# SRI RAMAKRISHNA ENGINEERING COLLEGE

NGGO Colony, Thudiyalur, Coimbatore - 641 022, Tamil Nadu, India

SNR SONS TRUST

# PINNACLE 2026



*Celebrating Excellence, Innovation & Legacy*

# SRI RAMAKRISHNA ENGINEERING COLLEGE

NGGO Colony, Thudiyalur, Coimbatore - 641 022, Tamil Nadu, India

## Vision of the Institute

To become a world-class university excelling in multidisciplinary engineering education through cutting-edge technologies and impactful societal contributions for sustainable development.

## Mission of the Institute

- Provide quality education that builds strong technical, analytical and managerial skills for future professionals.
- Nurture creativity, innovation and research ecosystem for local and global needs
- Foster ethics, leadership, entrepreneurial and life skills for holistic development
- Develop technological solutions that enhance sustainability and societal well-being through collaborations

## UG PROGRAMMES

- B.E. Aeronautical Engineering
- B.E. Biomedical Engineering
- B.E. Civil Engineering
- B.E. Computer Science and Engineering
- B.E. Electrical and Electronics Engineering
- B.E. Electronics and Communication Engineering
- B.E. Electronics and Instrumentation Engineering
- B.E. Mechanical Engineering
- B.E. Robotics and Automation
- B.Tech. Artificial Intelligence and Data Science
- B.Tech. Information Technology
- M.Tech. Computer Science and Engineering (5-year Integrated)

## PG PROGRAMMES

- M.E. Artificial Intelligence and Data Science
- M.E. Embedded System Technologies
- M.E. VLSI Design
- M.Tech. Nano Science and Technology
- M.Tech. Robotics and Artificial Intelligence
- Master of Business Administration

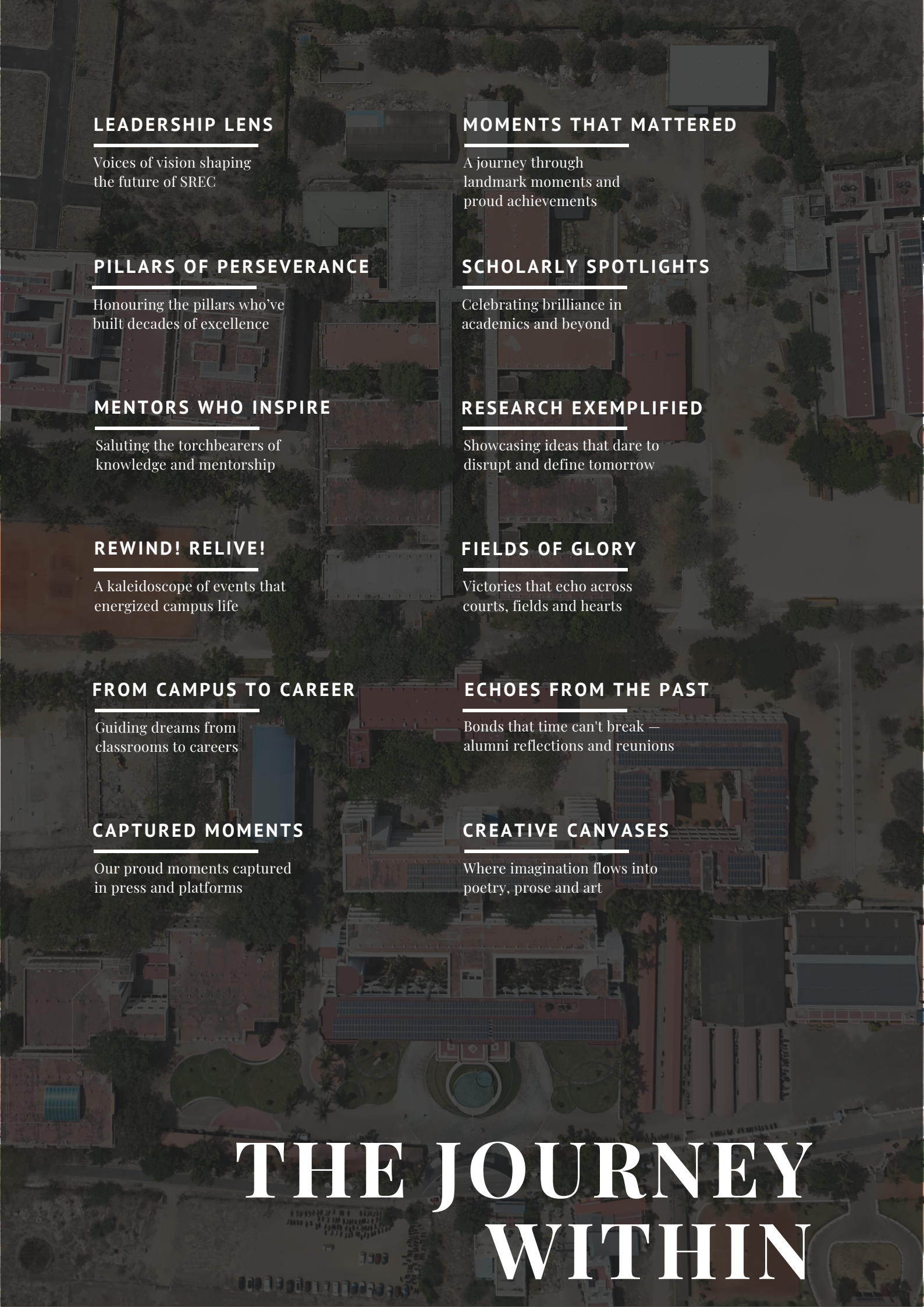
## SPECIALIZATION / MINORS

- Artificial Intelligence and Machine Learning
- Augmented Reality / Virtual Reality
- Cybersecurity
- Data Science
- Drone Technology
- Electric Vehicles
- Green Technology
- Intelligent Systems
- Internet of Things
- Robotics
- Sensor Technology

## CENTRE FOR CONTINUING EDUCATION

- Artificial Intelligence and Machine Learning
- Augmented Reality / Virtual Reality
- Block Chain
- Drone Technology
- Electric Vehicles
- Healthcare
- Quantum Computing

www.srec.ac.in +91 75300 89996 admissions@srec.ac.in sriramakrishnaenggcollege



## LEADERSHIP LENS

Voices of vision shaping the future of SREC

## MOMENTS THAT MATTERED

A journey through landmark moments and proud achievements

## PILLARS OF PERSEVERANCE

Honouring the pillars who've built decades of excellence

## SCHOLARLY SPOTLIGHTS

Celebrating brilliance in academics and beyond

## MENTORS WHO INSPIRE

Saluting the torchbearers of knowledge and mentorship

## RESEARCH EXEMPLIFIED

Showcasing ideas that dare to disrupt and define tomorrow

## REWIND! RELIVE!

A kaleidoscope of events that energized campus life

## FIELDS OF GLORY

Victories that echo across courts, fields and hearts

## FROM CAMPUS TO CAREER

Guiding dreams from classrooms to careers

## ECHOES FROM THE PAST

Bonds that time can't break — alumni reflections and reunions

## CAPTURED MOMENTS

Our proud moments captured in press and platforms

## CREATIVE CANVASES

Where imagination flows into poetry, prose and art

# THE JOURNEY WITHIN

# Leadership Lens

## SNR SONS CHARITABLE TRUST



Dr. R. Sundar

**Managing Trustee**

Sri Ramakrishna Engineering College represents a confluence of innovation, integrity and achievement, setting benchmarks in academic and holistic development. Rooted in this vision, the institution advances with a sustained commitment to excellence, responsibility and transformative progress.

Pinnacle stands as a thoughtful chronicle of this journey. Within these pages are reflected the academic accomplishments, research initiatives, creative pursuits and collective aspirations that shape the SREC community. It is encouraging to see the enthusiasm with which students and faculty contribute their talents and achievements to this publication.

I appreciate the commitment of the editorial team in curating this edition. Let this edition stand as a proud testament to the collective endeavour of the SREC community and a reminder that excellence is achieved through vision, perseverance and purpose.

Institutions grow when ambition is matched by dedication. At Sri Ramakrishna Engineering College, the energy and perseverance of our students and faculty continue to translate vision into achievement.

Pinnacle offers a compelling snapshot of this sustained pursuit of excellence. From academic distinctions and technological innovation to artistic expression and campus initiatives, the magazine captures the many dimensions of life at SREC. It reflects the dynamism of a community that constantly strives to learn, create and excel.

My appreciation to the contributors and the editorial team whose efforts have shaped this edition. May the pages of Pinnacle encourage every member of the SREC fraternity to pursue new ideas with confidence and purpose.



Shri. S. Narendran

**Joint Managing Trustee**

# Leadership Lens

## SRI RAMAKRISHNA ENGINEERING COLLEGE



A thriving academic institution is defined by its achievements as well as the ideas and aspirations that propel it forward. At Sri Ramakrishna Engineering College, the pursuit of excellence continues to shape every endeavour across academics, research, innovation and student engagement.

This edition of Pinnacle offers a meaningful account of our institutional progression. The magazine brings together significant milestones and accomplishments while highlighting the creativity and initiative that animate campus life.

I place on record my appreciation to the editorial team and contributors who have invested their time and talent in producing this publication. Pinnacle 2026 serves as a meaningful record of our collective journey, reflecting the vibrant spirit of SREC while inspiring our students to approach the future with curiosity, integrity and determination.

Dr. A. Soundarrajan

**Principal**



Publications such as Pinnacle give a voice to the intellectual and creative pulse of an institution. Beyond recording events and achievements, they capture the reflections, ideas and artistic expressions that define the identity of a campus community.

This edition brings together diverse perspectives, from literary compositions and artistic creations to accounts of remarkable accomplishments by students and faculty. Each contribution enriches the narrative of SREC and illustrates the many talents that flourish within our academic environment.

I extend my appreciation to every contributor and to the editorial team whose dedication has shaped this publication. Each page reflects the vibrant voices of our campus, reminding us that expression, creativity and communication are essential companions to knowledge.

