



**ST JOSEPH ENGINEERING COLLEGE**

**AN AUTONOMOUS INSTITUTION**

**Vamanjoor, Mangalore- 575028**



# PRODIGY 2023 EXPRESS



**Volume - XIV**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**ACCREDITED BY NBA, NEW DELHI**



PRODIGI  
ECE STUDENTS ASSOCIATION



**St Joseph Engineering College** is an autonomous institute under Visvesvaraya Technological University, Belagavi, Karnataka, recognized by the All-India Council for Technical Education (AICTE), New Delhi. It operates under the trust "Diocese of Mangalore, Social Action Department." Established in 2002, SJEC offers top-tier education in Engineering, Business Administration, and Computer Applications at undergraduate, postgraduate, and research levels. With a dedicated faculty, state-of-the-art laboratories, and comprehensive facilities, the college currently serves around 2900+ students.

The UGC granted autonomous status to SJEC in 2021. The college has implemented the Outcome-Based Education (OBE) system since 2011. Four undergraduate programs—Computer Science & Engineering, Mechanical Engineering, Electronics and Communication Engineering, and Electrical & Electronics Engineering—are fully accredited by the NBA until June 2025. Additionally, the institution received an A+ grade from NAAC, valid until February 2026.

SJEC offers a variety of co-curricular and extracurricular activities to help students develop leadership and decision-making skills. The Campus Placement Department assists students in securing employment opportunities.

**The Department of Electronics and Communication Engineering**, established with the college's inception in 2002, the department has grown significantly through the efforts of its qualified faculty and advanced infrastructure. Currently, it admits 120 undergraduate students annually. Since 2015, the department has offered Ph.D. and M.Sc. (Engg) programs, approved by VTU. Faculty members are engaged in research and teaching, specializing in Communication, Signal Processing, Embedded Systems, and VLSI. Students are encouraged to participate in symposiums, conferences, and various technical and non-technical events.

Our vision is strengthened by industry collaborations with renowned organizations such as Karmic Design Pvt Ltd, Manipal, CMTI Bengaluru, Fr Mullers Medical College, Equidor MedTech Pvt Ltd, ICAR, CHD group, NUTEC and Kasturba Medical College, Mangaluru. Through the Department Association Prodigy and the Student Club Samarthya, we nurture a culture of innovation. Our vibrant IEEE Student Club connects students with industry leaders and academic experts, enhancing their learning experience.

Faculty members are actively engaged in research, securing grants from prestigious organizations to support their innovative projects. Our students consistently excel in national events like NASTECH by NASSCOM, the National Design & Innovation Clinic by CMTI Bengaluru, Manthan B Plan of the FKCCI and Anveshana Engineering Championship. Numerous student projects have received grants from the Karnataka State Council for Science & Technology, reflecting the quality of our academic endeavours.



# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



PRODIGI  
ECE STUDENTS ASSOCIATION



## VISION

"To Excel in Electronics and Communication Engineering Education and Research, focusing on the needs of Industry and Society, with professional ethics"



## MISSION

- Provide opportunities to deserving students for quality professional education in the field of Electronics and Communication.
- Design and deliver curricula to meet the changing needs of industry through student centric learning methodologies to excel in their profession.
- Recruit, Nurture and Retain 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 of the Institution.



## PROGRAMME OUTCOMES



PRODIGI  
ECE STUDENTS ASSOCIATION

**PO1:Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

**PO2:Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems

reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

**PO3:Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/ develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

**PO4:Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions

**PO5:Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems (WK2and WK6)

**PO6:The Engineer and the World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment (WK1, WK5, and WK7)

**PO7:Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws (WK9)

**PO8:Individual and Collaborative Team Work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams

**PO9:Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

**PO10:Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a

team, and to manage projects and in multidisciplinary environments

**PO11:Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8)



## PROGRAMME SPECIFIC OUTCOMES



PRODIGI  
ECE STUDENTS ASSOCIATION

1. Analyze and develop solutions in the areas of Signal Processing & Communication Systems.
2. Apply knowledge of embedded systems and VLSI to design and develop solutions for society.

### BEST PRACTICES

- Incorporating collaborative, project-based, and peer learning methods, supported by effective use of Learning Management Systems (LMS) in all courses.
- Offering bridge courses and remedial classes to better understand complex subjects.
- Conducting open-ended experiments in all laboratories to foster innovation and practical skills.
- Organizing industrial visits, facilitating internships, and promoting online courses for skill enhancement.
- Strengthening student interactions with alumni and industry professionals for career guidance and opportunities.
- Encouraging students to undertake product development and research-oriented projects.
- Implementing a personalized mentoring process, where each faculty member supports and guides their mentees individually.
- Encouraging and preparing students for placements in core companies.



### PRODIGI

PRODIGI is the student association of the Electronics & Communication Engineering Department, named to reflect the exceptional qualities and abilities of its members. Led by student office bearers and guided by the Head of Department and faculty coordinators, PRODIGI serves as an intellectual hub for nurturing creativity and talent.

Throughout the year, PRODIGI organizes a variety of activities, including:

- Technical Talks: Featuring renowned speakers from academia and industry.
- Peer Learning Sessions: Encouraging knowledge sharing among students.
- Workshops: Hands-on experiences to enhance technical skills.
- Extracurricular Activities: Fostering teamwork and leadership development.

PRODIGI is dedicated to cultivating the potential of each member, providing a platform for growth and innovation.

# PRODIGI OFFICE BEARERS



**V ABHISHEK  
PRESIDENT**



**VIJITHA M V  
VICE PRESIDENT**



**ARMAN  
VICE PRESIDENT**



**DEEKSHITH RAJAN  
SECRETARY**



**VAISHAK  
SECRETARY**



**ADITHYA  
JOINT SECRETARY**



**RUSHANK  
JOINT SECRETARY**



**HRITHIK N H  
TREASURER**



**AYUSH K H  
TREASURER**

# FACULTY COORDINATORS



**MS RESHMA K J**  
**ASSISTANT PROFESSOR**



**MS K AARYA SHRI**  
**ASSISTANT PROFESSOR**



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# MESSAGE FROM HOD



It is a matter of great pride to witness the continued progress and achievements of the Department of Electronics and Communication Engineering, driven by the proactive efforts of our student association, PRODIGI. Over the past year, the department has successfully organized a diverse range of academic and co-curricular activities, including expert lectures, technical workshops, placement-oriented programs, and innovation-focused initiatives.

These endeavors have significantly contributed to enhancing students' technical proficiency while fostering analytical thinking, creativity, and teamwork. The active participation and enthusiasm demonstrated by our students reflect the strong academic culture within the department.

I extend my sincere appreciation to the PRODIGI team for their dedication and effective coordination. The student office bearers deserve special recognition for their leadership and commitment in executing various activities. I also acknowledge with gratitude the invaluable guidance and continuous support provided by our faculty coordinators.

I congratulate the editorial team and contributors of Prodigy Express 2025 for their commendable efforts in bringing out this publication. I am confident that this platform will continue to inspire innovation and showcase the talents of our students. I wish everyone continued success and excellence in all their future endeavors.

Warm regards

Dr. Dayakshini  
Professor and HoD  
Department of ECE  
St Joseph Engineering College, Mangaluru

# EDITORIAL NOTE

Dear Readers,

We are delighted to present the XIV edition of our departmental magazine, Prodigy Express. This edition reflects the vibrant and dynamic spirit of the ECE Department, showcasing accomplishments across academics, cultural activities, technical innovations, and community initiatives.

Within these pages, we celebrate the dedication, creativity, and teamwork that define our department.

We sincerely thank the management for their unwavering support, the editorial team for their dedicated efforts, and the Head of the Department, faculty, and non-teaching staff for their continuous guidance and encouragement.

Wishing you an engaging and insightful reading experience!

Warm regards,

V Abhishek

Vijitha M V

Arman

Deekshith Rajan

Vaishak

Adithya

Rushank

Hrithik N H

Ayush K H

Ms K Aarya Shri

Ms Reshma K J

Editorial Team – Prodigy Express 2025

# TEACHING LEARNING PRACTICES

Lectures

Online Sessions

Bridge Course

Tutorials

Remedial Sessions

Flipped Classroom

Open-Ended Experiments

Active Learning Strategies

Assignments

Quizzes

Laboratory Sessions

Ability Enhancement Sessions

Mini Project

Project

Internship

Industrial Visits

Workshops and Invited Talks

Seminars

Problem Based Learning

# TOPPERS

## IV YEAR



**HAVALA P N**



**KHUSHI SHETTY**



**PRAMITHA VALERIE D SOUZA**

## III YEAR



**ADITHYA G SHENOY**



**RANJITHA SHETTY**



**RAKESH BASAVARAJ HIKADI**

## II YEAR



**KEERTHAN P B GATTY**



**SANIYA VAFFEEKA**



**ADITHI G AMIN**

# DEPARTMENTAL ACTIVITIES

## Prodigi Inauguration 2024-25 and Technical Talk

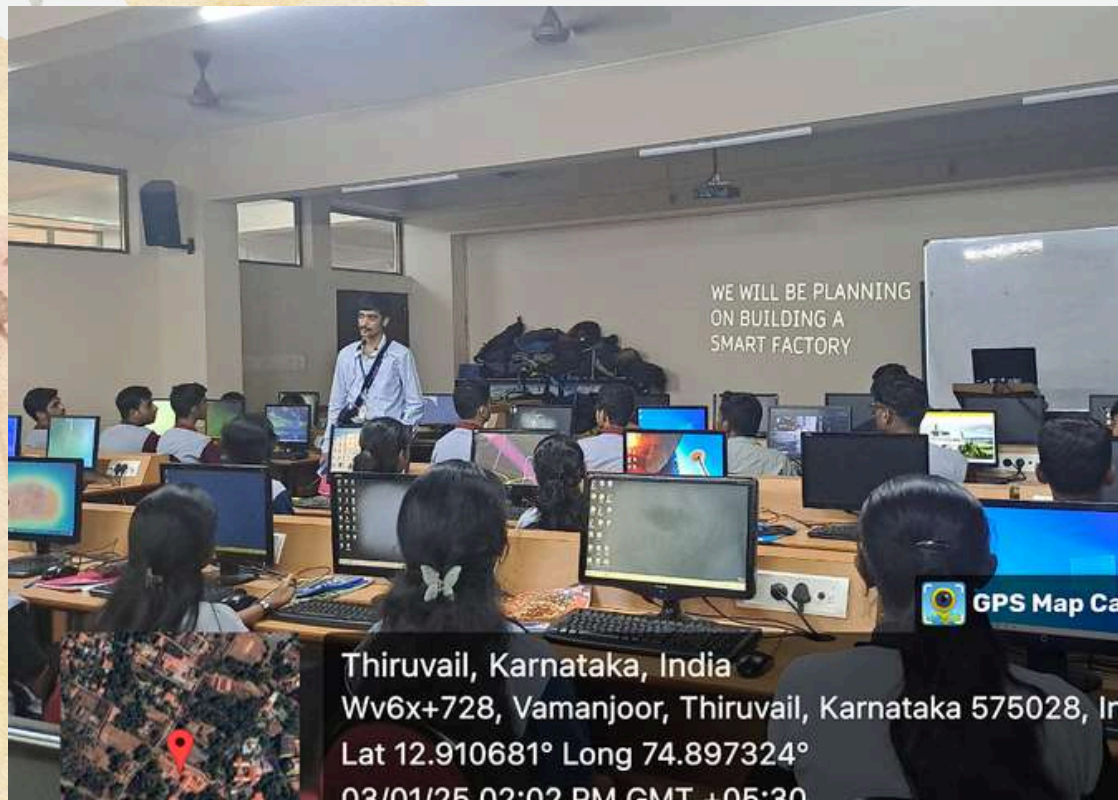
The Department of Electronics and Communication Engineering inaugurated the activities of the Prodigi Association and Samarthya Club for the academic year 2024-25 on November 22, 2024, at the Kalam Auditorium, starting at 10:00 AM. The chief guest for the event was Mr Pavan Raj, Senior Layout Design Engineer at KarMic Design Private Limited, Manipal. Dr Dayakshini, Head of the ECE Department, welcomed the chief guest and introduced him to the gathering. Mr Vijeth Gowda and Ms Prerana P provided an overview of the activities conducted under the Prodigi Association and Samarthya Club for the academic year 2023-24. The installation of the new office bearers for the Prodigi and Samarthya Club for the academic year 2024-25 took place during the event. Mr Pavan Raj felicitated the meritorious students who excelled in their academic performance. Mr V Abhishek and Mr Hisham, Presidents of the Prodigi Association and Samarthya Club, shared the planned activities for the academic year 2024-25.

