ABHIYAANA 2024





ST JOSEPH ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION Vamanjoor, Mangaluru - 575 028, Karnataka

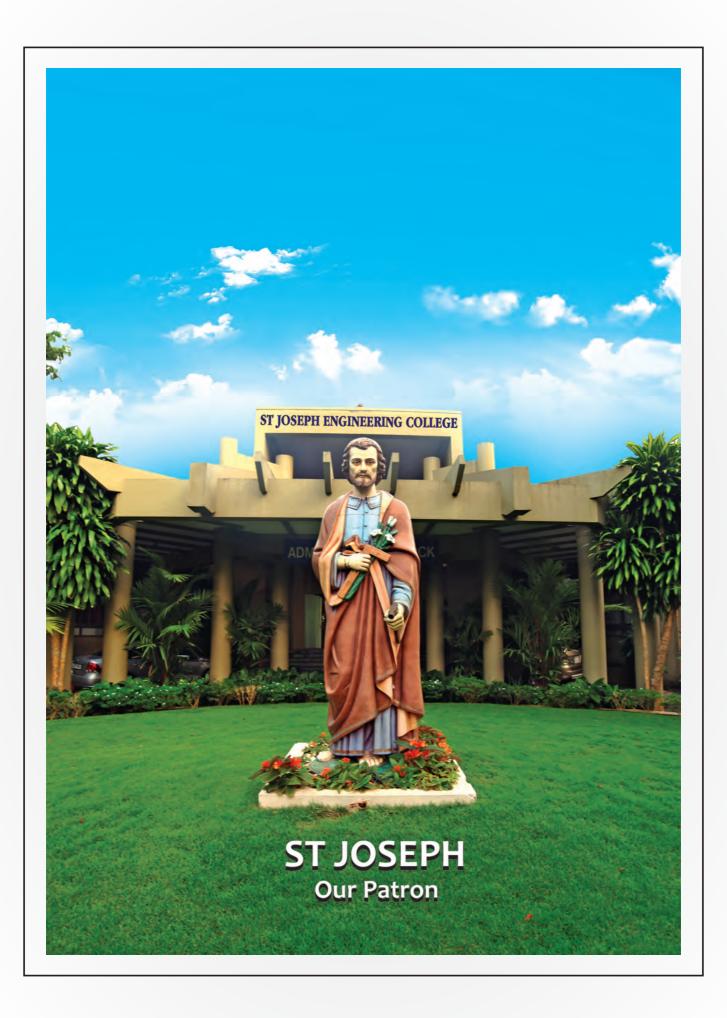


VISION

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-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.



Message from the **PRESIDENT**



With great joy and warmth, I extend my heartfelt greetings to Abhiyaana 2024, the esteemed annual magazine of St Joseph Engineering College, Vamanjoor, Mangaluru. As we celebrate another year of striving for excellence in Engineering and Management education, I am optimistic about a future of limitless achievements. I express my deepest gratitude to the Management, dedicated Staff, and dynamic student community, whose unwavering dedication and hard work continue to propel our institution toward greater heights.

In 2024, Generative Artificial Intelligence (GenAI) has permeated every aspect of the world. These advanced AI models have made their presence felt in various applications, including content production, art creation, natural language processing (NLP), and data augmentation. According to the World Economic Forum, generative AI contributed an impressive \$4.2 trillion to the global economy in just one year. GenAI stands out as one of the most transformative advancements of our time, attracting interest from both technical and non-technical audiences.

For students and teachers, Generative AI opens doors to innovative opportunities. From designing more intelligent healthcare solutions to creating immersive virtual experiences, it empowers you to think beyond traditional boundaries. It is a versatile tool to bring their ideas to life, offering a canvas limited only by imagination.

However, alongside its benefits, some challenges demand caution. Generative Al can inadvertently spread misinformation, create biased outputs, or even be misused for malicious purposes. These issues highlight the critical need for ethical considerations and responsible development.

As Students, you stand at the forefront of this technological revolution. The future of Generative AI lies in your hands—not just to build smarter systems but to ensure they uplift society. Embrace the endless possibilities, but tread thoughtfully as pioneers shaping a better tomorrow.

As we have stepped into the year-long, grace-filled celebration of Jubilee Year 2025, let us embrace the motto of celebration "Pilgrims of Hope". Pope Francis while announcing the motto said "We must fan the flame of hope that has been given us, and help everyone to gain new strength and certainty by looking to the future with an open spirit, a trusting heart and far-sighted vision. The forthcoming Jubilee can contribute greatly to restoring a climate of hope and trust as a prelude to the renewal and rebirth that we so urgently desire".

Let us hope for peace in a world increasingly marked by violence and conflict; let the hope be offered to the sick, to the young and the elderly, to migrants and the poor. As Pope Francis assured "Hope does not disappoint us" (Rom 5:5). Let us hope for a better future.

I would like to express my sincere congratulations to all the students, dedicated teaching and non- teaching staff, all those assisting in the management, as well as everyone associated with the College, for the remarkable progress we have made over the years. Let us work together to elevate SJEC to even greater heights through our dedicated service and commitment to excellence.

May the abundant blessings of God through the intercession of St. Joseph, our patron, always be with each and every one of you.

Most Rev. Dr Peter Paul Saldanha

Bishop of Mangalore & President, St Joseph Engineering College

Message from the DIRECTOR



It is a prideful and grateful moment for me to introduce "Abhiyaana 2024," our college Magazine, an incredible showcase of our community spirit, creativity, and hard work over the past year. It would not merely be pages of stories and accomplishments but symbols of dedication, perseverance, and excellence, which ultimately make us a family.

Most graciously, I extend my warmest gratitude to the distinguished faculty and vibrant student community. Your relentless devotion—unquestionably to developing young minds and innovating in the classroom or indeed to an unceasing journey in search of knowledge and excellence—forms the success of this institution and sets high benchmarks for achievement. In cooperation, resilience and shared commonality of learning have converted the challenges into opportunities and created an environment where excellence can thrive.

As natural events are occurring increasingly all around the globe, engineers have geared up their efforts to enable systems that are robust enough to withstand and recover from such scenarios effectively. Resilient engineering emerges as a vital trend in designing infrastructure and technology that can evolve with environmental conditions.

"Scientists study the world as it is; Engineers create the world that never has been." Says Theodore von Kármán – a Hungarian-American mathematician, aerospace engineer, and physicist who worked in aeronautics and astronautics. This quote reminds us that engineering is a proactive discipline. It's our creative responsibility to design systems robust enough to face nature's unpredictability.

Engineering in the future will utilize innovative materials and design techniques to help those structures better mitigate earthquakes, floods, and other natural disasters. Engineers are also exploring the opportunities available in AI and IoT to create early warning systems to prevent terrible conditions. Furthermore, resilient engineering would be used to combat climate change, such as rising sea levels and extremes.

You, as engineers, are advancing a more robust world, from sustainable solutions and advanced robotics to quantum computing. You shall define the future of engineering through your commitment to sustainability coupled with technological advancement and a tireless pursuit to achieve excellence.

My heartfelt congratulations to the editorial board of Abhiyaana 2024 for your unwavering dedication to bringing this magazine to life.

Wishing you all the best—God bless!

Rev. Fr Wilfred Prakash D'Souza Director

Message from the ASST DIRECTOR



"Innovation distinguishes between a leader and a follower."

-Steve Jobs

It is both an honour and a pleasure to address you through Abhiyaana 2024, our annual college magazine. The world of engineering and technology is changing faster than ever. From AIML to Renewable Energy to Advanced Robotics, new innovations are reshaping industries and creating exciting opportunities. As engineering students, you are at the forefront of this transformation, with the chance to shape the future.

However, these opportunities often come with challenges. Technologies evolve quickly, and what is relevant today may become outdated tomorrow. The rise of AI and automation has sparked debates about their impact on jobs. For example, AI tools can now perform tasks like data analysis and even creative design. But instead of seeing these advancements as threats, we should view them as tools to enhance our skills and capabilities.

To thrive in this fast-paced world, you must be willing to adapt and grow. The skills you learn today will form the foundation, but the real challenge lies in staying curious and open to new ideas. The world is full of resources—online courses, research papers, and collaborative platforms—that can help you stay ahead. It's up to you to seize these opportunities and push your boundaries.

Remember, success is not just about technical expertise but also about creativity, resilience, and the ability to think differently. The future belongs to those who can imagine new possibilities and turn them into reality. I encourage you to embrace challenges, explore uncharted territories, and never stop learning. Each of you has the potential to make a difference, and I am excited to see how you will shape the future.

Wishing you all a year filled with growth, innovation, and success.

Rev. Fr Kenneth Rayner Crasta Assistant Director

Message from the **PRINCIPAL**



"Educating the mind without educating the heart is no education at all"

- Aristotle

It is with immense pride and joy that I extend my heartfelt appreciation to everyone who has contributed to this edition of our college magazine, Abhiyaana. This publication is more than just a collection of articles, stories, and achievements—it is a reflection of the vibrant spirit, creativity, and dedication that define our institution.

To our students, I commend your enthusiasm and commitment to academic and extracurricular excellence. Your participation in various activities, your pursuit of knowledge, and your innovative ideas continue to make our college a center of learning and inspiration. Your achievements, both big and small, bring honor to our institution, and I encourage you to keep striving for excellence, without ignoring the spirit of service.

To our esteemed faculty and staff, your unwavering guidance and support have been instrumental in shaping young minds. Your dedication to nurturing talent and fostering a culture of learning is truly commendable. Your efforts ensure that our students not only excel academically but also grow into responsible and well-rounded individuals. You need to focus on educating the heart, as well as the mind, at all times.

A special word of appreciation to the editorial team for their hard work and perseverance in putting this magazine together. Your keen eye for detail, creativity, and commitment to showcasing the best of our college life deserve high praise. This magazine stands as a testament to your dedication and passion.

As we celebrate our collective achievements, let us continue to uphold the values of knowledge, integrity, and excellence. May this magazine serve as a source of inspiration and a cherished record of the memories we create together.

Dr Rio D'Souza *Principal*

Message from the VICE PRINCIPAL



As we embark on another exciting journey of academic excellence, it is my great pleasure to extend heartfelt greetings to every member of our vibrant SJEC community. Year after year, our institution continues to thrive, driven by the dedication of our faculty, the unwavering pursuit of excellence by our students, and the steadfast support of our management.

This edition of our esteemed college magazine proudly showcases the outstanding achievements and initiatives that define our institution. From excellent research led by our distinguished faculty to remarkable performances in sports, from the dynamic activities of our technical clubs to the exceptional academic accomplishments of our students, this magazine stands as a testament to the spirit of innovation, dedication, and collaboration that permeates every aspect of campus life.

One of the defining qualities of SJEC is our commitment to fostering academic excellence and holistic development. Through innovative projects, student-led initiatives, and experiential learning opportunities, we strive to equip our students with the knowledge, skills, and mindset necessary to excel in an ever-evolving world.

Furthermore, I take great pride in acknowledging the unwavering commitment of our management to enhancing our facilities and infrastructure. Their visionary leadership has played a crucial role in fostering an environment that nurtures creativity, encourages exploration, and drives innovation.

As we celebrate the numerous milestones and achievements of our institution, let us also take a moment to express our gratitude to everyone who has contributed to our success—our dedicated faculty, talented students, supportive staff, and visionary management.

I extend my warmest wishes to the SJEC community as we continue to strive for excellence, embrace innovation, and explore new horizons together.

Dr Purushothama Chippar *Vice Principal*

Solitorial



Dear Readers,

With great enthusiasm, we present Abhiyaana 2024, our Annual College Magazine— a vibrant tapestry of creativity, innovation, and self-expression that encapsulates our journey over the past year. This edition stands as a testament to the remarkable talent within our college, enriched by the diverse perspectives and contributions of our students and faculty.

This year's theme, Emerging Technologies and Their Impact on Society, highlights how innovation is transforming the world around us. As you explore these pages, you will uncover a wealth of insights that reflect SJEC's commitment to technological excellence and its role in driving societal progress.

A key highlight of this year has been the innovative projects spearheaded by our students, demonstrating their ability to apply technology to real-world challenges. Equally commendable is the dedication of our faculty in advancing research, securing funding, and publishing impactful work that pushes the boundaries of knowledge. Beyond academics, our students have actively contributed to initiatives that harness technology for social good, reinforcing the spirit of innovation and responsibility that defines our institution.

We sincerely appreciate the efforts of everyone who has contributed to this edition. A special note of gratitude to the management for their unwavering support and encouragement in bringing this publication to life.

It is our hope that Abhiyaana 2024 ignites new ideas and inspires thoughtful reflection on the ever-evolving role of technology in shaping our future. Happy reading!

On behalf of the Editorial Team,

Ms Preetha D'Souza & Mr Nelson Marwin Fernandes

CONTENTS

Training, Placement & Collaboration	11
Computer Science & Engineering	21
Intelligent Computing & Business Systems	27
Electronics & Communication Engineering	33
Electrical & Electronics Engineering	42
Mechanical Engineering	52
Civil Engineering	58
Physics	66
Chemistry	 69
Mathematics	73
Business Administration	76
Computer Applications	 82
Physical Education	87
Central Library	98
SJEC Extravaganza	103
SJEC Rhythms	110
SJEC Thinkpieces	 125
SJEC Graduands - 2024	 131



In the academic year 2023-24, SJEC continued the remarkable stride in placements, achieving an impressive tally of 1000+ offers for the third consecutive year. While industry demands have grown significantly, this success is largely credited to our career-driven and skill-oriented training programs. At SJEC, we bridge the gap between academia and industry by aligning our efforts with corporate requirements.

The experiences of corporate leaders have provided our students with invaluable learning opportunities through regular interactions with industry experts and an active alumni network. These engagements have fostered an intellectually stimulating environment, enriching our students' understanding and preparedness for the professional world.

The academic year 2023-24 was particularly impactful for graduating students of engineering and management studies. Despite challenging conditions, SJEC hosted 150+ companies.

In addition, our industry-oriented training, vendor-based programs, specialized placement preparation initiatives like Udaan, and comprehensive skill-based training, including mock interviews, have propelled our students to new heights of success.

We remain committed to guiding our students on their campus-to-corporate journey. With placements still ongoing for the 2023-24 batch, we are optimistic about reaching even greater milestones in the coming months.

We take immense pride in our students, who have secured positions in esteemed organizations, building the global brand of SJEC. Simply put, SJEC is where talent meets opportunity!

Mr Sathyendra Bhat J Head Training & Placement and Placement Officer



NURTURING TALENT, SHAPING CAREERS:



A Year in Training and Placements

Placement Primer





A Placement Roadmap session, Placement Primer, was organized on September 11, 2023, for final-year BE, MBA, and MCA students registered for placement services. The session, led by Mr Sathyendra Bhat, Head of the Training & Placement (T&P) Cell, and Mr Glenson Toney, Training Coordinator, aimed to guide students in their preparation for the placement season.

Placement Training Introductory Sessions

An Introductory Training Session was held for three days, from October 18 to 20, 2023, for first-year students of the 2023-24 batch. The event, organized by the Student Welfare Committee in collaboration with J V Global, InsightGuru, The Sceptix Club, and Team Terror Bull Robotics, aimed to build a foundation for placement preparedness through a variety of engaging sessions.

Train the Trainer Workshop



A Train the Trainer workshop was held on the 2nd and 3rd of November 2023, tailored for faculty facilitators, with Mr Renjit Keshav, CEO of InsightGuru, as the resource person. This program prepared facilitators to deliver industry-oriented training to first and second year students.

Talk on Career Prospects in Intellectual Property Services



On December 4, 2023, a thought-provoking session titled "Career Prospects in Intellectual Property Services" was held for pre-final year students of CSE, AIML, CSBS, ECE, EEE, and ME. The session was delivered by Mr Gouraj Yadav, Co-Founder and CEO of Hourglass Research, who brought over 14 years of expertise in the field of Intellectual Property (IP).

Open House 2024



The T&P Cell in collaboration with the engineering departments facilitated the Open House which is a unique platform for pre-final-year students to gain firsthand insights into the placement journey. Specifically curated for sixth-semester Bachelor of Engineering (BE) students, the event facilitated an enriching interaction between final-year students who had successfully navigated the placement process and their juniors eager to follow in their footsteps.

Interactive Session on Preparing for Technical Interviews



An interactive session on technical interview preparation was held on May 31, 2024 for prefinal year students from AIML, ICBS, CSE, ECE, and EEE. The session featured Mr Gaurav Kamath and Mr Manikanta Nair, Co-Founders of MicroDegree, as resource persons.

Workshop on Crafting Effective Resumes



A workshop on crafting impactful resumes was held on June 7, 2024, for faculty members of SJEC, Mangaluru. Conducted by Mr Glenson Toney, Training Coordinator of the T&P Cell, the session provided comprehensive insights into effective resume preparation.

UniCourt India Workshop Series for IT Students



As part of a collaboration with UniCourt India, a series of workshops were conducted for pre-final year IT students. Led by industry experts, these workshops attracted over 100 students each and focused on cutting-edge technologies such as Django, RESTful APIs, microservices, and machine learning.

Enhancing Career Readiness through training

Between January and March 2024, comprehensive placement preparation training sessions were organized, specifically targeting students from various semesters. JV Global Pvt Ltd. conducted the training for 3rd and 5th semester students from the 16th to the 25th of January. Subsequently, Iskew Learning provided specialized training for 1st semester MBA and MCA students from the 11th to the 15th of March. These initiatives were meticulously crafted to enhance students' career readiness, equipping them with the necessary skills to meet industry demands and succeed in their professional journeys.



Flagship Events

SJEC hosted HackToFuture 2.0, a 36-hour hackathon in association with EG India.

St Joseph Engineering College hosted EG India's 36-hour national Hackathon, HackToFuture 2.0 from 19th to 21st of February 2024 at the Kalam Auditorium. The event brought together over 150

ambitious students from across India, tasked with solvina challenges in Artificial Intelligence, Blockchain, Cybersecurity, and Social Innovation. The hackathon witnessed immense talent and

Jinsei (SJEC) taking second place. Finally, in the Open Theme category, Team Cyrus claimed the winner's title, closely followed by Team ShurikenSyntax (SJEC).

Allan Bech, CTO of EGDK, commended the innovative use of emerging technologies, urging students to collaborate and strengthen their ideas to help

Mangaluru evolve into a thriving technology hub. Erik Tomren, Executive Vice-President, emphasized sustainable innovation for addressing global challenges, while Jacob Buchardt, Vice-







creativity from participants shortlisted from 1,600 registrations across 13 states. The top 40 teams worked tirelessly to transform their ideas into tangible solutions over an intense 36-hour period.

The winners across the four tracks were awarded a cumulative cash prize of ₹2 lakhs. In the Artificial Intelligence category, Team Gabbar Singhs (SJEC) secured the top position, with Team Code Commandos (NMAMIT, Nitte) as runners-up. In Blockchain, Team Digital Voyages (Sri Sairam College of Engineering) emerged victorious, followed by Team CODIUM (P A College of Engineering). The Cybersecurity track saw Team FullStackSlayers (NITK Surathkal) clinching the top spot, with Team

President Corporate PMO, highlighted the region's potential for professional growth in the tech sector.

Sponsored by EG India Pvt Ltd, a leading Nordic Vertical Software

provider, HackToFuture 2.0 exemplified EG's commitment to fostering innovation. Headquartered in Denmark with offices across Europe and India, EG has been creating transformative software solutions since opening its Indian branch in Mangaluru in 2022. This hackathon served as a vibrant platform for young innovators and industry leaders to collaborate, shaping solutions that promise to impact society and the business world alike.



At St Joseph Engineering College, preparing students for a successful career has always been a cornerstone of the institution's commitment to excellence. While this journey begins in the first semester itself, the Training and Placement (T&P) Cell's flagship

initiative, Udaan, serves as the final leap toward equipping students with the essential knowledge, skills, and attitude needed to excel in interviews.

Udaan is a meticulously designed, five-day intensive program that holistically

prepares students for the challenges of the placement season. The initiative encompasses various crucial components such as technical refresher sessions, mock group discussions, resume reviews, personal feedback,

and professional etiquette training. The program culminates in a mock interview session, a highlight of Udaan, where industry leaders, including technical experts and HR professionals, conduct one-on-one interviews with students. Each interview

lasts between 10 to 15 minutes and is followed by personalized feedback from these seasoned professionals. This interaction provides students with invaluable insights into their strengths and areas of improvement, instilling confidence and readiness to

face real-world placement interviews.

Between July and September, Udaan was successfully conducted across multiple departments, including Computer Science and Engineering, Mechanical Engineering, Civil Engineering, Electrical and Electronics Engineering, Electronics

> Communication and Engineering, Intelligent Computing and Business Systems, Business Administration. and Computer Applications. The program's comprehensive and approach structured that **SJEC** ensures

graduates are well-prepared, not only technically but also in their soft skills, to make a seamless transition from campus to the corporate world. Udaan exemplifies SJEC's dedication to shaping industry-ready professionals.







Fred George, the co-discoverer of Microservices, captivated BE and MCA students at a thought-provoking session held on September 16, 2023. Organized in collaboration with EG India, a leading Nordic vertical software solutions provider, the talk explored the fundamentals of Microservices architecture. Fred defined Microservices as compact programs, typically under 100 lines of code, characterized by loose coupling and self-monitoring.

UniCourt CodeFest





UniCourt Codefest, the inaugural event of the UniCourt Workshop Series, was successfully conducted for pre-final year students from AIML, ICBS, CSE, and ECE streams on 16 May 2024. The program was led by distinguished representatives from UniCourt India, Mangaluru, including Ms Chandrani Sarkar (HR Head) and Mr Vineet Lasrado (Lead Software Engineering). The event focused on emerging Open Source and Cloud-Native technologies such as AWS, Azure, and GCP.

Specialized Certifications Program through Industry Partners

124 Students
completed
Certifications
through
Wipro
TalentNext
Program

307 students received Salesforce Administrators Certification 251 students
received
Salesforce
Developer
Certification

Industry relevant certifications through **IBM Skillsbuild** Targeted
Technical
training through
Industry
Leaders from
UniCourt India

Faculty upskilling through Industry Connect-Wipro TalentNext



Ms Nandini Maninarayana
Assistant Professor in the Dept
of ECE completed the Advanced
Technology Certification under
Digital Readiness Program of
Wipro TalentNext initiative



Mr Nitheesh Kumar B S
Assistant Professor, MCA
cleared the Wipro Certified
Faculty assessment in
DotNet Full Stack



Ms Teena Annamma James
Assistant Professor, ICBS
completed the Wipro Certified
Faculty assessment in
DotNet Full Stack

BEST PRACTICE

Campus to Corporate Program

Shaping leaders of tomorrow

With changing workplace dynamics and transformations at a faster pace, the need to thrive to match the trends cannot be undermined. Young graduates have to be equipped with skills that make them relevant in the business world. It would open an alleyway of opportunities to shape their career. Adapting quickly, acquiring the skill sets, and reinventing themselves would be a game changer, making them employable and a clan ready for the future. With an intent to shape leaders of tomorrow, the Training & Placement Cell at SJEC works towards imbibing graduates with the right mixture of Knowledge, Skill, and Attitude through the Campus to Corporate Program. The CTC Program trains students to develop problem-solving skills, inculcate business etiquette, and provides career counseling, aptitude, and company-specific training in addition to honing the technical prowess, to shape successful careers.

Audited courses on Problem-Solving Skills and Business Etiquette were rolled out for the first and second-year students of the autonomous batch as part of the Campus to Corporate Program in the academic year 2023-24.





HIGHLIGHTS OF THE OFFICE OF COLLABORATIONS



June 28, 2023 – "A Guide to Study Abroad for Engineering Students"



The Office of Collaborations, in collaboration with Planet Education Karnataka, organized an insightful talk for pre-final year students, covering higher education opportunities in Australia, the USA, the UK, Canada, Ireland, Germany, and Dubai.



July 28, 2023

- International
Internship and Global
Volunteer Exchange
Opportunities

Partnering with AIESEC, this session aimed to broaden the horizons of pre-final year students by exploring cross-cultural internships and global volunteer opportunities.

September 25, 2023 – Delegation from University of Olivet, USA



The Office of Collaborations welcomed a distinguished delegation from the University of Olivet to foster educational ties and collaborative opportunities with SJEC.

September 26, 2023 – TOEFL and GRE Information Session



An essential session on TOEFL and GRE was organized in partnership with Educational Testing Services (ETS), followed by a mock test to help final-year students prepare for these crucial exams.



October 5, 2023 – One-to-One Counselling and Guidance on Higher Education Abroad

A full-day session organized for final-year students by the Office of Collaborations and Planet Education Karnataka, offering personalized guidance on pursuing higher studies abroad.

October 16, 2023 – Opportunities in Cambodia for Internship and Entrepreneurship



A talk on internship and business opportunities in Cambodia, highlighting small-scale businesses and entrepreneurship, was conducted for final-year students.

October 31, 2023 – Higher Education in Germany and Europe



A talk focused on higher education opportunities in Germany and Europe was conducted for final-year students to explore international academic avenues.

November 11, 2023 – One-to-One Counselling on Higher Education Abroad



A half-day counselling session was scheduled to assist final-year students with their queries and concerns about pursuing higher education abroad.

December 15, 2023 – IELTS Orientation Program

This session offered guidance on preparing for the IELTS exam, tailored for pre-final and final-year engineering students.

December 11, 2023 - Higher Education in the USA



A session featuring Mr Sherwin Fernandes, an esteemed SJEC alumnus and Senior Member of Technical Staff at AMD, USA, provided insights into higher education opportunities in the USA.

January 11, 2024 – Beyond Borders: Insights into Higher Studies and Living Abroad



Hosted in association with the SJEC Alumni Association, this session shared invaluable insights on higher education and life abroad, aimed at third and fourth-year engineering students.

February 9, 2024 – International Summer Internship Programme



In collaboration with Vishwaniketan Institute of Management, this talk introduced students to global summer internship opportunities.

February 26, 2024 – The Future in Civil Services



Organized in partnership with St Aloysius Institute of Civil Services, this session focused on career prospects in civil services for engineering, MBA, and MCA students.

March 20, 2024 – UWM-SJEC Joint MS Programme Talk



A session was held for final and pre-final year students, providing details about the Joint MS Programme between SJEC and the University of Wisconsin-Milwaukee.

April 23, 2023 - Global University Fair



Organized with Planet Education Karnataka, this fair allowed students to interact with top international universities and explore various study opportunities abroad.