Dr. Vichitra Sivaji

**Head, Department of English**

# MOMENTS THAT MATTERED




Awarded the “Diamond Rating” in the QS i–Gauge Indian College Rankings.




Recognized as an “Institution of Happiness” (IOH) 2025–26, a prestigious flagship initiative of QS I–GAUGE.



Recognized as the “Most Promising Engineering Institute (National Level)” at the 34th World Education Summit (WES) 2025.



Awarded with “Excellence in Engineering College” in Times Business Awards 2025.




Received the “Engineering Education Excellence Award” in the category of ‘Engineering Institutions/Colleges’ during the IEI Excellence Award 2025, for the 2nd Consecutive Year.




Selected under the “Diamond Category” for the CII Industry Academic Partnership Award 2025 for the 2nd Consecutive Year.




Awarded a 4–star rating by the Institution Innovation Council (IIC) to promote Innovation and Start–up in campus.

SREC's commitment to fostering innovation and hands-on engineering education is reflected in their students' performance across multiple editions of **TECHgium®**. Notably, SREC teams have earned recognition for their practical and forward-thinking solutions, including:

| Finale Year | Position | Concept |
|---|---|---|
| 2017 | Winner | Accessibility of wind turbine generator and other accessory components |
| 2018 | Winner | Articulation mechanism, wide angle viewing for diagnostic hysteroscopy |
| 2021 | Runner Up | Energy Efficient Defrosting method for Evaporator |
| 2023 | Special Jury Award | Autonomous Warehouse Robot |
| 2024 | Runner Up & Esteemed Employee Choice Award | TwinScape Oil Well Monitor<br>Banana Fiber Auto: Sustainable Biodegradable Automotive Components |
| 2025 | Winner | Mini-propelled under water autonomous robot |

Recognized by L&T Technology Services for its outstanding and consistent achievements across multiple editions of TECHgium®.

# MOMENTS THAT MATTERED




TNGSS 2025 Roadshow, in association with StartupTN, featured dignitaries, student innovation displays and the felicitation of MSME Idea Hackathon winners.




Autodesk and ICT Academy
India Design Week – IDW 2026.




SREC UTSAVA, the institution's grand national–level techno–cultural fest: A spectacular celebration of technology and culture.




HR Conclave 2025 at SREC with eminent HR leaders, industry experts and academicians.




SREC in collaboration with ICT Academy, hosted I–QUBE 2025, an Industry–Institute Interface.



36–hour Israel–India Global Innovators Hackathon 2026, in collaboration with Ariel University, Israel and Promitei Ltd., Israel.




SAP Hackfest 2025 at SREC — where innovation met collaboration and technology.




International Conference on Materials and Processing for Sustainable Development: Empowering the Future with smart Technologies (MPSD–EFT 2025).

# MOMENTS THAT MATTERED



IEEE Sponsored First International Conference On Advances in Engineering and Computing Technologies for Sustainable Development (AECTSD) 2025.



Dr. A. Soundarrajan, at Ariel University, Israel, as part of the "Generation Truth – 2nd International Conference on Combating Antisemitism".




Received the Cambridge Excellence Award 2025 for Assessment during the Annual Cooridnators Conference.



Delegates from leading global universities during STEM Tour 2025 at SREC.




Coimbatore Management Association (CMA) Bridge Concllave 2026.



Our Principal, Deans and HoDs at the School of Design Thinking, Chennai, for an enriching session on innovation and design thinking.




Young innovators presenting creative solutions at IDEA–A–THON 3.0 hosted by SREC–CoIN MoE–IIC.




Innovative solution titled "Development of IoT–Based System for Human–Elephant Conflict" was deployed at Thekkupalayam Village, as part of the Unnat Bharat Abhiyan (UBA) project.

# MOMENTS THAT MATTERED




25 representatives from Aerial University, Israel and SREC participated in the Joint Online Research Workshop.



Principal, Deans and HoDs during their visit to TANCAM, exploring advanced manufacturing and industry–ready innovations.




MoU with Pi Square Technologies India Pvt. Ltd. (PSTI) and QNX (a division of BlackBerry Limited, Canada).




MoU with the Coimbatore Productivity Council (CPC).



The Juniper AI–Driven Campus – Center of Excellence was inaugurated at SREC by eminent dignitaries, marking a significant milestone in advancing AI–powered learning and industry–aligned innovation.




MoU with Hirotec India Private Limited, Coimbatore, to establish the Hirotec–SREC Robotics and Automation Training Cell under the CSR initiative.



MoU with SKYX AEROSPACE PRIVATE LIMITED, Coimbatore, to establish the SREC–SKYX Centre of Exceleence – Drone Lab.



MoU with Blue Equator Leadership, Innovation and Entrepreneurship Foundation (BELIEF) to collaboratively foster innovation, leadership and entrepreneurial excellence.

# MOMENTS THAT MATTERED



MoU with Bentley Systems, Incorporated for strengthening academia–industry collaboration.



MoU with Auger Engineers, Chennai to strengthen industry–academia collaboration for the Specialization course in Green Building Technology.



MoU with Maxbyte Technologies at the inauguration of the SREC–Maxbyte
Centre for Industry 4.0 Transformation.



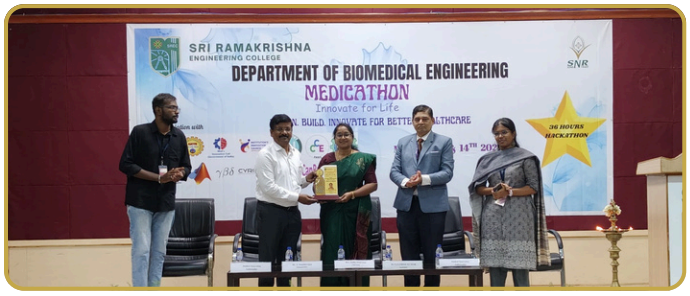
AICTE–sponsored ATAL FDP on “The New Age of Quantum Computing”.




MoU with National Chung Cheng University (CCU), Taiwan.



MOU with Zeonics Systech Defence & Aerospace Engineers Pvt Ltd.




A 36–hour innovation sprint, “Medicathon” inspired participants to transform ideas into impactful healthcare solutions.



MoU with TGPS and Green Carpet Foundation.

# PILLARS OF PERSEVERANCE

25 YEARS OF EXEMPLARY SELFLESS SERVICE @SREC




**Dr. A. Murugarajan**
Professor & Head
Robotics & Automation

**Dr. E. Sarojini**
Professor & Head
Civil Engineering

**Dr. M. Kalaiarasu**
Professor
Information Technology

**Dr. M. RM. Krishnappa**
Associate Professor
Physics

**Dr. R. Santhi**
Associate Professor
Mathematics

**Mr. A. Mohandass**
Senior Instructor / EEE

**Mr. K.Viswanathan**
Attender / IT

# Ph.D AWARDED



**Dr. D. Vivek**
Assistant Professor (Senior Grade), Civil



**Dr. B. Kalaimathi**
Assistant Professor (Senior Grade) / ECE



**Dr. J. Jayashree**
Assistant Professor (Selection Grade), Civil



**Dr. R. Santhosh Kumar**
Assistant Professor (Senior Grade) / EEE



**Dr. T. Anitha**
Assistant Professor (Selection Grade) / EIE



**Dr. L. Dhiviyalakshmi**
Assistant Professor (Selection Grade) / BME



**Dr. S. Rangeetha**
Assistant Professor (Selection Grade) / ECE



**Dr. R. Rajesh Kumar**
Assistant Professor (Selection Grade) / MBA



**Dr. R. Saravanan**
Assistant Professor (Senior Grade) / MBA



**Dr. L. Manojkannan**
Assistant Librarian



**Dr. G. Hemalatha**
Assistant Professor (Senior Grade) / R&A

# SCHOLARLY SPOTLIGHTS











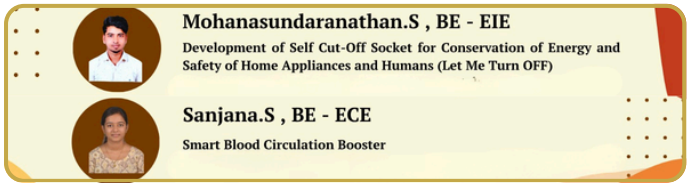






## MSME Idea Hackathon 4.0 – Winners – ₹75,00,000

SREC as a host institute received SEED Fund of Rs. 75 Lakhs for the 5 ideas under the theme Frontier Technologies.




## MSME Idea Hackathon 5.0 – Winners – ₹15,00,000

The team from the III year M.Tech CSE, comprising Abhiraami S P (Incubatee) and Jayasree A, secured funding of Rs. 15 Lakhs in the MSME Idea Hackathon 5.0 for their innovative idea titled “Predictive Food Safety Monitoring Using Smart Sensors.” The team was mentored by Mrs. Thenmozhi T, AP / M.Tech CSE.

## TECHgium® 2025 – Gold Award – ₹10,00,000

The team from the Department of R&A, comprising Apoorva S. M., Bharathwaj M., Kabilan V. and Pradeep K., secured the Gold Award and a Cash Prize of Rs. 10,00,000/- at the 8th Edition of TECHgium® 2025, for the project titled “Mini-Propelled Underwater Autonomous Robot”.

## TNWISE 2026 – First Prize – ₹1,00,000

The team from the III year Department of Biomedical Engineering, comprising Sania Thahir, Ramziyya Banu A and Tharani D, secured First Prize and a Cash Award of Rs. 50,000/- at TNWISE 2026, conducted by TANCAM at Kumaraguru College of Technology.

## National-Level Go-kart Design Challenge (GKDC) Season 13 – Overall Runner-up – ₹30,000

Team KNIGHTS from the Department of Mechanical Engineering secured the Overall Runner-up Position and a Cash Award of Rs.30,000/- at the National-Level Go-kart Design Challenge (GKDC) Season 13, organized by ISNEE Motorsports at Kari Motor Speedway, Coimbatore, during 20–24 February 2026.