The inaugural event was followed by a technical talk delivered by Mr Pavan Raj, who provided an overview of the VLSI technology and offered valuable insights into the cutting-edge advancements shaping semiconductor manufacturing. Furthermore, he discussed emerging technological trends and career opportunities within the semiconductor industry. The session inspired students to delve deeper into the practical applications of VLSI and semiconductor technology, encouraging them to align their academic pursuits with industry needs. Additionally, the talk highlighted the immense potential of core ECE companies, encouraging students to consider rewarding careers in these industries and contribute to advancements in the Electronics and Communication Engineering field.



# DEPARTMENTAL ACTIVITIES

## Workshop on IoT using Arduino and Raspberry Pi



The Prodigy - Student Association of ECE organized a workshop on "IoT using Arduino and Raspberry Pi" on Friday, 3 January 2025 for first-year students. The resource persons for the workshop were, Mr Aashish Manuel Noronha and Mr Shravan Karkera, VII semester students from the Department of ECE. The objective of the session was to introduce students to the Internet of Things and equip them with hands-on experience using Arduino and Raspberry Pi. Tinkercad, a widely used online simulation, was introduced for circuit design. The workshop for the students introduced them to the fundamental IoT concepts and hands-on experience with Arduino and Raspberry Pi. Students learnt basic programming, sensor interfacing, and wireless communication techniques.

## Technical Talk on IoT Essentials: Arduino and Raspberry Pi Interfacing



The Prodigy (Student Association of ECE) organized a Technical talk on "IoT Essentials: Arduino and Raspberry Pi Interfacing" for I Year Students on 27 December 2024 in Room No: 3204, Academic Block 3, SJEC, from 02:00 PM to 03:30 PM. The Resource person for the session Mr Vijay Ganesh, Asst professor, Dept of ECE gave insights into the fundamentals of Internet of Things (IoT) technology, with a focus on interfacing techniques using popular development platforms—Arduino and Raspberry Pi. The technical talk successfully enhanced the participants' understanding of IoT fundamentals and development tools. It motivated students to pursue projects and research in IoT, aligning with industry demands. The talk equipped students with essential skills and knowledge to stay relevant in the rapidly evolving IoT industry.

# DEPARTMENTAL ACTIVITIES

## Technical Talk on VLSI Design Technology - Future of Fabless in India



The Prodigy - Student Association of ECE organized a Technical talk on “VLSI Design Technology - Future of Fabless in India” for the IV Year ECE Students on December 16, 2024 from 12.00 PM to 1.00 PM. The Resource person for the session was Mr Ranveer Singh, Head of University Relations, Truechip Solutions, Bengaluru. Mr Ranveer Singh provided valuable insights into the rapidly evolving VLSI industry. He began the session by emphasizing the importance of ensuring the reliability and efficiency of semiconductor systems. He also elaborated on the distinction between fab and fabless companies, showcasing the advantages of the latter in driving cost-effective and creative solutions. The session covered the VLSI design flow, detailing front-end processes such as RTL design and verification, as well as back-end tasks like placement and routing. The resource person also highlighted the importance of HDL-Verilog and System Verilog as essential tools for building expertise in VLSI. The talk offered a professional and comprehensive overview of the immense opportunities within the semiconductor industry.

## Workshop on Sharpening Minds: Boosting Skills and Academic Excellence



The Prodigy - Student Association of ECE organized a workshop on “Sharpening Minds: Boosting Skills and Academic Excellence “ for III Year Students on n April 04, 2025 in Fr Fred Hall , Academic Block 1, SJEC, from 02.00 PM to 05:00 PM. The Resource person for the session was Mr Ganesh Hebbar, Centre Director of T.I.M.E, Mangalore/Udupi and Mr. Ashish Poojary-Manager of T.I.M.E.

The workshop focused on various competitive exams, their formats, and effective strategies to crack them. The resource person highlighted the advantages of pursuing higher studies after graduation and emphasized the competitive edge it provides over just holding a bachelor's degree. He provided an overview of the key entrance exams required for different postgraduate courses, explained their structure, and shared valuable tips on how to prepare for them. Additionally, he informed students that T.I.M.E. will be offering training sessions for those interested in taking up these exams.

# DEPARTMENTAL ACTIVITIES

## Workshop on Introduction to Arduino and Raspberry Pi: Basics and Interfaces



The Prodigy - Student Association of ECE organized a Technical workshop on “Introduction to Arduino and Raspberry Pi: Basics and Interfaces for I Year Students on on March 28 , 2025 in DSP Lab, Academic Block 1, SJEC, from 02.00 PM to 05:00 PM.

The Resource person for the session Mr Vijay Ganesh Asst professor, Dept of ECE. The workshop aimed to introduce participants to the basics of embedded systems using beginner-friendly platforms. Key objectives included providing hands-on experience with Arduino and Raspberry Pi boards, understanding their architecture, learning to interface sensors and output devices, and writing basic programs using Arduino IDE. This workshop significantly benefited first-year engineering students by giving them an early and engaging introduction to practical electronics and programming. It helped bridge the gap between theoretical knowledge and real-world applications, making concepts more relatable and easier to understand. Through hands-on sessions, students gained confidence in circuit building, sensor interfacing, and coding simple programs.

## Advancing Electric Vehicle Technology: A Hands-On MathWorks Workshop



The Department of ECE and EEE, SJEC, in association with CoreEl Technologies, Bengaluru and MathWorks India Pvt. Ltd., Bengaluru, successfully conducted a three-day FDP on “Advancing Electric Vehicle Technology: A Hands-On MathWorks Workshop” from 02-04 Jan 2025. The event was attended by 26 staff (teaching & non-teaching). The session was led by Mr Shubhanshu Sharma, Training Engineer, MathWorks India Pvt. Ltd., Bengaluru. The sessions provided in-depth knowledge of EV technology, hands-on training in MATLAB and Simulink, and facilitated valuable interaction with industry expert. The FDP enhanced faculty skills in EV simulations, bridging industry-academia gaps, and fostering collaboration in emerging technologies. The workshop was coordinated by Dr. Sheryl Colaco, Prof., Dept. of ECE and Dr. Aldrin Vaz, Asst. Prof., Dept. of ECE.

# DEPARTMENTAL ACTIVITIES

## Workshop on FSM- based Digital Circuits Design and Optimization using Verilog HDL



The Department of Electronics and Communication Engineering of St Joseph Engineering College , in association with the IEEE Geoscience and Remote Sensing Society Student Chapter and the IEEE SJEC Student Branch, organized a hands-on workshop. Dr Jennifer Saldanha and Ms Florence Nishmitha of the Dept of ECE coordinated the event. The session was conducted for the IV semester ECE students on April 4, 2025 from 02.00 pm to 04.30 pm for section B students and April 7, 2025 from 9.00 am to 1.00 pm for section A students at the DSP Lab, Room No. 1220. Mr Vijay Ganesh P.C, Assistant Professor in the Department of ECE, served as the resource person for the workshop. The event aimed at enhancing students' knowledge of digital circuit design using Verilog HDL.

### Industrial Visit to Akashvani, Mangaluru



Department of Electronics & Communication organised an industrial visit to Akashbhavan, Kadri, Mangaluru for the students of second year as an activity supporting the course Analog Communication Engineering. This industrial visit was organized by Ms. Padmini Bhat, coordinated by Ms. Shama B. N, and accompanied by Ms. Vijayalaxmi. All India Radio (AIR) is India's national public radio broadcaster, operates under Prasar Bharati, India's largest public broadcasting agency. The visit began with a talk by Mr Chandrashekar Shetty, Senior Engineer who shared his extensive knowledge about the vital role played by AIR in disseminating the information to public. During the visit to the All India Radio Station, students were introduced AM and FM transmission techniques which explained about amplitude modulation (AM) and frequency modulation (FM), including carrier generation and audio signal modulation. Also demonstrated high-power transmitters and associated antenna systems used for broadcasting over long distances.

# DEPARTMENTAL ACTIVITIES

## Workshop on OFDM Demystified & Sensing Assisted 6G Communication



The Department of Electronics and Communication Engineering organized a Two-Day Workshop on “OFDM Demystified & Sensing Assisted 6G Communication” for III Year ECE Students from 11-12 April 2025 in DSP Lab, II Floor, AB-I. The primary objective of the workshop was to equip III Year ECE students with the necessary skills to introduce fundamentals of wireless communication and OFDM in modern networks and provide hands-on experience with OFDM using MATLAB/Python and explore emerging 6G technologies. Mr. Mahesha Y, Senior Engineer at Life Signals Private Limited and Mr Anoop C V Research scholar, NIT Calicut, Bengaluru were the resource persons for the workshop. Dr Dayakshini, Head of the Department of ECE motivated the participants by emphasizing the importance of the workshop and its significant impact on their careers.

## Expert Session on Building Careers in Silicon: Industry Trends & Interview Skills



The Department of Electronics and Communication Engineering successfully organized an expert session on 15th May 2025 under the UDAAN 2025 initiative, which aims to bridge the gap between academic learning and industry expectations. The session, titled “Building Careers in Silicon: Industry Trends & Interview Skills,” was delivered by Ms. Priya Ananthakrishnan, Associate Director – Hardware Engineering at Mirafra Technologies, a prominent company in the semiconductor domain. During the session, Ms. Priya provided an in-depth overview of the rapidly evolving landscape of the semiconductor industry, emphasizing the growing need for skilled professionals in hardware and silicon design. She shared practical insights into the nature of roles available at Mirafra Technologies and shed light on how continuous performance evaluation and upskilling are crucial for long-term career success. Her talk also included real-world perspectives on industry workflows, the expectations placed on engineers, and the significance of developing both technical and analytical competencies.

# DEPARTMENTAL ACTIVITIES

## Technical Talk on Exploring Careers and Methodologies in the VLSI Industry



The Department of Electronics & Communication Engineering, in association with the ISTE SJEC Student Chapter and PRODIGI – ECE Students’ Association – organized a technical talk on “Exploring Careers and Methodologies in the VLSI Industry” on May 15, 2025, at 10:00 AM in Prerana Hall. The session was for second year Electronics and Communication Engineering students to introduce them to the significance of Verilog HDL and its practical application in the VLSI industry. The resource persons for the session were from Karmic Design Pvt. Ltd. – Mr Pavan Raj, Senior Layout Design Engineer, Mr Deviprasad Nayak, Design Verification Engineer, and Ms Hitha Shetty, Design Verification Engineer. They provided the students with a comprehensive insight into VLSI design methodologies and shared valuable perspectives on the various career opportunities available in the VLSI industry.

## Mock Interview



The Department of Electronics and Communication Engineering at St Joseph Engineering College, Mangaluru, organized a comprehensive Mock Interview session on 24 May 2025 from 9.00am to 4.30pm as part of its UDAAN 2025 initiative, which focuses on career preparedness and industry readiness. The objective was to provide students with an opportunity to experience a professional interview setup and understand the expectations of the corporate world. Held within the department premises, the event was open to all pre-final year students, and a total of 108 enthusiastic participants availed this opportunity to test their technical knowledge and interpersonal skills in a real-time interview environment.

