automation tools. Tessolve Semiconductor Test Engineering skill development courses, the training offered by KarMic, and the association with India Electronics & Semiconductor Association (IESA) go a long way in ensuring that Electrical and Electronics students learn from the best in the business. The KPMG data analytics certification has been running successfully and gives Business Administration students an edge over their counterparts.

Our constant focus on aptitude and soft skills training has ensured that you perform well in Aon CoCubes assessments and gain eligibility to be interviewed by leading companies in service, product, and core sectors. SJEC has been a trusted partner to several companies, and the list has only grown bigger over the years. The academic year 2023-24 has been a marquee year in the history of the college, with a record-breaking tally of 1200+ offers as of date, despite the pandemic and adverse
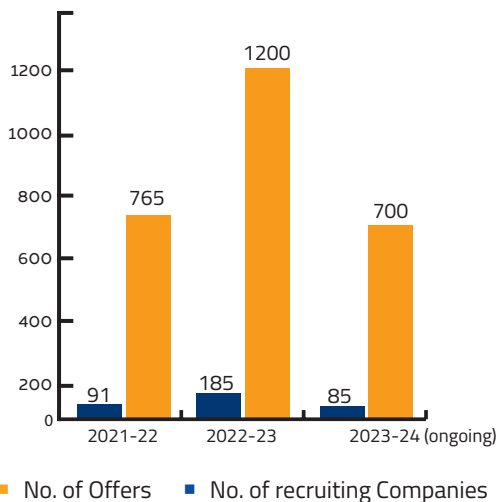
situations. This is a testament to the career-driven and skill-oriented training programs rendered to our students.

When it comes to pay packages, Cohesity has been leading the chart by consistently offering in excess of 20 LPA every year. Samsung R&D has been a major breakthrough, hiring students for niche roles in the Semiconductor sector, offers that were previously made only to students from IITs and NITs. The offers made by Cadence, Capillary Technologies, Cargill Business Systems, Dassault Systèmes, SEG Automotive, and Sobha Developers, among others, are a testimony to the technical skills inculcated by our students whilst in college.

Recruiters @ SJEC

At SJEC, we are committed to ensuring that you are not only employable but also well-equipped to take on the challenges of the professional world. Our comprehensive training programs, coupled with strong partnerships with industry leaders, equip you with the technical and soft skills necessary to stand out in your field. Our dedication to your success is reflected in our record-breaking job placements, even in the face of challenging times. Join us at SJEC and let us guide you toward a bright and successful future.

Mr Sathyendra Bhat
Head - Training & Placement
Email: placement_sjec@sjec.ac.in
Mobile: 90087 52809

- No. of Offers
- No. of recruiting Companies

Higher Studies and Career Development

The Office of Collaborations at SJEC is dedicated to enabling students to realize their ambitions of pursuing higher education both domestically and internationally. We are committed to providing comprehensive support to students as they navigate the complexities of studying abroad, ensuring a seamless and enriching experience. Our initiatives are continually evolving to meet the diverse needs of our student body and prepare them for success on a global scale. Furthermore, we actively engage with affiliated overseas consultants and alumni to offer guidance on destinations, universities, and available resources. Collaborative efforts with foreign universities have enabled us to organize exchange programs and graduate degree opportunities for engineering, MBA, and MCA students. Our portfolio includes fully funded and doctoral programs, as well as virtual semester exchange programs, catering to students' diverse academic interests and schedules.

In addition to academic pursuits, we support students in exploring career options through programs focused on civil services, banking sector employment, and scholarships. As an IELTS, TOEFL, and GRE partner, we provide resources and assistance to help students prepare for language proficiency exams, enhancing their competitiveness in the global job market. Furthermore, our recent introduction of a German Language Course on campus underscores our commitment to offering diverse learning opportunities that align with students interests and career goals.