## National Level Electric Bike Design Challenge (EBDC 2025) – Overall Second Runner-up – ₹16,000

Team PEGASUS from the Department of Mechanical secured the Overall Second Runner-up Position and a Cash Award of Rs.16,000/- at the National Level Electric Bike Design Challenge (EBDC 2025) Season 5.0, organized by Mechatron Motors Pvt. Ltd. at SRIT, Coimbatore, during 23.09.2025 to 26.09.2025.

# SCHOLARLY SPOTLIGHTS

### Industry Connect Hackathon 2026 – First Prize – ₹30,000

Team STARK-X from the II year M.Tech CSE, comprising Ashwin R, Sujeeth S, Shyam Vignesh K and Sivaguru S, secured First Prize and a Cash Award of Rs. 30,000/- at the Industry Connect Hackathon 2026, conducted by Kumaraguru College of Technology, mentored by Mrs. Mahalakshmi, AP/M.Tech CSE and also received an internship offer from SLB Company.




### Industry Connect Hackathon 2026 – Prize Winner – ₹10,000

Team Circuit Minds from the I year ECE, comprising Adhithya K, Deepana D and Joshua S, secured a Cash Award of Rs. 10,000/- at the Industry Connect Hackathon 2026, conducted by Kumaraguru College of Technology and received an internship offer from JANATICS Company.



### Industrial Innovation Hackathon – Winner – ₹10,000

The team from the II Year EIE, Manikandan C, Dhanayakumar S, Nithin Surya S, Vignesh Kumar G and Dhayaan B, secured the Winner Position and Cash Award of Rs. 10,000/- in the EV and Battery Analysis theme at the Industrial Innovation Hackathon, conducted by Sathyabama Institute of Science and Technology (SIST), mentored Dr. V. Rukkumani, ASP / EIE




### THIRAN 2026 – Second Runner-Up – ₹20,000

The team from the II Year B.Tech AI&DS, comprising Vathanya U, Dharaneesh S, Elavarasi V, Divya Dharshini B and Shanmugapriya M, secured the Second Runner-Up Position and a Cash Award of Rs.20,000/- at THIRAN 2026, conducted by Sri Eshwar College of Engineering, Coimbatore, for their project titled "Ethixlogistic AI.", mentored by Mrs. P. Kavitha, AP (Sr. Gr) / AI & DS.




### SREC Innovate 2K26 (Software Edition) – Winner – ₹10,000

The team from the III year Department of Biomedical Engineering, comprising Shanjay Kumar K G, Sivaneshakumar K S, Thejas Mecklinz and Vaishre A, secured the Winner Position and a Cash Award of Rs.10,000/- at SREC Innovate 2K26 (Software Edition).




### TANCAM Hackathon – TNWISE 2026 – ₹10,000

The team from the II year Department of Computer Science and Engineering, comprising Amirtha Varshini S, Bhavna S and Dhanishkaa D, secured IV Place and a Cash Award of Rs.10,000/- at TANCAM's Hackathon - TNWISE 2026, held at Kumaraguru College of Technology on 12.03.2026, under the guidance of Mr. G. Narendran.



# SCHOLARLY SPOTLIGHTS

### SREC Innovate 2K26 (Hardware) – First Prize – ₹10,000

The team from the II year Department of Computer Science and Engineering, comprising Amirtha Varshini S, Bhavna S and Dhanishkaa D, secured First Prize and a Cash Award of Rs.10,000/- at SREC Innovate 2K26 (Hardware), held on 17.03.2026, under the guidance of Mr. G. Narendran.




### PEGASUS 4.0 – Second Prize – ₹10,000

The team from the II year Department of Electronics and Instrumentation Engineering, comprising Aatheesh S, Vijayabharathi N, Manishankar M and Praveen Kumar P, secured Second Prize and a Cash Award of Rs.10,000/- at PEGASUS 4.0, a 24-hour hackathon organized by the IEEE Student Branch, MITS.



### Anokha 24 Hours Hackathon – First Place

II Year students Amirta Varshini S, Ajay I and Ashwin S from the Department of CSE, secured the First Place in the Anokha 24 Hours Hackathon held at Amrita Vishwa Vidyapeetham, Coimbatore from 07th January to 08th January.



### Bharat Nav-Nirmaan Challenge – Regional Finale – Second Runner-Up – Online Course worth ₹19,999

The team from the III Year Civil, comprising R. Akash Dharsan, R. Keerthiram and V. P. Sanjay Krishna, secured the 2nd Runner-Up Position at the Bharat Nav-Nirmaan Challenge - Regional Finale, held at NICMAR University of Construction Studies, Hyderabad under the mentorship of Mrs. J. Jayashree, AP (Sr.G) / Civil.




### IIT Madras – BS in Electronic Systems

Mr. Sivapriyan (II Year, B. E. Electronics and Instrumentation Engineering) successfully completed the BS in Electronic Systems from IIT Madras, showcasing exceptional academic excellence and a strong commitment to continuous learning.




### Israel India Global Innovators Hackathon 2026 – Winners

The team from II Year Aero emerged as Champions (Diversify Innovations) at the prestigious Israel-India Global Innovators Hackathon 2026, jointly organized in collaboration with Ariel University, Israel and SREC. Team members are Aakash K C, Shanjay G K, Veera Akash R, Chinmayi A, Sandeep K and Charan G, under the mentorship of Mr. Velmurugan R, AP/Aero worked on the project titled “Smart Onion Vault”



# SCHOLARLY SPOTLIGHTS




## GATE Toppers 2026 – Biomedical Engineering

The Department of Biomedical Engineering proudly celebrates its GATE 2026 achievers – Sudharshana K, Sivaneshakumar K S, Jagadheeswari B V, Hurshini N, Karishma Diana, Vaisre A, Shobiga Shree S S, Sureka S, Dharshini S, Pavithra Shri V, Dharshini K, Shaliya S and Dhanusri – for securing remarkable All India Ranks and bringing laurels to the institution through their academic excellence and dedication.

GATE 2026
IIT GUWAHATI



## RIVALS 2026 – Overall Runners

SAESREC Off-Road Retrofit Bike Team – SIGMA HOOLIGANS 100 from the Department of Mechanical Engineering proudly secured the Overall Runner-Up Trophy at RIVALS 2026, showcasing exceptional engineering skill, innovation and racing performance among 20 competing teams.




## Dr. Kalam Young Achiever Award 2025

Suraj H (III Year, B. E. Electronics and Instrumentation Engineering) and Naveen Kumar (III Year, B. E. Mechanical Engineering) were recognized among the Top 25 students across India and were honoured with the prestigious Dr. Kalam Young Achiever Award 2025.




## SAE INDIA – Dr. G. Padmanabham Memorial Electric Two Wheeler Design Competition 2026 – Best Innovation

Team PEGASUS, comprising students from the Departments of Mechanical Engineering and Electronics & Communication Engineering, secured the Best Innovation Award at the Dr. G. Padmanabham Memorial Electric Two Wheeler Design Competition 2026.



## Pride of SREC at Rajpath

SGT Ayush R of II Year Aeronautical Engineering brought laurels to SREC by representing the TN, Puducherry & Andaman-Nicobar Directorate at RDC 2026, winning two Gold Medals, securing top zonal honours and earning the DG Commendation, besides being selected for the prestigious NCC Youth Exchange Programme.

# MENTORS WHO INSPIRE

### Dr. M. Jagadeeswari



Professor and Head/ ECE

Certification for Peer Review: WSEAS Transactions on Systems



### Dr. S. Jayanthy

Professor/ ECE & Dean Academics

Appreciation for Review Contributions to IEEE Conference - 6th IEEE INDISCON held at NIT Rourkela



### Dr. C. S. Manikandababu

Associate Professor/ECE

Best Presentation Award, Confederation of Industry (CII) for improving institution ranking in NIRF

### Dr. S. Allirani

Professor and Head /EEE

Received Certificate of Appreciation as FLAME mentor



### Mrs. S. Kayalvizhi

Assistant Professor(Sr.G)/EIE

Best Paper Award, International Conference Universiti Teknologi MARA, Malaysia





### Dr. S. Sathish

Assistant Professor/ Mech

"Dr.Kalam Best Mentor award", Youth Federation of India, Chennai



### Dr. R. Krishnakumar

Assistant Professor/EEE

Best Presentation Award, Confederation of Industry (CII) for improving institution ranking in NIRF

### Dr. K. Balamurugan

Associate Professor /EEE

"Award of Excellence in Research" from Novel Research Academy, Puducherry



### Dr. R. Kingsy Grace

Professor/ CSE

Completed the IUCEE International Educators Certification (IIECP) sponsored by MulticoreWare.





### Dr. P. Chandramohan

Professor and Head/ Aero

Best Teacher Award,
The Aeronautical society of India (AESI).



### Dr. R. Madhumathi

Associate Professor/ CSE

Selected for the AICTE Industry Fellowship 2025 - Dr. Girish Chandra, Chief Scientist (Research), TCS, Bengaluru

### Lt. Dr. M. Ramesh

Assistant Professor (Sl. Gr)/ Mech

Best NCC officer 2025 award from Commanding Officer Lt Col Deepak, 2(TN) Artillery Battery NCC unit', Coimbatore Group



### Mr. K. Robin Johny

Assistant Professor P (Sr. G) / Aero

Certificate of Recognition from The Aeronautical Society of India (AeSI), Chennai Branch.





### Mr. B. Marisekar

Assistant Professor (Sr.G)/EEE

Best Youth Red Cross Programme Officer Award, Indian Red Cross Society.