May 29, 2024 – Orientation Program for ME and CV Students



An orientation session for third-year Mechanical and Civil Engineering students, organized in association with Triumphant Institute of Management Education Pvt Ltd (T.I.M.E.), was held to guide them on career paths and higher education options.

From the Alumni - A Journey to Global Education

As the world evolves rapidly, lifelong learning is key to staying ahead. Higher education not only provides academic knowledge but also essential skills for personal and professional growth. Pursuing a master's degree offers a unique experience beyond undergraduate studies, shaping one's perspective through diverse peer groups, responsibilities, and expectations.

After my bachelor's, I wanted to continue my education and decided to pursue a master's degree, where I could build on my foundation and explore new areas that interested me with a more global exposure. After evaluating various options, I chose to join the National University of Singapore (NUS), which is ranked among the top 8 universities globally. Being part of NUS has helped me developed an international perspective by networking and working with peers from diverse backgrounds and nationalities.

NUS offers a vast network of resources, an outstanding faculty, and the exposure to different cultures that has made me more adaptable and open-minded, thereby contributing to my personal growth. I've learnt how to expand and maintain my professional network, and I've developed the drive to hustle and excel. This has also pushed me to step out of my comfort zone, accept new challenges, and think more critically.



Gaining admission to prestigious universities like NUS requires more than academic excellence; extracurricular involvement and a passion for the chosen field are equally important. The Office of Collaborations at SJEC played a crucial role in guiding me through the application process by connecting me with the right people and resources. Their support helped me evaluate multiple options across countries like the US and Australia before making an informed decision to join NUS.

- Simonne Letetia Pinto Alumni, CSE - 2022 Student- National University of Singapore (NUS)

HOD'S MESSAGE

Department of COMPUTER SCIENCE & ENGINEERING



Dr Sridevi Saralaya Professor & HOD



Let's go invent tomorrow rather than worrying about what happened yesterday. Everybody in this country should know to learn how to program a computer, Because it teaches you how to think. These were the words of Steve Jobs. The above quote from Jobs could be reframed in the current context as Everybody in todays' world should know how to use AI tools effectively and ethically.

In order to find technology-driven solutions to complex problems, the role of Computer Science Engineers is of utmost importance. Across the globe, every engineering domain is now recognizing the necessity of Generative AI commonly referred as ChatGPT, as it has become an indispensable requirement for solving real-life problems in any field or industry. Consequently, Computer Science Engineers play a significant role in providing cutting-edge solutions in the realm of Science and Technology. The automation and digitization of services have elevated industrial development, providing mankind with luxury and numerous conveniences.

The CSE department of SJEC constantly strives in ensuring that the course curriculum is industry relevant and comprehensive by maintaining a strong connection with the industry, academic and research institutes and our alumni. This initiative aims to enhance student's technical knowledge as well as their business and management skills, enabling them to shape their careers in these challenging times. The department's efforts in this regard are truly commendable.

Dear students, always remember that your primary objective as engineers is to keep yourselves updated with the latest knowledge. This will ensure that you remain relevant in this ever-changing world, allowing you to lead and contribute to the growth of our nation. By doing so, you will make both the institute and your parents proud.

I take great pride and honour in extending my heartfelt congratulations to the College Magazine editorial board for successfully publishing yet another edition of the annual magazine Abhiyaana 2024.

Academic Mavericks

CONGRATULATIONS

TOPPERS

IV YEAR



Jessica James



Lavisha Andri Serrao



Sharanya S Shetty

III Year



Shanol Leanne Dsouza



Simone Angela Monteiro



Lester Shane Fernandes

II Year



Amina Nidha



Sanjana D Kotian



Anisha Lopes

Event Showcase





An **educational session on GitHub** was conducted from October 18 to 20, 2023, for the first-year SJEC students. The resource persons for the session were Mr Vyasa M. Nayak, Ms Charis Pinto, Mr Joywin Bennis, Mr Arshith, Mr Pratham Bhat, Mr Omkar, and Mr Joshwa, students of the IV semester CSE.



Google DSC from CSE-SJEC conducted a session on "Introduction to Google Crowdsource" on October 5, 2023, for SJEC students. Ms Sarita Behera, Crowdsource Community Manager, was the resource person.



Google DSC from CSE-SJEC conducted a session on "How to Win at the Sport of Programming" on October 6, 2023, for SJEC students. Mr Shaun Mathew Crasta was the resource person.



The Department of Computer Science and Engineering, in association with Cipher and CSI, organized a workshop on "Generative AI: Grafting Custom Solutions for Your Needs Using OpenAI" on February 3, 2024, for III semester CSE students. Mr Vinod Kumar, CEO, Mr Naveen Bhat, Co-Founder & CTO, and Ms Kavya, Technical Lead at Aykan Technology, Mangalore, were the resource persons.



A hands-on session on **"Star UML"** was conducted on February 3 and 7, 2024, for V semester CSE students. Dr Hareesh B., HOD of MCA, was the resource person.



The Sceptix Club from CSE-SJEC conducted a session on "Freshers' Onboarding Programme" on March 15, 2024. All Sceptix Club members participated in the session.



The Department of Computer Science & Engineering, in association with the Computer Society of India (CSI), conducted a hands-on workshop on "Robotic Process Automation Design and Development Using UiPath" on June 22, 2024, for all interested faculty and students of CSE-SJEC. Mr Lohith B., Automation Analyst at Novigo Solutions Pvt. Ltd., Mangaluru, served as the resource person for the event. A total of 49 students attended the workshop.



A **two-day industrial visit** was organized for CSE VI semester C section students to Nestsoft Technologies, Kochi and Kanan Devan Hills Plantations Company, on June 20 and 21, 2024. Dr Vincent Crasta, Professor, Physics Department, and Dr Sunitha Guruprasad, Associate Professor, CSE Department, accompanied the students. A total of 45 students attended the industrial visit.



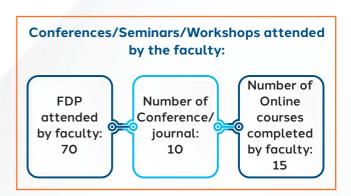
The Department of Computer Science & Engineering, in association with ISTE, conducted a workshop on "LaTeX Tool" on June 28 and 29, 2024. Dr Harivinod N. and Dr Shrisha H. S. were the resource persons. A total of 120 students participated in the workshop.



A **two-day industrial visit** was organized for CSE VI semester A & B section students to SAP Lab and Surya Software Company, Bangalore, on June 28 and 29, 2024. Dr Ramananda H.S., Professor, Mathematics and Dean of Student Welfare, Dr Venkatesh Babu K.P., Assistant Professor, Mathematics Department, Ms Vanisha P. Santhmayor, and Ms Anusha S., Assistant Professor, CSE Department, accompanied the students. A total of 78 students attended the industrial visit.



The Department of Computer Science and Engineering, in association with the IE(I) Chapter, organized a workshop on "Applied Machine Learning" on March 27, 2024. VIII semester CSE students and SJEC staff participated in the session. Ms Pramila R. M., Assistant Professor, Data Science Department at CHIRST (Deemed to be University), Pune, was the resource person.



SPOTLIGHT ON FACULTY



Dr Sridevi Saralaya, Professor and HoD-CSE was awarded the Best Paper Award for the paper titled "Retromailer- An Email Marketing Campaign using Amazon SES" presented in IEEE International Conference on Smart Technologies



and Systems for Next Generation Computing (ICSTSN 2023).



Ms Namitha Parikkal has been selected as the winner of the Art of Teaching 2.0 competition, an initiative organized by GTech Learn to honor exceptional teachers who play a crucial role in shaping the future generation.

Best Practice Unveiled

- Online Certificate programmes through Coursera, Infosys SpringBoard, Oracle Academy and Amazon Web Services for faculty and students.
- Conduction of technical sessions through department Clubs and Associations such as CIPHER, CSI, Skeptics and GDSC
- Building Academic-Industry gap by organizing several Expert talks/workshops/webinars by Alumni, Academia and Industry experts.
- Alumni-student interaction to equip the students with the latest in industry.
- Various technical and aptitude sessions conducted to improve placements.
- Outreach programs conducted to provide awareness on several government schemes in rural areas.
- Encourage students to carry out projects to address societal issues as well as develop Product and Research based projects.
- Maintaining well equipped Lab infrastructure and Departmental Library.
- Organizing Industrial visit (IV) to bridge the gap between Academic and Industry.

Research article titled "NVS-GAN: Benefit of generative adversarial network on novel view synthesis" authored by Dr Shrisha H.S., Associate Professor, Department of Computer Science & Engineering has been published in International



Journal of Intelligent Networks, Volume 5, 2024. The Scopus indexed journal has a CiteScore of 7.9 and has SJR Quartile Q1.

Journey to Doctorate



Name: Dr Sunitha Guruprasad

PhD Title: Development of
Hierarchical Evolutionary
Framework for Constitution of
Autonomous Intrusion Detection
System

Research Center: CSE-SJEC
Research Guide Name: Dr Rio DSouza
Completed on: Month & Year: Oct 2023

Reflections from the Alumni

66

As a proud 2024 graduated student of the St Joseph Engineering College in CSE, I am immensely grateful for the strong foundation it has provided. The dedication of the faculty, combined with hands-on learning opportunities and participation in various technical clubs, has been instrumental in



preparing me for the tech industry. These experiences not only helped me build my technical skills but also allowed me to apply them to solve real-world challenges.

I cherish my time at SJEC and the opportunities it provided for personal and professional growth. I am excited to see the department continue to inspire future generations and look forward to staying connected with this wonderful community.

Vijayalaxmi Bhat G M

CSE, Batch: 2024

Current position:Packaged App Development Associate Engineer, Accenture solutions Pvt Ltd

SHINING STARS





Daniel Salvadore Concessao- 2nd place in 1st National Roller Skating Championships - Speed Skating held at Chandigarh & Chennai from 11th to 25th December 2023.



Name:Jessica Fernandes VTU -2nd Rank

Celebrating KSCST Award



Title: Promotional Email Unsubscription Using Web Extension

Students: Prerana C Bangera, R Vinay, Ramgopal P, Rashmitha R

Guide: Ms Prajna M
Amount: Rs. 4,000/-

Title: Bidirectional Communication System for deaf blind individual Students: Flaivin Dsouza, Jeevan V Jijo, Lavisha A Serrao, Jane Oveita Vaz Guide: Dr Sridevi Saralaya

Amount: Rs. 5,000/-



Reflections from the Alumni

Reflecting on my time at St Joseph Engineering College, Mangaluru, all that I remember is sweet memories and memorable times. The Computer Science department played a great hand in helping me reach where I am now. It wasn't just about learning the core subjects; it was about being prepared for the real world as an all round engineer.

The department gave me a solid foundation, both technically and personally, which has been invaluable in my career. The encouragement to take on leadership roles, like leading and organizing events helped me grow beyond the classroom and taught me skills that I still rely on today. The faculty, who were always approachable and incredibly knowledgeable, made sure we understood and gained valuable knowledge helping in facing our exams confidently.



Looking back, I can confidently say that my time here was key in kick starting my journey into the IT industry. I'm deeply grateful for all the support and guidance I received, and SJEC will always hold a special place in my heart.

With gratitude,

Vedanth K

CSE (Batch: 2024)

Software Engineer
Novigo Solutions Pvt. Ltd. , Mangaluru

MESSAGE ROS

Department of INTELLIGENT COMPUTING & BUSINESS SYSTEMS





"The capacity to learn is a gift; the ability to learn is a skill; the willingness to learn is a choice."
- Brian Herbert

The Intelligent Computing and Business Systems department hosts B.E degree programs in Artificial Intelligence and Machine Learning, Computer Science and Business System and Computer Science and Engineering (Data science). The department has a team of well qualified, experienced and motivated faculty members to prepare the young minds of our students for global competition. Students of the department are motivated and nurtured to be ready for the industry with hands on experience on current technologies/programming languages. The first batch of Artificial Intelligence and Machine Learning students have brought laurels to the department with exceptional performances along with a university rank. Students have excelled in securing placements as well as obtaining higher education opportunities across the world.

The department regularly organizes various professional development activities and grooms its students with the communication and personality development programs Sports, co-curricular and extra-curricular activities takes place at institute level and students are motivated and encouraged to participate in various intra-college, inter-college, inter-university fests/competitions and have excelled in their performance.

Department constantly works for overall growth of students and inculcate the qualities that are required and acceptable by Society. Faculty/students take initiative for social causes at individual level and as a team under different banners/clubs of the Institute. Turning a student in to a good and proficient citizen is the prime aim of the department. We hold firm belief in our ability to succeed, and we nurture an attitude of self-reliance, confidence, commitment and responsibility in the students. I am confident that the students of the department would justify the credibility of the department by showing a high level of professional competence in their chosen fields. I would like to thank the teaching and non-teaching staff members of the department for their commendable efforts towards fulfilling the departmental objectives.

Congratulations to the editorial team for their exceptional efforts in bringing out the best of SJEC in 2023-24 through this issue of the Abhiyaana magazine.

CONGRATULATIONS

TOPPERS

AIML (III year)



Reeshel N Valentina



Gianna A Lewis

Thrisha M



CSBS (III year)

Alvena D. Sequeira Shane D. Noronha



AIML (II year)



Reevan Dmello



Neema J Rai

CSBS (II year)



Rayan Pinto



Suptha Surendra Shetty

CSDS (II year)



Bhoomika Rai



Tanvi Shetty



Vidya Ravunni

AIML (I year)



Anish



Kruthika K R

CSBS (I year)



Anitha Mascarenhas



Aarshamol Babu Varghese

CSBS (I year)



Blessy Hezita Dsouza



ACTIVITIES OF THE DEPARTMENT





The Department of Intelligent Computing and Business Systems (ICBS) in association with IEEE SJEC Student Chapter, organized a workshop on "LLM in Industrial Standpoint" at Prerana Hall, for ICBS faculties and students on 13-05-2024 during 10:00 am-04:00 pm. Mr Muthumanickavel Swaminathan. Lead Data Scientist, Cognizant, UK, was the resource person for the event.

Coordinator: Ms Saleena T.S



Students from St Joseph Engineering College, VI Sem CSBS took active participation on **Beach Cleaning Activity** as a part of Swachh Bharat Programme at Sasihithlu End Point, Hejamadi on 03/02/2024.

Co-ordinator: Mr Davor John D'Souza



Students from St. Joseph Engineering College, VI Sem CSBS volunteered at **Saanidhya Residential School & Training Centre for The Mentally Challenged, Shakti Nagar**, Mangalore - 03/02/2024.



Students from St. Joseph Engineering College, IV Sem CSBS, training children at St. Francis Xavier Government School, Ferar on 8th February 2024.



Students from St. Joseph Engineering College, IV Sem CSBS, training children at Maryvale higher primary School & Maryvale high School on 22nd June 2024.



Students from St. Joseph Engineering College, IV Sem CSBS, training children at DKZP Govt Higher Primary School, Thumb, 8th Feb 2024.

ACHIEVEMENTS OF STUDENTS





Kate Angela Jeanne Pereira (AIML) secured 8th Rank in the University Level- VTU



Vaibhav, Sandhya and Wileesha (AIML)
Secured 1st Runner Up prize
in Unscramble 2.0 held at YIT on 24-25 Jan 2024



Ashwija Mayya
Cleared GATE "Data Science
and Artificial Intelligence (DA)"
in Feb 2024



Reevan Coelho
Cleared GATE "Computer Science
and Information Technology (CS)"
in Feb 2024



Samrudh A U
Cleared GATE "Data Science
and Artificial Intelligence (DA)"
in Feb 2024



Linsha Neha Bangera, CSDSShe was awarded Scholarship funded by CSR Initiatives of Quest Global across 3 Indian States.



First Place, Boeing National Aeromodelling Competition, West Zonal Event, IIT Bombay, 28-29 Dec. 2023.

Members: Akash Acharya, Mayur Poojary & Abhik L Salian

Conferences/Seminars/ Workshops attended by the Faculty:

Workshop/ FDP/Seminar:

Conferences: 2

Paper
Publications:



Date: 2nd March and 3rd March 2024

Organisers: CID Karnataka, DSCI, Infosys and PES.

Place: PES Bengaluru

Prize: 30,000 INR, Won in the Hackathon

Members: Sheldon Menezes (CSE), Glen Elric Fernandes (CSDS), Shashank Rao U (CSDS), Jeswin

Jacob Lobo (CSDS)

PhD Awarded

Dr Shabina Bhaskar

Department of Intelligent Computing and Business Systems Ph.D awarded year 2023

Thesis title: Audio- Visual Speech
Recognition and Semantic
Summarisation for Hearing Impaired persons.

From Central University of Kerala, Kasargod, Kerala

BEST PRACTICES

Offering free online certificate programs through Coursera for faculty and students.

Organizing industrial visits (IVs) to strengthen the connection between academia and industry.

Facilitating alumni-student interactions to provide students with insights into the latest industry trends.

Running
outreach programs
to raise awareness
of various
government
schemes in rural
areas.

Bridging the
Aademic-industry
gap by organizing
expert talks, workshops,
and webinars featuring
alumni, academia,
and industry
professionals.

Maintaining
well-equipped
laboratory
infrastructure and
a departmental
library.

Conducting technical and aptitude sessions aimed at improving student placement rates.

Encouraging students to undertake projects that address societal issues, including both product- and research-based initiatives

In Their Own Words: Alumni Journey to Success





As a proud alumna of the Intelligent Computing and Business Systems at St Joseph Engineering College, Vamanjoor, my journey has been both rewarding and transformative. Being an 8th rank holder in Artificial Intelligence and Machine Learning under Visvesvaraya Technological University (VTU), I was fortunate to have cutting edge technologies, thanks to the academic environment that SJEC fosters.

The ICBS Department is renowned for its excellence, combining theoretical knowledge with hands-on experience. The exposure I gained through various hackathons, technical seminars and workshops were instrumental in shaping my problem-solving skills and technical expertise. These events sparked for innovation and collaboration in me.

One of the most enriching aspects of my time at SJEC was the exceptional faculty. The professors in the ICBS Department were very approachable and they encouraged me to explore interdisciplinary approaches to problem solving. This experience laid the groundwork for my pursuits allowing me to delve into diverse areas of AI and ML.

St Joseph Engineering College has always been pivotal in shaping my career, providing me with the skills, knowledge and opportunities to excel in today's fast evolving world for which I'm forever indebted.

Ms Kate Angela Jeanne Pereira

2020-2024 batch(AIML)

Currently pursuing Master of Science (MS) - Information Systems in Natural Sciences,
University of Bielefield, Germany



As a proud alumnus of the ICBS Department at St Joseph Engineering College, Mangaluru, I am honoured to reflect on my time in the AI and ML Engineering program. Being part of the first batch of this cutting-edge course was an incredible experience. Despite being new, the department delivered top-tier education, backed by highly knowledgeable faculty and an exceptional HOD. Their dedication ensured that we received a quality education that prepared us well for the future.

The four years I spent here were filled with opportunities to grow both academically and personally. From participating in hackathons to winning competitions, the college constantly encouraged us to apply our AI and ML skills in real-world scenarios. My

involvement in the Automation and Robotics Club (ARC) was another highlight, as it allowed me to explore automation and robotics hands-on.

SJEC not only fosters academic excellence but also supports students in developing a well-rounded personality through extracurricular activities. Hosting events and engaging in the college culture was an enriching part of my journey. I am deeply grateful for the knowledge and experiences gained, which continue to guide me in my personal and professional life.

The college's commitment to staying at the forefront of technology, coupled with a nurturing environment, truly sets it apart. I am proud to have been part of such an institution and I carry the values learned here with me as I continue to grow in my career.

Mr Aveen Vas

2020-2024 batch (AIML) Currently pursuing Master of Science (MS) in Computer Science, University of Stuttgart, Germany

HOD'S MESSAGE

Department of ELECTRONICS & COMMUNICATION ENGINEERING





"Engineers are architects of the future, and great mentors help them to build not just structures but a vision for a better world." These profound words by Dr A.P.J. Abdul Kalam highlight the indispensable role of mentoring in shaping engineers who are not only skilled professionals but also compassionate individuals contributing to Nation Building. In Engineering Education, the responsibility of nurturing well-rounded individuals with technical expertise, ethical values, and a sense of social responsibility rests heavily on educators.

In 2024, SJEC has aptly chosen "Mentoring" as its theme to emphasize the importance of guiding students in their academic and personal growth. At the Department of Electronics and Communication Engineering, our unique mentoring system is a testament to this commitment. Each faculty member mentors a group of 15 to 20 students, fostering close interactions that address academic performance, stress management, and career development. Through this, we guide students in projects, internships, outreach activities, and extracurricular pursuits, ensuring a holistic education aligned with the National Education Policy (NEP). Our ultimate aim is to shape disciplined, skilled, and empathetic engineers who will serve society with integrity and innovation.

I take this opportunity to thank the SJEC management, Staff, and Students for their unwavering support in creating an environment that nurtures lifelong learners and responsible citizens. I also extend my heartfelt congratulations to the Chief Editors and the entire team behind "Abhiyaana 2024". Your dedication and hard work in bringing this Magazine to life reflect the immense talent and creativity of our academic community.

Let us continue to work together to uphold the values of SJEC and inspire future generations to achieve excellence in all their endeavors.

CONGRATULATIONS

TOPPERS

IV Year



Vikhyath D K



Swathi Rai M



Ashlyn E. Dsilva



Nissi L. Dsouza



Ananya Aithal

III Year



Havala P N



Sinchana B R



Khushi Shetty



Brinda



Pramitha V D'Souza

II Year



Adithya G Shenoy



Lohith K S



Prisha K. Ail



Joshua Q. Albuquerque



Vinutha D

ACTIVITIES OF THE DEPARTMENT



Workshop on "Patents: Prior Art Search"



The Department of ECE organized a workshop on October 9, 2023, for the faculty members of SJEC. Open to all SJEC faculty, the workshop attracted 28 participants. Dr Purushothama Chippar, Vice Principal, served as the resource person. The primary objective of the workshop was to provide valuable insights into performing prior art searches and identifying the novelty of projects.

Workshop on "Conducting Effective Novelty Search"



The Department of ECE conducted a workshop for final-year ECE students on October 12, 2023, titled "Conducting Effective Novelty Search." The session was led by Dr Venkatesh Babu K. P., Assistant Professor, Department of Mathematics. The workshop aimed to provide an overview of prior art searches and the process of identifying project novelty.

Mock Interview Session as Part of "PRAYATHNA 2023"



As part of "PRAYATHNA 2023," the Department of ECE organized a Mock Interview session for final-year ECE students on October 28, 2023. The session included both Technical and HR interview rounds. A panel of experts comprising external and internal members provided valuable insights to the students.

Bridge Course: "ElectroLink - Path to Proficiency"



The Department of ECE organized a three-day bridge course titled "ElectroLink - Path to Proficiency" from November 27–29, 2023, aimed at strengthening the knowledge and skills of second-year ECE students. The program featured a blend of theoretical sessions and hands-on training on topics aligned with the ECE curriculum. Faculty members from the department served as resource persons, delivering comprehensive insights into various subjects.



Technical Seminar on "VLSI DESIGN: Current & Future Perspectives"

The Department of ECE conducted a technical seminar titled "VLSI DESIGN: Current & Future Perspectives" on February 20, 2024, for second- and third-year ECE students. The session was led by Ms Sampada Pachaury, Director of IUCEE Foundation. The seminar aimed to provide students with comprehensive insights into the current trends and future advancements in VLSI design.

Talk on "Experiential Learning for Effective Teaching"



The Department of ECE, in collaboration with the Library and Learning Group (LLG), organized a talk titled "Experiential Learning for Effective Teaching" on April 8, 2024, for the faculty of SJEC. The session aimed to deepen the understanding of pedagogical methods for effective teaching. Dr Anjali Ganesh, Professor in the MBA Department served as resource Person.

Talk on "VLSI Fundamentals: Building Blocks of Modern Electronics"



The Department of ECE, in collaboration with the IE(I) SJEC Student Chapter, organized a talk titled "VLSI Fundamentals: Building Blocks of Modern Electronics" on May 17, 2024, for first-year ECE students. The session was delivered by Dr Arjun Sunil Rao, a 2014 alumnus and Assistant Professor in the Department of ECE, Manipal Institute of Technology (MIT), MAHE. The talk aimed to introduce students to the design principles of digital VLSI circuits.

"Open House 2024" for Third-Year ECE Students



The Department of ECE, in collaboration with the Placement & Training Group, organized "Open House 2024" on May 17, 2024, for third-year ECE students. The event aimed to address placement challenges and share preparation insights. Final-year ECE students Ms Nissi Linnet Dsouza, Mr Prashanth Parashurama Koti, Mr Shravan, Mr Sonal Tennison Monis, Ms Swathi Rai M, and Mr Vinod Nikhil Monteiro shared their placement experiences.

Workshop on "Innovate-2024: Turn Your Ideas to Reality"



The Department of ECE, in collaboration with the IEEE SJEC Student Branch and IEEE Mangalore Subsection, organized a two-day workshop on "Innovate-2024: Turn Your Ideas to Reality" from June 13-14, 2023, for pre-final year ECE students. A total of 133 students participated. The workshop aimed to provide insights into ideation, helping students select relevant industry and socially impactful projects, plan their implementation, document their work, and understand the ethical considerations involved.

Three-Day FDP on "Advancing Research with MATLAB & Simulink"



The Department of ECE, in collaboration with MathWorks and CoreEL Technologies, organized a three-day Faculty Development Program (FDP) on "Advancing Research with MATLAB & Simulink" for SJEC staff from June 10-12, 2024. Mr Rakshith B. S., Associate Manager-Senior Application Engineer at CoreEL Technologies, Bengaluru, was the resource person. The FDP aimed to demonstrate the application of MATLAB & Simulink in various research areas, provide hands-on training for effective tool utilization, and encourage their adoption to enhance research quality and productivity.

Mock Interview Session



A "Mock Interview Session" was conducted on June 29, 2024, at the Training & Placement Cell. The session featured both Technical and HR rounds, with four technical experts and four HR professionals as panel members. The panel included Mr Pavan Raj and Mr Pringal D'Souza from KarMic Design Pvt. Ltd., Mr Vageesha and Mr Prathik from Brevera Technologies, Mr John Rohan from Global E-Softsys, Ms Diana Bangera from Novigo Solutions, Ms Sanjana Gopal from EGDK India Pvt. Ltd., and Ms Priya from Exito Media Concepts Pvt. Ltd.