SJEC being a Nodal Centre for the GRE and TOEFL exam registration provides students with all related preparation for the exam when they enrol through our office.
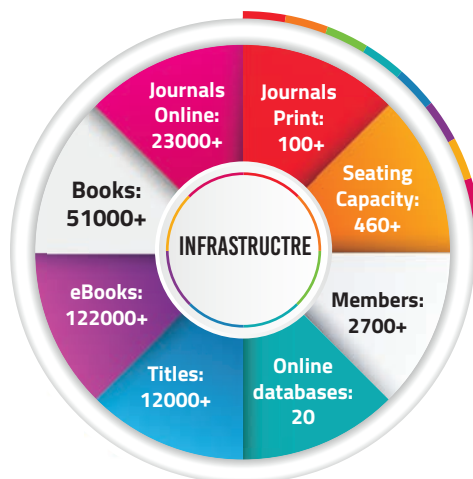
SJEC Students Studying Abroad(2019-2023)

UK 35
Europe 42
Canada 22
USA 21
Singapore 5
Australia 40
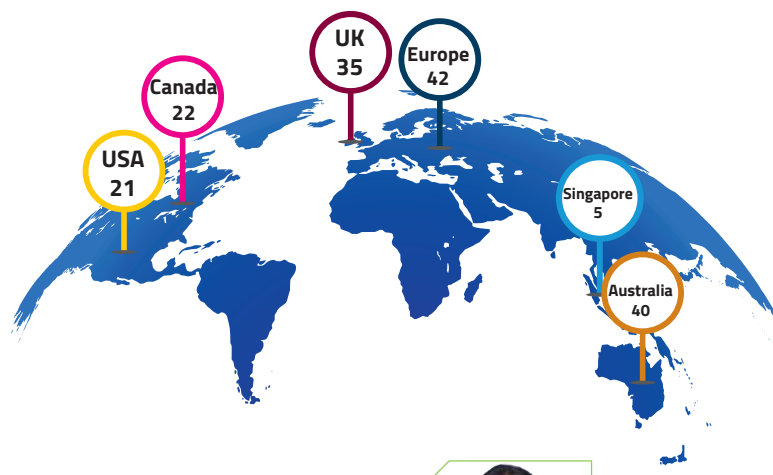
Ms Diana Monteiro
Collaborations Officer
Ph: 0824-2263753 Ext: 149
Email: sjec.connect@sjec.ac.in

The Central Library

Central Library of SJEC is a "Gateway to Discover, Explore and Learn". The Library being one of the best technical libraries in the region, provides state-of-the art infrastructure and offers innovative physical and virtual services to its stakeholders, alumni's and visitors by using cutting-edge technology tools and techniques. It is the active place on the campus providing a very conducive environment that enables learning and advancement of knowledge and promotes discovery and scholarship. The Library promotes its resources and services through library orientation, user awareness training programmes, workshops, library website, activities, book exhibitions/competitions, posters, brochure etc.

INFRASTRUCTRE

- Journals Online: 23000+
- Journals Print: 100+
- Seating Capacity: 460+
- Members: 2700+
- Online databases: 20
- Titles: 12000+
- eBooks: 122000+
- Books: 51000+

▶ Best Practices

- Cloud Based Library Management Software
- Web OPAC
- Library Manual
- Dynamic Library Web Page
- Reader's Club
- Alumni Membership
- User Awareness Training Programmes/ Workshops
- Book Exhibitions/Competitions
- User Survey
- Remote & QR Code access to E-Resources

▶ Services & Facilities

- Book Lending
- Reference
- Overnight Issue of Reference books
- Book Bank (General & SC/ST)
- Digital Library and Repository
- Wi-Fi & Bar code Technology
- Self & E-Learning
- Photocopy/Scanning/Printing
- Self-study & General Reading Rooms

▶ Teaching / Learning / Research Support

- VTU Consortium E-Resources
- IRINS Faculty Profiles
- DrillBit Plagiarism Detection Software
- Scopus Citation Database
- Mendeley Reference Management
- SWAYAM-NPTEL Programmes
- VTU E-Shikshana Programmes
- Shodhganga E-Thesis Repository

Library Collaboration

- VTU Consortium
- National Digital Library of India
- DELNET
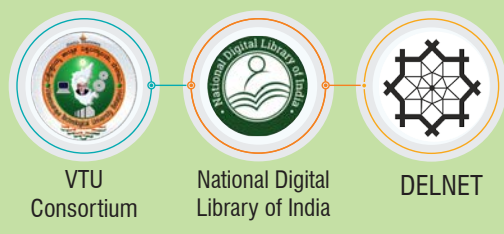
Dr Felcy D'Souza
Librarian
Ph: 0824-2263753 Ext: 105
Email: librarian@sjec.ac.in

Department Of
Physical Education

The Physical Education Department is committed to maintain the physical fitness of students throughout their studies at SJEC. Physical Education Department is well established with all sports and games amenities:

- 400 m Athletic track, Football, Cricket, Hockey and Handball Courts.
- Volleyball Court.
- Throw-ball Court.
- Basketball Court.
- Kabaddi Court.
- Netball & Ball Badminton Court.
- Five shuttle badminton courts for both men and women.
- A well-equipped multi gymnasium facility for men & women in their respective hostels.
- Indoor facilities like Table-Tennis, Carrom and Chess etc.
- Cycle Path for fitness purpose.