### Mrs. M. Priyadharshini

Assistant Professor/ ECE

Appreciation for reviewer in International Journal of circuit Theory and applications, John Wiley & Sons, Inc, USA

### Mr. M. Selvaganesh

Assistant Professsor/ ECE

Appreciation for Review Contributions to IEEE Conference - 6th IEEE INDISCON held at NIT Rourkela



# MENTORS WHO INSPIRE

## Mrs. A. Reethika



Assistant Professor /ECE

Best Paper Award, EITES 2025 Conference at SCIT, Pune, India

## Dr. S. Hema



Associate Professor /Civil

First Prize - Blue Leap Waterpreneur Studio Start-up Event, SREC SPARK

## Dr. M. Blessy Doe



Assistant Professor/ MBA

Women's Icon Award for being a Future-Ready Educator in Management Studies, International Women's Day

## Dr. K. Sukkiramathi

Assistant Professor (Sl.G)/ Maths

Best Science Faculty Award , Madras Journal series



## Mr. P. Jayaprakash



Assistant Professor (Sl.G)/ Maths

"Long Service Award" from Indian Red Cross Society
Qualified in the Tamil Nadu State Eligibility Test

## Dr. S. Sowmiya



Assistant Professor/Maths

Completed 'Train the Trainers' in Python Programming, with an outstanding score of 97

## Dr. N. Gopalakrishnan



Assistant Professor (Sr.G) / Maths

Certificate of appreciation for organising "Road Safety Awareness Events" in Coimbatore

## Dr. R. Pandeeswari



Assistant Professor (Sr.G), Nano

- "Panuval Ratna – 2026" , Vaagai Tamil Sangam, Namakkal, Tamil Nadu, Honored with this award for three consecutive years
- Kavi Chemmal Award – 2025" from Vaagai Tamil Sangam, Namakkal
- published the story சிற்றினம் சேராமை, குறளறம்

## Dr. C. Praveenkumar

Assistant Professor P (Sl. Gr)/EEE & Placement in-Charge



- Dr. Sarvepalli Radhakrishnan Best Professor Award 2025, International Centre for Professional Studies & Cultural Exchange, India (ICPSCE)
- "Professor of Glory Award for Outstanding Industry-Academia Collaboration" 34th World Education Summit (WES) 2025.

NPTEL
National Programmes on Technology Enhanced Learning

## Dr. P. Karuppuswamy



Professor & Head / Mech

**Elite + Silver topper**

## Dr. S. Jayanthy



Professor/ ECE & Dean Academics

**Elite topper**

# MENTORS WHO INSPIRE

NPTEL
National Programmes on Technology Enhanced Learning



**Dr. N. Gunasekar**
Associate Professor/ Mech
**Elite + Silver topper**

**Dr. T. Velmurugan**
Associate Professor/ Mech
**Elite + Gold topper**



**Mrs. M. Jaishree**
Assistant Professor (Sl.Gr) / ECE
**Elite + Silver topper**





**Mr. P. Mohanraj**
Assistant Professor (Sr. Gr)/ ECE
**'Discipline star'**



**Mr. Rajasekar T**
Assistant Professor (Sr. Gr) / ECE
**'Motivated Learner'**

**Dr. Rukkumani V**
Associate Professor / EIE
**'Motivated Learner'**



**Dr. Saveetha V**
Assistant Professors / CSE
**Topper**





**Mr. Suresh Kumar S**
Assistant Professors / CSE
**Topper**



**Dr. Kingsy Grace R**
Professor/ CSE
**'Motivated Learner'**

**Mr. Krishna Kumar V**
Assistant Professor/CSE
**'Discipline Star'**



**Dr. Radhika V**
Associate Professor/ BME
**Elite+ Gold topper**





**Dr.Shilpa Joy**
Assistant Professor (Sr.G)/ BME
**Elite+ Gold topper**



**Dr. A. Mahalakshmi**
Assistant Professor/ BME
**Elite+ Silver topper**

**Dr. Deepa B Prabhu**
Associate Professor/ BME
**Elite + Silver topper**



# MENTORS WHO INSPIRE

NPTEL
National Programmes on Technology Enhanced Learning



**Dr. R. Saranya**
Assistant Professor, Sl. Gr/ BME
**Elite topper**

**Mrs. G. Lavanya**
Assistant Professor, Sl. Gr/ BME
**Elite topper**



**Mr. P. Jayaprakash**
Assistant Professor / Maths
**Elite + gold topper**





**Dr. N. Indumathi**
Assistant Professor/ Maths
**"Discipline Star"**



**Dr. M. RM. Krishnappa**
Associate Professor / Physics
**Elite**

**Dr. S. Deivanayaki**
Associate Professor/Physics
**Silver topper**



**Dr. M. Chitra**
Assistant Professor (Sl. G) / Physics
**Elite topper**





**Dr. R. Vasanthapriya**
Assistant Professor (Sl. G) / Physics
**Elite topper**



**Ms. D. Sudha**
Assistant Professor (Sr. G) / Physics
**Elite topper**

**Dr. A. Leggins**
Assistant Professor (Sr. G)/ Physics
**Silver topper**



**Mr. K. Robin Johny**
Assistant Professor (Sr. G) / Aero
**Elite + Silver**





**Dr. P. Chandramohan**
Professor & Head / Aero
**Topper**



**Mr. V. Siva**
Assistant Professor (Sr.G) / Aero
**Elite + Silver**
**Discipline Star**

**Mrs. R. S. Ramya**
Assistant Professor (Sl. G)/ M.Tech CSE
**Discipline Star**



# RESEARCH EXEMPLIFIED

## SPECIALIZATIONS AND MINORS

- Artificial Intelligence and Machine Learning
- Data Science
- Drone Technology
- Green Technology
- Internet of Things
- Sensor Technology
- Cybersecurity
- Digital Manufacturing
- Electric Vehicles
- Intelligent Systems
- Robotics
- Virtual & Augmented Reality

## COLLABORATING AND PARTICIPATING INDUSTRIES

Hemex Health, IAMPL, Mahindra Rise, slb, ASDC, amtdc, Craftsman Automation, L&T Technology Services, mta mahindra technical academy, Healthcare Technology Innovation Centre, GRIHA, Zeuron.ai, Garuda aerospace, Auger Engineers, BOOTLABS, REVEALER, wipro PARI, rbg.ai

## GOVERNMENT FUNDED RESEARCH & INDUSTRY CONSULTANCY

AICTE, Department of Science and Technology, Ministry of Science and Technology, Government of India, DRDO, MSME सूक्ष्म, लघु एवं मध्यम उद्यम MICRO, SMALL & MEDIUM ENTERPRISES, iNSERB DIA, CSIR भारत का नवाचार इंजन, TNSCST, Tamil Nadu Skill Development Corporation

उन्नत भारत अभियान UNNAT BHARAT ABHIYAN, slb, KSPG Automotive, ROOTS ADDING VALUE, HIROTEC, SEYON, GE, QuantumNique

- **INR 378.918 Lakhs** has been received as funding from various Government funding agencies like AICTE, DST, DRDO, MSME, SERB, CSIR, TNSCST, TNSDC, UBA.
- **INR 151.856 Lakhs** funding has been received through various consultancy funding from various Industries

## SREC'S CONTRIBUTION TO RESEARCH LITERATURE

**551**
SCOPUS INDEXED PUBLICATIONS

**187**
WEB OF SCIENCE PUBLICATIONS




**48**
h - INDEX

**20,766+**
CUMULATIVE CITATIONS

# REWIND! RELIVE!


















































# REWIND! RELIVE!















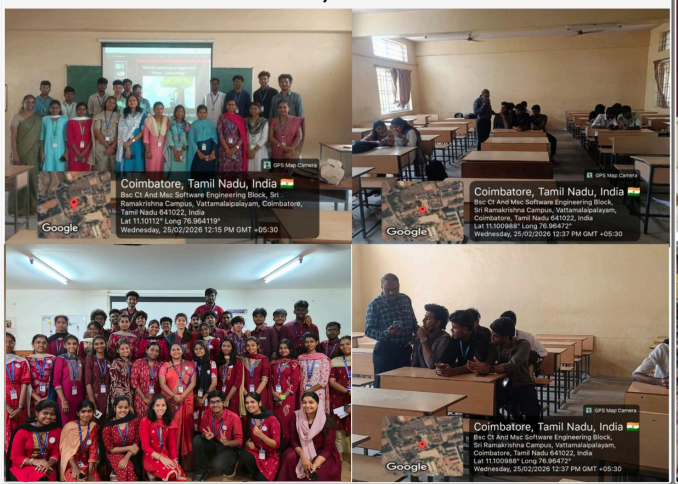





National Science Day 26 – Load Craft



National Science Day 26 – SciMemes and SciReels







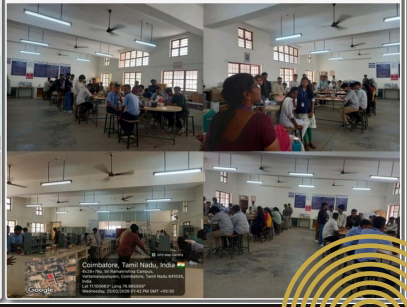








National Science Day 26 – DeconstructX





# REWIND! RELIVE!







































# FIELDS OF GLORY

52

95

68



# FROM CAMPUS TO CAREER

**580+**
TOTAL OFFERS

**24 LPA**
MAXIMUM SALARY

**200+**
TOTAL COMPANIES




**25+**
NO. OF INCUBATEES

# ECHOES FROM THE PAST

The **SREC Alumni Association** boasts a strong network of over 23,000 graduates across multiple chapters. They actively support current students through guest lectures, mock placement drives, scholarships and career guidance. By facilitating internships and alumni-student interactions, the association bridges the gap between academia and industry, empowering the next generation of SREC professionals.