Hands-On Session on "New Age Computer Vision"



The Department of ECE organized a hands-on session on "New Age Computer Vision" on June 28, 2024, for fourth-semester ECE students. The session aimed to help students understand the fundamental principles of computer vision, explore modern techniques, and gain practical experience with Balance-Eye Equipment to familiarize them with its applications. Mr Ajith S. Rao, Chief Technology Officer at Equidor MedTech Pvt. Ltd., Bengaluru, was the resource person for the session.

Alumni Reflections

SJEC played a pivotal role in shaping my career by offering ample opportunities for growth. From innovative programs to dedicated mentors, this institution paved the path for my achievements.

To prospective students, I wholeheartedly endorse this engineering college as a



launchpad for your aspirations. Embrace the journey, seize every opportunity, and watch as this institution propels you towards a future of limitless possibilities. Your success story begins here.

Anuj Virgil D'Souza Alumnus 2016 Batch Sr Software Engineer - Motor Controls Stanley Black and Decker, USA

PRODIGI ACTIVITIES



Inauguration of "Prodigi Activities 2023-24 and Samarthya Club"



On December 7, 2023, the Department of ECE inaugurated the "Prodigi Activities 2023-24" and "Samarthya Club," marking the start of the new academic year's student activities for ECE students.

Technical Talk on "Introduction to Artificial Intelligence"



On December 7, 2023, Dr Shashidhar Koolgudi delivered a technical talk to ECE students, providing insights into Artificial Intelligence, its impact, and its practical applications in various industries.

Poster Presentation Competition on "Coexistence in Nature with Harmony"



The Poster Presentation Competition, held on February 27, 2024, encouraged II-year ECE students to explore how humans can live in harmony with nature and achieve a sustainable, mutually beneficial relationship.

Workshop on "Design and Verification of Digital Systems using Verilog HDL"



Mr Mahesha Y, System Engineer at Life Signals Pvt. Ltd., Bengaluru, conducted a workshop for III-year ECE students on May 24-25, 2024. The workshop focused on designing and verifying digital systems using Verilog HDL, with an emphasis on ensuring the reliability of digital designs through verification techniques.

Technical Talk on "Machine Learning Applications in 5G Technology"

On May 31, 2024, Dr Christopher Clement J, Associate Professor at VIT Vellore, delivered a technical talk for III-year ECE students, offering insights into machine learning applications in 5G technology and providing practical exposure using MATLAB.



ACHIEVEMENTS OF FACULTY



Mr Glenson Toney

Received the **Best Paper Award** for the paper titled "A Novel Lane Detection Approach for Vehicle Adaptive headlamps" at the International Conference on Advances in Smart Sensor, Signal

Processing & Communication Technology- (ICASSCT 2024) held at Goa University, Goa on March 2024

PhD Awarded

Dr Aldrin C Vaz

Awarded PhD by MAHE (Manipal Academy of Higher Education, Manipal)



Date of award: 06/03/2024

SEED MONEY



Ms Nandini Maninarayana



Mr Vijay Ganesh P C

Rs 1,54,860 for the project titled "Wireless Device for Dynamic Assessment of Motor function of Lower Limbs in Patients" for the year 2023-2024



Dr Aldrin C Vaz



Mr Glenson Toney

Rs 93,000 for the project titled "Optimization of Visible Light Communication Framework for application towards Vehicle-to-Vehicle Communication" for the year 2023-2024

PhD Awarded from **ECE Research Centre**



Dr Jennifer C Saldanha Awarded PhD by VTU

Thesis Title: Analysis of speech for voice pathology detection and

severity measurement under the guidance of Dr Malini Suvarana, Professor, Tontadarya College of

Engineering, Gadag and Dr Dayakshini, Professor and HOD-ECE, SJEC.

Date of award: 26/02/2024

Mr Kiran Vinayak Shanbhag,

HOD-ECE. Anjuman Institute of Technology & Management -Bhatkal

Thesis Title: "Potential Enhancements in Multicarrier Modulation Schemes towards 5G

Applications" under the guidance of Dr Dayakshini, Professor and HOD-ECE, SJEC.

Date of award: 31/05/2024



PATENT PUBLISHED

September 2023

Dr Arjun Sunil Rao

Filed a Patent on "An Eco Friendly interlocking paving block production"

PATENT PUBLISHED May 2024



Ms Jane M Lasrado Filed a patent on **Smart Energy**

Management & monitoring for community power grids





PATENT GRANTED October 2023

Ms Simi P Thomas

Filed a Patent on "Sensor Based Diabetes Early Detection Device"

ACHIEVEMENTS OF STUDENTS



Mr Leslie Kiran Rodrigues, Mr Kavish H Uchil, Mr Lloyd Monis and Mr Mohammad Sahal M Sadik won the Innovative Project Prize for the project titled "Electronic Module of Reverse Vending Machine" during TECHNOVA 2024 held on 2 May 2024.

Mr Nikshep Sathish Rai has passed Certificate 'B' NCC examination held in 2023 under the Ministry of Defence, Government of India.



Best Project Award at Mini project Exhibition



Aaron Lawrence Lasrado, Loyed Steeven Dias, Dafny Treeza Dlima and Lanish Abhishek Pinto secured best project award for the project titled "pulmo track-a breath based lung capacity estimation tool" guided by Dr Jennifer C Saldanha, at mini project exhibition 2024 held at Dept of Electronics & Communication at SJEC Mangaluru on Auguts 1, 2024.

Ms Lisha D S of III year ECE received a certificate of achievement for outstanding performance in the sustainable sector program at Anurag

University National Forum 2.0, which was organized by the Anurag University IUCEE Student Chapter and held from June 18-20, 2024.

Ms Lisha D S passed the Certificate B exam in 2024 under the Ministry of Defence, Government of India.





Sonal Tennison Monis, Reshma, Roshni and Sinchana of ECE final year won second prize for the project titled "Hear Ally App for Enhancing Hearing Health Through Mobile Solutions for Ménière Disease", guided by Dr Jennifer C Saldanha, at I2CONNECT project exhibition 2024 at VCET on 31 May 2024.

Surakshith K, has presented a paper titled "Shuttle Vision: Real-Time Badminton stroke recognition system" in the 15th International conference on recent engineering & technology" held on 30th & 31st May2024 at Sri Venkateshwara College of Engineering, Bangalore.

Channaveergouda Huttanagoudra & Cedric Pius Fernandes had participated in National youth day 2024, District level Program organised by Yuvanika foundation on 12.01.2024 at District Amdedkar Bhavan, Mangalore



Swathi Rai M has successfully cleared the GATE-24 examination.



Aditya Rao, Gagan Surya Kumaar S, Aman Balakrishna Muttum, Sathwik A Bangera guided by Mr Glenson Toney, Assistant Professor, ECE received a Grant of Rs 1.67 Lakhs from CMTI for the project titled "An Autonomous Agricultural Machinery for Enhancing Plant Disease Detection and Real Time Analysis".



P Vishwas Karanth and **Shashank B** secured 2nd place in Robowars at Tech-Fest, IIT Bombay on December 2023

KSCST Project Grants 2023-24			
Title of the Project	Guide Name	Team leader	Amount (₹)
Hand Tremor Suppression Gloves For Parkinson's Patients	Ms Aswathi	Mr Mohammed Akhil	5,500/-
High- speed Internet Connectivity Using Wi-Fi	Ms Nandini Maninarayana Mr Suresh M	Mr Rickson Pinto	5,000/-
Hear Ally App For Enhancing Hearing Health Through mobile Solutions for Meniers Disease		Mr Roshni Jenica Gomes	5,000/-
Projection Matrix Estimation in 3D-2D ICP Registration	Dr Roshan R Naik	Mr Abhishek U Acharya	5,000/-
Non-Invasive Blood Glucometer	Mr Radhakrishna	Ms AnushaM J	5,000/-

BEST PRACTICES

Active Learning Strategies: Incorporating collaborative, project-based, and peer learning methods, supported by effective use of Learning Management Systems (LMS) in all courses.

Support for Challenging Subjects: Offering bridge courses and remedial classes to better understand complex subjects.

Hands-on Learning: Conducting open-ended experiments in all laboratories to foster innovation and practical skills.

Industry Exposure: Organizing industrial visits, facilitating internships, and promoting online courses for skill enhancement.

Alumni and Industry Engagement: Strengthening student interactions with alumni and industry professionals for career guidance and opportunities.

Research and Innovation: Encouraging students to undertake product development and research-oriented projects.

Unique Mentorship: Implementing a personalized mentoring process, where each faculty member supports and guides their mentees individually.

Core Company Placement Support: Encouraging and preparing students for placements in core companies.

Department of ELECTRICAL & ELECTRONICS ENGINEERING

Dr Sanath Saralaya
Associate Professor & HOD



Today, we stand at the forefront of innovation, where technology drives progress and shapes our future.

From renewable energy solutions to smart technologies, the electrical and electronics discipline plays a pivotal role in addressing global challenges. It is essential for us to embrace these developments, fostering an environment of continuous learning and collaboration.

The Electrical and Electronics Engineering department has made every effort to develop professional skills in students by hosting industry experts and alumni for seminars and workshops. The EEE department also conduct regular industry visits and interactions, where students can gain first-hand understanding of the field. The department has committed and well qualified faculty to help the students in their engineering journey. I am confident that the students in the Electrical and Electronics Engineering department will demonstrate the department's credibility through their high level of professional skills in their respective fields. I want to extend my heartfelt thanks to both the teaching and non-teaching staff for their outstanding efforts in achieving the department's objectives. I would also like to sincerely thank our alumni for their invaluable support in advancing the development of the department.

I express my compliments to the editorial team of "Abhiyaana" for inspiring students and faculty communities through wonderful publication.

Wish you all happy reading.

CONGRATULATIONS

TOPPERS

IV Year



Deril DSouza



Bhuvan V



Rathan M B

III Year



Jocelyne S Fernandes



Advith A J



Nikitha Krishna

II Year



D V Deepansh



Sushma



Rajesh P Acharya

ACTIVITIES OF THE DEPARTMENT



Guest Lecture by Dietician: "Let's Talk Nutrition"



Wellness and Sports group, in association with the Department of Electrical and Electronics Engineering, organized the first health talk "Let's Talk Nutrition", on 28 th July 2023. Dr Aruna Mallya, senior dietician in KMC Hospital, Mangaluru was the resource person. The program co-ordinators were Ms Himani Kishan Raj - Assistant Professor – Dept of EEE & Mr Manjunath B- Assistant Professor – Dept of Civil Engg. The talk aimed to contribute to a healthier and more informed community by promoting the adoption of healthier eating habits. The talk was attended by 4th sem students of EEE and CV.

User Awareness Programme on National Digital Library India



The Department of Electrical and Electronics Engineering Department, Library & Learning Group in association with NDLI had organised the "User Awareness Programme on National Digital Library India (NDLI) and NDLI Club" in Hybrid mode on 3rdAugust 2023 in Prerana Hall. Mr Dubbendu Chakrabarty, Senior Outreach Manager at IIT

Kharagpur, was the distinguished speaker for the event. He provided a comprehensive overview of the NDLI Club, shared insights into the club's activities and future event plans, and detailed the procedure for becoming a member of the institute's NDLI. The program co-ordinators were Dr Sofia Rego, Dr Felcy Dsouza and Ms Divya K Pai and the target audience were Students and Faculty of SJEC.

Technical training programme titled "Electricity and Automation"



Department of Electrical & Electronics Engineering under EELs association in collaboration with Community Engagement Group conducted a technical training programme titled "Electricity and Automation" for the students of 8th, 9th and 10th grade of Govt. High School, Hosabettu, Moodbidre on 9th August 2023. This programme was organised by Mr Deepesh S K, Asst. Prof. Dept. of EEE, SJEC. The training program consisted of student groups providing demo of automation based projects to school students and informing them about safety issues related to electricity, students also made charts to explain the demo projects with simple block diagrams The school students exhibited high energy and clarified their queries during this program. Ms Venita Monteiro- Asst Professor, Physics department, Ms Madhavi Gatty, Mr Joysun Dsouza, Assistant Professors, Dept. of EEE were the faculty in charge for this activity.

New Faculty Orientation Programme – 25 September 2023



The Department of EEE in association with QGG, SJEC organized an orientation programme for new faculty members on 25 September 2023. The first session consisted of a comprehensive review of outcome based education- necessity, concepts, learning styles and active learning strategies. This session was delivered by Dr Rio D'Souza, Principal, SJEC. Second session was on HR functions at SJEC and was delivered by Mr Rakesh Lobo, HR Manager, SJEC. The third session was delivered by Dr Pavana Kumara B, Head IQAC on PO, PSO, Course Assessment, Programme Assessment and attainment techniques. The post-lunch sessions consisted of hands-on sessions on "creating LMS, personal and course website" delivered by Dr Hareesha B & Dr Vijay V S. The last session of the day was delivered by Dr Felcy D'Souza, Librarian on Library Orientation at SJEC. The program coordinators were Dr Sanath Saralava -Associate Professor.EEE and Mr Franco Menezes - Assistant Professor, EEE.

PRAYATHNA 2023



The Department of Electrical and Electronics Engineering in association with Training and Placement Cell, organized placement training program "Prayathna -2023" from 03/10/2023 to 09/10/2023, coordinated by Ms Himani Kishan Raj, Assistant Professor, Dept. of EEE, SJEC. The objective of the programme was to enhance the employability skills of final-year EEE students and prepare them

for the competitive job market. The sessions were held at Fr Fred Hall and Spoorthi Hall, targeting final-year students from the EEE department.

Hands-on workshop on "Patent : Prior Art Search"



Department of Electrical and Electronics Engineering under EELS association in collaboration with ISTE organized an Hands-on workshop on "Patent: Prior Art Search" for VII semester EEE students on 17 October 2023, coordinated by Ms Bharathi Rao, Assistant Professor. The objective was to provide VII semester EEE students with valuable insights into performing prior art searches and identifying novelty in their project work. The resource persons for the session were Dr Sheryl Grace Colaco, Professor, and Ms Madhavi Gatty, Assistant Professor, EEE.

Lecture on "Development of Scientific Temper under Article 51 AH-Constitution of India"



Department of EEE in association with EELs association organized a Lecture on "Development of Scientific Temper under Article 51 AH-Constitution of India" for the IInd & IIIrd year EEE students on 21st December 2023 to emphasize the importance of developing a scientific temper. The event was coordinated by Mr Ajithanjaya Kumar M. K. and Ms Chaithra Shetty, Assistant Professors, Dept. of EEE, SJEC. The resource person, Professor Narendra Nayak, Former Professor at KMC, Mangaluru and President of the Indian Rationalist Thinking Association, shared his valuable insights with the students.

Inauguration of Electrical & Electronics Student Association (EELS)



The Inauguration of Electrical & Electronics Student Association (EELS) for the Academic Year 2023-24 was held on 04 January 2024 in Fr Fred Seminar Hall. Mr Rathnakar Bhat, CEO, KarMic Design Pvt. Ltd graced the occasion as Chief Guest. Dr Sanath Saralaya, Head of the Department, Ms MadhaviGatty, Staff Coordinator and EELS office bearers were the other dignitaries on the dais. The formal inaugural ceremony was followed by a motivational talk on "career opportunities in semiconductor industries" by the Chief Guest. The talk was highly appreciated by all the students and faculty members present.

Orientation Session for New Faculty Members – 19 January 2024



The Department of EEE in association with Quality & Governance Group (QGG) And Internal Quality Assurance Cell (IQAC), SJEC organized an orientation programme for new faculty members on 19 January 2024 to provide guidance on balancing research, teaching, and service. The session was coordinated by Ms Chaithra Shetty, Assistant Professor, Dept. of EEE, SJEC, and held in Room No 1124, First floor, AB-1. The resource persons included Rev. Fr. Wilfred Prakash D'Souza, Director, Dr Rio D'Souza, Principal, Dr Purushothama Chippar, Vice Principal, Dr Pavana Kumara B, Head of IQAC, Dr Hareesha B, Associate Prof. & HOD of Dept. of MCA, Dr Vijay V.S., Assistant Prof., Dept. of ME, Mr Rakesh Lobo, HR Manager, and Dr Felcy D'Souza, Head Librarian, SJEC.

Industrial visit to Leksa Lighting Technologies Pvt Ltd, Mijar, Moodabidri Taluk



On O8 February 2024, a visit to Leksa Lighting Technologies Pvt. Ltd., Mijar, Moodabidri Taluk, was organized for third-year EEE students. The visit aimed to provide insights into the raw materials used in the lighting industry and offer knowledge on lighting controllers. The event was coordinated by Mr Deepesh S. K. and Mr Franco Menezes, Assistant Professors, Dept. of EEE, SJEC.

Industrial visit to KarMic Design Pvt Ltd, Manipal



On 9th February 2024, a visit to KarMic Design Pvt. Ltd., Manipal, was organized for the 3rd-semester EEE students. The objective of the visit was to provide students with practical exposure to the functioning and operations of an established design firm in the semiconductor industry and to explore potential career opportunities in semiconductor design. The event was coordinated by Ms Bharathi Rao and Ms Madhavi Gatty, Assistant Professors, EEE, SJEC.

Workshop on Programmable Logic Controllers (PLC)



On 10th February 2024, a Workshop on ladder programming used in PLCs was organized for third-year EEE students at the Dept. of EEE, SJEC. The objective was to equip students with the necessary knowledge and skills in this area. The session was coordinated by Mr Deepesh S. K. and Mr Franco Menezes, Assistant Professors, Dept. of EEE, SJEC, and the resource person was Mr Shreekesh Udupa, Engineer at Rockwell Automation Pvt. Ltd., Bengaluru.

Industrial visit to KPTCL, 220KV substation near Kayoor



The 5th-semester EEE students visited the 220KV substation near Kavoor to gain hands-on experience in the transmission and distribution of electrical power. Organized by KPTCL, the visit was coordinated by Ms Bharathi Rao and Mr Franco Menezes, Assistant Professors, Dept. of EEE, SJEC. Mr Deepak and Mr Krishnanad Pai, officials from KPTCL, guided the students and shared valuable insights. This visit took place on 22nd February 2024.

Outreach program at Government High School, Manchi, Kolnadu



On 23rd of February 2024, the outreach program was conducted by the Department of Electrical and Electronics Engineering, in collaboration with the NDLI club, at Government High School, Manchi Kolnadu, on February 23, 2024. The students set up interactive sessions showcasing various electrical and electronic components, gadgets, and projects. Ms Divya K Pai, Ms Chaithra Shetty, Assistant Professors, Dept. of EEE were the faculty in charge for this activity.

Industrial Visit to Tumkuru and Bengaluru



From 4-6 April 2024, the VIII semester EEE students visited Solar Pavagada Park, Tumkur, to learn about solar power generation through various solar panels. They also visited the State Load Dispatch Centre (SLDC) in Bengaluru to observe the control and maintenance of electrical power, and MEI in Bengaluru to view the manufacturing and maintenance of circuit breakers. The visit was coordinated by Ms Himani Kishan Raj and Mr Joysun D'souza, Assistant Professors, and Dr Narasimha Pandit, Adjunct Faculty, Dept. of EEE, SJEC.

FDP & SDP on Programmable Logic Controllers



A FDP and SDP was conducted by Dept. of EEE from 22nd to 25th April 2024 for Faculty/Staff/VI semester students to enhance their understanding of PLC architecture and the different types of PLCs available in the market. Coordinated by Dr Sheryl Grace Colaco, Professor, Dept. of EEE, SJEC, the session took place at the Dept. of ME, SJEC. Mr Himanshu Kumar from Indwel Technologies, Pune, was the resource person, providing valuable insights to the students.

TECHNOVA 2024



The Department of Electrical and Electronics Engineering organized a project exhibition cum competition for the final year student projects under the banner "TECHNOVA 2024", on 2nd May 2024. 15 teams consisting of 3- 4 members in each team participated in this event. The panel of judges consisted of a team of external and internal judges. The external judge was Mr Sandesha (AE, MESCOM). The internal judge was Mr Subramanya Bhat (Assistant Professor, EEE, SJEC). The exhibition was open to faculty, staff, and students of SJEC, providing them with an opportunity to explore the innovative projects developed by the students.

Technical Talk on the "Transmission & Distribution of Electrical Power"



The Department of Electrical and Electronics Engineering (EELS), in collaboration with IEEE, recently conducted a Technical Talk on the "Transmission & Distribution of Electrical Power" for 4th sem students focusing on the intricacies of Electrical Power Transmission & Distribution. During the talk, Mr Aranha delved into various topics, including the design of Transmission Towers, the significance of different Transmission Voltages, and the impact of factors like Sag. Additionally, he shared insightful case studies highlighting the critical role of ELCBs in ensuring safety measures. The program co-ordinators were Dr Sheryl Grace Colaco & Ms Chaithra Shetty -- Dept of EEE

Open House 2024 on Career Guidance



The Electrical and Electronics Engineering (EEE) branch organized an Open House to offer 6th semester EEE students valuable insights into the placement process, share experiences, and provide guidance from senior students. Coordinated by Ms Himani Kishan Raj and Dr Subramanya Bhat, Assistant Professors, Dept. of EEE, SJEC, the event featured resource persons from the 8th semester: Mr Alston N Fernandes, Mr Ajwin D'souza, Ms Renita D Pais, Mr Parikshith B Perla, and Mr Robin J Lobo. This session took place on 22nd May 2024, at the Dept. of EEE, SJEC.

Industrial visit to 220KV, SRS Kavoor Receiving Station



An industrial visit to the 220KV SRS Kavoor Receiving Station was organized for the 4th semester students by the EEE department on June 7, 2024. The purpose of the visit was to reinforce concepts taught in the transmission and distribution of electrical power course. KPTCL officials Mr Deepak and Mr Krishnanad Pai explained the layout of the substation. Students were shown the single-line diagram of the substation and discussed practical methods for locating equipment based on this diagram. The industrial visit offered students valuable practical insights into the transmission and distribution of Electrical Power. A total of 60 students of 4th sem EEE participated in the visit. Dr Sheryl Grace Colaco, Professor, Ms Shailaja & Ms Priya, Lab Technicians from the Dept of EEE accompanied the students.

Informational talk on "Scholarship and exploring career paths "for the SC/ST students of SJEC



An informational talk was organized on "Scholarship and exploring career paths "for the SC/ST students of SJEC on 24 June 2024. The talk was organized by the Department of Electrical and Electronics Engineering in association with Discipline and Equity Group, SJEC. Mr Ashith, Manager, T.I.M.E, Mangaluru was the resource person for the session. A total of 35 students from engineering and MBA courses attended the session. Mr Ashith introduced the various career options after engineering. Also, details on various competitive exams like CAT, MAT, Bank, GRE, Railways and Government jobs were discussed. Information on the requirements and time schedule of these exams were provided.

Technical talk on 'Safety Standards in Electric Vehicles'



The Department of Electrical & Electronics Engineering in association with EELs organized a technical talk on 'Safety Standards in Electric Vehicles' for second year electrical and electronics engineering students on 28 June 2024 from 2:00PM to 3:30PM. Mr Avinash Paul Fernandes addressed the students on various concepts of safety standards used in Electric Vehicle technology along with recent advancements in the EV industry. The program coordinators were Mr Franco Aldrin Menezes and Mr Deepesh S K, Assistant Professors, Dept. of EEE.

Industrial Visit to Varahi Power Plant



The Department of Electrical & Electronics Engineering in association with ISTE College Chapter organized an industrial visit to Varahi Hydro-Electric Project, Varahi on 29th June, 2024 for the pre-final year students. The visit was aimed at enhancing the knowledge & visualization of hydroelectric power plant. MrZaheer Ahmed, Asst. Engineer, KPCL, Varahi, welcomed the students and faculty. MrZaheer addressed the students. The blue print of the entire power plant along with a video was explained to the students. Mr Ajithanjaya Kumar M K, Asst. Professors E&E, Mr Subramanya K, Asst. Professors E&E and Ms Himani Kishan Raj, Asst. Professors E&E were the Program Coordinators.

ACHIEVEMENTS OF STUDENTS





G Ramkishan Rao had secured **2nd place** in the VALORANT event held during Aakriti-2024, an Inter Collegiate Techno Cultural Fest held at Canara Engineering College, Bantwal from 9-11 May, 2024.



Melrick S D'Souza was awarded the 2nd place in Quiz Competition in "Innovation Hub' in Pilikula Regional Science Fest on 07/03/2024.



Renita Deeksha Pais had won 2nd place in Online Quiz Competition organized by SIGHT Activities Committee of IEEE Mangalore Subsection on 29/09/2023.

KSCST FUNDING



Project Title: DEVELOPMENT OF AN ENVIRONMENTAL FRIENDLY, COST EFFECTIVE AND COMPACT ELECTRICAL FISHING SYSTEM

Project Type: Research Funding Agency: KSCST Amount: Rs 5500/-

Guide Name: Mr SATHISHA K, Assistant

Professor

Students: Mr PREKSHITH LENNON RODRIGUES, Mr CLEAVON DSOUZA, Mr JASON ANTONY QUADRAS, Mr REYAN JAISON DSOUZA

Best Practice EEE

Weekly
Attendance
Monitoring

Alumni
Interaction
Interaction

Competitive
exam
training

Technical
talks by
Industry and
Academia

Visit

Conferences/Seminars/Workshops attended by the Faculty:

Workshop/
FDP/Seminar:
28

Conferences
/ Paper
Publications
6

Online
Courses
7

From Classroom to Career: Alumni Reflections



"As an alumna of St Joseph Engineering College, I'm honored to reflect on my transformative journey of growth and learning. My experience went beyond academics, helping me discover my true potential and skills that have prepared me for the future. Through extracurricular activities and invaluable exposure both in and out of the classroom, I developed into a confident professional.

My involvement with the National Cadet Corps (NCC) unit as a Air wing cadet at our college was a highlight of my journey. NCC taught me discipline, leadership and teamwork, which complemented my academic pursuits.

Our exceptional faculty encouraged critical thinking, problem-solving, and innovative contributions. I look forward to maintaining strong ties with the institution and contributing to its continued success.

Rakshita Surendra Gaonkar 2023-24 Batch of EEE Graduate Engineer Trainee, Siemens



As an alumnus of the Electrical and Electronics Engineering program, I am grateful for the strong foundation and experiences I gained at this esteemed institution. My involvement with Team SJEC Racing, building ATVs and competing in events, provided invaluable hands-on experience in both mechanical and electrical systems The combination of technical knowledge and soft skills, such as teamwork and problem-solving, has been crucial in my career. I cherish my time at the college, the supportive faculty, and the collaborative environment that fostered both academic and personal growth. I am proud to be part of this community and look forward to contributing to its future success.