With strong focus on inculcating good sportsmanship spirit and discipline, we conduct regular training and practice sessions on various sports and games. Our students have been able to showcase consistent performance in various

University / National Level meets and we are very proud of their achievements.

The College sports and games teams participated in Cricket, Basketball, Football, Throwball, Volleyball, Handball, Hockey, Table-Tennis, Swimming, Netball, Ball Badminton, Best Physique, Weightlifting, Powerlifting, Wrestling, Judo, Chess and Athletics in the VTU zonal and inter-zonal levels and won many prizes.

Ms Vaneesha V Rodrigues
Physical Education Director
Ph: 0824 2263753 Ext: 128
Email: sports@sjec.ac.in

What students on campus have to say...

At SJEC, academic excellence meets personal growth. With innovative programs and supportive mentorship, we empower students to embrace challenges confidently. From hands-on learning to exciting activities, we provide a vibrant platform for exploration and talent development. With determination and resilience, navigate life's hurdles and witness your potential flourish. It's in the pursuit of greatness that you truly thrive.

Supritha K
Final Year Computer Science Engineering

SJEC has given me opportunities that I wouldn't get in most engineering colleges. Here at SJEC, I got the chance to be a part of it's SAEINDIA Collegiate club that builds All Terrain Vehicles from scratch to compete in National level events. It was a dream come true for me as we got to manufacture a car all by ourselves with the unconditional support of the management. Activities like these have helped me develop skills that classroom teaching never can. SJEC has various clubs both technical and cultural which helps the students bring out the best of themselves. For all you aspiring engineers out there, SJEC is the way to go.

Anshul R Shetty
IV Year Mechanical Engineering

As a student at St. Joseph Engineering College (SJEC), my college life experience has been enriching and memorable. The campus buzzes with energy from various cultural events, technical fests, and sports competitions, providing ample opportunities for students to showcase their talents and passions. The supportive faculty members at SJEC are not just educators but mentors who guide us toward our goals and encourage critical thinking. In essence, college life at SJEC is a transformative journey where we evolve academically, socially, and personally, laying the foundation for a successful future.

Venissa Dsouza
AIML- Final year
ICBS Department

Witness to transformational changes...

Looking back on my education at SJEC, the only word that comes to my mind is success. SJEC truly does understand the power of merging academic lectures with real-world examples. My teachers have shaped my career, and most importantly, helped me become the person I am today! Overall, I'm a super proud SJEC alumnus, all set to follow a rewarding career path!

Alvina Mendonca
Civil class of 2023
Project Coordinator, Stratum Owners Association Management, Dubai

When I reminisce about my four years of college life, I see the transferable set of competencies that got built up in me over some time. This place offers amazing lush green campus, excellent faculty members, loads of opportunities, and the latest technologies. It was like burning in a crucible and coming out refined, having perseverance, grit, and embracing the chaos. Cheers to my alma mater for a lifetime of wholesome experience!

Apeksha Rai
CSE Class of 2023
GET at Daimler Truck Innovation Centre India (DTICI)

As a St Joseph Engineering College (SJEC) alumnus with a degree in Mechanical Engineering, my transformative journey was enriched by engaging in impactful projects like prosthetic arm development, Emergency Medical Bag design, Autonomous robot creation, and Brain-controlled braking systems. Immersed in the vibrant college culture, I actively contributed to organizing TEDxSJEC and showcased my talents in a versatile dance crew. SJEC played a pivotal role in helping me discover my passion for 3D design and animation, catalyzing my professional growth in this field. The supportive faculty, lush green campus ambiance, and strong social network make SJEC a nurturing environment for personal and academic development. The college's facilitation of government funds amplifies the potential for ambitious ideas requiring substantial capital. SJEC shapes engineers and fosters a holistic growth experience, making it a standout educational institution.