ALUMNI WEEK SERIES '25




INDUCTION PROGRAM



PARENT CHAPTER & AGM




RISING ALUMNI NEXUS '25




15th YEAR REUNION



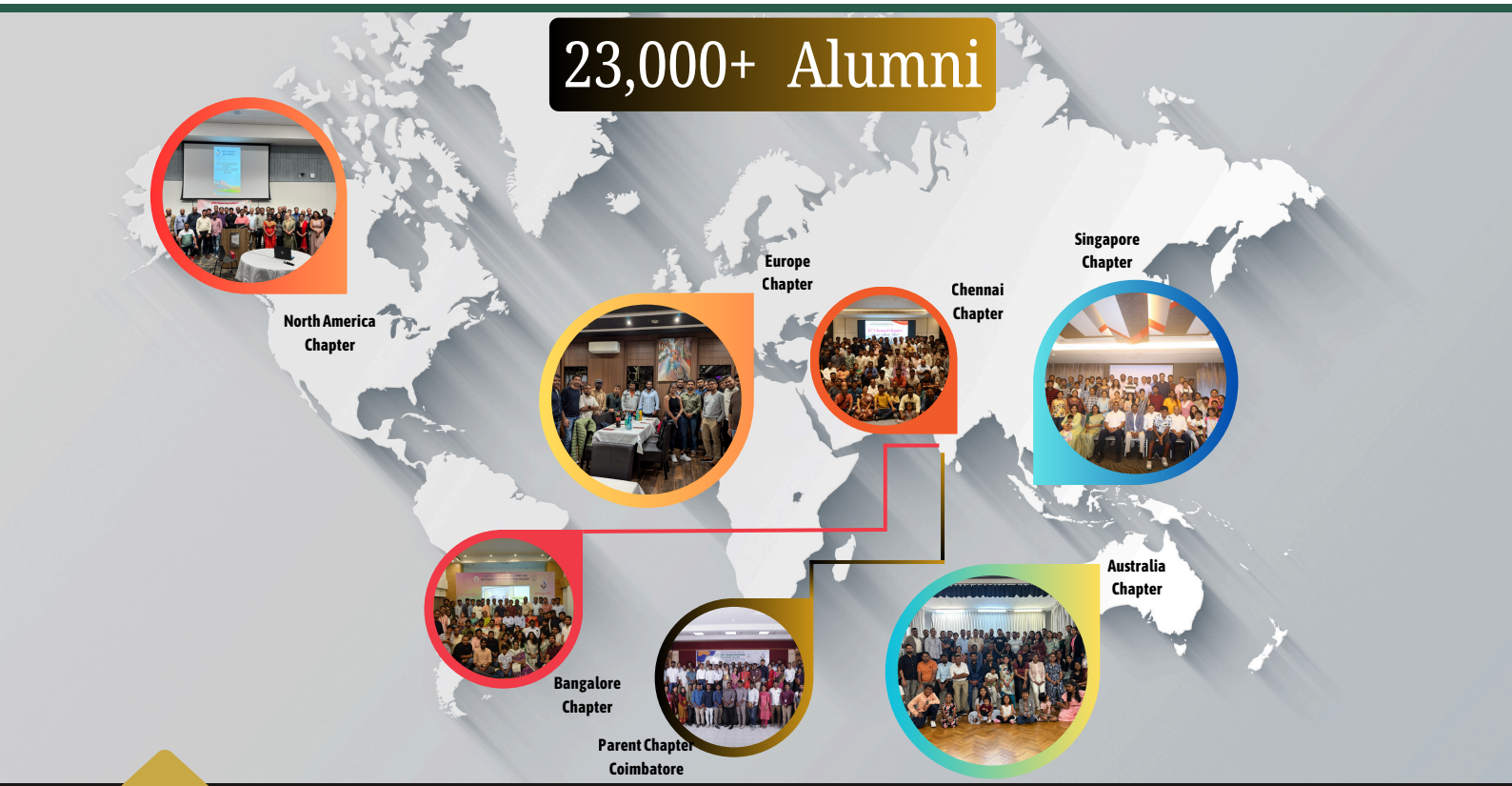

25th YEAR REUNION



5th CRICKET TROPHY



8th ALUMNI TROPHY



# SREC STAFF CLUB



NEW YEAR CELEBRATIONS



TEACHERS' DAY CELEBRATIONS



KIDS' CAMP




PONGAL CELEBRATIONS



ONAM CELEBRATIONS



FAREWELL



FELICITATION



FACULTY ENABLEMENT PROGRAM



WOMEN'S DAY CELEBRATIONS




ROYAL ENFIELD DISPLAY



SNR TROPHY SPORTS



SNR TROPHY ARTS

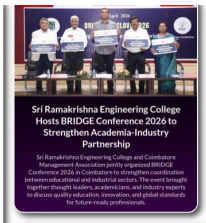
# CHERISHED MOMENTS













































































CREATIVE
CANVASES

# THE NEUROSCIENCE OF CHATGPT: HOW GENERATIVE AI REWIRES YOUR BRAIN

Ever sat down to tackle a project or assignment, stared at a blank screen and immediately reached for ChatGPT? Congratulations, artificial intelligence just borrowed your intelligence. And the more you do it, the less your brain works on its own. Neuroscience calls this "cognitive offloading," and new research reveals it's rewiring your brain in ways that might cost you memory, creativity and critical thinking.



**What is "Cognitive Offloading"?**

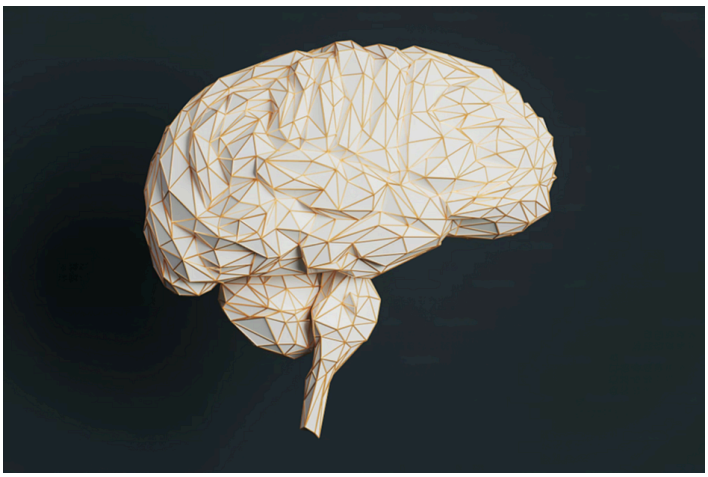
It's the process by which humans depend on external sources to store or retrieve information, relieving cognitive stress. Writing a shopping list so you don't have to remember every item? Cognitive offloading. Using Google Maps instead of memorizing routes? Same thing. These examples sound perfectly normal and they are.

But here's where it becomes critical: when you use AI to complete a learning assignment just to check it off your list, not to actually learn. When you're trying to develop a skill, writing, coding, problem-solving, but you subconsciously copy-paste from ChatGPT instead of engaging your brain. You're not offloading memory anymore, you're offloading thinking itself. And your brain notices the difference.

**The Neuroscience Behind This**

Here's what happens in your brain when you rely on ChatGPT: instead of figuring out how to solve a problem, your brain starts thinking about where to find the solution. This shift might seem subtle, but neurologically, it's massive. Your brain is rewiring itself, creating new neural pathways that prioritize retrieval over reasoning.

As I discussed in my article on studying, learning happens when your brain faces a struggle or challenge. Using ChatGPT bypasses both.



There's no cognitive effort, no problem-solving demand and without that friction, your brain doesn't build the neural connections that encode deep learning.

Neuroscience has a principle called neuroplasticity: "use it or lose it." The synaptic connections that store memory strengthen when used and weaken when neglected. If your brain isn't challenged to store valuable, meaningful memories through effortful thinking, it prunes those pathways. You're not just avoiding hard work, you're training your brain to forget how to do it.

**What Happens to Specific Brain Regions?**

***The Cognitive Control System***

Prefrontal Cortex (Decision-Making & Problem-Solving): This region, responsible for executive functions like planning and reasoning, loses its edge when it's no longer challenged with problems to solve. The less you struggle, the weaker this region becomes at finding solutions independently. Anterior Cingulate Cortex (Error Detection & Conflict Monitoring): This region monitors conflicts and catches mistakes. But when AI-generated answers are nearly error-free, your brain stops practicing error detection. Over time, you lose a skill that's critical for learning, debugging and quality control, both in code and in life.

**The Memory & Learning System**

Hippocampus (Long-Term Memory Formation): Research shows reduced neurogenesis, the formation of new neurons, in the hippocampus when cognitive effort is consistently offloaded. Translation? Your brain forms fewer long-term memories because ChatGPT is doing the encoding work for you. Basal Ganglia (Habit Formation & Procedural Memory): These structures encode skills through repetition, coding, writing, analytical thinking. When AI replaces the repetition, the skill never solidifies. Your basal ganglia don't form the procedural memories that make you fluent in these abilities. You're practicing prompting, not the skill itself.

**The Creative System**
Default Mode Network (Creativity & Mind-Wandering): Ever felt like you've stopped dreaming or lost your creative spark? The Default Mode Network activates when you're at rest, daydreaming, problem-solving internally, letting your mind wander. But when your brain is used to getting instant creative solutions from ChatGPT, this network's creative processes get disrupted. You stop generating original ideas because you've trained your brain to expect them from elsewhere.

**The Scale of the Problem**
ChatGPT isn't a niche tool anymore, it's reshaping how hundreds of millions of people think. As of November 2025, ChatGPT has reached 810 million weekly active users globally, more than doubling from 400 million in just nine months. That's roughly 10% of the world's population. Of those users, 250 million are "consistent returners" who use it regularly and 122 million use it daily. Research shows that 53% of generative AI users engage with it regularly or are actively experimenting. The concerning part? Heavy users, those who rely on AI as a "second brain" for daily cognitive tasks, represent millions of people whose thinking patterns are being fundamentally rewired. And usage is accelerating. ChatGPT saw 33% quarterly growth throughout 2025. If this trajectory continues, AI dependency could shift from an edge case to the norm for billions of people within the next two decades. Is this the end of creativity? The death of original thought? Are we watching the human brain lose its most beautiful properties in real time? These statistics aren't just numbers; they represent real people losing real cognitive abilities. I know, because I was one of them.

**How Generative AI Made Me Lose and Find Myself**
I didn't think this would happen to me. I used to be a really good artist, I could imagine something and draw it perfectly on paper. Creativity felt effortless. Then I started using AI for my assignments. Why? Honestly, I hated the subjects I was studying and the assignments felt pointless, just boxes to check for marks. So I thought, Why not just prompt it rather than think it? And that's exactly what I did throughout high school. After my exams, during summer vacation, I sat down to draw again. I picked up my pencil, stared at the blank page and… nothing. I started to think about what to draw, but I realized something terrifying: my metacognition (the ability to think about thinking) had decreased. My chain of creativity was breaking, link by link. How did this happen so suddenly?