# DEPARTMENTAL ACTIVITIES

## Workshop on Empowering Educators: Design Thinking in Project-Based Learning



The two-day workshop titled "Empowering Educators: Design Thinking in Project-Based Learning", conducted on 27-28 June 2025 at St Joseph Engineering College, Mangaluru, was aimed at equipping faculty members with the principles and methodologies of Design Thinking to enhance Project/Problem-Based Learning (P2BL). Organized by the Internal Quality Assurance Cell (IQAC) in collaboration with Sanjosh-TLC SJEC, the Quality & Governance Group (QGG), and the Department of Electronics and Communication Engineering, the workshop drew 64 participants. Resource persons Dr. S. S. Inamdar and Dr. Ambuj Kumar guided the sessions. Day 1 involved an overview of P2BL, an introduction to the Design Thinking process in engineering, and hands-on activities including secondary research and structured brainstorming.

# STUDENT ACHIEVEMENTS



Mr Shreeshha Kumar MG, Mr. Shashank B, Mr. Rahul T P, Mr. P Vishwas Karanth, Mr. Swasthik G Bhandarker of III year ECE under the guidance of Ms Nandini Maninarayana Assistant Professor department of ECE and Dr Ishwara Keerthi C Spine Surgeon, KMC Hospital Mangaluru has won second place for their work titled "Pediscope" in Muller Medithon -3.0-An interdisciplinary Ideathon conducted on 14 June 2025 organised by Fr Muller Charitable Institute, Mangaluru.



Ms. Lisha D. S., III Year ECE, participated in the prestigious Republic Day Camp 2025 as Best Cadet-Navy (Sw) from the Karnataka and Goa Directorate at DG NCC Camp, Carlappa Ground, Delhi (Dec 31, 2024 – Jan 31, 2025). She received the Best Briefer award for Flag Area from Chief of the Army Staff, General Upendra Dwivedi.

# STUDENT ACHIEVEMENTS



Joshua Albuquerque, Adithya G Shenoy, and Muhammad Rabeez, and Lisha D.S secured first place for their project, "Hivelink," at the MAKEFORMANGALURU 2-day Make-a-thon, which was part of the TITAN Design Impact Movement and organized by Titan Precision Tools Company in partnership with Sahyadri College of Engineering & Management and InUnity - Innovation for Community, receiving a cash prize of ₹10,000 for their dedication to creating social impact for the city of Mangaluru.



Rushank, Thanish Shetty, Rakesh Hikadi, and Sinchana Bajal, secured 4th place and ranked among the Top 5 teams out of over 80 participants at the MAKEFORMANGALURU 2-day Make-a-thon, which was part of the TITAN Design Impact Movement and organized by Titan Precision Tools, Sahyadri College of Engineering & Management, and InUnity - Innovation for Community.

# STUDENT ACHIEVEMENTS



Mr. Joshua Quinthino Albuquerque and Ms. Lisha D. S. of ECE, part of interdisciplinary Team Hivelink, won a cash prize of ₹70,000 at the 8th National Social Enterprise Idea Challenge held at Azim Premji University, Bengaluru from 17-18 October 2024, guided by Mr. Glenson Toney and Dr. Aldrin Claytus Vaz.

Prerana P, Simone D'Souza, Sinchana B. R., and Sweekrithi K. S. of team Aikhya presented their project on developing an AI model for predicting health risks in pregnant women and secured a spot among the top 15 teams in the grand finale held from 17-18 October 2024 at Azim Premji University, Bengaluru, under the guidance of Mr. Glenson Toney and Dr Aldrin Claytus Vaz.

# STUDENT ACHIEVEMENTS



Mr Shravan V K has secured First Place in ROBOWARS (15 KG) held during graVITas'24 from 27-29 September 2024 at Vellore Institute of Technology, Vellore.



Ms Kushi Salian excelled in Sports:

- First place in weightlifting in the Inter Collegiate VTU state level competition held at AIET on 12 November 2024.
- Third place in Hammer Throw in Karnataka State Junior & U-23 Athletic Meet organized by Mysuru District Athletic Association on 14-17 September 2024.
- Fifth place in the hammer throw in Karnataka state senior athletic meet 2024 held at Bangalore.
- Sixth place in the hammer throw in Karnataka State Olympics 2025 held at Udupi.
- Fourth place in VTU state netball tournament 2024 held at Bangalore.
- II Runner up in VTU State Level Shuttle Badminton Tournament 2024 held at Mandya.

# CAMPUS TO CORPORATE





Dr Shama B N was awarded Ph.D for the thesis “Development of an Efficient Signal Processing Algorithm for Radiation Dose Reduction in Pediatric Computed Tomography”, guided by Dr Savitha H M, Professor, ECE, SJEC Vamanjoor



Mr Glenson Toney, Assistant Professor, ECE has Published a Journal Article in Engineered Science, Q1, ES Publisher on 25 January 2025 Titled “Optimal Headlamp Adjustment for Vehicles through Slip Angle and Stiffness Analysis using Dynamic Vehicle Model”.



Ms Jayalakshmi K P Assistant Professor, ECE and Dr Dayakshini , HOD- ECE has Published a Journal Article in IEEE Access, Q1, on 31 March 2025 Titled “A Comprehensive Survey on Coverage Path Planning for Mobile Robots in Dynamic Environments”.

Ms Jayalakshmi K P Assistant Professor, ECE and Dr Dayakshini , HOD- ECE has Published a Journal Article in IEEE Access, Q1, on 10 June 2025 Titled “Adaptive Spanning Tree-Based Coverage Path Planning for Autonomous Mobile Robots in Dynamic Environments”.



Dr Jennifer C Saldanha Assistant Professor, ECE has Published a Journal Article in Yugoslav Journal of Operations Research, Q1, Faculty of Operational Sciences Publisher on April 2025 Titled “Integrating Multiclass Classifiers For Enhanced Acute Lymphoblast Leukemia Detection: A Comparative Study”.



Dr Rohan Pinto Professor-ECE has Published a Journal Article in IEEE Computer Architecture Letters, Q2 , IEEE Publisher in January 2025 Titled “High-Performance Winograd Based Accelerator Architecture for Convolutional Neural Network”.



Mr P.C. Vijay Ganesh, Assistant Professor, ECE received the Best Paper Award for the paper titled “Low Power Single Cycle RISC V Processor for Biomedical Applications” at the 2024 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER), Mangalore, India, 2024



Dr Jennifer C Saldanha Proposal for DEIAB Local Activities is Accepted for the grant of \$1000 from IEEE GRSS DEIAB.

Dr Jennifer C Saldanha Proposal for chapter activities was selected and approved a grant of \$2400 from IEEE GRSS in June 2025.



# KSCST Funding



- Mr. Wilroy Shoan Dcunha, Mr. Ranjith R, Mr. Abhishek G M & Mr. Anand Acharya received KSCST funding of Rs 4,500/- for the project titled **“Smart-Steer: Advanced Driver Assistance Using Lane And Collision Detection”** under the guidance of Dr. Jennifer Charlotte Saldanha, Assistant Professor, ECE Dept for the year 2024.
- Mr. B. Vikas, Mr. Akarshan V H, Mr. Deevith Hegde & Mr. Manish has received KSCST funding of Rs 4,500/- for the project titled **“Dry Solar Panel Cleaning System”** under the guidance of Ms. Vijayalaxmi H Manjunatha, Assistant Professor, ECE Dept. for the year 2024.
- Mr. Loyd Lobo, Mr. Aashish Manuel Noronha, Mr. Jason Linus Rodrigues & Mr. Lanvil D'sa has received KSCST funding of Rs 4,500/-. for the project titled **“Multi Terrain Industrial Patrolling And Monitoring Robot”** under the guidance of Ms. Jayalakshmi K P , Assistant Professor ECE Dept. for the year 2024.
- Mr. Mohammed Fuzail, Ms. Prerana P, Ms. Simone D'souza & Ms. Sinchana B R has received KSCST funding of Rs 4,000/- for the project titled **“Sahay- Smart Assistant Bot”** under the guidance of Ms. Florence Nishmitha , Assistant Professor ECE Dept. for the year 2024.
- Ms. Jane Linda Pereira, Ms. Gayatri N Shetty, Ms. Karunya K P & Ms. Pallavi Ganesh Pai U has received KSCST funding of Rs 4,500/- for the project titled **“Her-Ally: Ai Physiotherapy Assistant For Breast Cancer Patients”** under the guidance of Ms. Shama B N , Assistant Professor ECE Dept. for the year 2024.



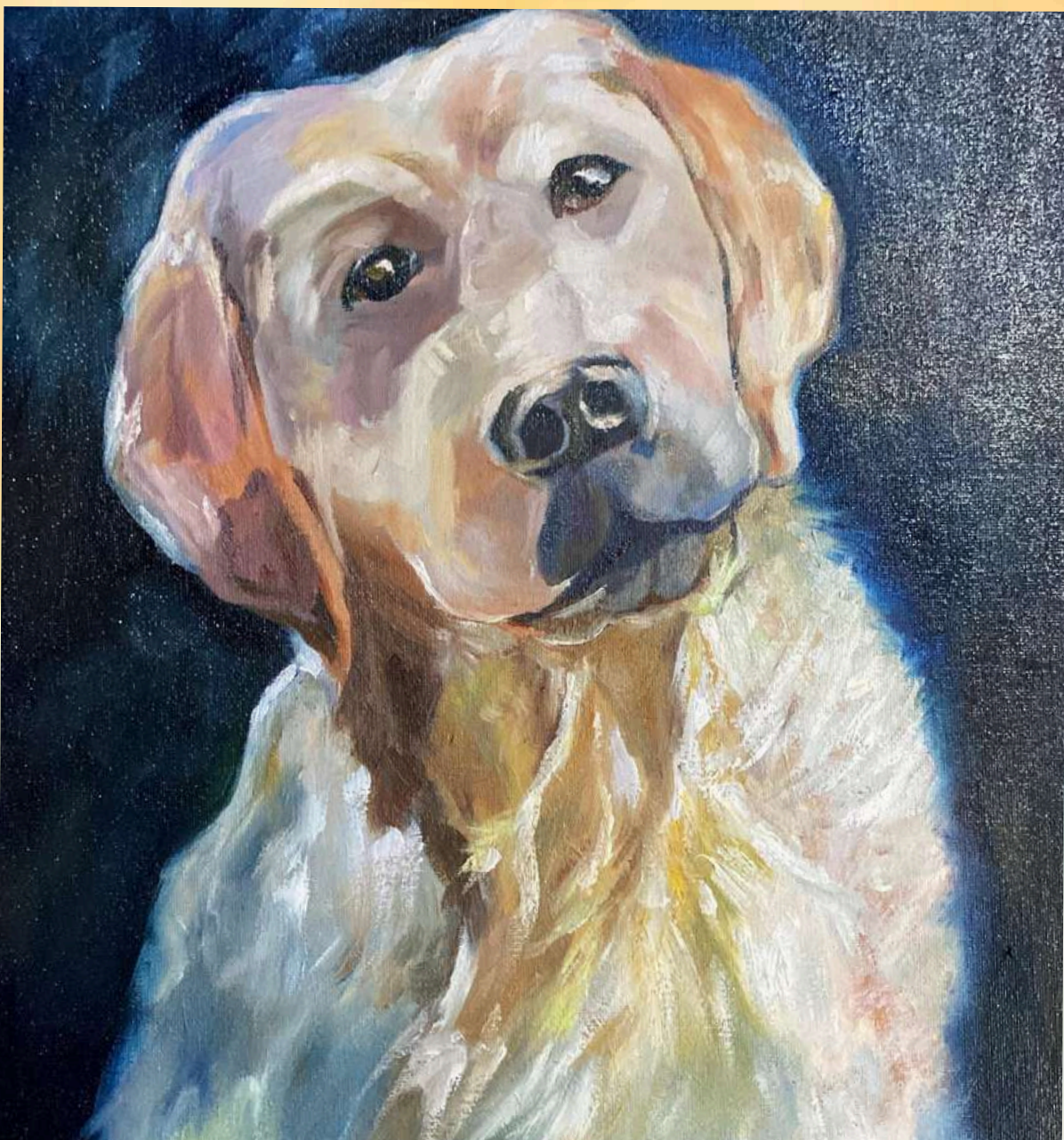
# The Art Beats!!