Neil Emmanuel Lasrado
ME Classof 2022
Pursuing Master of Arts (MA) in Animation VFX
United Kingdom, Manchester
Computer Graphics Artist/3D Artist

SAEINDIA-SJEC Collegiate Club

SAEINDIA is an affiliate society of SAE International registered in India as an Indian nonprofit engineering and scientific society dedicated to the advancement of mobility industry in India.

The SAEINDIA SJEC COLLEGIATE CLUB was launched in April 2016 and has developed an All Terrain Vehicle—THE TURTLE, in accordance with the specifications of SAEINDIA for participating in the internationally renowned SAE BAJA.

▶ **BENEFITS FOR STUDENTS**

- Campus Placements
- Placements during BAJA
- Hands-on experience of vehicle design & Development

▶ **TEAMS:**

- Team SJEC Racing
- Team eSJEC Racing
- SJEC Aero Team
- Team Artemis Racing - Go Kart
- Team PlanetXs - Mars Rover

Team SJEC racing participated in the SAEINDIA BAJA competitions under two categories named mBAJA and eBAJA respectively. mBAJA events were held on February 10th to 13th 2024 at Indore, MP and ATV designed by students named "TURTLE " secured an All-India rank of 13 out of 72 teams participated. Similarly eBAJA events were held in march 2024 at BVRIT, Hyderabad and their vehicle "BEETLE" secured an All-India rank of 12 out of 145 teams participated.

ISIE SJEC Collegiate Club

ISIEINDIA is the most popular and favourite E-mobility Motorsports, Education and Research Publication organisation in India among engineering institutes and green energy research organisation. ISIEINDIA has become the epicenter of green energy concept development in India. They are motivating people (Engineers + Future Engineers) to work on New and Renewable Sources of Energy. They give the platform to new start-ups, Innovative ideas and to passionate people, who really want to contribute to society.

TEAM ACHILLIUS

Designed & Fabricated Solar Vehicle : Under the banner of ISIE-SJEC Collegiate Club Team Achillius has developed much better and efficient solar car version 2.0.

Team Achillius, Solar car team participated in Electric Solar Vehicle Championship 2021 at Chandigarh Group of Colleges, Mohali Punjab from 24-29 December 2021. The team received ESVC Future Award 2021 for the efforts put into completion of the car and received a cheque of Rupees 10, 000/-, with the team begging All-India Rank 3.

Terrorbull Robotics

One of the first teams from Karnataka to represent the state at National and International robotic events.

The team builds and develops Wireless Combat Robots, Autonomous Robots, Drones, Hobby RC such as cars, boats, hovercrafts and remotely operated rovers. The team members have also designed and built various devices like radio transmitters, motor drivers, welding machines for battery contacts etc. Terrorbull has participated and won in various National level events such as BITS- Goa, IIT Madras, SPCE -Andheri, NIT-Warangal and has participated in International Robowars for three consecutive years at IIT-Bombay Tech Fest.

Automation and Robotics Club
ARC-SJEC

The Automation and Robotics Club of SJEC is a Collegiate Club driven by the Department of Mechanical Engineering. The Club provides its members opportunities to carry out projects related to Automation and Robotics, and related disciplines. The Club also conducts training programs and workshops on topics related to Industry 4.0.

ARC-SJEC also houses the e-YANTRA Lab developed in association with IIT-Bombay.

Activities:

- Hands-on trainings and Workshops on Automation & Robotics
- Design and development of Curio - an Autonomous Navigation Robot.
- Training for participation in Robotics competitions. (WRO Olympiad, NI-Yantra, E-Yantra, Robocon India etc.)
- Technical support for Final Year Student Projects.
- Working towards Industry 4.0.

IEEE - Institute of Electrical and Electronics Engineers

IEEE is the world's largest technical professional organization-dedicated to advancing technology for the benefit of humanity. Keeping this in mind, St Joseph Engineering College has established IEEE SJEC Student branch to keep the students updated with the latest technology through seminars, workshops and talks from distinguished members of industry and academia, project exhibition and competitions, conferences, student activities, student competitions etc.

IEEE SJEC Student branch comes under IEEE Mangalore Subsection under IEEE Bengaluru Section, under Region 10 (Asia Region).