I loved drawing. How could I lose my creative spark overnight? The answer was right in front of me: Generative AI. I had used it for assignments, for solving problems, for thinking through ideas. I had made it a part of me and in the process, I replaced my brain with a cloud full of prompts. I wasn't creating anymore. I was retrieving.

**How I Healed Myself: The 70/30 Rule**
I made a decision. I would do whatever I could without AI first, struggle through it, think through it, make mistakes. AI would only step in for the minority of my work and only when I genuinely got stuck or needed a second perspective.

**My rule: 70% me, 30% AI.**
What happened? I became what I call a strategist. I wasn't just completing assignments on time, I regained my ability to think, to solve problems independently, to create original ideas. AI became a tool I controlled, not a crutch I depended on. It helped when I got stuck or misdirected, but it never replaced the core work my brain needed to do. And slowly, my creativity came back. My metacognition returned. I could draw again.

Here's the truth: people who use no AI at all are often called outdated or inefficient, but they're actually protecting something invaluable, their brain's ability to think independently. At the same time, people who use AI strategically, in the minority of their workflow, are the smartest of all. They get the efficiency boost without the cognitive cost.




**The MIT Study: Cognitive Debt in Action**
In 2025, researchers at MIT's Media Lab conducted a groundbreaking study using EEG brain scans on 54 participants. They divided students into three groups: one wrote essays independently, one used Google Search for research and one used ChatGPT to generate content. The results were alarming. Students using ChatGPT showed a 47% drop in brain connectivity compared to those who worked independently.  heir alpha and theta brainwaves, the neural frequencies associated with creativity, memory encoding and deep thinking, were dramatically reduced.

Even more concerning: 83% of ChatGPT users couldn't remember passages they had just written. The researchers coined a term for this phenomenon: "cognitive debt." Just like financial debt accumulates interest over time, cognitive debt compounds, each instance of AI reliance makes your brain a little less capable of independent thought. The brain-only group showed the highest neural connectivity and reported feeling more engaged, curious and satisfied with their work. But here's the crucial finding: when students struggled with a task first and then used ChatGPT to refine their work, brain activity actually increased. The key isn't avoiding AI, it's using it strategically, after your brain has done the heavy lifting.

**Is There Really an End to Generative AI?**

No. AI can't be replaced and it can't be avoided. But it can be used efficiently and strategically, without letting it replace your brain in the process. The key is being the mastermind of your own cognition. Know when to think on your own. Know when to let a tool assist you. Remember: humans created generative AI.

Even though it's more powerful than any individual brain in raw processing, we're not robots designed to surrender our thinking to it. The MIT research is clear, cognitive debt is real. Your prefrontal cortex weakens when you stop challenging it. Your hippocampus forms fewer memories when AI does the encoding. Your creativity atrophies when you stop letting your Default Mode Network wander. But the same research shows that when you struggle first and use AI second, your brain stays active, engaged and learning.

So here's my challenge to you: try the 70/30 rule for one week. Do 70% of your thinking, writing, coding, or problem-solving on your own. Let AI handle the remaining 30%, the refinement, the stuck points, the second opinion. Track how you feel. Notice if your memory improves. See if your creativity returns.

*Generative AI is the most powerful cognitive tool humanity has ever created. But it's still just that, a tool. Don't let it become your brain. Let it amplify the one you already have.*



**Alexander Samuel R**
**I BE EEE**

# ETHICAL MISUSE OF SCIENTIFIC PROGRESS

Ethical misuse of scientific progress refers to situations where scientific discoveries or technological innovations are applied in ways that violate moral principles, harm society, or threaten human welfare, even though the original research is intended for beneficial purposes. This issue is often discussed under the concept of dual-use research.

**Dual-Use Science**

In many fields, the same technology can be used for beneficial or harmful purposes.

- Artificial Intelligence → medical diagnosis vs autonomous weapons
- Biotechnology → vaccines vs biological warfare
- Nuclear physics → power generation vs nuclear weapons

The ethical challenge is ensuring that scientific knowledge is not exploited for destructive ends.

**Ethical Concerns**

1. Weaponization of technology: Scientific advances used for warfare or destruction.
2. Violation of human rights: Experiments or surveillance technologies used without consent.
3. Environmental consequences: Innovations harming ecosystems or biodiversity.
4. Data misuse and surveillance: Technologies enabling mass monitoring or manipulation.
5. Inequality in access to technology: Advanced technology benefiting only certain groups or nations.

**Ethical Frameworks to Prevent Misuse**

To reduce unethical applications, science operates under ethical guidelines promoted by organizations such as the World Health Organization and United Nations Educational, Scientific and Cultural Organization.

**Role of Scientists and Engineers**

Modern engineering ethics emphasizes:

- Responsible innovation
- Technology risk assessment
- Transparency in research
- International regulation



**Mrs. R. K. Ragavapriya**
**AP(SI.G)/EEE**

# ISRAEL'S IRON BEAM LASER WEAPON: A ROBOTIC DEFENSE INNOVATION

Modern warfare is rapidly evolving with the advancement of robotics, automation and artificial intelligence. In recent conflicts in the Middle East, technology has played a crucial role in protecting countries from aerial attacks such as rockets and drones. One of the most fascinating technologies that gained global attention is Israel's Iron Beam laser defense system, developed by Rafael Advanced Defense Systems. This system represents a new generation of defense technology that uses powerful laser beams instead of traditional missiles to destroy incoming threats.

During the recent conflicts involving Israel, large numbers of rockets and drones were launched toward cities and strategic locations. Traditionally, these threats are intercepted using missile defense systems like Iron Dome, which launches interceptor missiles to destroy rockets mid-air. Although these systems are highly effective, they are also very expensive because each incoming threat requires another missile to intercept it.

To overcome this challenge, engineers developed the Iron Beam system using directed-energy laser technology. Instead of firing missiles, the system focuses a high-energy laser beam on the incoming object. The intense heat produced by the laser weakens the structure of the rocket or drone until it is destroyed in mid-air.

Robotics and automation play a major role in the operation of Iron Beam. Advanced radar sensors and optical tracking systems constantly monitor the airspace for threats. Once a threat is detected, automated algorithms calculate its speed, direction and predicted impact point within seconds. Robotic positioning systems then precisely align the laser emitter with the moving target.

Maintaining accuracy is challenging because aerial threats travel at extremely high speeds. Robotic stabilization systems continuously adjust the direction of the laser using real-time sensor feedback. These systems make rapid adjustments to keep the laser focused on the target until it is destroyed.

Another major advantage of laser weapons is cost efficiency. Traditional interceptor missiles can cost tens of thousands of dollars per launch, while laser systems mainly require electrical power. This significantly reduces the cost of each interception and allows the system to defend against multiple drones or rockets.



In conclusion, Israel's Iron Beam laser weapon represents an important advancement in modern defense technology. By combining robotics, automation, advanced sensors and laser technology, the system provides a fast, precise and cost-effective method of protecting airspace from modern aerial threats.



**E. A. Benitaa Paulin**
**II Year R&A**

# VISION-BASED PRECISION LANDING SYSTEM USING APRILTAG DETECTION

Drones or Unmanned Aerial Vehicles (UAVs) are widely used in applications such as surveillance, inspection and autonomous missions. One important challenge in drone operation is achieving accurate landing at a specific location. GPS-based landing may not always provide enough precision. To improve landing accuracy, a vision-based precision landing system can be used.

The system uses a camera and April-Tag marker to guide the drone during landing. A Raspberry Pi acts as a companion computer connected to the flight controller. It processes images captured by the camera and detects the April-Tag placed on the landing platform.

When the drone approaches the landing area, the camera captures images continuously. The Raspberry Pi processes these images and identifies the April-Tag marker. After detecting the tag, the system calculates the relative position of the drone and sends this information to the flight controller.

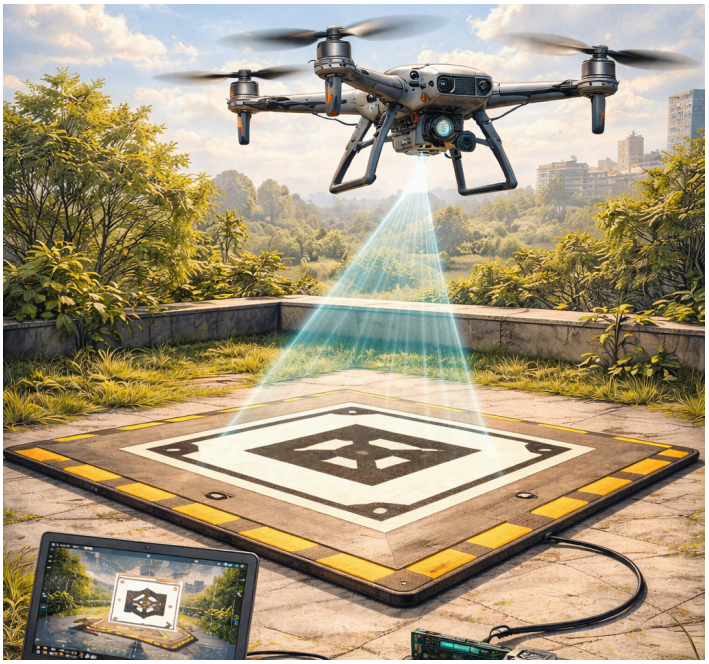
The drone then:

- Aligns with the centre of the April-Tag
- Adjusts its position and orientation
- Gradually descends and performs a precise landing

This vision-based precision landing system improves landing accuracy by combining computer vision, a Raspberry Pi companion computer and autonomous flight control, enabling drones to land safely and precisely even when GPS accuracy is limited.



**Arjith S K**
**II Year R&A**



# AI BASED CRACK DETECTION AND ANALYSIS SYSTEM

Crack detection is an important process in industrial quality inspection. Manual inspection is time-consuming and may lead to human errors. This project proposes a real-time crack detection system using deep learning techniques to automatically identify cracks on industrial components. The system uses a camera to capture images of moving components on a conveyor and detects cracks using an object detection model. In manufacturing industries, detecting cracks at an early stage is essential to maintain product quality and safety. Traditional inspection methods depend on human observation, which can be inconsistent and inefficient. With the advancement of computer vision and deep learning, automated inspection systems can provide faster and more accurate results. Real-time crack detection helps industries reduce defects, improve productivity and ensure better quality control.