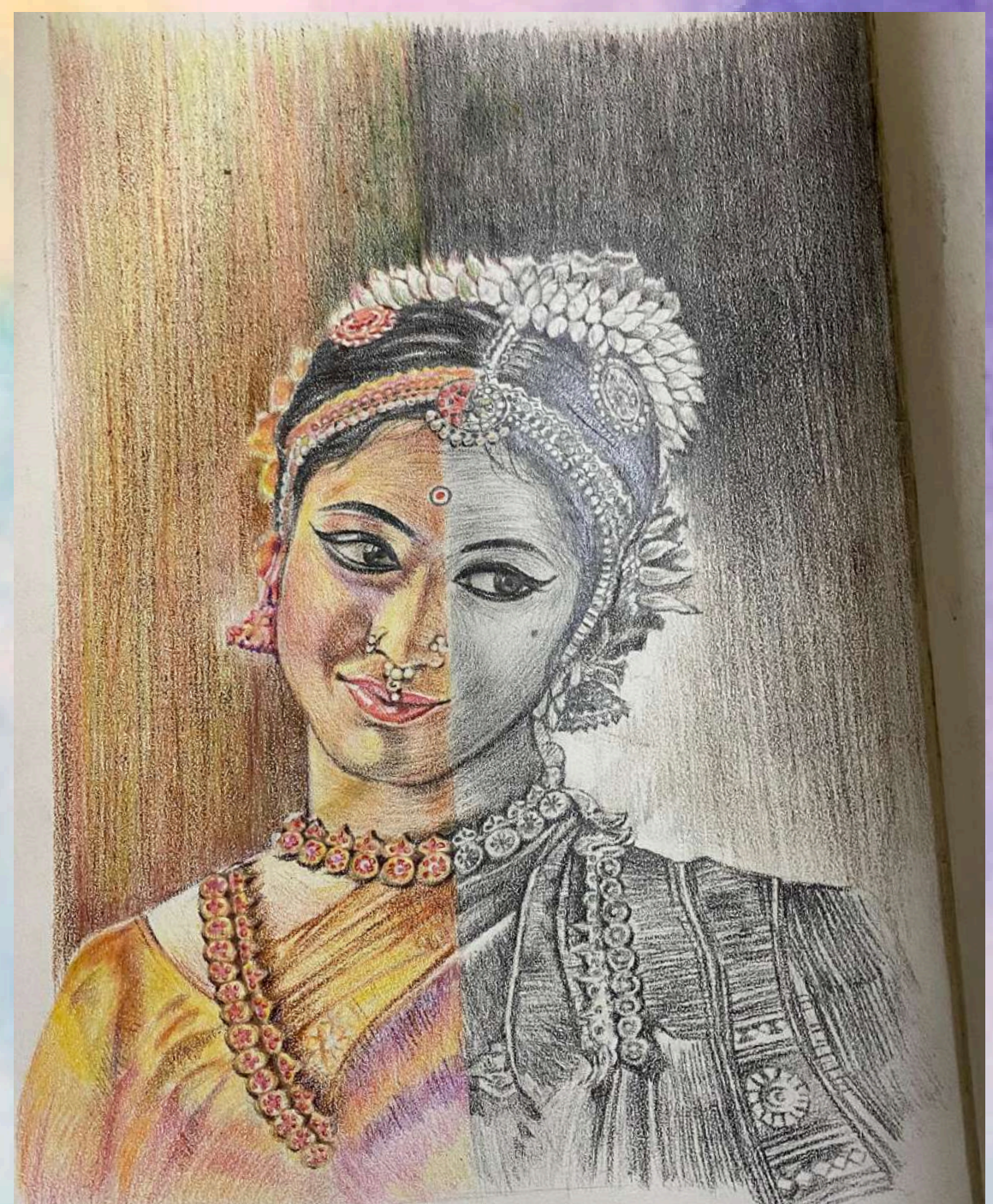
Adithya G Shenoy - 4th year



Tanushree O - 3rd year



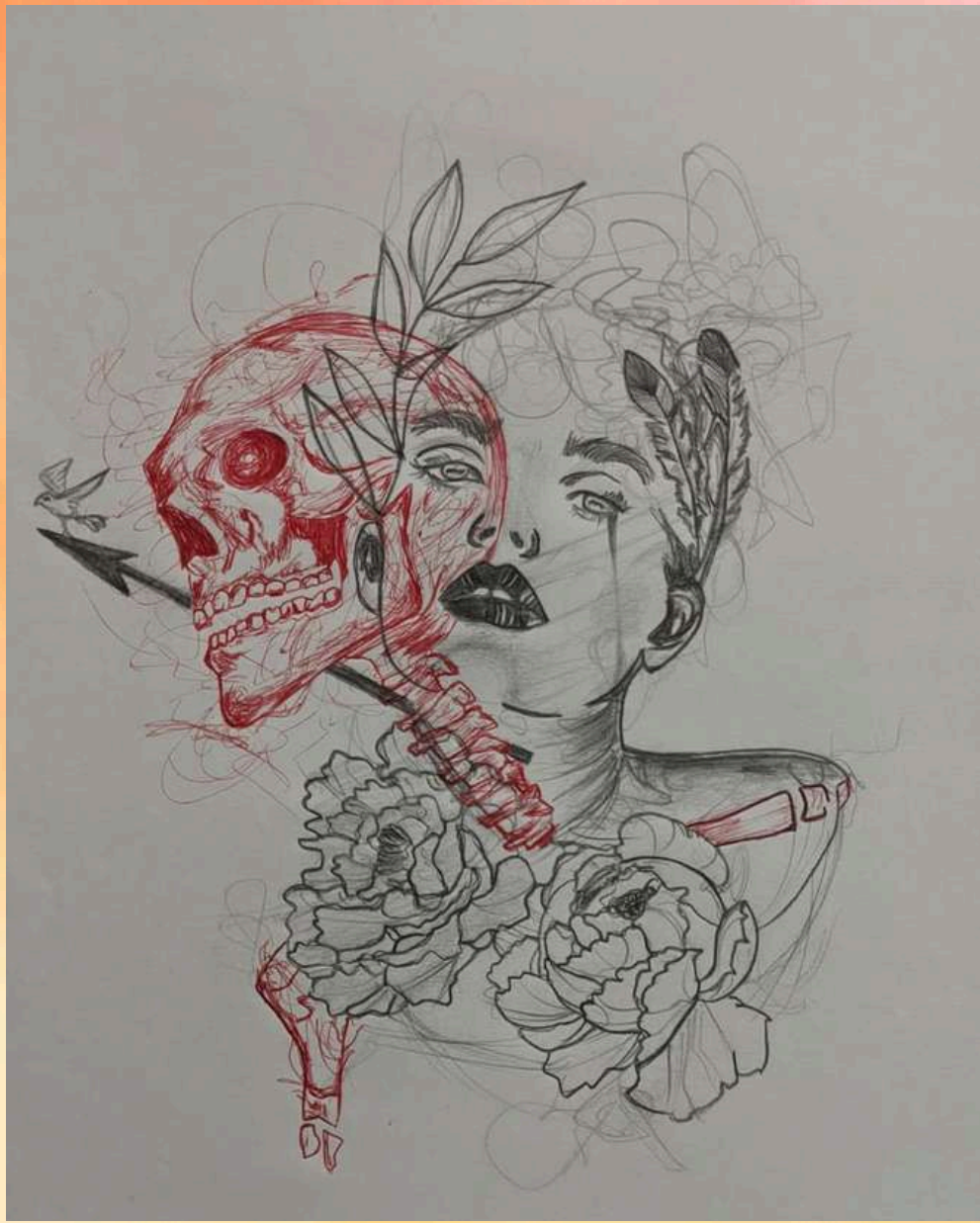
Adithya G Shenoy - 4th year



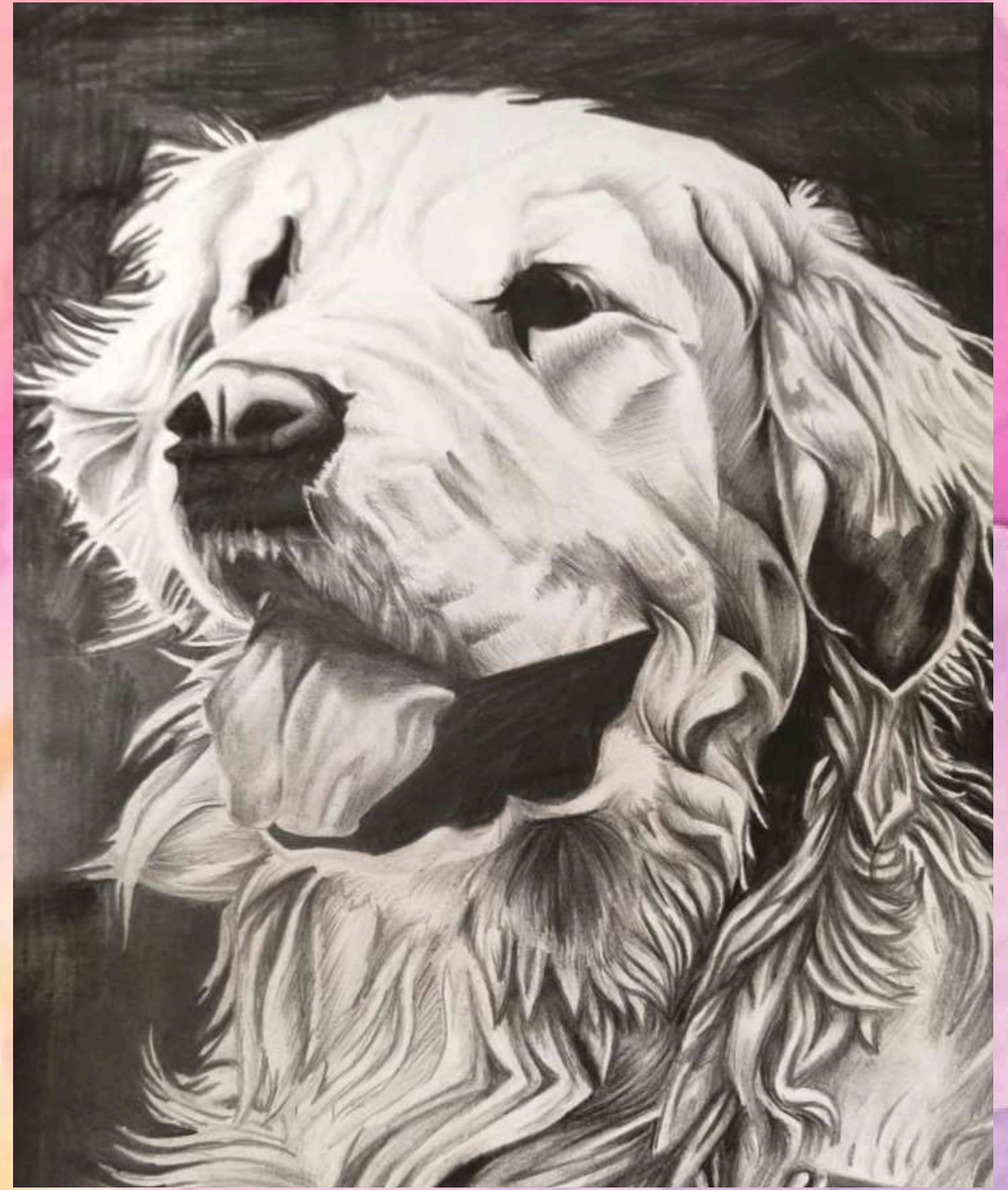
Adithya G Shenoy - 4th year