The Student branch currently also has the following six society chapters so that students can become part of it and explore in domain related technology.

1. Computer Society
2. Communication Society
3. Power and Energy society
4. Technology and Engineering Management Society
5. Women in Engineering Society
6. Geoscience and Remote Sensing Society

IEEE also has a Women in Engineering affinity group which is aimed at dedicated to promoting women engineers and scientists, and inspiring girls around the world to follow their academic interests in a career in engineering and science.

Innovation and Entrepreneurship

The New Age Incubation Network – NAIN was established at SJEC in the year 2019. It is sanctioned by the Department of Information Technology/Biotechnology and S&T, Govt of Karnataka with the objective:

● To Promote ICT sector

● To encourage students, research scholars and alumni to share their ideas to solve chosen problems which are local centric and to Validate, Refine and Nurture ideas.

● To provide an ecosystem to convert ideas into proofs of concept and upgrade them to a level of commercial value.

● To encourage and lead the teams towards setting up a business enterprise.

This Incubation Centre has an approved funding of 1.2 Crores sanctioned by the Govt of Karnataka. The centre will facilitate 10 projects to receive a grant of Rs 3 lakhs per year for an approved period of 3 years.

The SJEC Incubation Centre with working space of 4000 sqft facility can accommodate up to 15 start-ups simultaneously. This state-of-the-art facility includes well-furnished seating arrangements, high configuration computers, independent high-speed dedicated internet connection, uninterrupted power back up and discussion & meeting rooms, laser cutting machine, 3D printer. The IPR cell established in collaboration with Karnataka State Council for Science and Technology (KSCST) helps in bringing awareness about IPR, enables patent searches, guides inventors in respect of patenting searches, facilitates filing of patents etc. Ideation, hackathon and other entrepreneur related workshops, competitions, and talks are being conducted under this banner to motivate the students towards entrepreneurship.

AICTE IDEA LAB

St Joseph Engineering College (SJEC), Mangaluru, is fortunate to be one of the institutions selected by the All India Council for Technical Education (AICTE) for establishing the AICTE IDEA Lab in the year 2021. The SJEC AICTE IDEA Lab encourages students to apply fundamentals of Science, Technology, Engineering, and Mathematics towards enhanced hands-on experience, learning by doing, and product visualization. The IDEA Lab aims to make students more imaginative and creative, in addition to imbuing skills in critical thinking, problem-solving, design thinking, collaboration, communication, and lifelong learning. The lab covers an area of 5000 plus sq. ft equipped with advanced machinery, tools, and consumables to support the translation of an idea into prototype development or the solution of a problem. The SJEC AICTE IDEA Lab understands the importance of developing skills in individuals' lives. Therefore, the lab offers several hands-on courses to SJEC students, starting from the first semester to the eighth semester. The IDEA lab conducts workshops, training, ideation sessions, boot camps, competitions, etc., to nurture ideas, imagination, and creativity among stakeholders. The facility is open to SJEC students, faculty, and staff, as well as students from other schools or colleges, industries, entrepreneurs, startups, and alumni. With available industrial-grade advanced machinery, electronic tools, and testing equipment, wrapped in open-source software and staffed by trained personnel, the IDEA Lab is a platform for learning, innovation, and technical prototyping, and provides a stimulus for on-campus and local entrepreneurship. From an academic perspective, the SJEC AICTE IDEA Lab conducts training sessions on various fronts where students engage in hands-on activities, imagine, design prototypes, and iterate to find solutions for problems. For an entrepreneur, the IDEA Lab is an ideal place where they can utilize machinery and tools to build prototypes and iterate to bring ideas to life. The IDEA lab can play a substantial role for industries by serving different objectives such as training their personnel with advanced machinery available in the lab, rapid prototyping of industry products/components, and low-cost, on-demand manufacturing.

Equipment/Facilities

Skill Development Course

SJEC has developed a niche, multidisciplinary credit course on skill development where students learn various skills and implement them in building a prototype. The course is offered every semester, and all students, irrespective of their engineering stream, must undergo the training. Students are asked to identify a societal or industrial problem and develop a prototype to solve it. The prototypes are built from scratch, and students are required to prepare a Bill Of Materials, design, and drawings, as well as present the project status at various phases during the semester. The finished prototype is evaluated at the end of the semester for marks. The course provides an excellent opportunity to identify problems, conduct technology gap analysis, prepare state-of-the-art searches, design, model, and simulate. It also enhances soft skills such as creative and imaginative thinking, problem-solving, teamwork, collaboration, and communication. The courses include Prototype Fabrication & Testing, Internet of Things, Computational Tools for Emerging Technologies, Intellectual Property Rights, Design Thinking and Productization, Entrepreneurship and Startup, Business Model Innovation, and Startup/ Business Compliances, among others. All courses have project-based learning with 80% hands-on and a balance of lecture/activity-based in-class activities.