Renita Deeksha Pais

EEE Class of 2020 - 2024

Graduate Engineer Trainee,

Automotive Research Association of India



HOD'S MESSAGE

Department of MECHANICAL ENGINEERING



Dr Shreeranga Bhat Professor & HOD



It is a privilege to share the achievements and milestones of the Department of Mechanical Engineering at St Joseph Engineering College, Mangaluru. Our department remains committed to fostering a dynamic learning environment that blends academic rigor with hands-on experiences, equipping our students to meet the challenges of a rapidly evolving engineering landscape.

This year has been marked by remarkable contributions from both faculty and students. Our dedicated faculty members continue to engage in impactful research, ensuring our curriculum and teaching methods reflect the latest advancements in engineering. Their commitment to professional growth and innovation enriches the learning experience for our students and aligns with the college's mission to drive academic excellence.

Our students, likewise, have demonstrated their potential by actively participating in national and international events, gaining recognition and showcasing their innovative spirit. Through a variety of technical clubs, workshops, and industry-aligned programs, they have applied their classroom knowledge to real-world scenarios, preparing them to be future-ready engineers.

As we look forward to new possibilities, we extend our heartfelt gratitude to all who contribute to our collective success—students, faculty, and the larger college community. Together, we will continue to strive for excellence and make meaningful contributions to society through engineering.

CONGRATULATIONS

TOPPERS

IV Year



Sreeraj P



Joshua Lawren Dsouza



Vijayesh M T

III Year



Rynor Gawain Pinto



Prathik S Rao



Anujna M

II Year



Karthik K



Samuel L Rasquinha



Kenneth M Noronha

ACTIVITIES OF THE DEPARTMENT



Ideation Camp



Department of Mechanical Engineering in Association with InnoVenture (SJEC Innovation Platform) has organized a 3 Day Ideation Camp from 6-8 July 2023. The event was open to students of all Departments.

FDP on "Advanced Manufacturing Process"



Department in Association with SJEC AICTE IDEA Lab organized a three-day FDP on "Advanced Manufacturing Process" from 2-4 Aug 2023. The objective of the program was to provide hands-on training to the faculty members regarding 3D printing, 3d scanners, Laser cutting, CNC wood cutting, and a Project in advanced manufacturing. Internal faculty members were the resource persons for the program.

Hands-on Training on "Battery Modeling and Algorithm Development with Simulink"



Department in Association with SJEC AICTE IDEA Lab organized a three-day offline hands-on training on "Battery Modeling and Algorithm Development with Simulink" from 24-26 August 2023. Dr Apurva Kulkarni, Senior training engineer from MATHWORKS, India was the resource person. Sessions related to performing cell characterization, modeling battery packs, adding thermal fidelity to battery models, designing supervisory control logic for battery operation, performing state-of-charge estimation and cell balancing, computing current limits and designing fault diagnostic system, and closed-loop simulation of the battery pack with the battery management system were conducted.

Placement Orientation Program "Prayathna -2023"



The Department of Mechanical Engineering organized a 2-week placement orientation program, "Prayathna-2023", from 20-29 September 2023 for final-year students. A total of 87 students participated in the training. The internal and external resource people conducted the sessions and training.

Workshop on "Effective Utilization of Social Media"



The Department of Mechanical Engineering and Alumni association of SJEC has conducted a session "Effective utilization of social media" on 4 Oct 2023. Ms. Linda Fernandes was the resource person.

FDP on "Emerging Technologies: A Primer"



The Department of Mechanical Engineering, SJEC Idea Lab, and Indo Universal Collaboration for Engineering Education (IUCEE) has conducted an Online FDP on "Emerging Technologies: A Primer" starting from 7-22 November 2023. Dr Raju Dandu (Professor and Graduate Faculty and Director of Bulk Solids Innovation Center at Kansas State University), Kumar Yelamarthi (PhD, PE, Associate Dean & Professor, College of Engineering, Texas Tech University - US), Prasanth Yanambaka (PhD, Assistant Professor of Computer Science, Texas Women's University – US), Mr Kevin Hampton (Sr. Manager, Digital Automation and Product Management Energy Kansas City Metropolitan Area - USA), Dr Randall Nichols (Professor of Practice & Director - GC Aerospace Cyber Operations and GC Space Systems Operations Programs, Kansas State University Aerospace and Technologies Campus Salina Kansas), Dr Randall Nichols (Professor of Practice & Director - GC Aerospace Cyber Operations and GC Space Systems Operations Programs, Kansas State University Aerospace and Technologies Campus, Salina Kansas) were the resource persons.

Workshop on "SPHERECRAFT: Crafting Hardware Solutions"



The Department of Mechanical Engineering in association with InnoVenture (SJEC Innovation Platform), SJEC-IDEA Lab and IUCEE organized one-day workshop on hardware design titled "SPHERECRAFT: Crafting Hardware Solutions" on 19 Jan 2024. Mr Raviprakash Salagame (Consulting Partner, Autobotik, Sigapore) and Mr Ardhendu Pathak (Founder and Senior Partner, Koinvent Business Solutions) were the resource persons.

Hands-on Workshop on "Advanced Industrial Automation"



The Department of Mechanical Engineering, in association with the Automation and Robotics Club (ARC) SJEC, has conducted a Three-day Hands-On workshop on "Advanced Industrial Automation" through the Festo Center for Industrial Automation from 22-25 April 2024 for final-year students. Mr. Himanshu (CEO-Indwell Automation) was the resource person for the program.

Technical Treasure "Mech Quest"

The "Torque" the Mechanical Engineering student association has conducted "Mech Quest" a technical treasure hunt event on 28 June 2024. The event was intended to propmote team work and technical knowledge in the field of Mechanical Engineering.

Farewell Program for Final-Year Students



The Department of Mechanical Engineering, in association with the Torque Students Club, conducted a Farewell program for Final-year students on 13 May 2024 in the Kalam Auditorium.

Open House 2024



The Department of Mechanical Engineering has arranged the "Open House - 2024" for the Third-year students on 31 May 2024 to provide the experience of final year placed students. Final year students Ms. Sasha Menezes, Ms. Suhani Anchan, Mr. Swasthik Ail, Mr. Sathwik Shetty, Mr Adithya Biju, and Mr Anshul Shetty were the resource persons.

Industrial Visits



The Department of Mechanical Engineering has arranged an Industrial visit to the Government Tool Room and Training Centre (GTTC) Mangalore on June 7, 2024, for the VI M2 Students.

PRIME-2024: Accelerated Entrepreneurial Experience



The Department of Mechanical Engineering in association with InnoVenture and AICTE IDEA Lab organized "PRIME-2024: Accelerated Entrepreneurial Experience activity" on 22 June 2024 at the Kalam Auditorium. The event provided the opportunity and platform for students to engage in entrepreneurial activities.

ACHIEVEMENTS OF FACULTY





Dr Shreeranga Bhat

 has received the "Outstanding Reviewer Award" by The TQM Journal (Emerald Publishers - UK) for the year 2023.

Has received the "SJEC
 Distinguished Research/
 Innovation Award - 2023" from

the St Joseph Engineering College.

PhD Awarded



Dr Swaraj Dominic Lewis

PhD title: Design, Development And Optimization Of Metal Hydride Beds For Hydrogen Isotopes Storage Through Experimental And Numerical Analysis

Completion date: 28 july 2023

Guide: Dr Purushothama Chippar



FUNDED RESEARCH PROJECT

Name: Dr Shreeranga Bhat and Dr Binu K G

Title: Upskilling and Reskilling of Artisans in Dakshina Kannada, Udupi and Uttara Kannada Districts with respect to Skill India

Mission of Pradhan Mantri Kaushal Vikas Yojana 4.0

Funding Agency: Indian Council of Social Science Research

Amount: Rs. 12,00,000

Scheme: Special Call for Short-term Empirical Research 2023-24 (ICSSR-CRP-2023-99) **Duration:** Sep 2023 – Feb 2024; **Role:** Co-PI



ACHIEVEMENTS OF STUDENTS



NASA-01



Participation in a prestigious NASA program, where students collaborated to tackle real-world space challenges, exemplifying their problem-solving skills and enthusiasm for space exploration.

NASA Space Apps Challenge 2024

Students joined the globally renowned NASA Space Apps Challenge 2024, contributing innovative



solutions to complex issues in space science and engineering, reflecting their commitment to advancing space technology.

The ISRO Robotic Challenge-01



Participation in the ISRO Robotic Challenge highlights students' hands-on experience in robotics, pushing boundaries in automation and control, inspired by ISRO's mission of technological advancement.

Achievement

Mr Suhas L Karinja was secured 1st Runner Up in 8Kg category Robowars and Most Destructive Bot in 8 Kg Category at International Tech Fest held at IIT Bombay from 27-29 December 2023.

BEST PRACTICE

Implementation of the tutorial/remedial classes for slow learners to enhance their academic performance

Best Practice II: Conducting Aptitude Training Classes to enhance the General Aptitude and Technical Aptitude skills to compete for the present placement scenario.

HOD'S MESSAGE

Department of CIVIL ENGINEERING

Dr Yajnheswaran B



"Scientists investigate that which already is; Engineers create that which has never been." Albert Einstein

In both rural and urban settings, technology exerts a significant influence. Infrastructure and technological advancements are the cornerstones of progress, driving swift economic transactions, job creation, efficient logistics, and improved living standards. Stakeholders play an indispensable role in achieving this shared goal of development. The impact of artificial intelligence (AI) applications further enhances the construction industry by providing diverse and rapid solutions

The Civil Engineering Department is committed to strengthening students' skillsets and thoroughly preparing them for the industry through diverse teaching methodologies. The faculty's dedication to providing a high-impact learning experience has been instrumental in achieving both academic excellence and exceptional placement outcomes. We have also integrated AI applications into the curriculum to keep students' knowledge up to date with modern industry practices. Faculty mentors engage with students with empathy and heightened care. We are proud to note that our department has organized Student Training Programs, Technical Aptitude Sessions, Faculty Development Programs, industry visits, and internships in both industry and academic institutions.

Through Abhiyaana, our students and faculty can showcase their creative abilities, hidden talents, and aspirations for writing. I would like to express my appreciation and gratitude to the Editorial team for delivering Abhiyaana 2024 on schedule. Thanks to all the faculty, students, and alumni who have assisted the Department in executing this pivotal initiative.

I wish all the best to the creative and editorial team of 'ABHIYAANA 2024' for their valuable efforts in bringing out this issue.

Wish you all happy reading.

ACADEMIC ACES

CONGRATULATIONS

IV Year



Fathima Nushrath M



Basil Mathew



Shivam Naik

III Year



Sanjay T G



Bhagyashree



Anas Rashid Mahamood

II Year



Chirag G



Harshal



Srajan C Acharya

Department Dynamics

Three Days Workshop on Concrete Mix Design using IS 10262-2019-Theory & Practice



The Three Days Workshop on Concrete Mix Design using IS 10262-2019, held from 11 to 13 August 2023, was coordinated by Ms Pranamya K and Mr Bhojaraja M. The event, targeted at final year Civil Engineering students, took place at Kalam Auditorium and was led by Concroc Nagesh Puttaswamy. This workshop provided a comprehensive understanding of concrete mix design, blending theory with practical applications, and was invaluable for students preparing for professional careers in Civil Engineering.

Workshop on Modern Formwork and Scaffolding Technologies



The Workshop on Modern Formwork and Scaffolding Technologies, held on 21 November 2023, was coordinated by Ms Pranamya K and Mr Sachin U. The event, targeted at third year Civil Engineering students, took place at Prerana Hall and was led by Mr Sandeep Verma. This workshop was essential for students to understand the latest advancements in formwork and scaffolding technologies, enhancing their practical skills and industry readiness.

Idea Lab Open Day for the PU Students of St Elizabeth Convent School, Kasaragod, Kerala



The Idea Lab Open Day for the PU Students of St Elizabeth Convent School, Kasaragod, Kerala held on 21 November 2023, was coordinated by Dr Yajneshwaran B and Dr ESTR Chandra Sekhar B. The event, aimed at PU students, took place at the AICTE Idea Lab. This open day was instrumental in inspiring young minds by exposing them to innovative ideas and cutting-edge technologies, fostering a culture of creativity and innovation.

Workshop on Pipeline Design and Fittings



The Workshop on Pipeline Design and Fittings, held on 25 November 2023, was coordinated by Mr Chitharanjan M and Mr Ajeeth B. The event, targeted at third year Civil Engineering students, took place at Prerana Hall and was led by Mr H D Chandrashekar. This workshop was crucial for students to gain practical knowledge and hands-on experience in pipeline design and fittings, essential skills for their future careers in Civil Engineering.



Inauguration of the Civil Engineering Students Association - NIRMAN

The Inauguration of the Civil Engineering Students Association - NIRMAN, held on O6 January 2024, was coordinated by Mr Chitharanjan M. This inauguration marked the beginning of a platform dedicated to fostering academic excellence, professional development, and community engagement among Civil Engineering students.

Industrial Visit to Varahi Hydel Power Station and Shyamili Hydel Power Station



The Industrial Visit to Varahi Hydel Power Station and Shyamili Hydel Power Station, held on O1 February 2024, was coordinated by Dr Nishitha J D'souza and Mr Rohith P. Veigas. The event was aimed at Second year Civil Engineering students. This visit offered students a unique opportunity to gain firsthand experience of hydel power operations, enhancing their understanding of practical engineering applications.

A three-day Workshop on Bacterial Concrete-New Era for Construction Industry



The three-day Workshop on Bacterial Concrete: New Era for Construction Industry, held from 7 to 9 February 2024, was coordinated by Dr Nishitha D'Souza and Dr Prakash KG. The event, targeted at second year Civil Engineering students, took place at the Microbiology Lab and was led by Dr K Krishna Prasad. This workshop introduced students to the innovative use of bacterial concrete, providing them with insights into sustainable and eco-friendly construction practices.

Industrial Visit to Nirmithi Kendra

The Industrial Visit to Nirmithi Kendra, held on 7 March 2024, was coordinated by Dr ESTR Chandra Sekhar B, Dr Prakash K G, and Ms Pranamya K. The event was aimed at third year Civil Engineering students. This visit provided students with valuable insights into real-world construction practices and technologies, enhancing their practical knowledge and industry readiness.



One day hands on Workshop on "Building Information Modelling (BIM) using Revit Software"



The one-day hands-on Workshop on "Building Information Modelling (BIM) using Revit Software," held on 21 May 2024, was coordinated by Ms Pranamya K. The event, targeted at final-year Civil Engineering students, took place at the CAD Lab in Academic Block IV and was led by Mr Jackson Jebadurai. This workshop provided students with practical experience in using Revit Software for BIM, equipping them with essential skills for modern construction projects.

Open House - Civil Engineering Department



The Open House event, organized by the Civil Engineering Department and coordinated by Mr Sachin U and Ms Aswathy C M, is scheduled for May 24, 2024. This event is specifically designed for final year Civil Engineering students, offering them a unique opportunity to gain insights into future career paths and academic pursuits.

A Technical Talk on Plastic waste Management



The Technical Talk on Plastic Waste Management, held on 24 May 2024, was coordinated by Dr Nishitha and Ms Shruthi Vishwajith. The event, targeted at first-year engineering students, took place at Prerana Hall and was led by Ms Rita D'Souza and Ms Nikeetha Fernandes. This talk provided students with valuable insights into the challenges and solutions related to plastic waste management, fostering awareness and innovation in sustainable practices.

A Technical Talk on E-waste Management



The Technical Talk on E-waste Management, held on 14 June 2024, was coordinated by Dr Nishitha D'Souza and Ms Shamitha. The event, targeted at second-year engineering students of Civil and ICBS, took place at Prerana Hall and was led by Mr Vinayaka Bhatta. This talk provided students with crucial insights into the management of electronic waste, emphasizing the importance of sustainable practices and responsible disposal methods.

Event: A Webinar by Alumni on The Scope of Civil Engineering in Dubai, UAE for freshers

The Webinar by Alumni on The Scope of Civil Engineering in Dubai, UAE for freshers, held on 21 June 2024, was coordinated by Mr Govinda Krishna. The event, targeted at Civil Engineering students, featured Ms Alvina Vanessa Mendonca as the resource person. This webinar provided valuable insights into the opportunities and career prospects for Civil Engineering graduates in Dubai, UAE, helping students understand the global market and potential career paths.

Vigama 2024 - Civil Engineering Farewell

Vigama 2024 - Civil Engineering Farewell, held on 24 May 2024, was coordinated by Mr Chitharanjan M. The event was dedicated to final year Civil Engineering students, offering them a memorable send-off as they prepared to embark on their professional journeys.



Three Days Training on DCET 2024



The Three Days Training on DCET 2024, held from 18 to 20 June 2024, was coordinated by Ms Pranamya K and Mr Chitharanjan M. The event, targeted at diploma students from various colleges, took place at the Civil Engineering Block. This training program equipped students with essential skills and knowledge for the Diploma Common Entrance Test (DCET), enhancing their preparation and confidence for the exam.





Alumni Schoes

St Joseph excelled in providing a strong foundation through exceptional teaching of fundamentals. The curriculum emphasized hands-on experience, allowing students to tackle real-world problems and learn valuable lessons. This approach, combined with a supportive faculty and vibrant campus atmosphere, created an enriching environment that fostered significant academic and personal growth. The institution played a crucial role in transforming my aspirations into tangible achievements, equipping me with the skills and knowledge needed to turn my dreams into reality.

Aditya S

CV - Batch of 2019

Ph.D. Scholar, National Institute of Technology Karnataka

ACHIEVEMENTS OF FACULTY



SEED Money



Ms Pranamya K received approval for the project titled 'Quantification of the uncertainty of compressive strength and environmental evolution of soil-cement ecofriendly blocks' under the SJEC Seed Money for Research Scheme for the Department of Civil Engineering, with financial support of ₹ 3,00,000 for the year 2023-24.



Mr Manjunath B received approval for the project titled "Carbon sequestration in cementitious composites using biochar in cement mortar" under the SJEC Seed Money for Research Scheme for the Department of Civil Engineering, with financial support of ₹ 1,30,000 for the year 2023-24.

DST SERB Funding



Dr ESTR Chandra Sekhar B
received a Research Grant of
₹ 18 Lakhs from DST SERB
TARE (Teachers Associateship
for Research Excellence)
for the project "Enhancing
Structural Health Monitoring
through the Development of
Self-Sensing Cementitious
Composites using NanoTailored Spent Catalysts."

BEST PRACTICES

01

Knowledge
Enhancement through
Technical Talks,
Industrial Visits

02

Career Guidance through Motivational Talks by Alumni 03

Innovative Teaching Learning Practices 04

Department E-News Letter

05

Conduction of various technical activities under departmental association "NIRMAN" 06

Initiating Research through Mini Projects 07

Motivating the students to present/publish research paper in International / National Conferences 08

Continuous motivation to students/ rewarding the top scorers of university examinations

KSCST FUNDED PROJECTS



Project title: "Synthesis of Iron Nanoparticles Using Leaves for Waste Water Treatment."

This project, undertaken by students Mr Yashavantha K, Mr Prasthuth U. Kottary, Mr Rathan Kumar, and Mr Prajwal Gambhira, under the guidance of Mr Ajeeth B, demonstrates an innovative approach to waste water treatment. By utilizing leaves to synthesize iron nanoparticles, the team has developed a sustainable and effective method for purifying waste water. This work not only contributes to advancements in nanotechnology but also offers promising solutions for environmental conservation.



Project Title: "A Strategic Exploration of Vulnerable Factors and Proposing Protective Measures for Three Landslides in Belthangady."

This important study was conducted by Mr Hasan Ashad, Mr Abdul Aashiq, Mr Mohammed Thwaha, and Mr Mohammed Sawad, under the guidance of Mr Rohith Prakash Veiga. The project focuses on identifying vulnerable factors contributing to landslides in Belthangady and proposes protective measures to mitigate these risks. This work is a significant contribution to landslide risk management and community safety.



Project Title: "Unlocking the Potential of Biochar as a Sustainable Carbon Sequestration Material in Cementitious Composites."

This project was conducted by Ms Pooja S, Ms Ansifa Banu O. M., Mr Samuel Sequeira, and Ms Shreya Santhosh, under the guidance of Mr Manjunath B. The project explores the use of biochar as a sustainable material for carbon sequestration in cementitious composites, offering a promising solution for reducing the environmental impact of construction materials. This work highlights the potential of biochar in promoting sustainable practices within the construction industry.

Alumni Zchoes



My four years at St. Joseph Engineering College (SJEC) as a Civil Engineering student was incredibly rewarding. The practical concepts I learned, combined with the guidance of amazing teachers,



made it one of the most valuable experiences of my life. The regular workshops and hands-on training provided a glimpse into real-world applications, allowing me to develop skills that have prepared me for industrial challenges. I'm grateful for the solid foundation SJEC has provided in shaping my future as a Civil Engineer.

Ibrahim Shaikh
Batch of 2024
Structural Engineer
Petrocon Engineers and Consultants

Department of PHYSICS



Dr Rajesh Kumar P C
Professor & HOD



10D'S MESSAGE

The world stands at a crossroad. Recent advancements in science and technology have made human life both easier and more complex. While progress is inevitable, no scientific or technological development including AI (Artificial Intelligence) should jeopardize the existence of flora and fauna on our beautiful planet. Man desires material wealth but, unfortunately, shows little concern for the pursuit of wisdom and harmonious coexistence with nature. We have been witnessing that it is very challenging to develop values of life among students and educate them to be responsible human beings through academic discipline. The inspiring guidance of teachers and the impact of co-curricular activities play a significant role in this regard. St. Joseph Engineering College, Mangaluru, consistently takes the lead in grooming students to be goal-oriented and socially responsible while equipping them to become leaders in technological and engineering expertise for the nation. The college magazine is a powerful platform to showcase all such proactive and dynamic initiatives of the institution.

It is my immense pleasure and pride that I address you through this edition of the SJEC magazine, Abhiyana-2024. The college magazine is not only showcasing talent and creativity but also a reflection of our collective journey towards excellence in education, research, and holistic development. Physics, often referred to as the foundation of all sciences, continues to inspire and ignite curiosity among young minds. In our department, we strive to nurture this curiosity, empowering students with both theoretical knowledge and practical skills that equip them to address real-world challenges. Through state-of-the-art laboratories, dedicated faculty, and interdisciplinary initiatives, outreach programmes, we are committed to fostering a culture of innovation and inquiry.

As we continue our quest for knowledge and discovery, I urge all students to embrace the spirit of learning and collaboration. Remember, every question you ask and every challenge you tackle brings you closer to understanding the wonders of the universe. Be prepared to face more challenging days than to celebrate happy occasions.

I extend my heartfelt appreciation to the editorial team for their tireless efforts in bringing this magazine to life. I am confident it will serve as a source of inspiration for the entire SJEC family and outside

Wishing everyone success in all your endeavors.

DEPARTMENT HIGHLIGHTS



Clean Shores, Clear Future- an Outreach Programme: The Physics Department Association "Epsilon" of SJEC, the Community Engagement Committee, Cultural and Community Group-SJEC, in collaboration with the Indian Coast Guard, Karnataka, organized a Beach cleaning campaign on 30 November 2023.

Training Programme for the department faculty: The Service Manager Mr Viknesh from Inexus Biotech Pvt Ltd has conducted a training on the operation of Hitachi - Fluorescence Spectrophotometer MODEL F-2700 which has been procured from VGST research grant on Wednesday, 24th January 2024. The training involved operating the instrument with solid sample, powder sample and liquid samples and all related software management. Dr Rajesh K, coordinated this training.



A training programme for the student volunteers: A training programme was conducted on Friday, 19 April 2024 in the department of Physics, for the BE students who volunteered to take part in outreach programmes. Faculty members, Dr Rajesh Kumar P C, Dr Vincent Crasta, Ms Olivia Sequeira, Ms Venita N Monteiro and Ms Anarghya participated in the training.

Chandrayaan 3- Poster making competition: The student association of department of Physics 'Epsilon' organized poster making competition on Chandrayaan 3 and short animated film on Lunar Journey of New India in the month of January 2024. The prize money was awarded to the winners on 24 May 2024.

Exploring the Recent Indian Space Missions: A talk on 'Recent Indian Space Science Missions': The student association of department of Physics 'Epsilon' organized a talk on 'Recent Indian Space Science Missions' by Dr Sreejith Padinhatteeri, Project Scientist, Solar Ultraviolet Imaging Telescope on Aditya -L1 Project on 24 May 2024. Dr Rajesh K coordinated the program. Around 150 students and 10



faculty members were present for the talk. The program was well appreciated by the students and faculty members.

BEST PRACTICES

Slow learner classes: To help the slow learners Active learning methodologies: To help the students learn through activities ESR activities
of the college
through outreach
programs: To
extend a helping
hand to the village
students through
activity based
learning.

Contribution in research activities: Enhancement of knowledge through research Wall Magazine:
Promoting
students for
their creativity
and team
building though
wall magazine
activities

FACULTY ENDEAVORS





Dr Vincent Crasta was awarded with the Research Publication Award- 2023 on 10-02-2024 by the management of St Joseph Engineering College.

Dr Rajesh K has won the best presentation award for his research paper titled "Structural and Dielectric Studies of PVA/PVP Blend filled with V2O5 Nanofillers" in International Conference on Advancements in Science,



Engineering and Management (ICASEM) 2024 jointly organized by Vidya Vihar Institute of Technology Purnea Bihar and RSP Conference Hub Coimbatore held on 31/05/2024.

Pr Rajesh Kumar P C, Prof and Head, Dept of Physics, published a research paper entitled 'Comprehensive Analysis on the Z Scan Response of Thermally Evaporated CuTPP Thin Films in Terms of H Aggregation and



Charge Transfer Dynamics' in an International journal, American Chemical Society, (ACS Journal), J. Phys. Chem. C, Volume 124, February 2024, 3460–3472.

 A book chapter 'Nonlinear properties of PMMA composite thin films' of Dr Rajesh Kumar P C has been published in the International Book 'Science and Technology Recent Updates and Future Prospects' Vol. 5. 2024.

PhD- Physics

Dr Clavian L Miranda has been awarded a PhD degree in the year 2023 from the Physics research centre, affiliated to VTU Belagavi under the guidance of Dr Rajesh Kumar P C, Prof and Head, Dept of Physics.