# The Art Beats!!



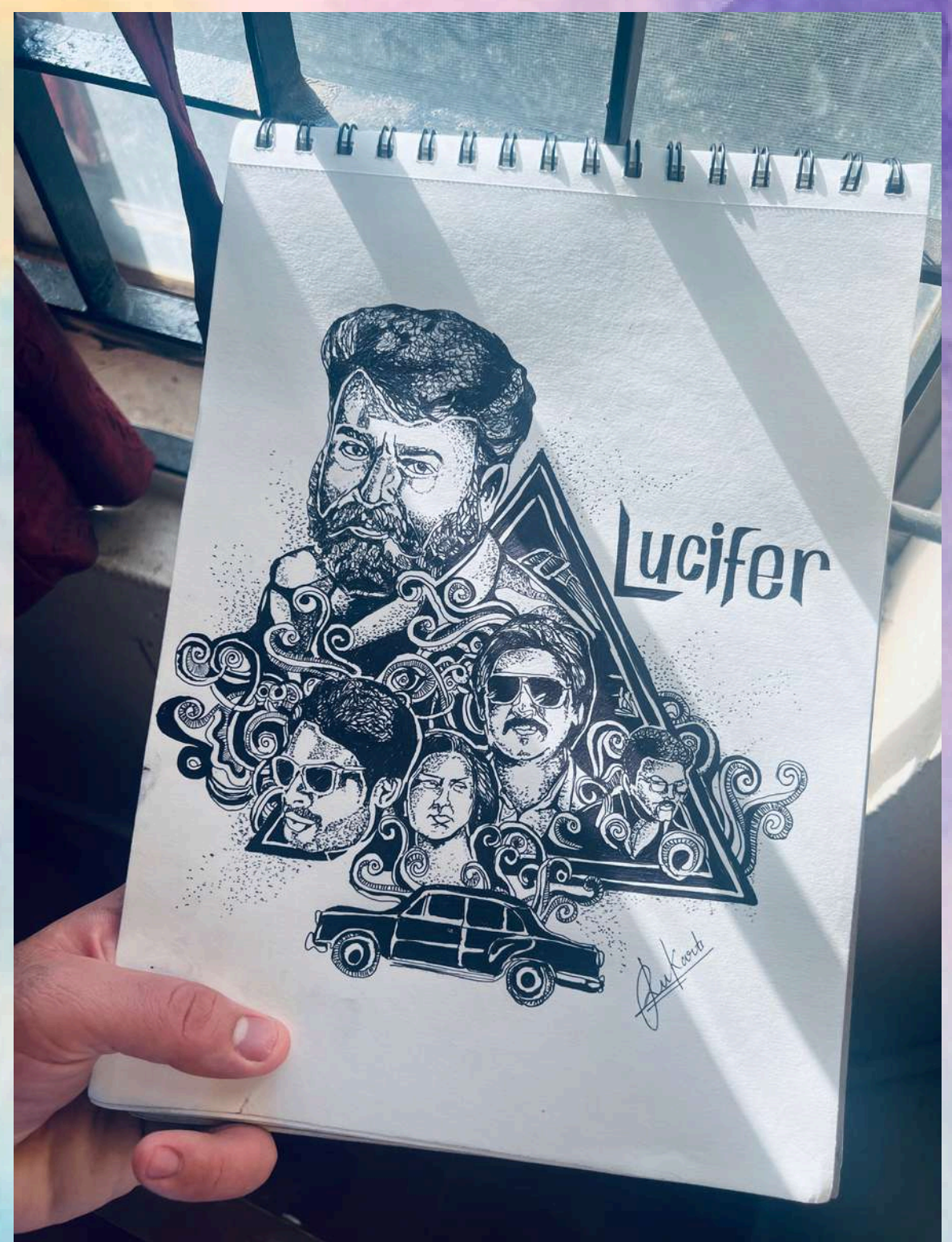
Bhuvin Rai - 3rd year



Manvith - 3rd year



Manvith - 3rd year



Rushank - 4th year



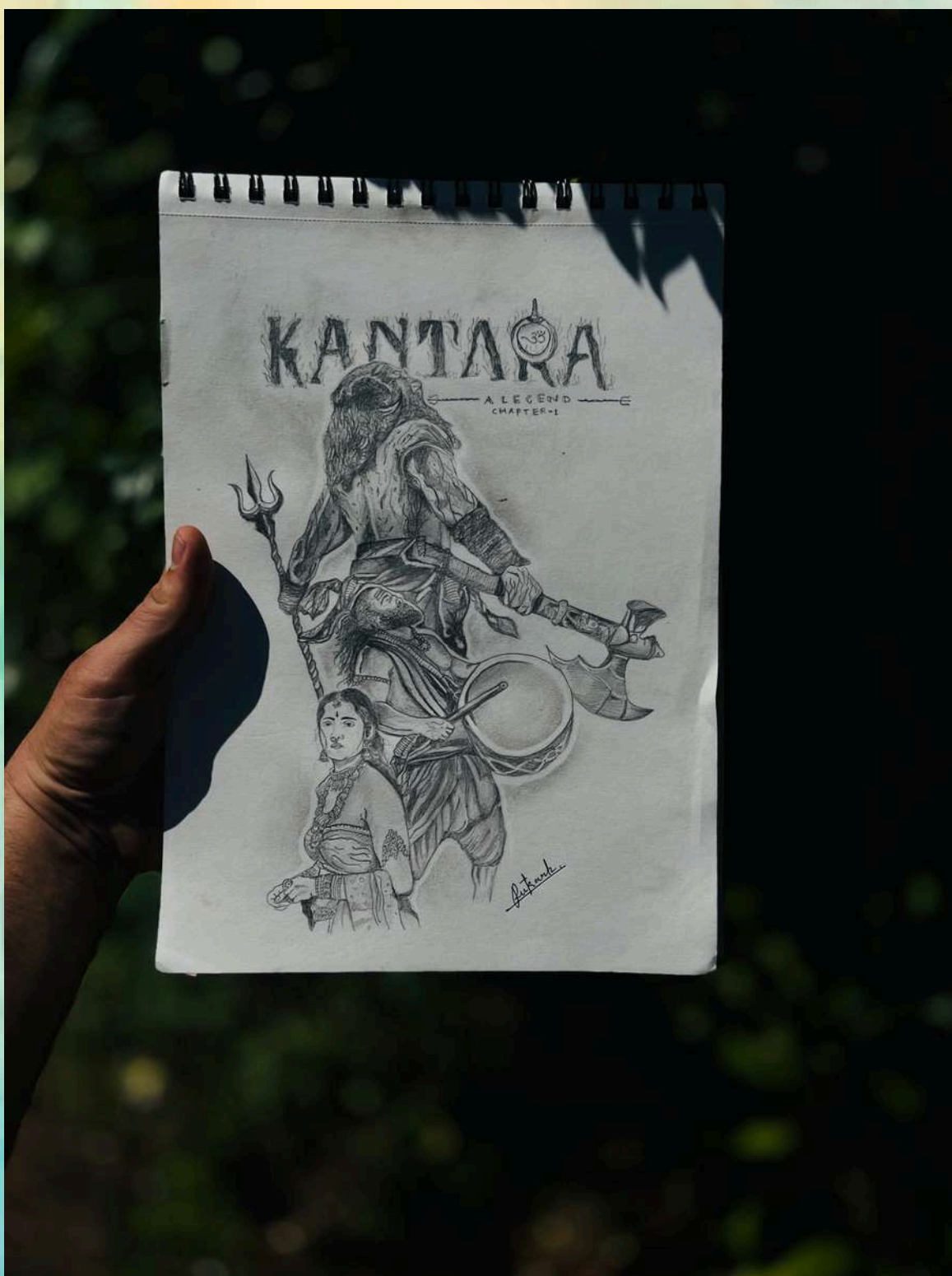
# The Art Beats!!