Office of the Controller of Examinations

St Joseph Engineering College is conferred with Autonomous status by UGC during the academic year 2020-21 and by VTU during the academic year 2021-22. This has facilitated SJEC to formulate industry specific curriculum that meets both the local and global requirements, adopt innovative methods of teaching-learning with hands on experience and also to devise an appropriate assessment mechanism.

Examinations or Assessments play a very important role in deciding the quality of education. The main motto of assessment is to measure whether the desired learning outcomes have been achieved or not. The achievement of objectives and program outcomes measured through accurate and reliable awardable assessments.

The SJEC adapted Outcome Based Education

Framework as per the Washington Accord (WA) which endorses the engineering education system has demonstrated a strong, long-term commitment to quality assurance in producing industry ready and socio-economic responsible engineers.

Having been conferred with Autonomous status by UGC and VTU, Belagavi, the Examination section of SJEC has been restructured as Office of the Controller of Examinations (COE) to carry out all the autonomous examination activities from academic year 2021-2022.

SJEC adopted equally weighted SEE and CIE patterned assessment in the 50:50 ratio. Normally the SEE is summative mode of assessment and CIE (Continuous Internal Evaluation) is a formative assessment to assess the student's ability of applying knowledge, solving complex problems, analysis, synthesis and design.

Examination Process mainly consists of three phases, namely, Pre-examination process, Examination process and Post Examination process. All these processes shall be carried out with highest integrity and transparency. These processes are audited by external peer team constituted by Visvesvaraya Technological University, Belagavi.

Examination

Pre Examination
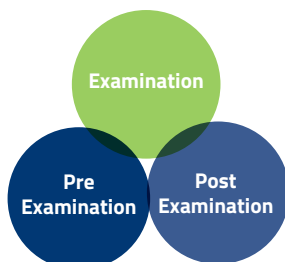
Post Examination

Dr Rohan Pinto
Controller of Examinations
Email: coe@sjec.ac.in

SJEC - ISTE CHAPTER

The fundamental motive of the ISTE Student Chapter is to provide guidance and training to students to develop better learning skills and personality.

The special feature of the ISTE is that it is the leading National Professional non-profit making society for the Technical Education System in our country with the motto of Personality Development of students, Career Development of teachers and the Overall Development of our Technical Education System.

▶ **Objectives of SJEC-ISTE**

1. To provide professional guidance and training to the students to upgrade their knowledge and skill.

2. To promote and contribute in the production of top-quality professional engineers to meet the demands of industry and other organizations.

▶ **Events conducted by SJEC-ISTE**
- National/ International Conferences
- Technical talks
- Workshops
- Motivational talks
- Industrial visits
- National Level Virtual Hackathon "Greentech Hackathon 2020"

▶ **Benefits of Membership**

1. A member of ISTE will be a member of a National Professional Organization.

2. An ISTE member will join with the academic fraternity of over 1,24,000 strong professionals.

3. An ISTE member will be preferred over others to attend short-term training programs for academic excellence and to become eligible for career advancement opportunities.