Conferences/FDP/Seminars/ Workshops attended by the Faculty:

Paper publications 4

Workshops/ FDPs/Seminars 10

Conferences 7

Online courses 11

HOD'S MESSAGE

Department of CHEMISTRY





It gives me immense pleasure to contribute to the current issue of our college magazine, a reflection of the vibrant and dynamic academic environment we foster here. As the Head of the Department of Chemistry, I am proud of the collective efforts that have made our department a center of excellence in teaching, research, and innovation.

The field of chemistry is at the heart of almost every technological advancement in engineering. From materials science to environmental engineering, energy solutions to biotechnological innovations, chemistry plays a pivotal role in shaping the future. Our department strives to integrate fundamental knowledge with practical applications, ensuring that our students are well-versed in theoretical concepts and equipped to tackle real-world challenges.

I always encourage our students to engage in interdisciplinary collaboration, as the future of engineering will be defined by the integration of multiple fields of knowledge. Chemistry is not only a cornerstone of engineering but also an enabler of groundbreaking advancements.

My best wishes to all the outgoing students of the 2024 batch in their endeavor to achieve their goals. I congratulate the Editorial Board for the wonderful job of presenting new ideas in a pleasant format and for bringing out this excellent magazine.

ACTIVITIESOF THE DEPARTMENT

Cleaning Drive



The Department of Chemistry funded Cleanliness Drive, organized by the National Service Scheme (NSS) team under the coordination of Mr Anuragh B, lecturer, department of Physics took place on O3 November 2023 from Pilikula Junction to Vamanjoor Junction. This event aimed to foster a sense of responsibility towards environmental sustainability and to create a cleaner and healthier environment in our surroundings.

User awareness programme



ChemAtom - Association of the Chemistry department, Library Learning Group, and NDLI organized a user awareness program and a quiz on **National Digital Library of India** for First year B.E students of chemistry cycle on 17 November 2023 for Sec I, K, L and 20 November 2023 for Sec G, H, J.

Orphanage Visit



The Department of Chemistry under the banner of ChemAtom Association with AICUF SJEC organised Orphanage visit to Balayesu Graha, Bondel on 3 February, 2024. A total of 27 students and 6 faculty members took part in the visit. The items collected during the "Creating Smiles" drive of December 2023 were donated to the orphanage.

National Science day:



The Department of Chemistry in collaboration with SJEC AICTE IDEA LAB organized the National Science Day-2024 on 28 February 2024 for students of Dakshina Kannada and Udupi district.

Inspiring talk:

The Talk on "Inspiring positive change: Youth and nation building " was organized by the AICUF SJEC in association with Department of Chemistry on 16 December 2023 at Prerana Hall of St Joseph Engineering College, Vamanjoor between 3:00 p.m. to 5:00 p.m. The Talk was open to all the first year BE students of SJEC. The attendees very much appreciated the content presented.



Technical Talk



The technical talk on "Memory Devices" for first year BE was organized by the ChemAtom, Department of Chemistry in association with Department of Chemistry on O3 June 2024 at Kalam auditorium of St Joseph Engineering College, Vamanjoor between 3:30 p.m. to 5:00 p.m. Mr Vijay Ganesh, Assistant professor, Department of E&C, was the resource person.

Outreach Programme to Bikarnakatte School



A student outreach programme was organized by the Department of Chemistry under the banner of ChemAtom association on 21 July 2023 at D. K. Z. P. Government Higher Primary School, Bikarnakatte. The programme objective was to visit the school, carry out science related activities and cultural activities for enhancing their knowledge in science and culture. A total of sixteen B.E student members of ChemAtom and five chemistry department faculty members were part of the outreach programme. The topics explained were chemical bonding which included hands-on experience for the students in making 3D models of chemical molecules, food adulteration experiments and importance of learning chemistry in day-to-day life.

Workshop on creation of course web page and course file:



The Development and Planning Group along with the Department of Chemistry, SJEC organized a workshop on "Creation of Course web page and Course file" on 21 June 2024 from 2.00 pm to 5.00 pm, AB III, 2nd floor, Room No 3207. Dr Pavana Kumara, Head IQAC and Mr Murari Asst. Prof – MCA were the resource persons. This workshop was organised for the newly joined faculty.



Conferences/ FDP/Seminars/ Workshops attended by the Faculty:

Workshops/FDPs/ Seminars 14

Conferences 12

Paper publications 3

Online courses 11

ACHIEVEMENTS OF FACULTY





Dr K Jyothi Professor and Head, Department of Chemistry, has won "Research impact Award" under SJEC Research awards-2023.

Ms Pramila R Dsouza, Dr K Jyothi and Ms Prathima S published a research paper on "Experimental and Theoretical Approach for the Corrosion Deceleration of Mild Steel in Hydrochloric Acid Medium by Two Sulfonamide Derivatives" in ChemistrySelect, March 2024 with impact factor 2.2.

Ms Smitha Maria D'Souza, Assistant Professor, Department of Chemistry won the Best Presentation under research scholar category for her paper entitled "Quinazoline Scaffold: Synthesis, Characterisation, Biological evaluation through the integration of computational approaches, in



fourth international conference on advancements in research and development (ICARD-2024)" jointly organised by department of commerce, Indira Priyadarshini Government Degree College, for women, autonomous, Nampally Hyderabad, Telangana India, on 30-01-2024 and 31-01-2024.

From Classroom to Career: Alumni Reflections

Reflecting on my time at St. Joseph Engineering College (SJEC), I feel a deep sense of pride and accomplishment in being part of the first batch of the AIML (Artificial Intelligence and Machine Learning) department. It was an exciting and transformative journey, filled with the thrill of exploring a new and rapidly evolving field at our college.

As pioneers in this department, we were fortunate to have an incredible team of faculty and a dedicated Head of Department who guided us every step of the way. They encouraged us to think critically, embrace new ideas, and foster innovation, creating an environment where curiosity and creativity flourished. Their commitment to our growth, combined with opportunities for hands-on projects and research, was instrumental in shaping our futures.



Being in the first AIML batch wasn't just about academics; it was a truly unique and rewarding experience that taught us the value of collaboration and knowledge-sharing. We were constantly challenged to push our limits and achieve our best, all while forming bonds that went beyond the classroom.

Beyond academics, SJEC offered a vibrant campus life and a welcoming community that made my college experience even more enriching. The support, encouragement, and diverse opportunities provided by the entire college helped me grow not only as a student but also as an individual.

I feel honored to be an alumnus of SJEC and to have been part of such a groundbreaking chapter in its history. I look forward to staying connected with the college and contributing to the growth of the AIML department in the years to come.

Mr Jason Allen Carlo

2020-2024 batch

Artificial Intelligence and Machine Learning Current Designation: Data Scientist 1, HP Inc.

HOD'S MESSAGE

Department of MATHEMATICS







"Education is the foundation upon which we build our future" says Christine Gregoire. "Education is the passport to the future, for tomorrow belongs to those who prepare for it today" says Malcolm X. As this is an era of technology, technical education finds a center spot in the development of the nation. After the introduction of NEP 2020, the direction of education changed completely. As per the guidelines of NEP 2020 students get more choices in the form of electives from the first semester of their engineering education. Every student can select the electives based on his plan of the future which helps the student achieve goals in their life. As per NEP students will study some subjects like Universal Human Values, Biology for Engineers, compulsory induction programs which helps the students to develop humanitarian values required to become better human beings. These values also help him to reach the motto of our university "Modalu Manavanagu". In SJEC electives are offered from the first semester as per NEP and technical and human values are taught to students which helps SJEC to achieve its motto" Service and Excellence".

"What is mathematics? It is only a systematic effort of solving puzzles posed by nature." Says Shakuntala Devi. As science is the study of nature and mathematics is Language of science. Mathematics we teach in the first and second year of engineering forms the foundation for all branches of engineering. Mathematics helps students to analyze circuits, develop algorithms to write programs etc. Mathematics develops analyzing, problem solving skills which are required for any engineer. As we adopt technology in Mathematics education by adopting MATLAB as part of curriculum which helps students to solve mathematical problems using technical tools. MATLAB software is a useful software for students in their higher semesters classes. We teach aptitude skills to students of UG and PG which helps them in their placement activities.

Faculty from the Department of Mathematics wish the 2024 batch of students all the best in their future endeavors. We also congratulate the editorial team of "Abhiyaana" for their efforts in bringing out the talents of the college in a beautiful way.

ACTIVITIESOF THE DEPARTMENT



FDP on "AI Applications in Teaching"



The Department of Mathematics organized an FDP, "AI Applications in Teaching" on June 7, 2024. The session aimed to enhance teaching methods by incorporating artificial intelligence tools into classroom practices. Faculty members learned to effectively use AI tools for creating dynamic presentations and improving their teaching methodologies. Faculty members of SJEC participated in a Faculty Development Program. The program was coordinated by Ms Salma Shabnam and Ms Lauline M. D'Souza.

Beyond the Basics: Exploring the Needs



An event called "Beyond the Basics: Exploring Needs" was organized by the Department of Mathematics from January 11 to 13, 2024. The event's main goal was to close the knowledge gap between classroom theory and practical implementations. Students' comprehension and problem-solving abilities were improved as a result of the event's exploration of realworld applications of fundamental mathematical ideas. The program's coordinators were Dr Venkatesh Babu and Dr Harsha A. J. Students from St. Philomena College Puttur, St. Aloysius College Mangaluru, and SDM College Ujire gathered for an interesting occasion.

Outreach Program at Vamadapadavu



The SIGMATHS Association of Department of Mathematics ran an outreach program. In order to enhance the educational experience of government school pupils, a number of educational activities will be held at Sarakari Padavi Poorva College in Vamadapadavu on February 16, 2024. Through a range of activities, government school students were engaged and given a rewarding educational experience. Ms Rachana Crasta, Ms Lauline D'Souza, and Ms Prajna K coordinated the program.

Outreach Program at Pavoor



On March 7, 2024, outreach program was held at Sarakari Padavi Poorva College, focusing on instilling confidence in high school students and providing them with valuable insights for academic growth. The event was led by Dr Harsha A. J and Ms Prathibha K N, who ensured an engaging and informative experience for all participants.

Competition for National Science Day Celebration



Incelebration of National Science Day, the SIGMATHS association of the Department of Mathematics at SJEC organized a rangoli competition themed "Science and Technology" on February 28, 2024. The event was open to all interested students and provided a creative platform to showcase their understanding of scientific concepts. Coordinated by Ms Rachana Crasta, Ms Lauline D'Souza, and Ms Prajna K, the competition encouraged students to reflect the spirit of science and technology through artistic expression.

PhD Award



Dr Harsha A J,
Assistant Professor
Title of the thesis: Study of
Formal Concept Lattices and its
properties
University: Visvesvaraya
Technological University, Belagavi

Conferences/ FDP/Seminars/ Workshops attended by the Faculty:

No of Journals/ Publications 10

Workshops 47

Conferences/Paper Publications 12 No of Certification Courses 20

Periodical
meetings with the
faculty to discuss about
student's problems in
academics and other
facilities.

Conducting
remedial classes for
slow learners, lateral
entry students and
students failed in
semester
examinations.

Conduction of aptitude problem solving through aptitude classes.

Monitoring
attendance of the
students, warning
students and sending
information about
attendance shortage to
the parents by
registered post

Practices

Best

Assistance to faculty and students of other departments in Mathematics basics.

Individual
guidance to the
students who are
interested to write
GATE examinations in
Mathematics part
of the question
paper.

10D'S MESSAGE

Department of BUSINESS ADMINISTRATION





Upon reflection of the preceding academic year, I am filled with a sense of pride and accomplishment. Our MBA as well as MBA- IEV (Innovation Entrepreneurship and Venture Development) programmes have continued to flourish, cultivating exceptional graduates who are making a substantial impact on the global business landscape and entrepreneurship. The success of our programmes is a testament to the diligent efforts, dedication, and commitment of our students, faculty, and staff. Our students have excelled in their academic pursuits, demonstrated exemplary leadership skills, and embraced opportunities for professional development. Our faculty members have provided exceptional instruction, mentorship, and guidance. Our staff has worked tirelessly to support our students and faculty, ensuring the seamless operation of our program.

Over the past year, we have made significant strides in advancing our curriculum and strengthening our relationships with industry. We have introduced new courses that address emerging trends in business, such as business analytics, digital marketing, and design thinking for entrepreneurs. We have also expanded our internship and placement opportunities, providing our students with valuable hands-on experience.

In addition to our academic achievements, our students have been active in various extracurricular activities. Students have participated in management fests, leadership development programs, and community service initiatives. These activities have not only enhanced their personal and professional growth but have also fostered a strong sense of community among our students.

I encourage all our students to make the most of their MBA experience. Take advantage of the opportunities to learn, grow, and network. Remember, your MBA is a journey, not just a destination. I would like to express my sincere gratitude to all our alumni for their continued support and guidance. Your success stories inspire our current students and help to strengthen our program.

Wishing you all the very best.

CONGRATULATIONS

TOPPERS

II Year MBA



Pournami Shetty



Santhripthi S K



Alisha L D'Souza

I Year MBA



M K Swathi



Rithika K Acharya



Disha



Ranjan Nayak

ACTIVITIES OF THE DEPARTMENT



The Business Plan Workshop-2023



The session held on July 11,2023, provided participants with hands-on guidance in crafting a comprehensive business plan. The session featured resource person Dr Madhukar S M and was coordinated by Ms Acharya Chitralekha J, focusing on the Business Canvas Model and offering practical insights and real-world examples to help participants structure and refine their business ideas effectively.

Trionfo-2023: A Success Junction



A Success Junction, held on July 14, 2023, celebrated the placement achievements of recent graduates, recognizing the collective efforts of students, faculty, and administration in shaping successful careers. The resource person was Dr Rio D'Souza, Principal, SJEC and the event was coordinated by Mr Roopesh. It highlighted the dedication and hard work behind these accomplishments, fostering motivation and excellence among future graduates.

Ingenious-2023



The event held on 21st July 2023, provided an inspiring platform for students to showcase their entrepreneurial spirit by pitching innovative business ideas to a panel of judges. The resource persons for the event were Mr Aman Magwin and Dr Anjali Ganesh, and it was coordinated by Ms Acharya Chitralekha J. The event encouraged creativity, critical thinking, and business acumen, equipping aspiring entrepreneurs with valuable feedback to refine their ideas.

The talk on 'Prevention of Sexual Harassment (PoSH) at the Workplace'



The session held on September 6, 2023 for PG students, aimed to educate MBA and MCA students about the PoSH Act and its significance in professional environments. The resource person was Advocate Elizabeth Neeliyara, and the session was coordinated by Dr Shakila B. It emphasized fostering a safe and respectful work culture, empowering students with the knowledge to recognize, address, and prevent workplace harassment.

MBA: Session on "Mind Matters"



The session on 'Mind Matters,' held on September 22, 2023, emphasized the importance of mental health and well-being. The resource person was Dr Anil Kakunje, and the session was coordinated by Dr Anjali Ganesh. The session aimed to raise awareness, break the stigma surrounding mental health issues, and provide practical strategies for managing stress. Through insightful discussions, students gained valuable knowledge on maintaining a balanced and healthy mindset in both personal and professional life.

Industry Interaction Session on Personal Finance



The session conducted on January 11, 2024, for MBA students, featured Mr Salman Quairashi, Head of Sales at Zerodha, as the resource person, and was coordinated by Mr Roopesh. The session aimed to enhance financial literacy and decision-making skills by offering practical knowledge on personal finance, investment strategies, and emerging market trends

Orientation Program for MBA 2023-25 Batch



The Orientation Program, held on February 2, 2024, for the 2023-25 MBA batch, aimed to set the foundation for students' academic and professional journeys. Coordinated by Dr Shakila B., the program introduced students to management education, familiarized them with campus facilities, and emphasized essential skills for success. Through this session, students gained the knowledge and resources needed to navigate their MBA experience and excel both inside and outside the classroom.

Talk on Practical Aspects of Direct Taxation



The session held on February 26, 2024, for MBA students, featured resource person Mr CA Dylan Rebello. Coordinated by Dr Shakila B, the talk aimed to provide students with a comprehensive understanding of the Indian taxation system and its practical implications.



Zephyr 2024

Two-day PG management fest held on March 26–27, 2024, was coordinated by Ms Acharya Chitralekha J and featured resource person Mr Akhilesh B C. The event provided an enriching platform for students to develop both professionally and personally. Through interactive sessions and vibrant cultural showcases, participants were encouraged to enhance their leadership skills, collaborate effectively, and explore new horizons for growth and creativity.

ACHIEVEMENTS OF STUDENTS





Mr Akhilesh Poojary, Baasil Abdullah Waheed Ahmed, Darren Rodrigues, Venson Dsouza, Llyod Dsouza won second place in Start -up Challenge -Case study on 11th September 2023 at SNS Institutions, Coimbatore.



Pratheeksha P Shetty and Reeshel Clita Dsouza secured the First Place in Marketing Event at National Level Management fest "ECHELON-2024" organised by Shree Devi Institute of Technology on 4th & 5th January 2024.



Glen Fernandes, Yashika S Amin and Souda secured the First Place in Best Management Team at National Level Management fest "ECHELON-2024" organised by Shree Devi Institute of Technology on 4th & 5th January 2024.



Prakash Lloyd Mathias and Venson Dsouza (IEV) won the First Place in Business Analytics event at the Inter-Collegiate Fest Magnovite 2024 held on the 12th and 13th February 2024 at Christ Deemed to be University, Bangalore



Yukthi Udupa has participated in the 23rd VTU Youth Festival Blissbeat-2024 and secured Second Place in the event Classical Dance Solo held at SJC Institute of Technology from 2nd March 30th March 2024.

BEST PRACTICES

Free Online
Professional Certificate
programmes through
Coursera.

100% placement support through our industry partners-Cocubes and iSkew learning Bridging IndustryAcademia 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 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

Startup support through incubation centre.

Enhancing
employability skills
through training
sessions by Certificate
Course on Business
Analytics Embedded
with ERP and Industry
Oriented Training.

NO OF WORKSHOPS/ CERTIFICATION COURSES ATTENDED BY FACULTY MEMBERS JOURNAL PUBLICATIONS



From Classroom to Career: *Alumni Reflections*

Completing my MBA at St Joseph Engineering College was one of my best career decisions. Thanks to the knowledgeable and supportive faculty. Their guidance made complex concepts easy to understand, while the strong corporate ties of the College helped me to secure internships and job opportunities. The vibrant campus life, with numerous clubs and activities, contributed to my personal and professional growth. I highly recommend SJEC to anyone pursuing a business career.

Rashmi J Anchan (Batch 2022-24)

HOD'S MESSAGE

Department of COMPUTER APPLICATIONS



Dr Hareesha B
Associate Professor & HOD

Dear Abhiyaana Editorial Team,

The department of Computer Applications is renowned for its expertise and commitment to meet the global needs and challenges by establishing a collaborative partnership between industry and community. We believe that such a collaboration would greatly benefit both our organizations and the wider community we serve.

The department is strengthened with additional intake and infrastructures. We have been consistently working towards quality education to meet the needs of the stakeholders. The placement achievements put on great laurels to the department. As we continue to make significant strides in our field, we recognize the importance of effective communication and public engagement.

The updated curriculum, combined with a variety of extracurricular activities, has sharpened both the technical and managerial skills of our students. The academic autonomy provided them with numerous opportunities to explore internships and projects, both within and beyond the institution. Our dedicated faculty, staff, and students have consistently demonstrated a commitment to service and excellence, each contributing to the institution in their own unique way.

Our graduating students have mastered the art of application development, equipped to meet the evolving needs of society through the technical expertise they've gained during their MCA journey. We are confident that you will carry forward the positive attitude and values that embody the SJEC legacy and pride. The dedication and determination will undoubtedly drive. The success in the new chapter of your journey.

'Abhiyaana 2024', our esteemed magazine, continues to demonstrate a commitment to delivering high-quality content to a wide audience. It stands as a proud testament to our institution, filled with insightful articles, thought-provoking features, and engaging storytelling, offering a rich experience for both faculty and students alike.

CONGRATULATIONS

TOPPERS

II Year MCA



Gleveta Reyona Noronha



Benadecta Jacob



Jovita Cutinha



Ankitha S

I Year MCA



Adithi Kini N



Nireeksha. D



Varshitha Rai



Nidisha Jadhav

ACTIVITIES OF THE DEPARTMENT



Hands-on Technical Series-II: Database and Web Security



The Department of Computer Applications, in association with the Placement and Training Group, conducted a Hands-on Technical Series-II on the topic "Database and Web Security" for I-semester MCA students on 13 April 2024. Mr Prem Kumar, Cyber Security Engineer, Novigo Solutions Pvt. Ltd., Mangaluru, was the resource person for the event.

Aptitude Training Session



An Aptitude Training Session was conducted from 11th to 15th March 2024 for I-semester MCA students in collaboration with Insight Job Guru.

Three-Day C Language Primer Series-I: Refresh Your Skills

The Department of Computer Applications, in association with the Placement and Training Group, conducted a Technical Series-I on the topic "Three-Day C Language Primer: Refresh Your Skills" for I-semester MCA students from 19th March to 21st March 2024 in Fr. Fred Memorial Hall/MCA Laboratory. Ms Nandini Maninarayana, Wipro Certified Trainer and Assistant Professor of the Department of Electronics & Communication Engineering, was the resource person for the event.

Hands-on Session: Data Analytics and Cyber Security

A hands-on session on "Data Analytics, Data Cleaning and Preprocessing, Data Visualization, and Introduction to Cyber Security" was conducted for the BCA students of Milagres College on 31st May 2024 at Milagres College, Mangaluru. The session was conducted as part of the MoU activity to enhance Machine Learning and Artificial Intelligence skills among students. Case studies on the above topics were demonstrated for the students.

Hands-on Session: Al Tools for Teachers

A hands-on session on "AI Tools for Teachers" was conducted for the staff of Milagres Central School, Mangaluru, on 22nd May 2024 at SJEC, Mangaluru. The session covered the presentation and demonstration of useful tools such as Adobe Firefly, Bing Image Creator, and Canvas.

Alumni Interaction: Cloud Platform Insights

An Alumni Interaction with second-year MCA students was arranged on the topic "Experiences, Insights, and the Latest Trends in Cloud Platform" on 28th December 2023. The session was conducted by Mr Deepak Cardoza from 7Edge Pvt Ltd (MCA class of 2023).



Joshiana 12.0: National Level IT Fest



"The Technocrats" - The Students Association of MCA of SJEC hosted Joshiana 12.0, a two-day National Level IT Fest for MCA, M.Tech, MSc, BCA, and B.Sc(CS) students. The fest was organized under the aegis of the Department of Computer Applications.

Joshiana 12.0 was inaugurated on 21st September 2023 with the lighting of the lamp by dignitaries. Mr Bharath Nidpalli, Senior Tech Lead, Iron Service Global, was the Chief Guest. Other dignitaries included Rev. Fr. Kenneth Rayner Crasta, In-charge Director of SJEC (presiding over the ceremony), Dr Rio D'Souza, Principal of SJEC (Guest of Honour), Dr Hareesh B, HOD of MCA, Mr Gururaja S, Staff Coordinator, Mr Brill Brenhill, Co-Coordinator, Mr Anvith Shenoy, President of Technocrats, and Mr Rahul J, Secretary of Technocrats.

The two-day fest featured 10 events: CYBER WARFARE (Coding), WEB WIZARDS (Web Design), STRATEGIST (IT Quiz), RECONNAISSANCE (Photography & Videography), TECH REBUTTAL (IT Debate), FRONTLINE (Gaming), TACTICIAN (Product Launch), CAPOEIRA (Variety Contest), EMPEROR (IT Manager), and ONE PIECE (Treasure Hunt). These events were designed to test participants' technical skills. A total of 22 teams registered, with around 269 participants taking part in the fest.

Orientation Programme for MCA Students



An orientation program for newly admitted MCA students was organized from 29th to 31st January 2024 for the 2023-2025 Batch. The program aimed to introduce students to the department, teaching-learning processes, and campus facilities. Resource persons from academia and industry participated.

Dr Hareesh B, HOD of MCA, welcomed the students, introducing them to the department. Dr Rio D'Souza, Principal of SJEC, delivered a talk on the professional approach to life. Faculty members covered various aspects, including outcome-based education, examination regulations, and academic structure.

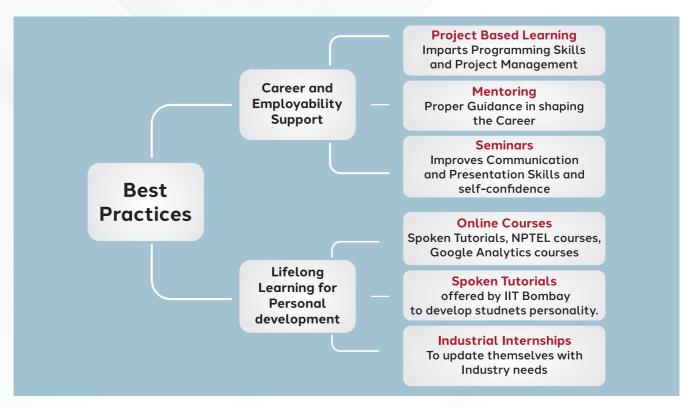
Industry experts and alumni shared insights on professional skills, ethics, research, intellectual property rights, counseling, sports facilities, and career development. Sessions were led by professionals like Ms Nisha Shriyaan (Microland Ltd.), Ms Priyanka Kamath (PrimeSophic Technologies), Mr Tharun S (Headway Technologies), and Dr Purushothama Chippar (Vice Principal of SJEC).



Technical Talk on Introduction to Machine Learning

The Department of MCA, in association with the IEEE SJEC Student Branch, organized a Technical Talk on "Introduction to Machine Learning" on 22nd July 2023. Dr S. Kanchana, Assistant Professor at SRM University, Chennai, was the resource person.

The talk introduced fundamental Machine Learning concepts, including logistic regression, KNN, and decision trees. Dr Kanchana explained the process of building ML models, data collection techniques, and practical applications. Students actively engaged in discussions and Q&A sessions, gaining valuable insights into ML algorithms and their applications.