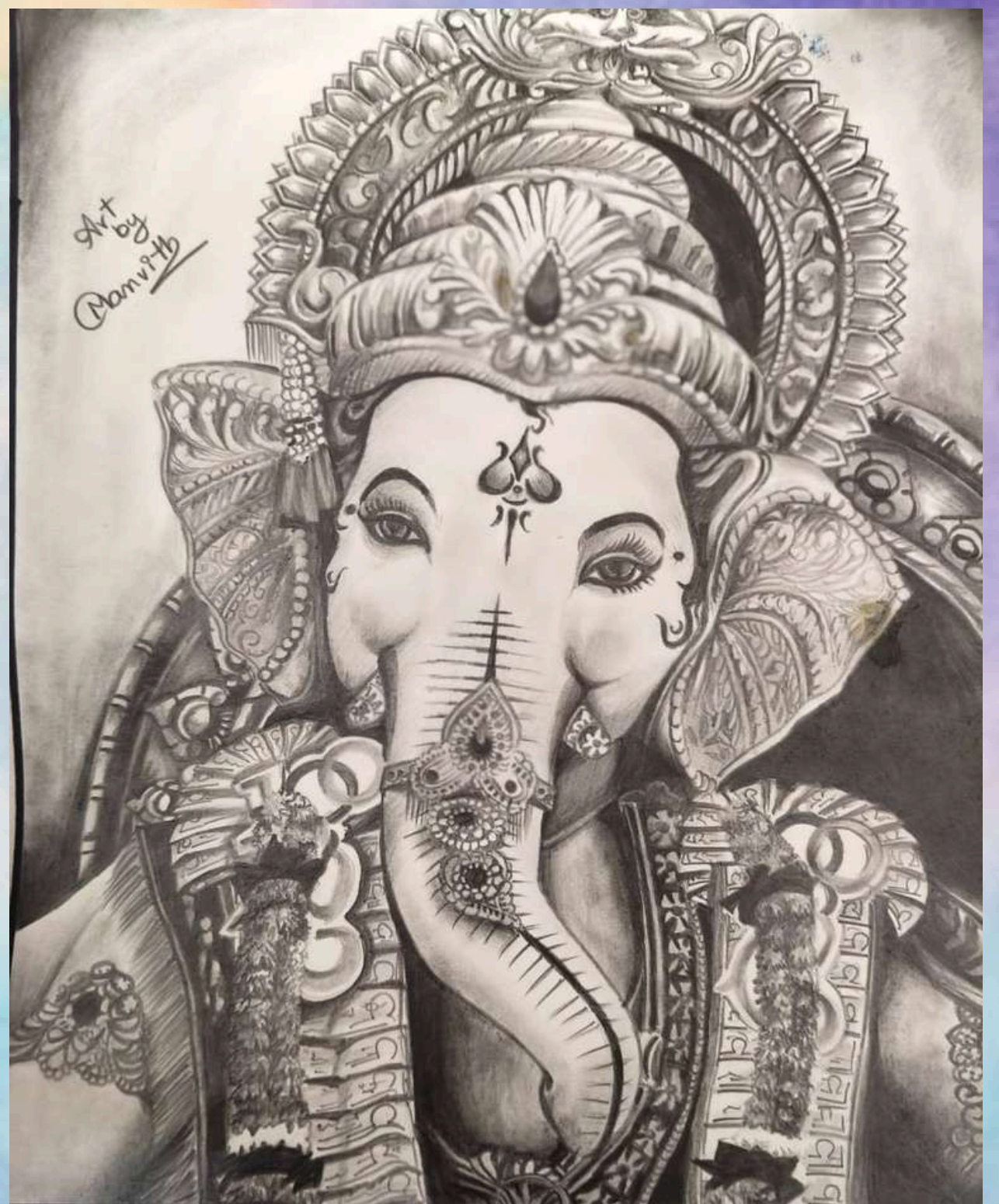
Rushank - 4th year



Rushank - 4th year



Rushank - 4th year

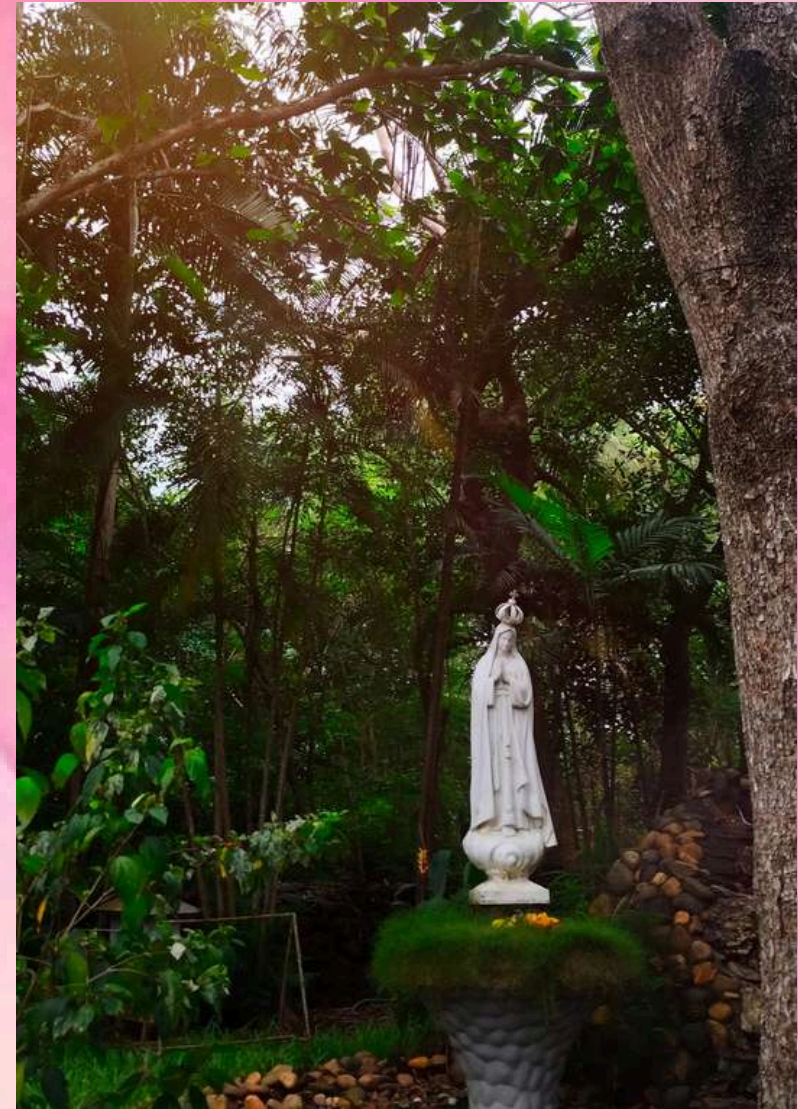


Manvith - 3rd year

 **The Gallery Wall!!!!**



Swastik Bhandarkar- 4th Year



Steven Dsouza- 3rd year



Sumith Sagar- 3rd Year



Varsha Gatty - 3rd year



Riyona Lobo - 3rd year



Sanjana - 3rd year

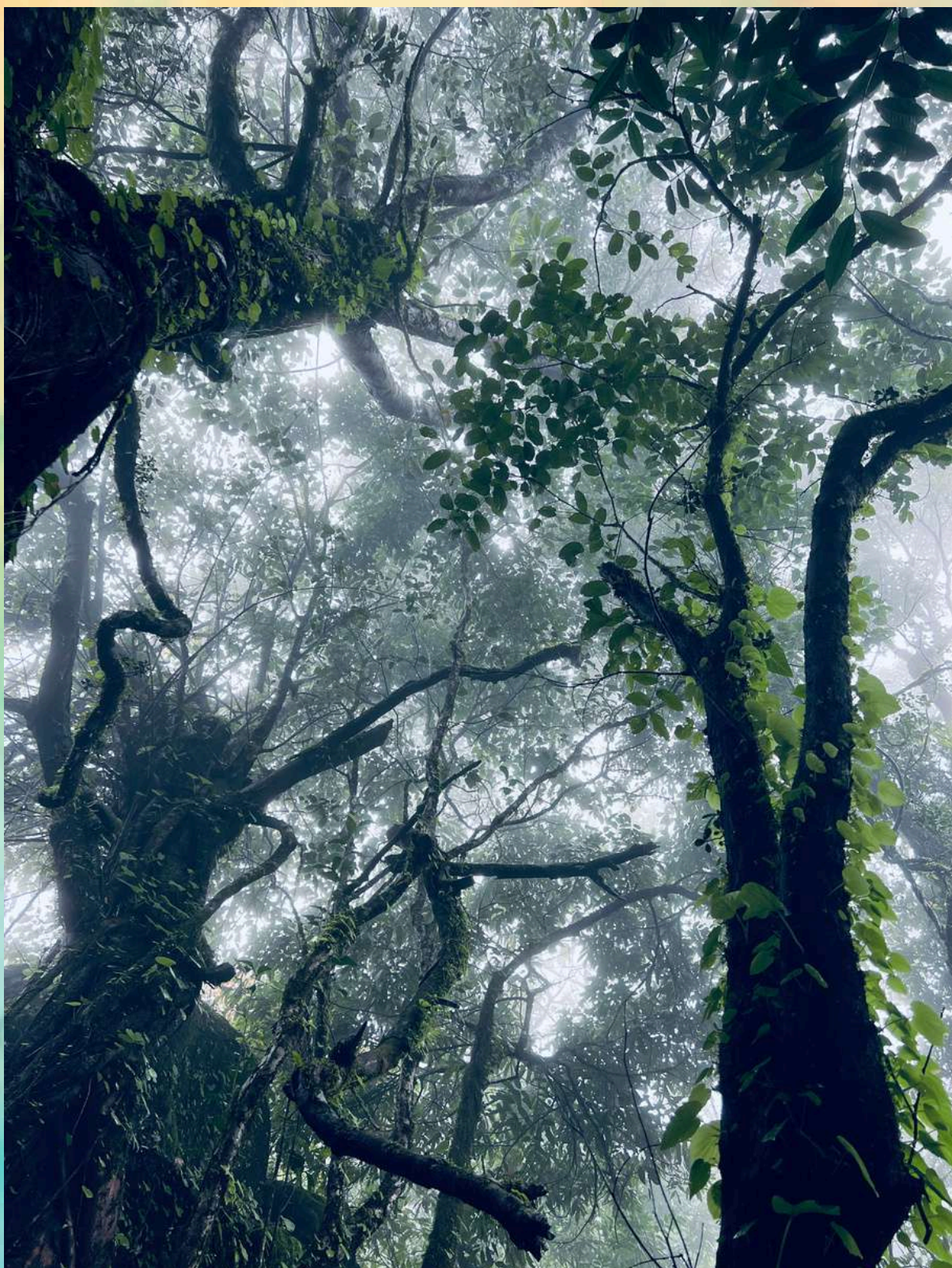
 **The Gallery Wall!!!!**



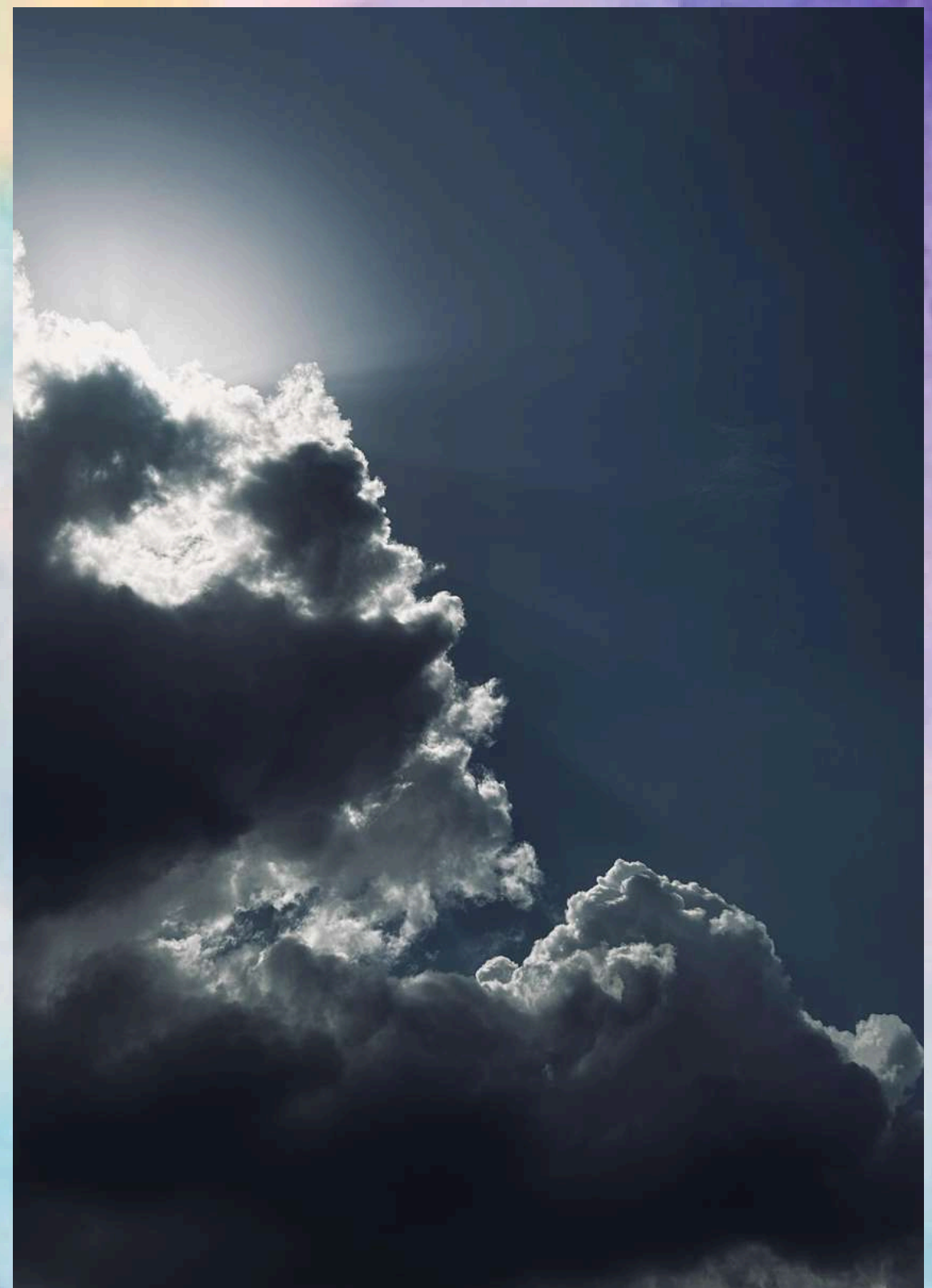
Sumith Sagar - 3rd year



Sumith Sagar - 3rd year

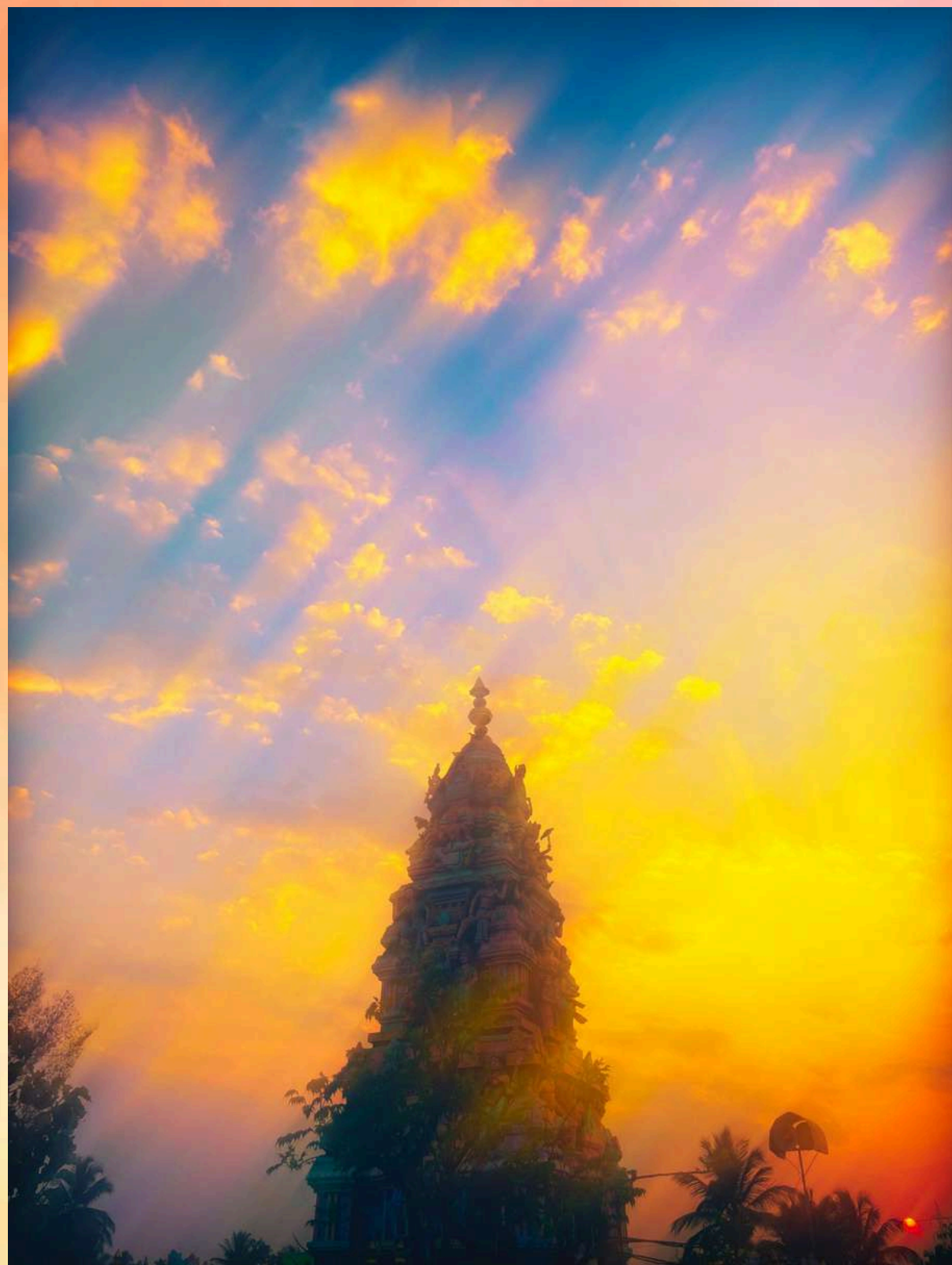


Rushank - 4th year

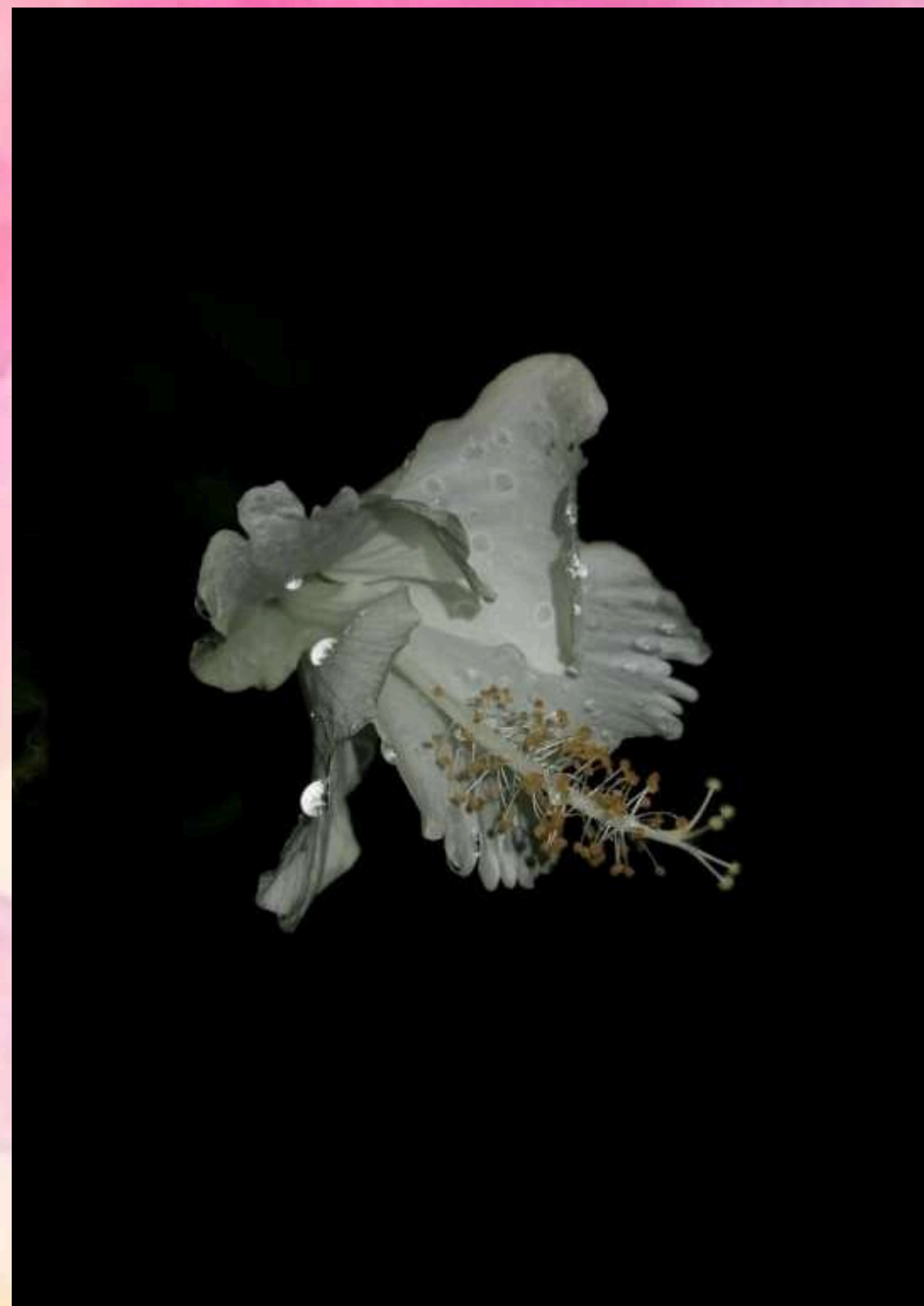


Sumith Sagar - 3rd year

 **The Gallery Wall!!!!**



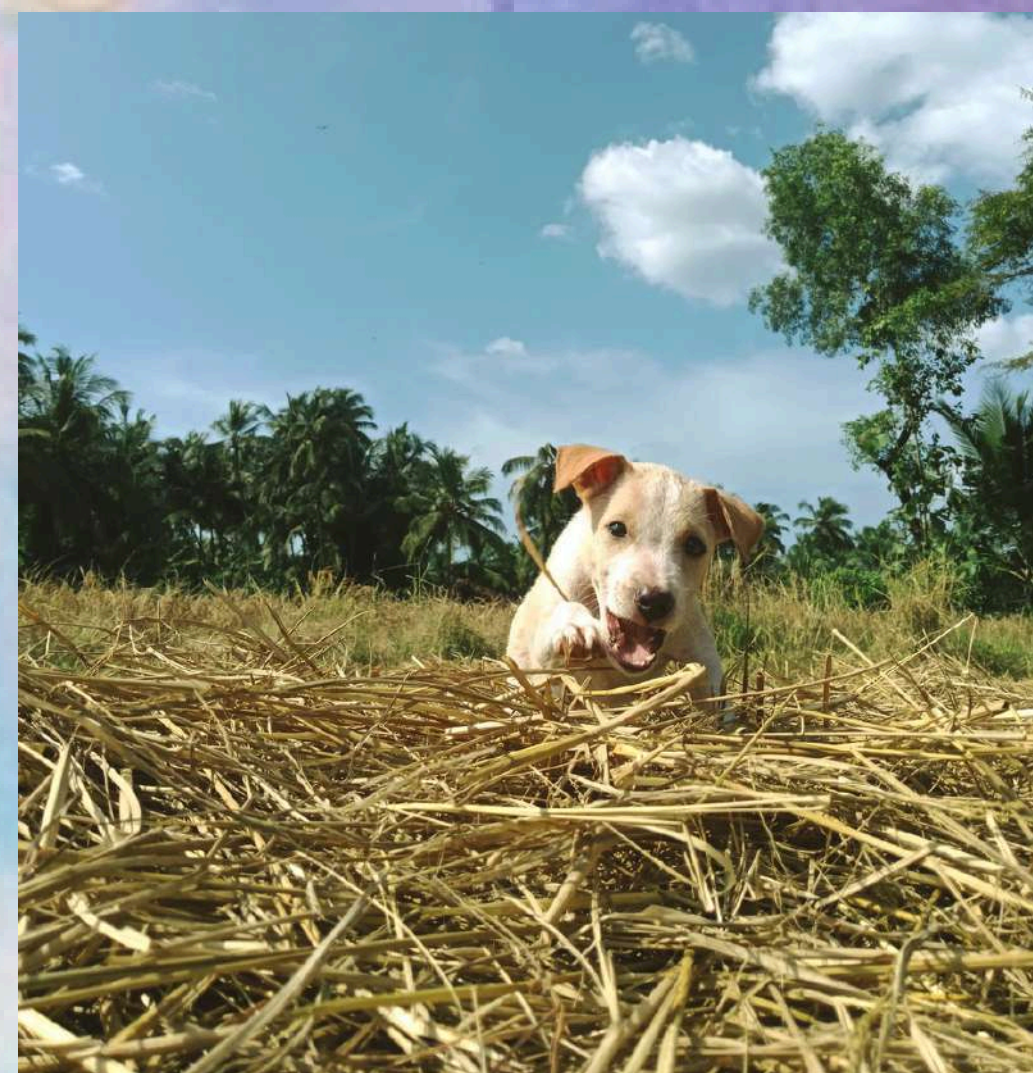
Bhuvanesh - 3rd year



Sanjana - 3rd year