4. An ISTE member can subscribe to the Quarterly Indian Journal of Technical Education (at concessional rates).

5. An ISTE member will be eligible to participate in Chapter level, Section level and National Level Conferences, Workshops, and other activities of one's academic interest etc.
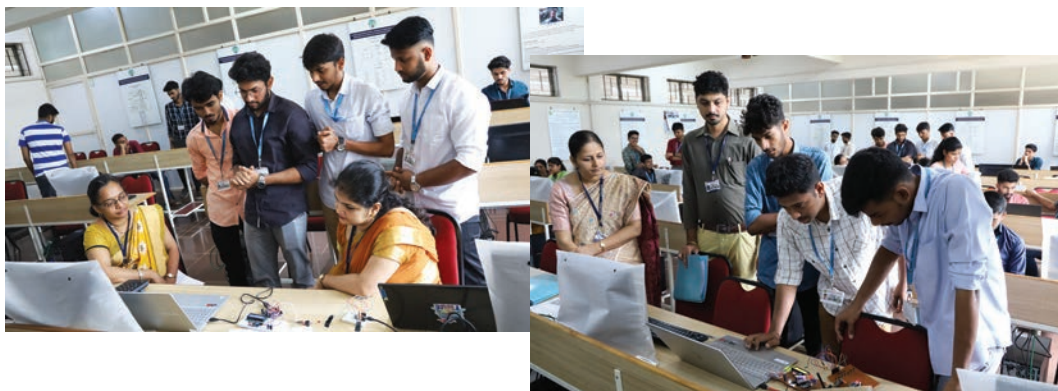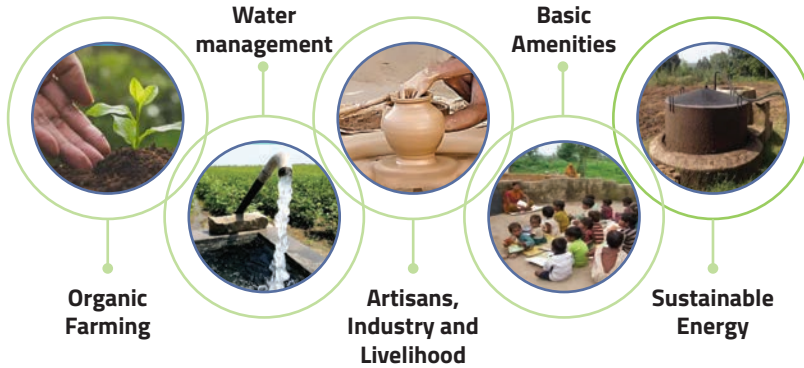
Unnat Bharat Abhiyan (UBA)

St Joseph Engineering College is one of the participating institutions selected under Unnat Bharat Abhiyan, a flagship of program of the Ministry of Education (MoE) Government of India.

The UBA works on the following themes:

Water management

Basic Amenities

Organic Farming

Artisans, Industry and Livelihood

Sustainable Energy

The College has adopted the following five villages for their development in collaboration with district administration.

1. Nada   2. Mallur   3. Moodumarnadu   4. Padumarnadu   5. Ervuailu

Faculty and students of St Joseph Engineering College are actively involved in village development plan in collaboration with district administration.

National Service Scheme (NSS)

The National Service Scheme (NSS) is a Central Sector Scheme of Government of India, Ministry of Youth Affairs & Sports. It provides opportunity to the student youth of 11th and 12th Class of schools and student youth of Technical Institution, Graduate & Post Graduate at colleges and University level of India to take part in various government led community service activities and programmes. The sole aim of the NSS is to provide hands on experience to young students in delivering community service.

At SJEC, the NSS club along with the Youth Red cross organizes a number of events to serve the community. Planting of the saplings, Swachatha Abhiyan, Flood relief funds and Annual NSS Camps are some of the activities conducted by the club.

The National Cadet Corps (NCC)

SJEC has Air Wing and Naval Wing Unit of NCC. The National Cadet Corps (NCC) is a youth development movement. The NCC provides opportunities to the youth of the country for their all-round development with a sense of Duty, Commitment, Dedication, Discipline and Moral Values so that they become able leaders and useful citizens. The NCC provides exposure to the cadets in a wide range of activities with a distinct emphasis on Social Services, Discipline and Adventure Training.

Aim of NCC:

- To develop character, commandership, discipline , leadership, secular outlook , spirit of adventure and the ideals of selfless service amongst the youth of the country.

Motto of NCC
"Unity and Discipline"

- To create a human resource of organized, trained and motivated youth to provide leadership in all walks of life and always available for the service of the nation.

- To provide a suitable environment to motivate the youth to take up a career in the Armed Forces.

Benefits of NCC:

- Opportunity to attend many National level camps.

- NCC "C" certificate holder has an advantage in the Recruitment drive held by the services.