ACHIEVEMENTS OF FACULTY





PhD Awarded

Dr Gururaja S Ph.D. awarded year 2024

Thesis title - Mapping road and neighborhood in remotely sensed images with an emphasis to assess the road quality

From Visvesvaraya Technological University, Belagavi, Karnataka, India

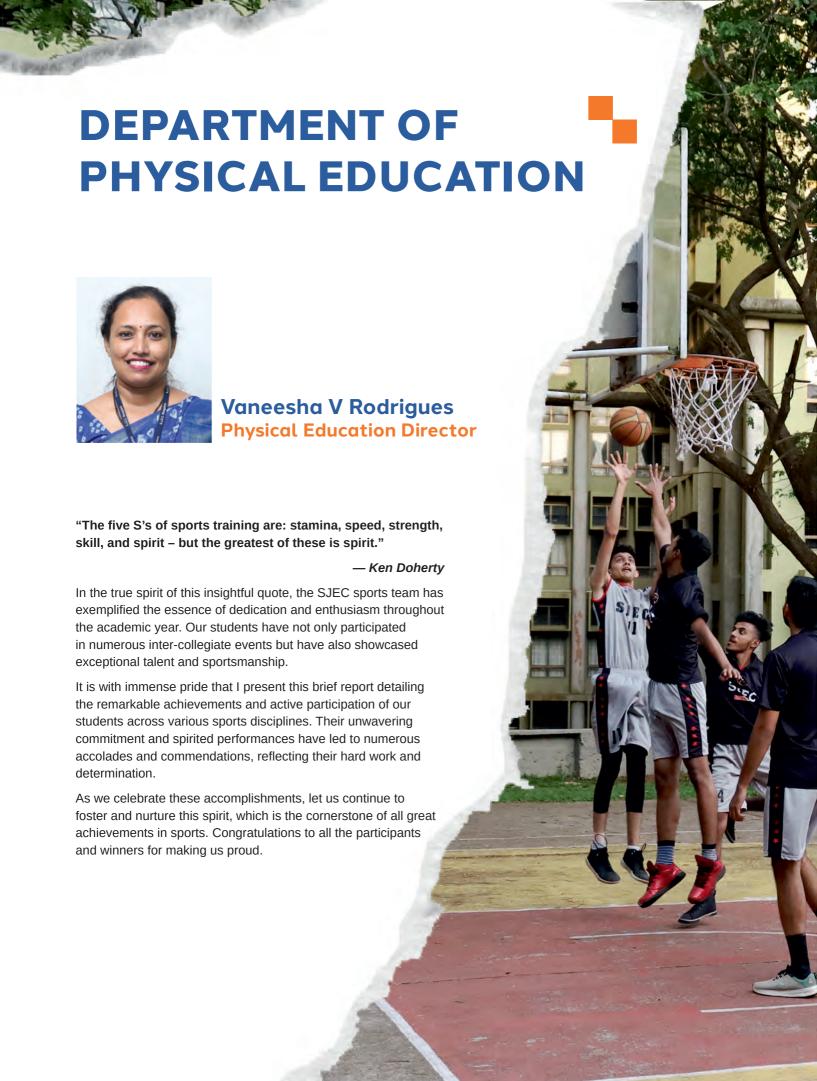
My journey at SJEC as an MCA student has been truly transformative. The college provided a nurturing environment that helped me grow both academically and personally. The practical sessions, hands-on learning experiences, and access to additional courses through Coursera enhanced my technical skills and knowledge. Beyond academics, SJEC helped develop my leadership and communication skills through organizing national-level fests and winning intercollegiate competitions, boosting my confidence.

The Placement and Training Cell played a key role in preparing us for our careers. Thanks to their guidance. I am also grateful for the opportunity to work on college projects, including systems like the Hall Booking

System and websites. These experiences not only strengthened my technical skills but also gave me valuable industry exposure.

Being recognized as the Best Outgoing Student of the MCA batch (2022-23) is an honor I will always cherish. SJEC has played a pivotal role in shaping my journey, and I will always hold this institution close to my heart.

Deepak Boniface Cardoza
MCA Batch 2022-23
Software Engineer II, Backend Engineering
7EDGE Private Limited



Victory Unleashed: Celebrating Our Sports Triumphs



Cross Country (M):

SJEC Men **Mr Pruthvi K S** II yr MBA participated in VTU State Level Cross Country Championship held at Dr TTIT, KGF on 10 July 2023.





TABLE TENNIS (M&W):

SJEC Men and Women Table Tennis team participated in VTU Mangaluru Division Table Tennis Tournament held at SDIT Kenjar on 12 July 2023.



SHUTTLE BADMINTON (M&W):

SJEC Men and Women team participated in VTU Mangaluru Division Shuttle Badminton Tournament held at NMAMIT, Nitte on 18 July 2023. SJEC Women Shuttle team secured the **Winners** in VTU Mangaluru Division Women Shuttle Badminton Tournament and also participated in the VTU State Level Shuttle Badminton Tournament held at BMSCE, Bengaluru on 22 & 23 July 2023.



CHESS (MEN):

SJEC Men Chess team secured **Runner Up** in VTU Rest of Bengaluru Division Chess Championship held at SJMIT, Chitradurga on 10 & 11 August 2023 and team also participated in the VTU State Level Chess Championship held at SJMIT, Chitradurga on 12 & 13 August 2023.



TAEKWONDO (MEN):

SJEC Men Taekwondo team participated in VTU State Level Taekwondo Championship held at SIT, Tumkur on 21 August 2023. Mr Aditya S Achar IV/EC secured Third Place in below 58 kg category Taekwondo Championship.



FOOTBALL (MEN):

SJEC Men Football team participated in VTU Mangaluru Division Football Tournament held at PACE, Konaje on 23 & 24 August 2023.

WUSHU (WOMEN):

Ms Jaslyn Shona D'Souza II year AIML Secured Third Place in Khelo India State Women's WUSHU League, at Chamundi Vihar Indoor Statdium Mysore from 27 to 30 August 2023.







YOGA (MEN & WOMEN):

SJEC Men & Women participated in VTU State Level Yoga Championship held at NMAMIT, Nitte on 30 August 2023.



WEIGHTLIFTING (MEN& WOMEN):

SJEC Men & Women Weightlifting team participated in VTU State Level Weightlifting Championship held at Vemana IT, Bengaluru on 1 September 2023. Mr Hrithik Chand I year MBA secured Second Place in 109 category weightlifting championship by lifting Snatch 65 kg & 90 kg Clean & sweep.



FOOTBALL (WOMEN):

SJEC Women Football team participated and secured the **II Runner up** in VTU State Level Women Football Tournament held at CMRIT, Bengaluru on 5 & 6 July 2023.



POWERLIFTING (MEN& WOMEN):

SJEC Men & Women Powerlifting team participated in VTU State Level Powerlifting Championship held at KLE GIT, Belagavi on 7 & 8 September 2023. Mr Hrithik Chand I year MBA secured First Place in 105 kg category powerlifting championship by lifting Squat 247 kg, Bench Press 132 kg and Deadlift 230 kg total weight of 609 kg. Ms Shubra Rai I year CS secured Third Place in 63 kg category powerlifting championship by lifting Squat 20 kg, Bench Press 28 kg and Deadlift 90 kg total weight of 138 Kg.



BASKETBALL (MEN):

SJEC Men Basketball secured **Runner Up** in 1st Shri R L Jaipuria Memorial Cup – 2023, basketball tournament held at Mangala Indoor

Stadium from 21 to 24 September 2023.



WRESTLING & JUDO (MEN):

SJEC Men Wrestling team participated in VTU State Level Wrestling & Judo Championship organized by KLS VDIT, Haliyal on 21 & 22 November 2023. Our College wrestling team Bagged the **Third Place** in **Overall Wrestling Championship.**



Mr Hrithik Chand I year MBA secured First Place in below 125 kg category Wrestling Championship.





Control of the second of the s

Mr Jemin Sebastian
III year Electronics &
Communication Engineering
secured Second Place
in below 79 kg category
Wrestling Championship.

Mr Mohammed
Mazar IV year Civil
Engineering secured
Third Place in below 74
kg category Wrestling
Championship.

Mr Mohammed
Mazar IV year Civil
Engineering secured
Third Place in below
73 kg category Judo
Championship.



Mr Abdul Mukshith, IV year Mech Engineering secured Third Place in below 92 kg category Wrestling Championship.





All India Inter University Wrestling Championship:

Mr Hrithik Chand I year MBA represented VTU in All India Inter University Wrestling Tournament held at Chandigarh University, Chandigarh Punjab from 30 November to 1 December 2023.





BASKETBALL (MEN):

SJEC Men Basketball team participated and bagged

the Winners in VTU Mangaluru Division Basketball tournament held at SJEC, Vamanjoor on 28 November 2023 Mr Alden Alvares - SJEC, Vamanjoor awarded was Shooter of **Best** VTU Mangaluru Division Basketball



Tournament 2023 and team also participated in the VTU State Level Basketball tournament held at on 30 November & 1 December 2023 at MSRIT, Bengaluru.



KARATE (MEN):

SJEC Men Karate team participated in VTU State Level Karate Championship **Mr Shiva Sourabh S**, II year CSBS secured **Second Place** in Karate Championship held at RVCE, Bengaluru on 2 & 3 December 2023.



BALL BADMINTON (MEN):

SJEC Men Ball Badminton team secured **Runner up** in VTU Rest of Bengaluru Division Ball Badminton tournament held at RYMCE Bellary on 10 & 12 December 2023 and team also participated in the VTU State Level Ball Badminton held at RYMCE Bellary on 13 & 14 December 2023.



NETBALL (WOMEN):

SJEC Women Netball team secured **Runner up** in VTU State Level Netball Tournament held at GAT, Bengaluru on 14 & 15 December 2023.



CRICKET (MEN):

SJEC Men Cricket team entered the **Quarter Finals** in VTU Mangaluru Division Cricket Tournament held at SCEM, Nitte from 12 & 20 December 2023.



HOCKEY (WOMEN):

SJEC Women Hockey team secured **II Runner up** in VTU State Level Hockey Tournament held at BITM, Ballary on 22 December 2023.



All India Inter University Athletic Meet:

represented VTU in All India Inter University Athletic Meet held at Kalinga institute of Industrial Technology, Bubaneswar, Orissa from 26 to 29 December 2023.





South Zone Inter University F o o t b a l l Tournament:

Ms Alva Shwetha Shivaprasad IV year CSE and Ms Sushritha II year ECE represented

VTU in South East Zone Inter University Football Tournament held at University of Calicut, Kerala from 30 December 2023 to 4 January 2024

South Zone Inter University Shuttle Badminton Tournament:

Ms Trivia Creda Veigas I year CSE represented VTU in South Zone Inter University Shuttle Badminton Tournament held at VTU, Belagavi 2 to 5 January 2024.





KHO-KHO (MEN):

SJEC Men Kho-Kho team participated in VTU Mangaluru Division Kho-Kho Tournament held at VCET, Puttur on 6 January 2024.



VOLLEYBALL (WOMEN):

SJEC Women Volleyball team secured Fourth Place in VTU Rest of Bengaluru Division Volleyball Tournament held at KIT, Tiptur on 9 & 10 January 2024 and team also participated in State Level Volleyball Tournament held at KIT, Tiptur on 13 January 2024.



South Zone Inter University Table Tennis tournament

Sanman S Malpe I year ECE represented represent VTU in South Zone Inter University Table Tennis tournament to be held at The Tamil Nadu Dr Ambedkar Law University, Chennai (TN) from O1 to O3 February 2024



BASKETBALL (WOMEN):

SJEC Women Basketball team secured Runners in VTU Rest of Bengaluru Division Basketball Tournament held at KLS VDIT, Haliyal on 6 February 2024 and team also secured Fourth Place in State Level Basketball Tournament held at RVITM, Bengaluru on 1 March 2024.



SOFTBALL (MEN):

SJEC Men Softball team participated in VTU Rest of Bengaluru Division Softball Tournament at PESCE, Mandya on 6 February 2024.



HOCKEY (MEN):

SJEC Men Hockey team participated in VTU Mangaluru Division Hockey Tournament held at NMAMIT, Nitte on 3 February 2024



HANDBALL (MEN):

SJEC Men Handball team Winners in VTU Mangaluru Division Handball Tournament held at NMAMIT, Nitte on 3 February 2024.



THROWBALL (WOMEN):

SJEC Women Throwball team secured were Winners in VTU Mangaluru Division Throwball Tournament held at SCEM, Adyar on 14 February 2024 Ms Nisha Aranha I yr CS secured Best Thrower and team also secured **II Runner up** in State Level Throwball Tournament held at GSSSIETW, Mysuru on 16 February 2024.



KABADDI (MEN):

SJEC Men Kabaddi team secured II Runner up in VTU Mangaluru Division Kabaddi Tournament held at SJEC, Mangaluru on 18 February 2024

VOLLEYBALL WOMEN

SJEC Men Volleyball secured **II Runner** up in VTU Mangaluru Division Volleyball Tournament held at SDMIT, Dharwad on 22 February 2024



Nitte Meenakshi Hegde Memorial Trophy

SJEC women Throwball team were **Winners** in Nitte Meenakshi Hegde Memorial Trophy Throwball Tournament held at NMAMIT Nitte on 15 March 2024 **Ms Nisha Aranha** I yr CS secured **Best Thrower** of the tournament and **Ms Roja S** IV yr E&E secured **Best Receiver** of the tournament



All India Inter University Netball Tournament:

Ms Jia Menezes I year CSE represented VTU in All India Inter University Netball Tournament held at University of Calicut, Kerala from 4 to 7 May 2024.



Mr Hrithik Chand II year MBA represented VTU in All India Inter University Powerlifting Championship held at Tamil Nadu Physical Education and Sports University, Chennai (TN) from 20 to 22 May 2024.



All India Inter University Men Ball Badminton Tournament:

Mr Viraj N IV MCA represented VTU in All India Inter University Ball Badminton (Men) tournament held at Jepplaar University, Chennai from 31 May to 3 June 2024.

All India Inter University Men Skating Championship:

Mr Daniel Salvadore Concessao IV CS represented VTU men Skating in All India Inter University Skating Championship held at Rani Durgavati Vishwavidyalaya Jabalpur from 12 to 20 June 2024.





FOOTBALL (WOMEN):

SJEC Women Football team participated and secured the **III Runner up** in VTU State Level Women Football Tournament held at NIE, Mysuru on 20 May 2024



FOOTBALL (MEN):

SJEC Men Football team participated in VTU Mangaluru Division Football Tournament held at PACE, Konaje on 22 & 23 May 2024.



HOCKEY (MEN):

SJEC Men Hockey team participated in VTU Mangaluru Division Hockey Tournament held at NMAMIT, Nitte on 1 June 2024



TAEKWONDO (MEN):

SJEC Men Taekwondo team participated in VTU State Level Taekwondo Championship held at GAT, Bengaluru on 21 & 22 June 2024. **Mr Hussain Shabandri** IV / Civil secured **Third Place** in above 87 kg category Taekwondo Championship.



ATHLETICS (MEN & WOMEN):

SJEC Men & Women Athletic team participated in VTU Single Zone Athletic Meet held at VTU RO, Mysuru from 26 to 29 June 2024.

VTU EVENTS @ SJEC

VTU Mangaluru Division Men Basketball Tournament 2023-24



Date: 27 November 2023

Chief Guest: Dr Rio D'Souza Principal SJEC **Coordinator:** Ms Vaneesha V Rodrigues &

Mr Poornesh M

Winners: SJEC Vamanjoor **Runner up:** NMAMIT, Nitte

Best Defender: Mr Ayush Shetty of NMAMIT, Nitte

Best Shooter: Mr Alden Alvares of SJEC,

Vamanjoor

VTU Mangaluru Division Men Kabaddi Tournament 2023-24



Date: 18 & 19 February 2024

Chief Guest: Dr Rio D'Souza Principal SJEC Coordinator: Ms Vaneesha V Rodrigues & Mr Poornesh M

Winners - VCET, Puttur Runner up - AITM, Bhatkal

Best Raider - Mr Praful from VCET of Puttur Best Catcher - Mr Haricharan of SJEC,

Vamanjoor

All-rounder - Mr Haisham of AITM, Bhatkal

Independence Day 2023

Independence Day was celebrated with great enthusiasm at St Joseph Engineering College (SJEC), Mangaluru on 15 August, 2023 in front of College Admin Block.

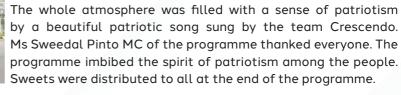
Sgt Victor Rosario Correa IAF graced the occasion as the Chief Guest. Rev. Fr Wilfred Prakash D'Souza, Director of SJEC, Rev. Fr Kenneth Rayner Crasta, Assistant Director of SJEC, Dr Rio D'Souza, Principal of SJEC, Dr Purushothama Chippar Vice Principal of SJEC and Dr Ramananda H S, Dean



Student Welfare were the Guests of Honour. The dignitaries were escorted NCC Cadets to the stage for the beats of College Band. The dignitaries were escorted to the flag post by Leading Cadet Shamitha Rego and Cadet Hrithik.

The Chief Guest Sgt Victor Rosario Correa IAF hoisted the flag The National Anthem was







Republic Day 2024



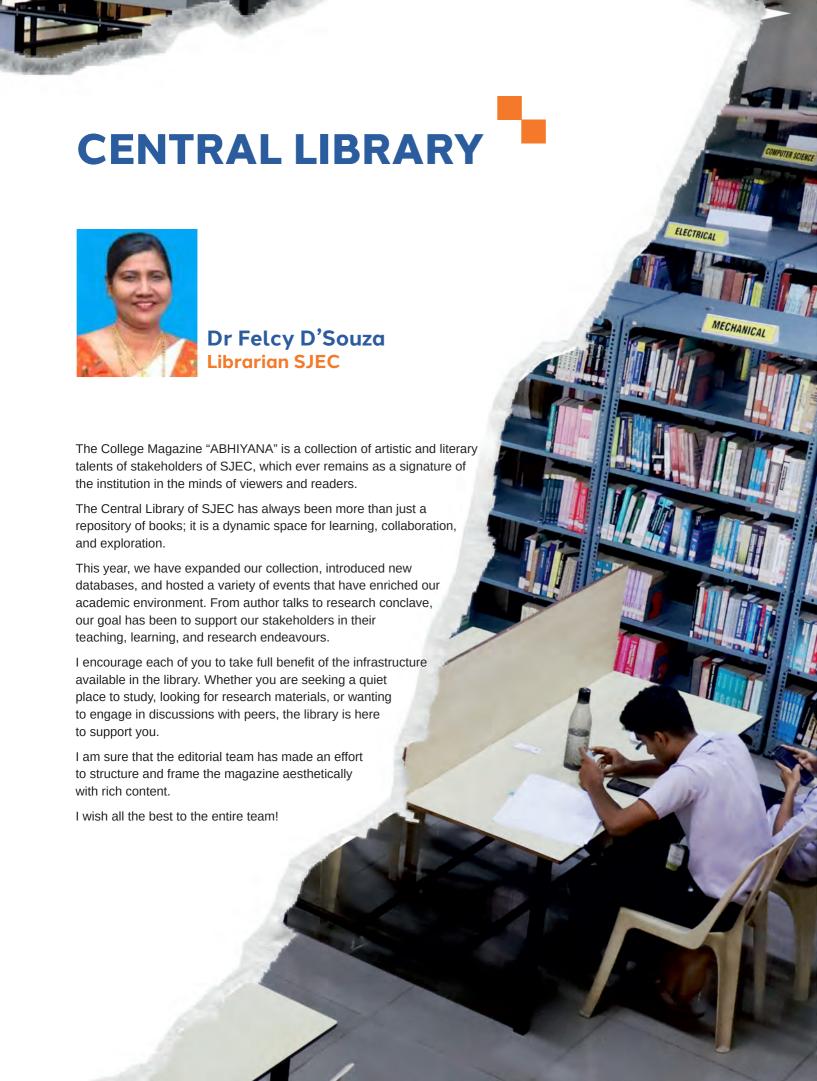


The Republic Day of our Nation was celebrated with pomp and show, zeal and spirit in SJEC at 8:30 am in the Basketball Court. Dr Felcy D'Souza Librarian SJEC graced the occasion as the Chief Guest. Rev. Fr Wilfred Prakash D'Souza Director – SJEC, Rev. Fr Kenneth Rayner Crasta Asst Director – SJEC, Dr Rio D'Souza, Principal – SJEC, Dr Purushothama Chippar Vice Principal – SJEC and Dr Ramananda HS –Dean SW were the other dignitaries present for the occasion. The highlight of the day was the presence of SJEC NCC

Naval and Air Wing Cadets.

The presence of patriotism was raised by beautiful patriotic songs from the SJEC Crescendo, followed by the exceptional skills in the sophisticated art of silent drill by the NCC cadets. The Chief Guest's address during the Republic Day Celebration at SJEC served as a source of inspiration for all present.





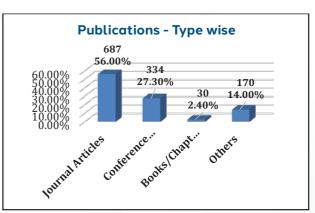


Central Library aims to support the institute's teaching, learning, research and scholarly communication activities with designed information resources (print/online) and offer ICT-based services to meet the needs of its stakeholders. The library is fully automated with Easylib cloud version library management software that provides quick and efficient circulation operations, enhanced access to library resources and exposure to the latest technology. The Online Public Access Catalogue(OPAC) with the efficient and integrated searching facility (Discovery Tool) can be accessed through the library's interactive portal from anywhere on/off campus. The

library is an active member of VTU Consortium, DELNET and the National Digital Library of India. In addition to books and periodicals, the library has a good collection of fiction, non-fiction, best-authored books, startups, leadership & motivational and competitive exam books to cater to the needs of its end users. In addition, the Library has a well-stocked digital repository which provides access to old question papers, formula handbooks, syllabus-recommended e-books and e-thesis. The library also provides access to self and e-learning databases such as SWAYAM-NPTEL etc.

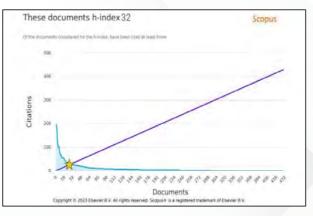
RESEARCH PRODUCTIVITY OF SJEC AS PER IRINS PROFILE AT https://sjec.irins.org/AS ON AUGUST 2024



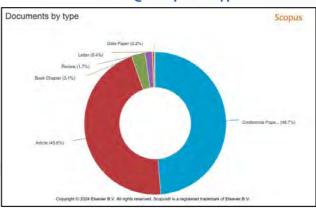


RESEARCH PRODUCTIVITY OF SJEC @ SCOPUS AS ON AUGUST 2024

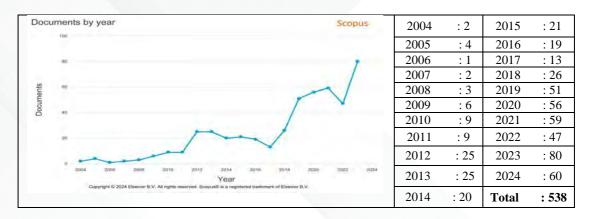
h-index: 32



Publications @ Scopus - Type wise



Growth of Publications @ Scopus - Year wise



ACTIVITIES OF THE DEPARTMENT





D'Souza, Felcy Librarian provided Library Orientation cum demonstration on "Library **Services** and Facilities" Resources. to the stakeholders as below:

- I year BE students (Group 1) 24.8.2023
- Newly Joined Faculty on 25.9.2023
- Newly Joined Faculty on 19.1.2024
- I Year MCA Students on 31.1.2024
- I Year MBA Students (B Batch) on 29.2.2024
- I Year MBA Students (A Batch) on 01.3.2024
- •Newly Joined Faculty on 02.8.2024
- I year BE students 05.9.2024
- UG Lateral Entry on 06.9.2024

Workshop on "Drill Bit - Plagiarism Detection Tool" organized by Central Library, Research and Facilities Group, Department of Computer Science Engineering in association with VTU Consortium on 4th Sep, 2023. Mr R Sunil Kumar, Product Head, Balani InfoTech Pvt. Ltd, Bengaluru was the Resource Person.



"User Awareness Programme on National Digital Library India (NDLI)" organized by Department of Electrical and Electronics Engineering, Library & Learning Group in association with NDLI Club on 3rd August 2023. Mr Dubbendu Chakrabarty (Senior Outreach Manager, NDLI Club) National Digital Library of India, Indian Institute of Technology, Kharagpur was the Resource Person.





SJEC AICTE IDEA Lab, Department of Computer Science and Engineering in association with Research and Facilities Group organized a "Session on Journal Finder Tools" on 22nd September 2023. Dr Felcy D'Souza, Librarian was the Resource Person.



Library and Learning Group, Department of Chemistry in association with National Digital Library of India organized a "User Awareness Programme & Quiz on National Digital Library of India & NDLI Club" to all First Year UG Students of Chemistry Cycle on 17th & 20th November 2023. Dr Felcy D'Souza, Librarian and Ms Divya K Pai, Asst. Professor, SJEC was the Resource Person.



Library & Learning Group, Department of Physics in association with the National Digital Library of India (NDLI) organized a "Book Talk on the topic "Selfhelp/ Personality Development and Startups" to all first year UG students on 21st November 2023.



& Learning Group, Department Library Mathematics in association with the National Digital Library of India (NDLI) organized a "Essay Writing Competition on the topic Artificial Intelligence: A Potential Asses or a Danger to Humankind" to all first year UG students on 22nd November 2023.



Library and Learning Group, Department of ICBS in association with the National Digital Library of India (NDLI) organized a "Poster Painting Competition on the topic Innovative Ideas in the Field of Engineering and Technology" to all first year UG students on 24th November 2023.



Dr Felcy D'souza, Librarian & others compiled and edited the Sixth Volume of the "Compendium of Research Publications 2022-2023" published and released by SJEC on 10th February 2024.



Library and Learning Group, Department of Master of Computer Application in association with National Digital Library of India organized a "User Awareness Programme & Quiz on National Digital Library of India & NDLI Club" for the First Year MCA Students on 24th April 2024. Dr Felcy D'Souza, Librarian and Ms Divya K Pai, Asst. Professor, SJEC was the Resource Person.



Department of Computer Science & Engineering in association with the Research & Facilities Group organized a session on "Author ID's & Profiles: Way to Enhance Research Visibility through IRINS" on 3rd May 2024. Dr Felcy D'Souza, Librarian was the Resource Person.