Sumith Sagar - 3rd year



Sanjana - 3rd year

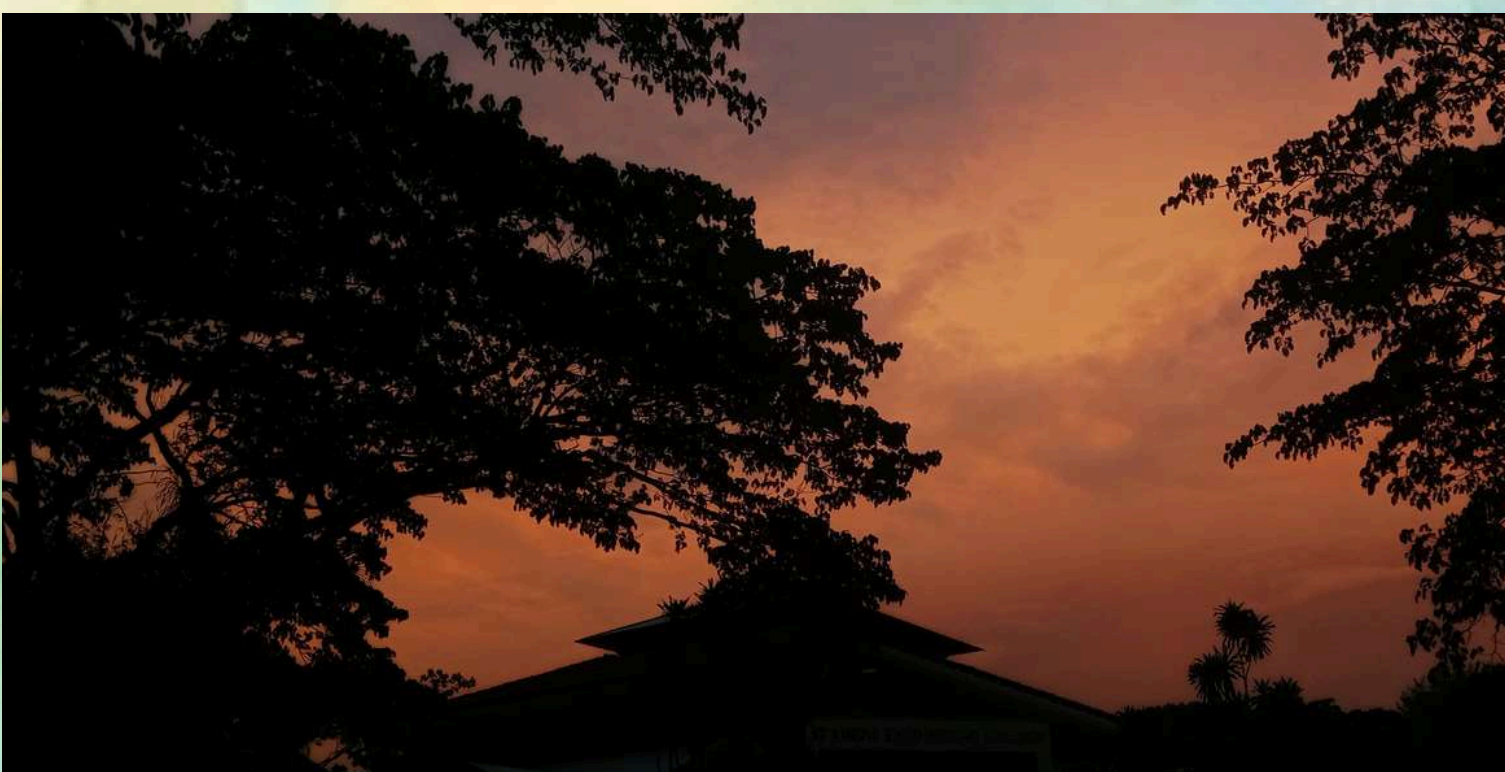
 **The Gallery Wall!!!!**



Sumith Sagar - 3rd year



Sanjana - 3rd year

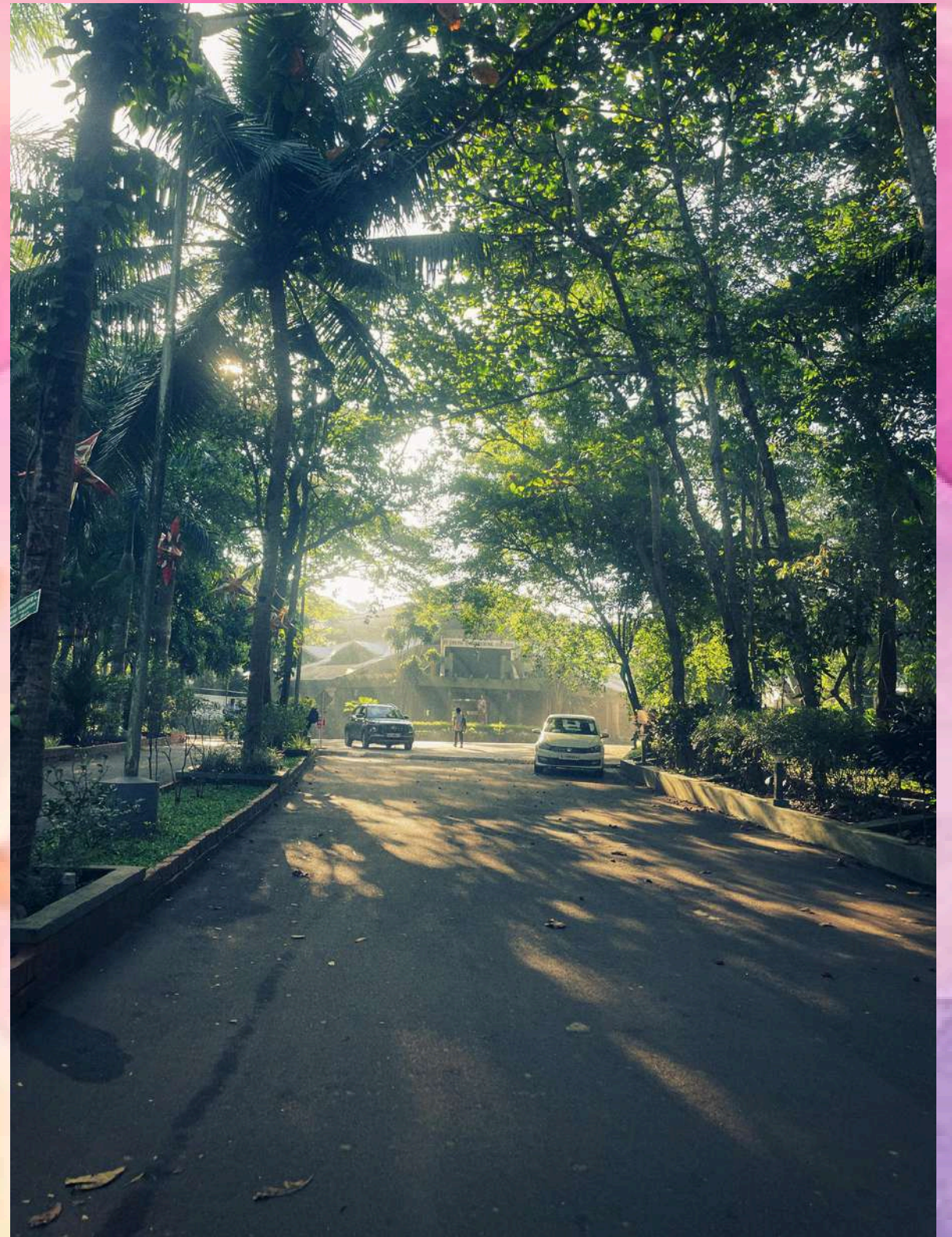


Sumith Sagar - 3rd year



Sanjana - 3rd year

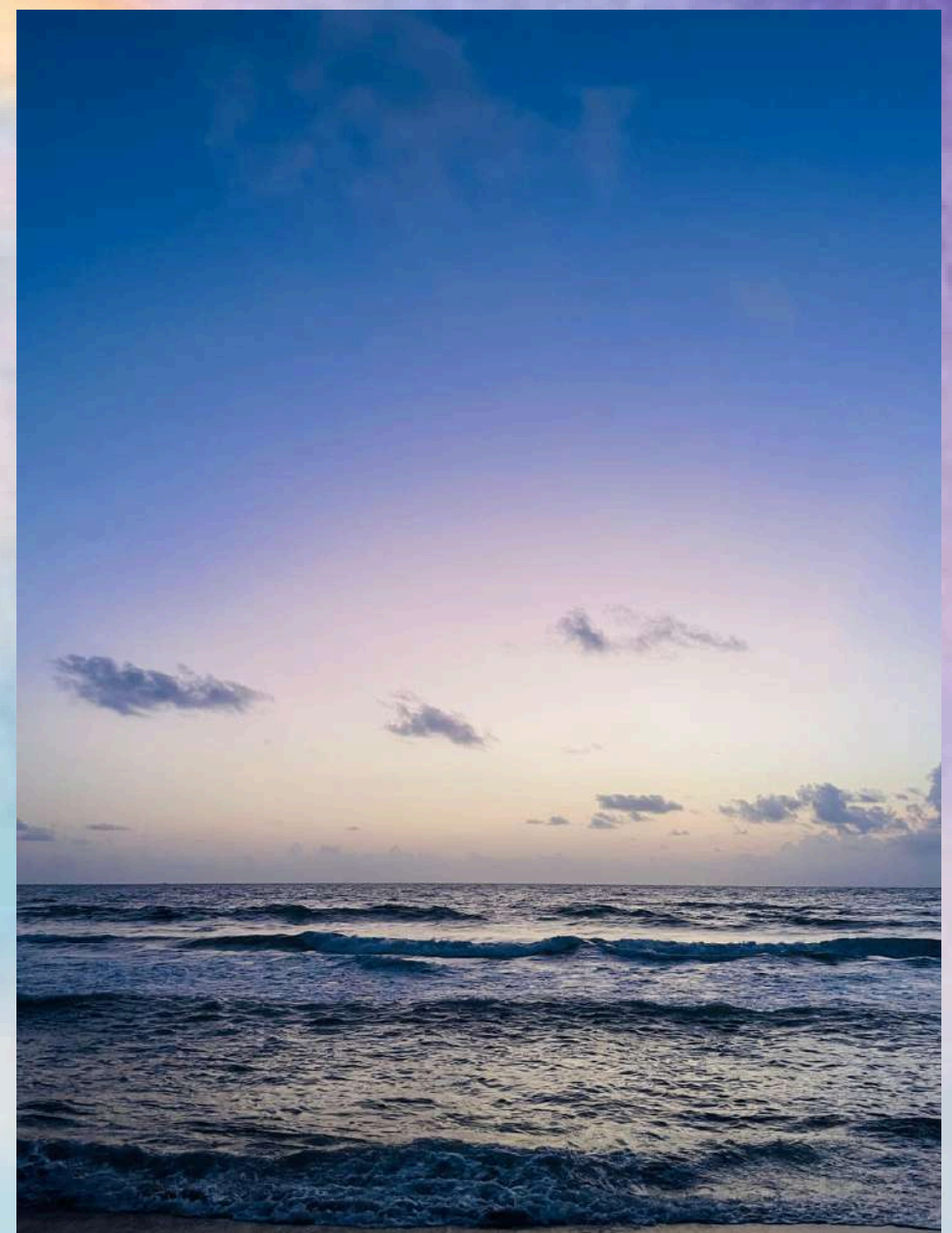
 **The Gallery Wall!!!!**



Bhuvanesh - 3rd year



Sanjana - 3rd year



Bhuvanesh - 3rd year



**ENGINEERING COLLEGE  
MANGALURU**

**OUR VISION**  
Global premier Institution of professional education and research

**OUR MISSION**  
Provide opportunities for students of all communities, the Christian particular, for quality professional education

**Design and deliver**  
innovative, relevant and challenging courses to meet the national and global changing needs through student-centric learning methodologies.