The proposed system uses a dataset containing images of cracked and non-cracked components. These images are labeled and divided into training and validation sets. A deep learning model such as YOLO (You Only Look Once) is trained using this dataset to recognize crack patterns. During real-time operation, a camera continuously captures images of components moving on a conveyor belt. The trained model processes the images and detects cracks instantly. If a crack is detected, the system highlights the crack region and displays the result on the screen.




The trained model can detect cracks with good accuracy in real time. Performance of the model is evaluated using metrics such as Precision, Recall, Intersection over Union (IoU) and Mean Average Precision (mAP). Higher recall ensures that most cracks are detected, which is critical for industrial inspection systems. The proposed real-time crack detection system provides an efficient and automated solution for industrial quality inspection. By using deep learning and computer vision, the system reduces manual effort and improves detection accuracy. In the future, the system can be enhanced by increasing the dataset size and integrating automated rejection mechanisms in the production line.



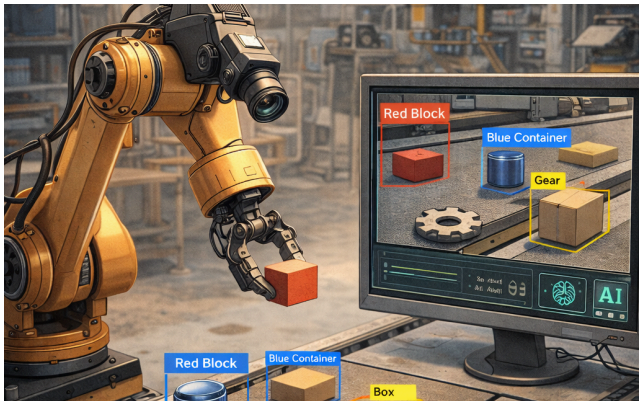
**Mithra A R**
**II Year R&A**

# INDUSTRIAL ROBOTIC ARM WITH AI VISION-BASED OBJECT RECOGNITION

In modern manufacturing industries, automation plays an important role in improving productivity, accuracy and efficiency. Many industries still rely on manual Labors for tasks such as identifying, sorting and handling objects on production lines. These manual processes can be time-consuming, prone to human errors and may increase operational costs. To address these challenges, the integration of artificial intelligence with robotic systems provides an effective solution for automating object recognition and handling tasks.

This project focuses on the development of an industrial robotic arm integrated with an AI-based object recognition system. A camera is used to capture images of objects placed within the working area of the robot. These images are processed using computer vision and machine learning techniques to identify the objects and determine their position. Based on the detected information, the control system sends commands to the robotic arm to perform accurate pick-and-place operations. The system is capable of automatically recognizing different types of objects and placing them in predefined locations without the need for human assistance. This helps in increasing productivity, reducing errors and improving the overall efficiency of industrial processes such as product sorting, assembly and packaging.

In Additionally, the system can be further enhanced by integrating technologies such as deep learning, Internet of Things (IoT) and real-time monitoring systems. These improvements can enable smarter and more flexible automation in industrial environments. Overall, the proposed system demonstrates how artificial intelligence and robotics can work together to support the development of modern smart manufacturing systems and Industry 4.0.




In conclusion, the proposed Industrial Robotic Arm with AI-Based Object Recognition demonstrates how combining artificial intelligence and robotics can significantly improve automation in manufacturing environments. By enabling the robotic arm to automatically identify objects and perform accurate pick-and-place operations. Overall, this project highlights the potential of intelligent robotic systems in supporting the transition toward smart factories and Industry 4.0, where automation plays a key role in achieving higher efficiency and reliability in industrial processes.

**K P Mohan Vikash**
**II Year R&A**



# PIPE LEAKAGE DETECTION ROBOT

In many industries and urban areas, pipelines are widely used to transport water, oil, gas and other fluids from one place to another. Over time, these pipelines may develop leaks due to transport water, oil, gas and other fluids from one place to another. Over time, these pipelines may develop leaks due to corrosion, cracks, pressure variations, or poor maintenance. Pipe leakage can lead to significant loss of resources, environmental damage and increased maintenance costs. Traditionally, pipeline inspection is carried out manually, which can be time-consuming, unsafe and inefficient, especially in long or underground pipelines.

To overcome these problems, this project focuses on the development of a Pipe Leakage Detection Robot that can travel through pipelines and identify leakage locations automatically. The robot is designed using components such as ESP32 controller, ESP32-CAM module, DC motors, motor driver (L298N), wheels and a battery system. The robot moves inside or along the pipeline while continuously monitoring the pipe condition.

The ESP32-CAM module helps in capturing real-time video or images of the pipeline interior. This allows the operator to visually inspect cracks, damages, or leakage points. The robot is driven by DC motors connected to a motor driver, which helps control the movement of the robot in forward and backward directions. The system can transmit visual data

wirelessly, allowing remote monitoring without human entry into dangerous or narrow pipelines. This robotic system helps to detect leaks quickly, reduce human effort and improve safety during pipeline inspection. It can be used in water supply systems, oil and gas pipelines and industrial fluid transportation systems. By using robotic inspection, industries can identify leakage problems at an early stage and perform maintenance before major damage occurs.

In addition, the system can be further improved by integrating advanced sensors, artificial intelligence, Internet of Things (IoT) and real-time monitoring technologies. These enhancements can help in automatically detecting leakage patterns and sending alerts to maintenance teams.

In conclusion, the Pipe Leakage Detection Robot demonstrates how robotics technology can be used to improve pipeline inspection and maintenance.

The proposed system provides a cost-effective and safer solution for monitoring pipelines, helping industries move towards smart inspection systems and modern automated infrastructure.

**J P Devendran**
**II Year R&A**



# MINDFULNESS & THE POWER OF PRESENCE

Mindfulness and presence are about fully engaging with the present moment, without judgment or distraction. It's the art of being aware of your thoughts, feelings and surroundings without getting lost in them. Mindfulness and presence are closely related, with mindfulness being the practice of being fully aware of the present moment, while presence is the state of being fully engaged and aware of your surroundings, body and mind.

**Mindfulness:**
Mindfulness involves consciously paying attention to the now. It can be cultivated through meditation, breathing exercises, or simply by focusing on your senses—what you see, hear, or feel in the moment. It helps reduce stress, improve focus and enhance emotional resilience.

**Presence:**
Presence is a deeper state of being fully immersed in the moment. It's when your mind isn't wandering into the past or future but is entirely engaged with what's happening now. It often leads to greater clarity, deeper connections and a sense of peace.

**Ways to Cultivate Mindfulness and Presence:**

- Breathing exercises – Deep, slow breaths help anchor you in the moment.
- Meditation – Practising daily meditation enhances awareness and stillness.
- Body awareness – Paying attention to sensations in your body brings you back to the present.
- Single-tasking – Focusing on one task at a time improves presence and efficiency.
- Gratitude practice – Noticing and appreciating small moments helps ground you.
- Reducing distractions – Less screen time and digital noise improve focus.

**Mrs. R. K. Ragavapriya**
**AP(SI.G)/EEE**





# A Cry from the Earth

*"What have you done to me?"*

If the Earth could speak, this would not be a question of anger—it would be a quiet expression of pain. A pain built over years of neglect, carelessness, and silence from those it once nurtured.

The Earth has always been generous. It gave us forests that filled our lungs, rivers that quenched our thirst, and landscapes that inspired dreams. It asked for nothing in return. Yet, in the name of progress, we began to take more than we needed—and give back far less than we should.

There was a time when nature lived in perfect harmony. Birds filled the air with their songs, rivers flowed pure and unpolluted, and forests stood tall, full of life and balance.

Today, that harmony is slowly breaking: Trees are vanishing, animals are losing their homes, and the climate is changing in ways we can no longer ignore.

But even now, the Earth does not demand—it gently reminds. **"Protect me, and I will protect you."**

The solutions are not beyond our reach. In fact, they are simple:

- Plant more trees 🌿
- Reduce the use of plastic ♻️.
- Conserve water 💧
- Respect every form of life 🌿

Individually, these actions may seem small. But together, they have the power to heal even the deepest wounds.

**The truth is, the Earth is already speaking to us**—through rising temperatures, melting glaciers, and unpredictable weather patterns. These are not mere changes in nature; they are warnings. Warnings that we have ignored for far too long.

So, the question is no longer "What if the Earth could speak?" The real question is—**are we ready to listen?**

Because if we choose to ignore it today, tomorrow there may be nothing left to hear.

The future of this planet is not in the hands of time—it is in ours. Let us act now, with awareness, responsibility, and compassion.

After all, the Earth is not just where we live. **It is the only home we will ever have.** ●



**Kiran S**
**I Year Mech**

# TODAY IS YOUR DAY: DO NOT POSTPONE LOVE

Love while you live—
let no shadow of hatred linger,
no spark of anger steal
the softness from your soul.

Today is your day.
Speak the kindness now,
not saved for a later hour;
for time is a quiet thief,
and tomorrow makes no promises.
Today is your day.

Appreciate them today—
the ones who walk beside you,
the ones who wait in silence
for a word, a glance, a care.

For one day you will search,
and the chair will be empty,
the voice will be memory,
and regret will echo louder than
words unsaid.

Help them when they need,
not when it suits your time;
be the hand that reaches first,
the heart that understands.

Shower love today,
like rain that does not hold back,
like sunlight that does not choose
where to fall.