Significant Features

CO-CURRICULAR AND EXTRACURRICULAR ACTIVITIES

For the all round personality development of students, the college provides forums like; NSS, Red Cross, AICUF, Human Rights Club, & Department Associations like EELS, IEEE, Prodigi, Genesis, Cipher, ISTE, Torque, Intaglio, Technocrats, Industry Interaction Cell, Innovation Club, Entrepreneurship Development Cell, Gavel Club, Nirman, Nexus, Epsilon, ChemAtom and Sigmaths.

HOSTELS

SJEC hostels are a second home for more than 950 students. The hostels are secure and comfortable residential complexes, with a wide array of amenities, aimed at providing students with an ambience that is conducive for academics and self-growth.

AC and Non-AC hostels, with single and multi-occupancies, are available for both boys and girls. The hostels have exclusive study halls, indoor sports facilities, and well-equipped gymnasiums. The hostels serve nutritious food and have both vegetarian and non-vegetarian mess halls. The hostel blocks are equipped with Wi-Fi facilities and students have access to the internet for all their needs. Laundry facilities are also arranged in-house for students. The hostels are managed by teams of Warden and Assistant Wardens who reside in the hostels. **For more details contact: Gents Hostel - 0824-2868130, +91 99019 34484 / Ladies Hostel: 0824-2868160, +91 91486 69093.**

DISPENSARY AND COUNSELING CENTRE

The Counselling services in St Joseph Engineering College are a part of the academic requirements of VTU-Belgaum.

The College houses a well-equipped Dispensary to attend to the medical needs of students, staff, and all other inmates of the campus. A Campus Doctor is available round the Clock and resides in the Campus. The Dispensary houses a Consultation Room, Treatment Room, and Nursing Counter. Nursing staff are available round the clock to attend to all requirements of campus inmates.

All hospitalization cases are referred to Father Muller Medical College and Hospital, a sister concern of the College.

TRANSPORT FACILITY

The College provides bus facilities for the students with a fleet

of well maintained buses which ply to and from Puttur, Kinnigoli, Alangar, Deralakatte and Mangaluru City. **For more details contact: 0824 -2868157.**

VEG AND NON-VEG CANTEEN

The canteen at SJEC is known for its student friendly environment. It provides a wide variety of delicacies to cater to the tastes of each individual. There are separate sections for vegetarians and non-vegetarians. It can accommodate nearly 250 students at a time.

CENTRAL COMPUTER CENTRE

The Central Computer Center (CCC) is the nerve center of campus wide network. The Department has a wide combination of high configured equipment's to distribute the internet effectively and securely throughout the campus. The Department possesses 1.2 Gbps leased line support at its core to distribute the quality bandwidth to the users in the campus. CCC provides facilities for internet browsing, basic computing etc. Around 100 high configured Wi-Fi devices are used to distribute the internet remotely to the users along with the wired connections. The Department also provides the services to the campus surveillance system by using around 300 CCTV cameras synchronized with high definition storage.

BANK

The campus houses a branch of Oriental Bank of Commerce for the banking needs of students, faculty and the institution.

STATIONERY CENTRE

A well equipped stationery shop is present in the campus to meet the needs of everyone in the campus.

CAMPUS CHAPEL

The campus houses St Pio Chapel to meet the spiritual needs of the campus christian inhabitants.

SJEC STUDENT CLUBS / CHAPTERS

TECHNICAL / SOCIAL CLUBS

SJEC Alumni Association

Automation and Robotics Club

Institute of Electrical and Electronics Engineers

All India Catholic University Federation

SAEINDIA -SJEC COLLEGIATE CLUB

Imperial Society of Innovative Engineers Collegiate Club

National Service Scheme & Youth Red Cross

Committee for Prevention of Sexual Harassment

Indian Society for Technical Education

DEPARTMENTAL STUDENT ASSOCIATIONS

TORQUE
Mechanical Engineering

CIPHER
Computer Science & Engineering

NIRMAN
Civil Engineering

EELS
Electrical & Electronics Engineering

GENESIS
MBA

PRODIGI
Electronics & Communication Engineering

TechnoCrats
MCA

Epsilon
Physics

ChemAtom
Chemistry

Sigmaths
Mathematics

Life at
SJEC

Cover page image : Ms Sherol Chrissel Dsouza, II Year CSDS, Technology Enthusiast, Athlete, and Dancer

NBA
Accredited

NAAC
A+ Grade

AUTONOMOUS
STATUS
by UGC

ST JOSEPH ENGINEERING COLLEGE

An Autonomous Institution