PUBLICATIONS

Conference Proceedings:

D'Souza, Felcy (2024), Research Information Network System Services: A Case Study, Proceedings of the International Conference on Empowering Minds: Unleashing Collaborative Excellence in Education Library and Research. January 11-13, 2024, pp 398-405

Dr Felcy D'Souza, Librarian presented a paper "Research Information Network System Service" International Conference on "Empowering Minds: Collaborative Learning Platform for Teachers, Librarians and Researchers" at Agnes College (Autonomous) Mangalore from 11th-13th January 2024.



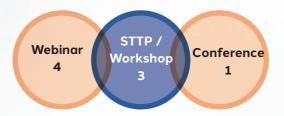
Library and Learning Group, Department of Physics in association with National Digital Library of India organized a "User Awareness Programme & Quiz on National Digital Library of India & NDLI Club" to all First Year UG Students of Physics Cycle on 16th & 17th May 2024. Dr Felcy D'Souza, Librarian and Ms Divya K Pai, Asst. Professor, SJEC was the Resource Person.





Based on the monthly Library Awareness Quiz, the best user award was bagged by Swathi Rai M, VIII Sem E&C and Preethesh Carvalho, II Sem CSBS during the college annual day on 10th May 2024.

WORKSHOPS/WEBINARS/CONFERENCES/ STTP/ONLINE COURSES ATTENDED BY STAFF



SJEC EXTRAVAGANZA

Foundation Day 2024

Commemorating the Twenty-Third Anniversary of laying the foundation stone of St Joseph Engineering College (SJEC), the college hosted its annual Foundation Day Lecture on 10th February 2024. Dr N. Jayasankaran, Former Vice Chancellor, Kanchi University, Advisor – VIT University/ Rajagiri, Kochi delivered the Foundation Day Lecture on the topic "Building an effective Learning environment to bridge the gap between learner and teacher".

Dr Rio D'Souza, Principal, SJEC welcomed the gathering and introduced the Chief Guest of the Foundation Day program. Dr Felcy D'Souza, Librarian, SJEC presented the status of the research productivity of SJEC and the Chief Guest and the Director released the sixth volume of 'Compendium of Research Publications' (2022-23).

To recognize the exceptional contributions of our faculty members in research endeavors, Research Awards were distributed. Dr Purushothama Chippar presented the list of the faculties. Dr Shreeranga Bhat, Professor & Head, Department of Mechanical Engineering was bestowed with Distinguished Research/Innovation Award, Dr Vincent Crasta, Professor,

Department of Physics, awarded with Research Publication Award, Dr K Jyothi, Professor & Head, Department of Chemistry, awarded with Research Impact Award, Dr ESTR Chandrashekar, Associate Professor, Department of Civil Engineering, awarded with Early Career Research Award and Mr Glenson Tony, Assistant Professor, Department of Electronics & Communication Engineering awarded with Research/Innovation Mentorship Award.

Rev. Fr. Wilfred Prakash D'Souza, Director, SJEC, Rev. Fr Kenneth Rayner Crasta, Assistant Director, Dr Purushothama Chippar, Vice Principal, Mr Rakesh Lobo, HR Manager, Deans and HODs of various departments were present during the occasion. Along with them the program was attended by all teaching, non-teaching staff and MBA students of SJEC. Ms Florence Nishmitha, Assistant Professor, Department of Electronics & Communication Engineering compered the program. The program was concluded by Vote of thanks by the convener, Ms Aswathi T, Assistant Professor, Department of Electronics & Communication Engineering, followed by the college anthem.



Graduation Day 2024

The Eighteenth Graduation Ceremony of St Joseph Engineering College (SJEC), Mangaluru, was held on 24 February 2024. The ceremony witnessed the awarding of Graduation Certificates by the institution to the Class of 2023 comprising 531 Undergraduates (BE) and 200 Postgraduates (MBA, MCA and PhD).

Dr Neeraj Saxena, Pro Chancellor, JIS University, graced the occasion as Chief Guest and presented the degree certificates to the graduands. MsIrol Melisa Pinto, Cloud Solution Architect Manager, Microsoft, Bengaluru, was the Guest of Honour on the occasion. Most Rev. Dr Peter Paul Saldanha, Bishop, Diocese of Mangalore and President of SJEC, presided over the ceremony.

Rev. Fr Wilfred Prakash D'Souza, Director of SJEC, welcomed the graduands from the Class of 2023 and dignitaries to the Graduation Ceremony. Dr Ramananda H S, Dean -Student Welfare, introduced the Chief Guest and the Guest of Honour.

Dr Rio D'Souza administered the graduation oath. Ms Akshatha, graduand from the Department of Business Administration and Mr Muhammed Kaif, graduand from the Department of Electronics & Communication Engineering, were the Valedictorians from the Class of 2023 and delivered the Valedictorian addresses sharing the reflections on the transformative journey of education and gratitude was expressed towards all individuals who contributed to shaping the graduates into who they are today.

Rev. Fr Kenneth Rayner Crasta, Assistant Director, Dr Purushothama Chippar, Vice Principal, Mr Rakesh Lobo, HR Manager and Ms Ramya Co-convenor were also present on this occasion. Mr Manjunath B, Convenor of the event offered the vote of thanks. Ms Preetha D'Souza and Mr Davor John D'Souza compered the program. SJEC wishes the Graduates from the Class of 2023 all success in their future endeavours.

















PG Inauguration 2023-24

St Joseph Engineering College (SJEC), Mangaluru inaugurated its PG Courses for the year 2023-24 on 07 March 2024 at Kalam Auditorium. Ms Ananya Hebbar, Senior Talent Acquisition Specialist, MResult Services, Mangalore was the Chief Guest for the program. Dr Prakash Pinto, Dean, Department of MBA welcomed the gathering and introduced the Chief Guest.

Dr Rio D'Souza, Principal SJEC, addressed the gathering and welcomed all the first-year students.

The rank holders from MBA and MCA through PGCET who joined SJEC in this academic year were felicitated by the Chief Guest.

Ms Ananya Hebbar in her inaugural speech inspired the gathering by briefing on her experience. She emphasised the role of faculty as a guide and a mentor. She urged students to explore life beyond academics and build connections.

Rev. Fr Wilfred Prakash Dsouza, Director, SJEC gave Presidential speech. Rev. Fr Kenneth Crasta, Asst Director, SJEC and Dr Harish B., Head of Department of Computer Applications were also present. Dr Shakila B, Associate Professor, MBA, Convener of the program rendered the vote of thanks. Mr Nelson Fernandes, Asst. Professor, MBA compered the programme.







College Day 2024

St Joseph Engineering College (SJEC), Mangaluru, celebrated its College Day on 10 May 2024. Prof B Rayi, Director, National Institute of Technology Karnataka, Surathkal, was the chief quest on the occasion. Preetham Prince Pinto, Founder & CEO, Waterz Goa & Tripzzie Dubai and an Alumnus of Batch of 2009, was the guest of honour. Dr Peter Paul Saldanha, Bishop of Mangalore and President of SJEC presided over the programme.

Dr Rio D'Souza, Principal of SJEC presented the Annual Report of the college. Rev. Fr Wilfred Prakash D'Souza, Director of SJEC welcomed the gathering to the occasion.

Dr Shakila B, Convener of the event delivered the vote of thanks. Fr Kenneth R Crasta, Assistant Director of SJEC, Dr Purushothama Chippar, Vice Principal, Rakesh Lobo, HR Manager of the college and Dr Ravikantha Prabhu, Convener of the programme were also present. Joysun D'Souza and Priya Miranda compered the formal programme.

A cultural extravaganza followed the formal event with the students displaying their wonderful music and dancing skills. The cultural programme was compered by Vinol Arun D'Souza, Leslie Kiran Rodrigues and Mave Lobo.



TIARA - 2024

TIARA-2024 a three-day national level Techo-Cultural fest was organized from 9th to 11th May 2024. The inauguration of the program was done by Mr Vishwanath Ananthakrishnan- General Manager, Mirafra Technologies. The chief guest of the program was accompanied to the venue by Rev Fr Wilfred Prakash D'souza - Director SJEC, Rev Fr Kenneth Rayner Crasta - Assistant Director SJEC, Dr Rio D'souza - Principal SJEC, Dr Purushothama Chippar - Vice Principal SJEC, Mr Rakesh Lobo- HRM, Mr Roopesh & Ms Chaitra U R -Conveners.

There were total of 35 events conducted during the course of three days which includes 12 technical events, 15 non-technical events, 4 cultural events and 4 mega events. The students from various engineering and nonengineering colleges were allowed to participate in the events. A total of 564 students from various colleges had taken part in various competitions.

The prize distribution of all the events were done on 11th May 2024. The core committee members were felicitated for the effort they had put to plan and conduct the event. The overall winners in Engineering category were won by NMAMIT, Nitte and runners up was won by AJIET, Mangaluru. The overall winners in nonengineering category was won by St Agnes, Mangaluru and runners up was won by SDM College of Business Management, Mangaluru.



Hostel Day 2024

St Joseph Engineering College, Vamanjoor, hosted a grand celebration of Hostel Day 2024 on 5th May 2024. The evening was filled with excitement, emotions, and reflections on the unique experiences of hostel life at SJEC.

The program was graced by the presence of Rev. Fr Alwyn Richard D'Souza, Director Designate, Family Life Center, Bajjodi, who served as the chief guest. The event was presided over by Rev. Fr Wilfred Prakash D'Souza, Director of SJEC. Also present on the dais were Rev. Fr Kenneth Rayner Crasta, Assistant Director of SJEC and in charge of hostels, Dr Rio D'Souza, Principal of SJEC, and the student convenors, Ms Alva Shwetha and Mr Vian Fernandes.

The formal session began with the felicitations of the chief guest by the Principal and Director, expressing gratitude for his presence and contributions. A heartwarming segment followed, where final-year students shared their experiences of hostel life, recounting amusing incidents and treasured memories from their time at SJEC, creating a blend of laughter and sentimentality among the audience.

The management also took the opportunity to honor the hostel staff for their hard work and dedication. The toppers from each section and winners of various sports events were recognized and awarded for their achievements, adding a sense of pride and celebration to the evening.

Dr Venkatesh Babu K P, Assistant Professor and Faculty Convenor, delivered a sincere vote of thanks, expressing appreciation to everyone who contributed to the success of the event.

The formal session was followed by a vibrant cultural program, showcasing the talents of the hostel residents, with dance, music, and other performances lighting up the evening. The festivities culminated in a grand dinner and a lively DJ event held at the basketball court, where students danced the night away, making it a memorable occasion for all.













INDUSTRY AND INNOVATION GROUP (IIG)

Industrial Visit to Government Tool Room and Training Centre(GTTC) Baikampady



Date: June 31 and July 7, 2024

Co-ordinators: Dr Vijay V S and Ms Prashanth Kumar

Objective: To familiarize students with advanced manufacturing technologies and applications of mechanical engineering principles in industry

Target Audience: Second year students of BE

Department: Department of Mechanical Engineering in association with Industry Innovation Group

E-waste Collection Drive



Date: June 26 to August 31 2024

Co-ordinators: NSS students and YI YUVA SJEC

students

Objective: To collect unused electronic items and prevent them from entering into landfill sites

Outcome: About 60 different ewaste collected

during the drive

Session 'Mv Journey towards Entrepreneurship'for MBA Students, SJEC.



On 24th April 2024 the Industry and Innovation Group (IIG) in association with the Department of Business Administration organised a session on 'My Journey towards Entrepreneurship' for MBA Students, SJEC in Spoorthi hall. The invited speaker was Helen Alvares, Proprietress, Riverroost Resorts, Mangalore. Dr Prakash Pinto, Dean-MBA and faculty members MBA were present on the occasion.

Regional Awareness Program on the 16th edition of Manthan 2024



Industry Innovation Group, St Joseph Engineering College (SJEC), in association with the Federation of Karnataka Chambers of Commerce and Industry. Organized the Regional Awareness Program from 10am to 11am on Monday, 26th Feb 2024, at the SJEC Campus. Manthan is a platform that brings together colleges, entrepreneurs, and innovators to foster collaboration, exchange ideas, and promote regional awareness. About 200 students and 10 faculty members from different neighboring institutions participated in the program,

AICTE IDEA LAB

Internship program for students of SDM Degree College, Ujire



SJEC AICTE IDEA LAB, in association with the Department of Mathematics at SJEC, conducted a four-day IDEA Lab internship program for students of SDM Degree College, Ujire, on June 21, 2023. A total of 26 students actively participated in the program. The program aimed to expose the students to a stimulating environment that fosters innovation and creativity while providing practical insights into the realms of ideation and problem-solving.

IdeaSphere Ideation Camp 2023



The SJEC Innovation Platform at St Joseph Engineering College, Mangaluru, in association with the Department of Mechanical Engineering and the SJEC AICTE IDEA Lab, conducted an Ideation Camp from July 13–15, 2023. The camp was organized for a multidisciplinary batch of 84 students.

FDP on Advanced Manufacturing Processes 2-4 August 2023



SJEC AICTE IDEA LAB, in association with the Department of Mechanical Engineering, organized a three-day Faculty Development Program on Advanced Manufacturing Processes for faculty members from Diploma, ITI, and Engineering colleges in the Mangalore region. A total of 28 faculty members registered for the workshop. The workshop provided hands-on training on the use of a 3D printer, laser engraving and cutting machine, 3D scanner, and CNC wood router machine.

Three-day hands-on training on Battery Modeling and Algorithm Development with Simulink



SJEC AICTE IDEA LAB, Mangaluru, in association with the Department of Mechanical Engineering, SJEC MATLAB, and MATHWORKS, conducted a three-day offline training program on 'Battery Modeling and Algorithm Development with Simulink' from August 24 to 26, 2023. The objective of the training was to provide insights into cell characterization, battery pack modeling, battery management systems, state of charge estimation, fault monitoring, and current limit computation. Domain experts from MATHWORKS demonstrated the modeling and analysis of battery packs during the sessions. A total of 24 participants, including students and faculty from various departments of SJEC, attended the offline training program.

Three Days Skill Development Program on Scientific Paper Writing and Publishing



The SJEC AICTE IDEA Lab and the Department of Computer Science and Engineering (CSE), in association with the Research and Facilities Group, organized a three-day Skill Development Program (SDP) on 'Scientific Paper Writing and Publishing' from September 21 to 23, 2023. A total of 45 participants from various parts of Karnataka attended the SDP and actively participated in the sessions.

Workshop on Advanced Manufacturing Process for Diploma Students



St Joseph Engineering College, Vamanjoor, Mangaluru, in association with the SJEC AICTE IDEA LAB and the Department of Mechanical Engineering, organized a three-day Skill Development Program on 'Advanced Manufacturing Processes' from October 11 to 13, 2023, for diploma college students in the Mangalore region. About 60 students from Government Polytechnic Bantwal and 39 students from SNS Polytechnic Bajpe registered for the workshop and actively participated. The workshop provided hands-on training on the use of a 3D printer, laser engraving and cutting machine, 3D scanner, and CNC wood router machine.

Skilling Program on Internet of Things (IoT) for Diploma Students



SJEC AICTE IDEA Lab, in association with the Department of Electronics and Communication Engineering, organized a workshop titled 'Skill Program on IoT' from October 16 to 18, 2023, for ECE diploma students of Karnataka Polytechnic (KPT), Mangaluru. The workshop aimed to equip participants with the knowledge and skills required to effectively understand, design, and implement Internet of Things (IoT) solutions.

Skill Development Program on Digital Manufacturing Processes

St Joseph Engineering College, Vamanjoor,



Mangaluru, in association with the SJEC AICTE IDEA LAB and the Department of Civil Engineering, organized a three-day Skill Development Program on 'Digital Manufacturing Processes' from October 25 to 27, 2023, for diploma college students in the Mangalore region. A total of 51 students from BIT Polytechnic and 47 students from SNMPT Moodbidri registered for the workshop and actively participated. The workshop provided hands-on training on the use of a 3D printer, laser engraving and cutting machine, 3D scanner, and CNC wood router machine.

Python Programming for Raspberry Pi



SJEC AICTE IDEA LAB organized an IDEA Lab Open Day cum one-day workshop on 'Python Programming for Raspberry Pi' on October 27, 2023, for Atal Tinkering Lab school students from the Dakshina Kannada district, Karnataka. A total of 37 students and 18 teachers participated in the event. During the Open Day, students explored and understood the functioning of various machines, including laser cutting and etching, 3D printing, 3D scanners, PCB milling machines, wood CNC routers, wood lathes, and other process tools.

Workshop on Rapid Prototyping Techniques for Diploma Students



St Joseph Engineering College, Vamanjoor, Mangaluru, in association with SJEC AICTE IDEA LAB and the Department of Electrical and Electronics Engineering, organized a three-day Skill Development Program on 'Rapid Prototyping Techniques' from November 2 to 4, 2023, for diploma college students in the Mangalore region. A total of 69 students from KPT, Mangaluru, registered for the workshop and actively participated. The workshop provided hands-on training on the use of a 3D printer, laser engraving and cutting machine, 3D scanner, and CNC wood router machine.

Three days Hands-on workshop on Internet of Things for the MCA Students of St Agnes College Mangaluru



St Joseph Engineering College, Vamanjoor, Mangaluru, Mangaluru, in association with SJEC AICTE IDEA LAB and the Department of Computer Science Engineering, organized a three-day handson workshop on 'Internet of Things' from January 8 to 10, 2024, for MCA students of St. Agnes College (Autonomous), Mangaluru. A total of 51 students and 4 faculty members registered for the workshop and actively participated. The workshop covered topics such as an introduction to IoT, Arduino, Raspberry Pi, and NodeMCU, creating static webpages (including headers, buttons, and forms), and connecting a humidity and temperature sensor to a NodeMCU.

Hack To Future 2.0



HackToFuture is a 36-hour hackathon running from February 19 to 21. Whether you are a seasoned professional or a newcomer to the tech world, HackToFuture offers the perfect opportunity to showcase your skills, make new connections, and work towards building a better future.

CULTURE AND COMMUNITY GROUP (CCG)



The event "Gifts of Love: AICUF's Children's Day Delight" was conducted on 12-12-2023 as an outreach program, where funds collected from the staff and students of SJEC were used to procure a blackboard and organize activities for children. The event included creative engagements using craft items and fun games with prizes to make the day special for the kids. This event was coordinated by the AICUF, SJEC Unit staff coordinator Ms Florence Nishmitha and student coordinators, Tina Benita Rego, Ashton Dsilva, Jayashree C S, and Shreyas S.



"Pixel The Prose" Digital Art Storytelling Competition Awareness, Drug organized by AICUF SJEC and the CSE of Department SJEC, was held from virtually September 10th 2023, 19th, highlight the to impact drug abuse through

digital art. With 19 submissions, the top winners, Nithin and Lahari S, were awarded prizes, and all entries were showcased on social media to spread awareness. This competition was coordinated by the AICUF, SJEC Unit staff coordinator Ms Florence Nishmitha and student coordinators, Tina Benita Rego, Ashton Dsilva, Jayashree C S, and Shreyas S.



The "Clothes Bank - Threads of Compassion: Make a Difference" donation drive, held on October 16th and 17th, 2023, encouraged students, faculty, and staff to donate pre-loved clothes to support the community. Organized by AICUF SJEC in collaboration with the Imagine Organization, the event saw enthusiastic participation, reinforcing the college's commitment to social responsibility and kindness. This event was coordinated by the AICUF, SJEC Unit staff coordinator Ms Florence Nishmitha and student coordinators, Tina Benita Rego, Ashton Dsilva, Jayashree CS, and Shreyas S.



Tina Benita Rego, a 4th-year CSE student at SJEC, has been elected as the National Convener (President) of AICUF, a prestigious leadership role.

Cultural and Literary Competitions -Kalakrithi 2024 was conducted on 22 April 2024 till 30 April 2024. Enthusiastic participation was seen from students across diverse departments, each bringing their unique talents and perspectives to the stage.

A technical talk on "Plastic Waste Management" was held on May 24, 2024, at 2:00 PM in Spoorthi Hall for first-year engineering students. The resource person emphasized the significance of the topic, highlighting that plastic waste (PW) is one of the fastest-growing components of municipal solid waste globally. Following the technical session, students participated in various activities. The resource person demonstrated the compaction of plastic bottles using finer microplastics.



The AICUF SJEC association activities for the 2023-2024 academic year were inaugurated on May 31, 2024, at 3:00 PM in Spoorthi Hall, with Dr Anup Denzil Gonsalves serving as the chief guest.



Cultural Club under CCG in association with the Department of Physics has organized **Face Painting Competition** for students of SJEC on 5 June 2024 at 3:00 PM. The theme of the competition was "The Beauty of Mother Earth".

Cultural Club under CCG in association with the Department of Physics has organized a **Short Film Competition** for students of SJEC on 5 June 2024 at 3:00 PM.



On June 5, 2024, the Cultural Club under CCG, in collaboration with the Department of Physics hosted a **Nature Photography Competition for** SJEC students. The theme of the competition was "Nature's Palette".



On the occasion of **World No Tobacco Day 2024,** a program was organized by AICUF, SJEC Unit under CCG in association with the Department of Electrical and Electronics Engineering on 31st May 2024 at 4 pm in Spoorthi Hall. Mr Joysun Dsouza, Staff Co-ordinator, AICUF, SJEC Unit took the stage and mentioned the dangers of Tobacco consumption and why one should avoid it.



On 07-06-2024 the Cultural Club under CCG organized a talk on 'Environmental Sustainability in Khadi and Handloom Sector' by Ms Mamatha Rai of Kadike Trust at 3 pm.

DISCIPLINE AND EQUITY GROUP (DEG)



On the occasion of International women's day. 7th March 2024, Department of Electronics and Communication Engineering conducted a talk on "Emergence of the POSH Act as key for development of Women Empowerment" under Discipline and Equity Group. The resource person Mrs. Jayashree M Rattihalli, a legal Consultant, Advocate, Arbitrator and Mediator and Founder associate at Prolegi's Associates, a Law firm based out in Mangaluru, conducted the session for staff and students of SJEC.



The Department of Mathematics and DISCIPLINE AND EQUITY GROUP in association with CICC and Jagruti conducted an online session on "Menstrual **Health and Hygiene"** by the Global Hunt Foundation for all the female students and staff of SJEC on 19 April 2024 from 3pm to 4pm in the Spoorthi Hall. The resource person of this session was Ms Chitra Jalal. A total of 50 students from the UG and PG programme and 6 staff members were present for the session.



An informational talk titled "Scholarship and Exploring Career Paths" was organized for SC/ ST students of SJEC on 24th June 2024. The event was hosted by the Department of Electrical and Electronics Engineering in collaboration with the Disciple and Equity Group, SJEC. Mr Ashith, Manager at T.I.M.E Mangaluru, served as the resource person for the session. The talk aimed to enlighten students about various career opportunities and scholarship options available to them.

DEVELOPMENT AND PLANNING GROUP (DPG)



A workshop on "Creation of Course web page and Course file" for newly joined faculties was organised on 21st June 2024 from 2.00 pm to 5.00 pm, under DPG in association with Dept. of Chemistry. Dr Pavana Kumara, Head IQAC and Mr Murari Asst. Prof -MCA from SJEC, were the resource persons.

LIBRARY AND LEARNING GROUP (LLG)



The SJEC Teaching Learning Center - SANJOSH organized an Expert Talk on 'ABET Accreditation/ Managing Students' Projects on December 20, 2023 by Dr Raju Dandu, Professor, Kanas State University USA for the staff members of SJEC.



A talk on "Experiential Learning for Effective Teaching" was delivered by Dr Anjali Ganesh, Professor, Dept. of MBA on April 8th 2024 for newly joined faculty members of SJEC.



An expert talk on **Project-Based Learning (PBL)** was delivered by Dr Sandeep S. Imandar, Vice President of Vishwaniketan's Institute of Management Entrepreneurship and Engineering Technology, Mumbai on 9th February 2024 for the staff members of SJEC.

On 20th June, 2024 a National level NPTEL Awareness E-Workshop organized by NPTEL, Indian Institute of Technology, Madras & St Joseph Engineering College, in association with Aiman College of Arts & Science For Women, Tiruchirappalli, Tamil Nadu.This workshop was supported by the Library & Learning Group and the Department of ICBS as the host.

QUALITY AND GOVERNANCE GROUP (QGG)

The committee assists in applying for the approval process of AICTE and VTU. It looks after the documentation of files required during the LIC inspection, NBA visits, and NAAC visits. It also looks after the hospitality of the peer team during such inspections and assists in the smooth functioning of the inspection.

Inspections held during the year 2023-24:

- NBA team Visit to the Department of MCA during 22-24 March 2024
- · LIC Inspection on 25 March 2024
- NBA team Visit to the Department of Civil Engineering on 13 April 2024



Quality & Governance Group (QGG) And Internal Quality Assurance Cell (IQAC), SJEC, in association with the department of EEE, organized an orientation program for new faculty members on 2nd August 2024 in Chintana Hall, Ground floor, AB-1. This Program was conducted as a part of orientation for the new faculty.

PROFESSIONAL SOCIETIES GROUP (PSG)



Team SJEC Racing (mBAJA), , participated in the BAJA SAEINDIA Season 2024 held at Pithampur, Indore from the 9th - 13th of January 2024. Out of the 72 teams that participated, Team SJEC Racing exceeded previous milestones since the team's inception and achieved an impressive All-India Ranking (AIR) 13.



Team eSJEC racing along with vehicle Beetle 5.0 secured 12th All India Ranking in the event SAE INDIA e-BAJA 2024 Dynamic Round held at BV Raju Institute of Technology (BVRIT) - Narasapur, Medak District-Hyderabad from 6-11 March 2024.

STUDENT WELFARE GROUP (SWG)



Stress Management and Dealing with Low Self-Esteem:

Date: 13/06/2024

Co-Ordinators: Mr Manjunath B and Ms Preetha Aroza

Resource Person: Dr Rosa Nimmy Mathew, Assistant Professor From the Dept of Counselling, School of Social

Work Roshini Nilaya, Mangalore

Objective: The key take way from the talk was not to eradicate but to learn to navigate through the various

stressful situations.

Target Audience: Second year students of BE

Department: Department of Civil engineering in association with Student Welfare Group

Electoral Awareness Campaign

Date: 12/4/2024 and 24/4/2024

Co-ordinators: Electoral Literacy Club students

Objective: To raise awareness among students for

voting in the Indian General elections of 2024





Setting up of Electoral Awareness Posters at SJEC

Date: 22/4/2024

Co-ordinators: Mr Joysun D'souza

Objective : To raise awareness among employees and students of SJEC for voting in the Indian General elections

of 2024.