**Attract, nurture and retain**  
best faculty and develop competency

**Consolidate**  
state-of-art infrastructure and equipment for teaching and research activities.

**Promote**  
personal development of the students through group work with alumni, academia and industry.

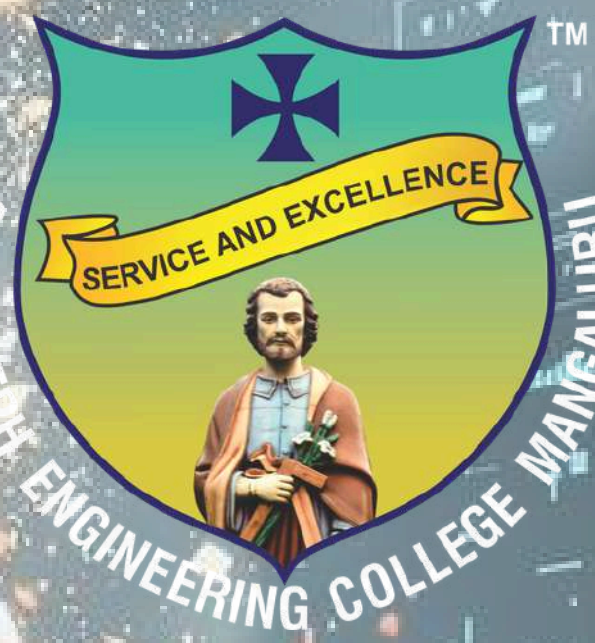
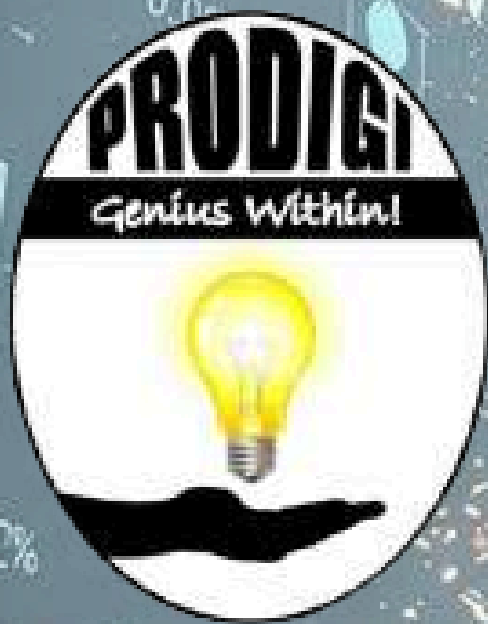
**Strengthen**  
social and environmental responsibilities (ESR) of the Institution

## IV Year ECE - A Section



# IV Year ECE – B Section

# PRODIGI ASSOCIATION



**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 575028, KARNATAKA, INDIA PHONE : +91-824-2868100/2263753/54/55/56  
FAX: 91-824-2263751 E-MAIL : SJEC@SJEC.AC.IN WEBSITE: WWW.SJEC.AC.IN**