Target Audience: All employees and students of SJEC

E-Pledge Campaign on Say No To Drugs:

Date: 25 & 26 of June 2024

Co-ordinators: Student

Welfare Group

Objective: In order to educate the Youth and the general public of the country regarding the ill-effects of Drugs, the Narcotics Control Bureau under the Ministry of Home Affairs, Government of India conducted a



E-Pledge Campaign on the occasion of International Day against Drug Abuse and Trafficking.

WELLNESS AND SPORTS GROUP (WSG)

NCC



Poster Making competition on Women Empowerment held on 15th May 2024 for NCC Air wing cadets, followed by Panel Discussion moderated by Dr Ramananda H. S. on 16th May 2024.



Yoga Day conducted on 21st June 2024 saw Air Wing and Naval cadets coming together, creating a serene and focused atmosphere.



St Joseph Engineering College celebrated Vanamahotsava on 21st July 2023, with a treeplanting drive aimed at promoting environmental awareness and sustainability. The event featured an address by Assistant Director Fr. Kenneth Rayner Crasta. NSS SJEC, in association with the Wellness and Sports group, organized a massive tree plantation drive under MERILIFE MISSION 2023, encouraging students and staff to plant saplings for a greener future.



On December 1, 2023, SJEC NCC Naval and Air Wing organized a **Blood Donation Camp** at St Joseph Engineering College, Mangaluru, under the guidance of Dr. Selvi from Wenlock Government Hospital. Coordinated by Mr. Anthony (Wenlock Blood Bank Incharge) and Mr. Abhijith S (SJEC Naval Wing Caretaker), the event saw 213 registrations and 178 blood donors, with active participation from NCC cadets.



St Joseph Engineering College in Mangaluru conducted a plantation drive on December 1, 2023, led by NCC Naval and Air Wing cadets under the guidance of Mr. Abhijith S. The cadets planted five saplings on campus, promoting environmental stewardship and teamwork.



"Soaring High: NCC Airwing Cadets Take Flight!" From 15th to 17th November 2023, 10 NCC AIRWING Cadets of SJEC (Flt-D) experienced microlite aircraft flying at Jakkur Aerodrome, Bangalore, under the guidance of Air Commodore P.R. Ponnappa. The cadets completed three sorties, gaining hands-on experience in aircraft controls and operations.





On 31st October 2023, nine cadets from SJEC participated in the Indian Coast Guard Unity Run, a 10 km event promoting endurance and resilience. The run, starting at 6:15 am, featured rest stops and was completed with support from officers, culminating in medal recognition for all participants.

In July 2023, under the guidance of CTO Mr. Nandan, SJEC

conducted an NCC recruitment process, selecting 20 cadets from 70 registrations through a five-stage evaluation. Alongside recruitment, regular parades were held to enhance marching skills in preparation for the Independence Day parade.



On 27th October 2023, second-year NCC cadets underwent **flying simulator training** under the guidance of **Wing Commander Shishu Paul** at the squadron's virtual simulation facility. The session provided hands-on experience with the **Virus SW 80 aircraft**, enhancing their navigation, decision-making, and emergency handling skills.



Annual Training Camp from July 3 to July 11 2023.

NSS



NSS Special Camp held at Mallur village from March 26 to 31, 2023, where 42 participants, along with staff members, engaged in Shramadhan activities, educational sessions, and community services.



WSG in association with U&I, organized a **Social Awareness Program** at Kalam Auditorium on June 19, 2023 to inspire students to become changemakers and leaders, featuring talks on volunteering and social impact by Ms Avril Fernandes and her team.









Vanamahotsava initiative on July 21, 2023, with a tree-planting drive and an address by Fr. Kenneth Rayner Crasta, promoting environmental awareness and responsibility.



The NSS SJEC unit, in collaboration with the Wellness and Sports group, organized MERILIFE MISSION **2023**, a massive tree plantation drive encouraging students and staff to plant saplings at their chosen locations.



NSS volunteers participated in the "Walk for the **Environment,"** organized by Paper Seed on October 12, 2023, starting with an inaugural event at the SJEC and accompanying the walkers to the next station at the Zilla Panchayat Office in Vamanjoor.



February 2, 2024, as part of a community service and awareness campaign, NSS volunteers and faculty visited Dakshina Kannada Zilla Panchayat Higher **Primary School in Baikampady** to conduct programs on career guidance, art, health and hygiene, road safety, and cybercrimes for students from 1st to 7th grade.



January 21, 2024, NSS, YRC, and Young Indians Mangaluru organized a Beach Cleaning Drive at Sasihithlu, emphasizing environmental stewardship and community-driven efforts to preserve coastal ecosystems.



The NSS Camp held at Pilikula, Mangalore, from May 13 to 18, 2024, brought together 37 volunteers who, through a structured schedule of physical activities, fieldwork, educational sessions, and recreational games, fostered teamwork, leadership, and community engagement while building a lasting commitment to service and personal growth.



St. Joseph Engineering College (SJEC), Vamanjoor, Mangaluru hosted a session on **Constitutional Awareness**, conducted by the Department of Social Welfare, Government of Karnataka. The Social worker, Mr. Girish Navada, led the program. The rights and obligations that citizens have under the constitution were elucidated by the students of SJEC.



The outreach program at **DKZP Govt. Higher Primary School in Pavoor, Mangaluru,** focused on guiding eighth-grade students about the National Means Cum Merit Scholarship (NMMS) examination. The session included math aptitude-level questions and interactive activities to enhance their confidence and understanding. Additionally, fundamental mathematics concepts were introduced to students from grades one to five to strengthen their foundational learning. This initiative aimed to create a well-rounded educational experience for all participants.



The Department of Chemistry-funded **Cleaning Drive,** organized by the National Service Scheme (NSS) team under the coordination of Mr. Anuragh B, lecturer department of Physics took place on 03/11/2023 from Pilikula Junction to Vamanjoor Junction. This event aimed to foster a sense of responsibility towards environmental sustainability and to create a cleaner and healthier environment in our surroundings. The drive received generous support from the Department of Chemistry, with funding allocated for necessary supplies and equipment.

THE YOUTH RED CROSS OF SJEC



The Youth Red Cross of SJEC, in association with the Alumni Association, SJEC Foundation, and KMC Medical Hospital, organized a Blood Donation Camp on 29th April 2024, where 106 students donated blood. The event successfully promoted humanitarian values, with medical professionals ensuring a smooth and safe donation process





EMERGING TECHNOLOGYTWO SIDES OF A COIN

echnology has become an integral part of modern life, driving transformative changes across every aspect of society. There are a number of technological trends that are becoming more important in today's world from artificial intelligence (AI) to the Internet of Things (IoT). Emerging technological trends are reshaping industries, improving lives, and addressing global challenges. However, these advancements also come with challenges that require careful consideration to ensure a balanced societal impact.

Artificial Intelligence and Machine Learning are the leading innovations in automation and decision-making. Al-powered systems are being used in healthcare for diagnostics, in finance for fraud detection, and in transportation for self-driving vehicles. Another significant trend is the rise of the Internet of Things (IoT), where interconnected devices communicate with each other to improve efficiency and convenience. Smart homes, wearable devices, and industrial automation are examples of IoT applications that are changing daily life and business operations.

While advancements in renewable energy technologies like solar panels, wind turbines, and energy storage systems are speeding up the transition toward sustainable living, blockchain technology, which was initially developed for cryptocurrencies like Bitcoin, has expanded into areas like secure voting systems, digital identity verification, and supply

Padmini Bhat Asst. Professor- ECE



chain management. It offers transparency, security, and decentralization. On the other hand, quantum computing promises breakthroughs in cryptography, drug discovery, and complex simulations.

These technological advancements have had a profound impact on society, with one of the most significant benefits being an improved quality of life. AI and IoT have improved healthcare delivery by enabling early diagnosis, personalized treatment, and remote monitoring of patients. These innovations are reducing mortality rates and improving overall health outcomes. In education, technology has democratized access to knowledge, allowing learners from all corners of the globe to acquire new skills through online platforms, virtual classrooms, and digital tools. Similarly, technology has transformed communication, fostering global connectivity and collaboration through platforms like social media, video conferencing, and messaging Economically, emerging technologies drive innovation, creating new industries and job opportunities. However, automation and Al have also contributed to job displacement in certain areas, prompting upskilling and reskilling projects

to equip the workforce for the digital era. On the environmental front, renewable energy technology and smart grids are helping combat climate change by reducing carbon footprints. However, e-waste and the energy usage of data centers pose environmental concerns that require sustainable solutions.

Despite the benefits, there are challenges. The rise of AI and IoT raises concerns about data privacy and cybersecurity. Additionally, technological inequality, or the digital divide, exacerbates societal disparities, as not everyone has access to the latest technologies. To maximize the positive impact of emerging technologies, society must prioritize ethical considerations and inclusivity. Governments, businesses, and individuals must work together to address issues like data security, privacy, and equitable access. Investments in digital infrastructure and education are vital to bridging the digital divide and preparing society for a technology-driven future.

While technological advancements provide numerous benefits, they also have a negative impact on young people. Excessive screen time and social media use can lead to mental health issues like anxiety, depression, and low selfesteem. Overuse of technology reduces physical activity, which contributes to health issues such as obesity and poor posture. Furthermore, easy access to information increases distractions, shortens attention spans, and impairs academic performance. Youth who prefer virtual communication over face-to-face interactions may suffer from a lack of critical thinking and interpersonal skills. Furthermore, exposure to incorrect online content and cyberbullying pose serious concerns. Addressing these issues is critical for achieving balanced development.

Emerging technologies are catalyzing a new era of advancement and innovation, redefining our modes of living, working, and interacting. Although they possess significant potential to address global concerns and better lives, their advantages must be weighed against t

he associated hazards. By adopting these trends responsibly and inclusively, society can leverage technology to foster a more promising and equitable future.

Emerging Technology and it's **Social Pact**

Fire sparks people survived; Autonomous car that drives, Revolution of science in 16th century Led reality of factory.

> Twentieth Century of CS history Induced Robotics, AI & biotechnology Dedication to AVR Subjected to games in air

MRI, CT Scanner influenced positive Surely Robotics Surgery was impressive Helped Treatment & disease Do people disagree?

> Is technology Advancement negative? Or is it destructive? Accelerating social isolation I feel sad for this generation!

Graduate facing job loss, Increased globally across. Growing cyber security threats, Panic & terror ahead.

> Is this friction? My God! it's addiction!! No social security For human identity.

Digital life really lonely Everything seems fancy Rise in living cost Where poor are forced!

Is Emerging technology ethical?
Or is it regrettable??
Golden secret lies in hands,
Of the great boss who commands







In late 2020, Ajwin, an Electrical Engineering undergraduate and passionate beekeeper, faced a devastating blow over 200 of his hives were wiped out by a deadly viral attack, a catastrophe that might have been prevented had he been aware of the early warning signs. This tragedy marked the beginning of HiveLink. What started as a few sensors on a breadboard has now evolved into a full-fledged innovation taking root in Mangalore's fields. The HiveLink team is on a mission to revolutionize India's beekeeping sector, a 20 billion industry that produces 95,000 metric tons of honey annually and holds a critical position in the global honey market.

espite its economic and agricultural importance, the industry faces numerous challenges. Beekeepers managing hundreds of hives across multiple locations struggle with labor-intensive and inefficient manual monitoring. Additionally, the threat of colony-destroying diseases like the Thai sac brood virus, which wiped out 90% of bee colonies in coastal Karnataka, continues to disrupt productivity. These issues point to the need for smarter, more innovative solutions. This is where HiveLink offers a fresh take on beekeeping through the power of technology.

HiveLink integrates IoT sensors, cloud computing, and machine learning to provide real-time monitoring of hive conditions, including temperature, humidity, hive weight, and bee activity. All of this data is accessible through an easy-to-use mobile app, giving beekeepers the ability to receive instant alerts about potential problems like disease outbreaks, hive falls, theft, and more. With its predictive analytics, HiveLink also helps beekeepers optimize feeding schedules, reducing manual labor and improving overall hive productivity.

But HiveLink is more than just a tech tool—it's creating a community. The platform fosters connections between beekeepers, allowing them to collaborate, share knowledge, and support each other. It also links beekeepers with government

programs like the National Beekeeping and Honey Mission, giving them access to funding, training, and resources. Furthermore, HiveLink connects users with research centers, ensuring that beekeepers are at the forefront of the latest advancements in the field. The app even features a blog with tips, trends, and best practices, making it a hub for the beekeeping community. Piloted in Bantwal taluk in the Dakshina Kannada district of Karnataka, HiveLink is proving its potential in the field. With affordable IoT modules priced at just ₹3500 per unit, it offers a scalable solution for beekeepers across India. HiveLink's business model is built on subscription-based services borne by vendors that provide data insights and real-time alerts, while enabling vendors to directly purchase honey from beekeepers, creating a reliable supply chain and premium market opportunities.

This direct-to-market model has the potential to increase beekeepers' income by up to 20%, giving a much-needed boost to their livelihoods.

The social and environmental impact of HiveLink is equally significant. By incorporating technology into beekeeping, HiveLink increases honey production and reduces colony losses by up to 25%. It helps stabilize the income of rural beekeepers, reduces the need for intensive manual labor, and promotes sustainable farming practices.

Environmentally, HiveLink supports the preservation of bee populations, which are essential pollinators for 35% of global food production. By helping maintain healthy bee colonies, HiveLink not only contributes to biodiversity but also enhances food security on a global scale. HiveLink is not just modernizing beekeeping—it's transforming it into a

data-driven, community-powered, and sustainable industry. With real-time insights, preventative alerts, and connections to markets and government schemes, HiveLink is driving growth, sustainability, and resilience in India's beekeeping sector. The future of beekeeping is here, and it's buzzing with innovation.



HiveLink is a TRL 5 Beehive monitoring device coupled with an AI model for bee activity monitoring, paving the way for significant advancements in honey production and sustainable beekeeping practices



Winners of the Central **Manufacturing Technology** Institute, Bengaluru's 30 Hour Hackathon National Design & Innovation Clinic 2024 with a cash prize of INR 30000.



Runners-up title in the Karnataka-Tamil Nadu edition of Anveshana 2024 and was awarded a cash prize of Rs 25,000.



Featured among Top 3 student innovations in the state of Karnataka at NASSCOM's NASTech 2023.



Winners of the 8th National Social Enterprise Idea Challenge, along with a cash prize of INR 70000 held at Azim Premji University, Bengaluru.



Winners of Udyam Saathi - An entrepreneurial launchpad initiative of the Rachana -Chamber of Commerce and **Industry** with a cash prize of **INR 25000**



Received Jury Special Mention at Manipal BioHackathon 2024 and a structured 6 months pre-incubation program

Team HiveLink

Ajwin Dsouza - Graduate-Batch of 2024-EEE

Vaibhav Salian- Dept of AIML, Joshua Q A- Dept of ECE, Joywin Bennis- Dept of CSE, Vyasa M Nayak- Dept of CSE, Abdul Basith, Deepthi P - Dept of Electrical & Electronics Engineering, Maria Viola Rodrigues, Dept of Computer Science & Engineering

Mentors

Mr Glenson Toney- Assistant Professor, Dept of ECE, SJEC Mangaluru Dr K T Vijayakumar- Assistant Professor, Department of Apiculture, University of Agricultural Sciences, Bengaluru.



Imagine that you are walking by some place and you encounter a time machine that will help you go back 15-20 years back down the memory lane. You probably may wish to use it and go back in time to cherish those amazing moments that you had with your family and friends. Now even if you try hard you may not get that strong bond because everyone is engrossed in their mobiles and laptops. Why this sudden change? The answer is technology. Technology is rapidly booming and the only way to keep yourself up to date is to get yourself in touch with the rapidly advancing technology. Back then when we were kids, we used to play with dolls, dummy mobiles and of course with our friends in the playground but now the scenario has completely changed and you will rarely find a child playing in the garden. Nowadays you will find even a 10 year old kid using an iPhone. What is the impact of the progressing technology? It can cause eyestrain, obesity and addiction, and reduce physical interaction. I will definitely not say that technology is subpar but we must know how to make effective use of technology.

As rightly quoted by Sir Christian Lous Lange,

"Technology is a useful servant but a dangerous
master"

Technology should be used as a tool to increase the productivity of our work. Eg: ChatGPT. ChatGPT has answers to your every single question but is it good to use it every now and then? If you rely on ChatGPT

then you may lose your ability to think critically and write creatively. Instead think and generate your own ideas, draft it in a word document, copy paste it in chatgpt. It will give the final touchup to your work. Same principle applies to all other technological tools. One example can be Gamma. Generate a ppt using Gamma but use it only for reference. Create your own slides using MS Powerpoint. Already many of our fellow citizens are swimming in a sea of unemployment. This unemployment is due to the fact that humans are not trying to gain skills and computers are doing all the time consuming work in fraction of seconds. We have to try and reduce this disparity by not letting technology take over the jobs. This can only be achieved if we take some actionable steps to gain new skills.

As rightly said by Mother Teresa,

"Yesterday is gone, Tomorrow has not yet come.

We have only today, let us begin"

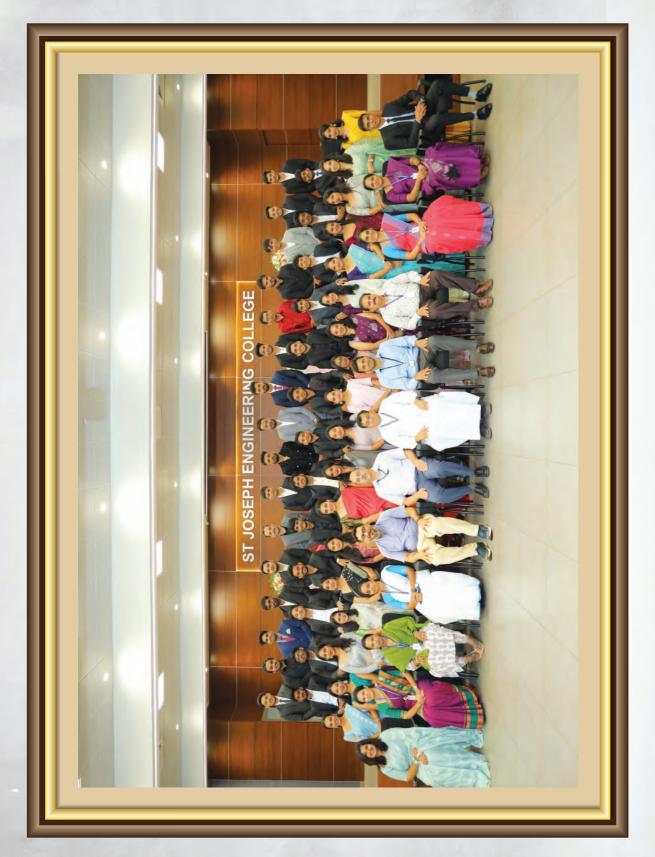
With this I would like to conclude by saying that let us upskill ourself and prevent technology from taking over human jobs.





SJEC GRADUANDS-2024

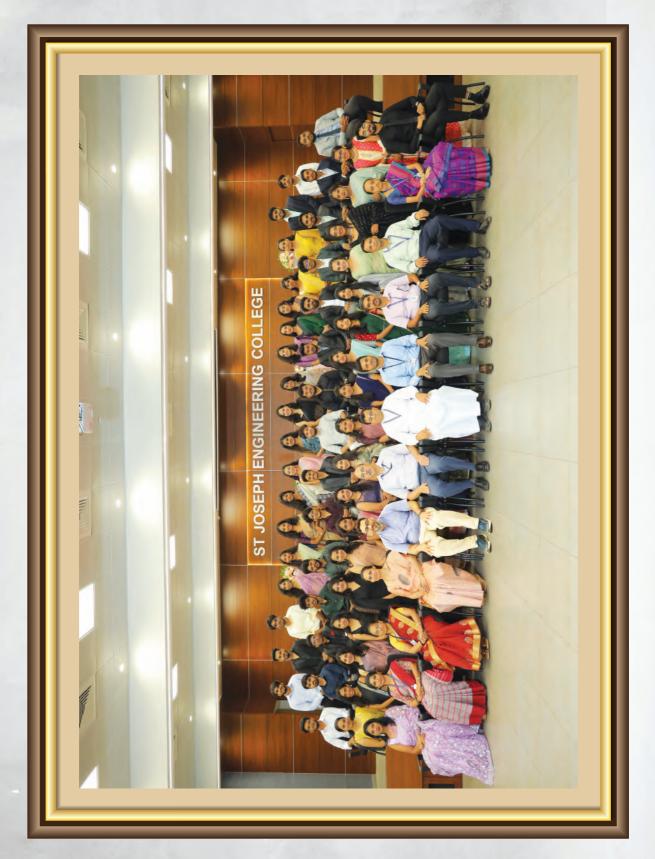




IV Year - Artificial Intelligence and Machine Learning



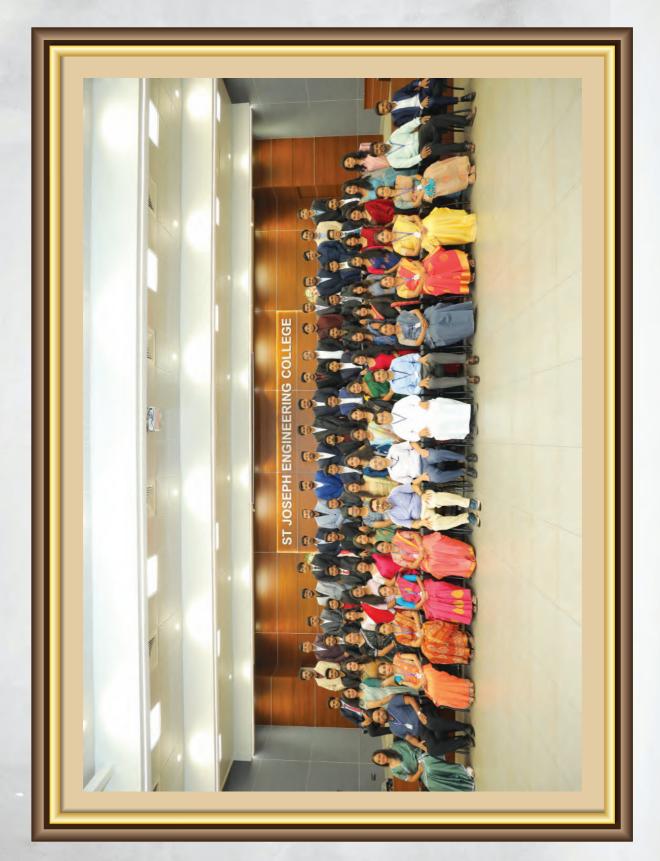
IV Year - A Section - Computer Science & Engineering



IV Year - B Section - Computer Science & Engineering



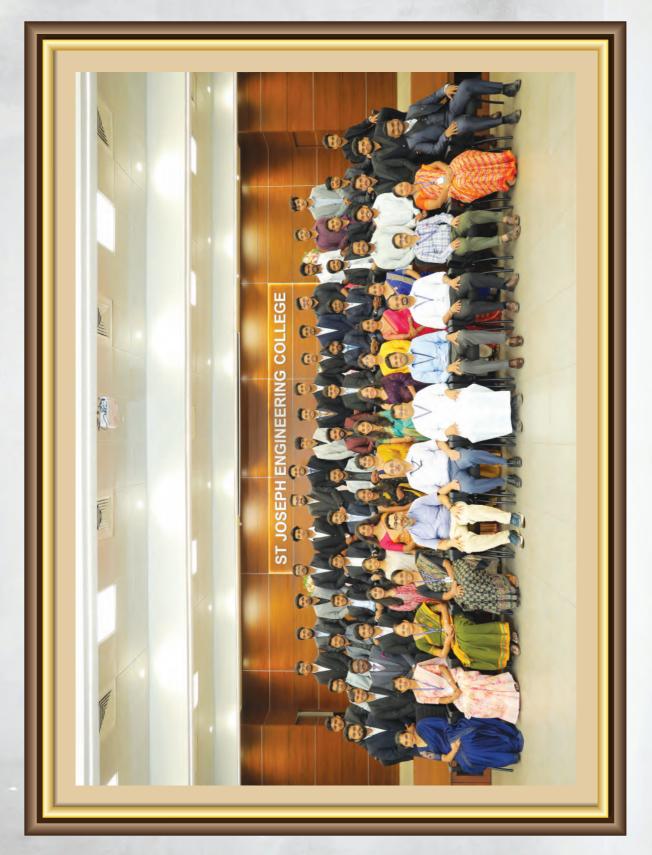
IV Year - C Section - Computer Science & Engineering



IV Year - A Section - Electronics & Communications Engineering



IV Year - B Section - Electronics & Communications Engineering



IV Year - Electrical & Electronics Engineering



IV Year -M1 Batch -Mechanical Engineering



IV Year -M2 Batch -Mechanical Engineering



IV Year - Civil Engineering



MBA - A Section - Master of Business Administration



MBA - B Section - Master of Business Administration



MBA-Innovation, Entrepreneurship & Venture Development (MBA-IEV)



Master of Computer Applications



Master of Computer Applications



OBITUARY





Pradyoth Jain

2rd year
CSBS Branch of ICBS Department
passed away on
30 December 2023



Terrence D'Souza

3rd year Civil Engineering passed away on 9 February 2024

May their souls rest in peace



Management, Staff & Students

ST JOSEPH ENGINEERING COLLEGE

Vamanjoor, Mangaluru - 575 028







Team SJEC AERO secured FIRST PLACE

at West Zonal event of

Boeing National Aeromodelling Competition 2023-24

held at IIT Bombay on 28 & 29 December 2023



Team HiveLink secured SECOND PLACE

at ANVESHANA 2024 Karnataka-Tamil Nadu Edition organized by Synopsys & Agastya International with cash prize of INR 25,000.



Team SJEC Racing
for securing
13th All India Ranking
in SAEINDIA mBAJA 2024
held in NATRAX Pithampur, Indore
from 10-13 January 2024



Team eSJEC Racing
secured
12th All India Ranking
in SAEINDIA eBAJA 2024
held in BVRIT Narasapur, Hyderabad
From 6-11 March 2024



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 & MCA Accredited by NBA, New Delhi)

Vamanjoor, Mangaluru - 575 028, Karnataka, India Ph: 91-824-2868100 / 2263753 / 54 / 55 | E-mail: sjec@sjec.ac.in| Website: www.sjec.ac.in