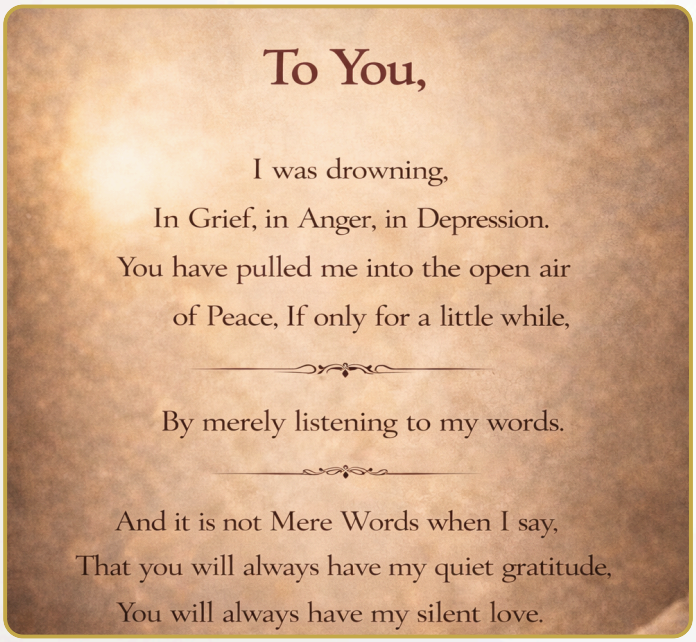
Care for them today—
in small gestures, in gentle words,
in presence that says,
"You matter."

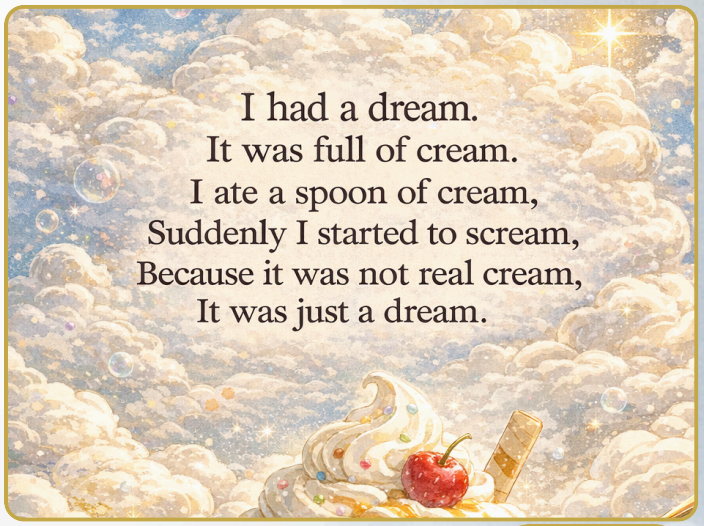
Be grateful—
for all the good things they've done,
and let go of what they've done against you;
choose grace over grievance,
and peace over pride.

Today is the day. Do not postpone love.
Not tomorrow, not someday—but now.

**Dr. C. Joanna Pauline**
**AP / English**








**Ajay Y**
**II Year R&A**



**J Jeba Prathicka**
**AP / M.Tech CSE**

# UNEXPECTED CONNECTION, TRANSITION, IMPERFECTIONS

*By Sadhana Sri S M*

***loud flipping of a dusty note - to be more specific, someone's diary***

*Date: 31.05.2025*
Today was no different...Same school day, boring, yet surprisingly, I felt productive completing my assignment essays. And my biology mam aced her class like always. But today too mom was so busy and caught up with her work, it's already 6:30 pm and she is still locked in her office room with her laptop...Nowadays, I can't describe whether I'm happy or I'm sad, I no longer feel anything, like more often I feel lost, like completely LOST!!! Today too I lost in my tennis match during the practice, once again lost the chance to be in the team. And as always, I was mocked and called s a nerd, but all in a friendly way, that's what they say as an excuse, I'm only scared that I will start believing it too. I work hard for my dream to be a cardiologist, I study, I learn, but....I feel lonely, it's not that I don't have friends, it's just that I limit myself from connections and I can't blame mom, she is working day and night for me, being a single parent is not easy after all. Am I ranting too much nowadays....Let's just start learning for the upcoming entrance exam, that's difficult, but I have hope that I would crack it if I give my hard work. Let's keep my stress of home, friends, school and sports aside for now....

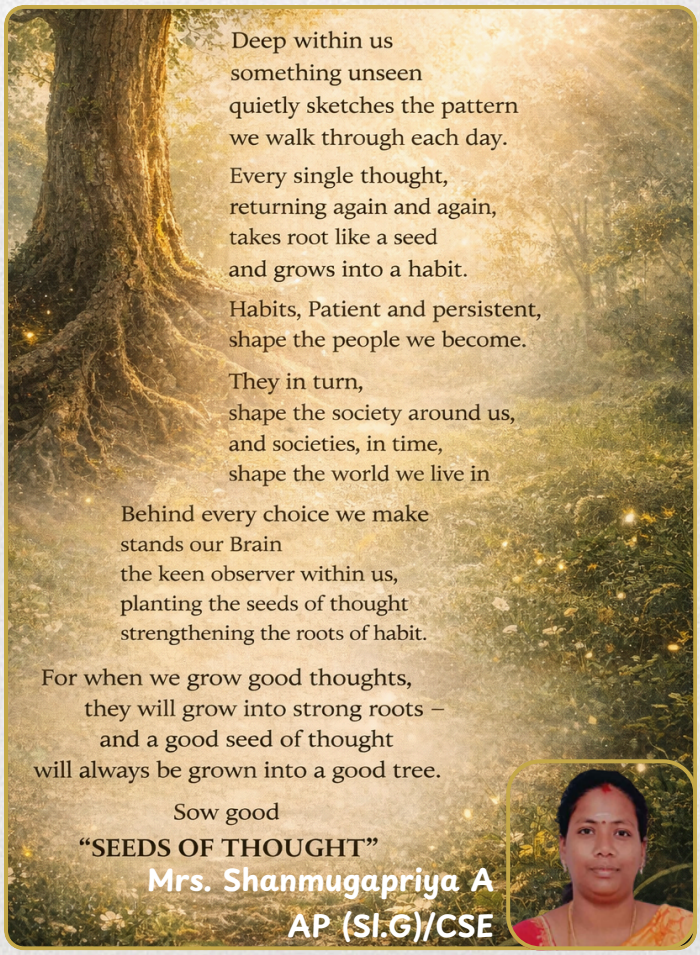
***the pages flipped once again to a page that seems the end of the diary***

*Date : 29.09.2036*
It has been too many days since i written about my day here, I can't believe I left you untouched for about ten years and here I am blabbering as always about random stuffs...After entering my dream college, medical wasn't a piece of cake, but the college life wasn't only about med studies, it was a new life, new people, new learning. I no longer have thoughts in my heart that weigh me down...I don't worry about losing a game or being criticised by others. In fact, I just shake them off with a smile, as long as I'm confident on what I'm doing, there is nothing to worry.As a renowned speaker said 'never think a glass is half broken, keep in mind the glass is still half full". Being happy for what you have is better than worrying about what you lost. Now, being a cardiologist, I'm still not satisfied, I'm working hard to be a reputed person and to be at top in my field. That spirit is a much-needed part in a human to keep running to keep living the life; without this spirit, the life will feel lifeless. My mom is happy for me, nowadays we spend a lot of time together compensating for the days when she was busy and for the nights I studied, sacrificing sleep and fun....The only regret is the precious time I wasted by doubting myself, time I wasted on other people's opinions, time I wasted by comparing myself, time I wasted on being sad by seeing others party. How silly I have been, but still it was a part of this journey...There is nothing as a "success at the end of the road", the journey is the success all along both the successful days and the stressful nights made me what I am today...Being imperfect is perfectly alright...

***A trembling hand with wrinkles closed the diary slowly with a sweet smile***

Devi looked down at her pet, the cute cat was sleeping peacefully on her lap. She turned her head to see her doctor's coat hanging on the wall, it feels like yesterday when she was crying over her biology chapters for a school revision test. Now here she is, being a retired doctor, once a world-class cardiologist .... while patting her cat as a sweet gesture, Now life feels complete. I studied, worked, served people, laughed with mom, seen too many people, had friends and now reading these dusty pages makes me doubt I'm still on a dream. To die with a fulfilled heart is a boon, choosing a path and trying something in the only life we have is the actual fun... this diary made me have time travel "

**Author's note :**
"LIVE YOUR LIFE IN YOUR WAY , DO WHAT YOU LOVE , PROCASTINATE , FAIL , TAKE A BREAK , BUT ALWAYS TRY AGAIN ,MAKE SURE TO SEARCH FOR YOUR PASSION AND WORK FOR IT ....LIFE IS NOT ONLY ABOUT BEING SUCCESS ...BUT YOUR LIFE CANNOT BE A FAILURE EITHER....Don't fascinate the idea of enjoying the life without working , it may sound fun but is won't makeup a satisfied andpeaceful climax for your life....Make mistakes ,learn , enjoy, build yourself & love yourself"



# Rotten Mind

An awful smell
It got worse and sores with each day
I tried getting up
But failed miserably
I lifted my head up and saw a mirror
Mirror through which I saw a reflection
It looked so un-lookable
It was decomposing
It was terrible
I was petrified for once
I couldn't recogonise myself through the mirror
The smell I searched was not external
But it was the smell of my rotten body.

"Why wasn't I buried like I should be!?", I yawped

Someone told me
Burial is for bodies
Not for ones mind.



**Fana Felix**
**II Year R&A**

# This universe leaves you in the phase between your wants and your **needs**.

It's important to choose your needs,
Cause once you chose them, they'll stay, shows your worth, shapes you
And make you more strong
One day, you'll be grateful for that need,
And you'll realize that it was exactly what you wanted.

While you travel through that phase. Remember to

**Be kind, Fight, Work**

- Be kind even with people who chose unkindness
- Fight for your need and for the one who got you here
- Work hard for the people you love
- Be happy for the people who love you and for YOU

Cause you chose growth, strength,
love and life you always wanted



**Mithra A R**
**II Year R&A**

## RECLAIMING ME

I felt like, I wasn't enough,
like every step was the wrong one,
I carried the weight of own doubt;
A battle I thought I'd never have won

I felt like my voice was a whisper,
Drowned out by the chaos inside;
I felt like my dreams were a memory,
A part of me that had already died.

I thought my scars were shameful marks,
Proof that I was broken and weak.
I felt invisible in a crowded room,
Afraid to stand, afraid to speak.

But then I found the strength within,
A voice that refused to still
I saw a spark deep in my soul,
A light that burned to make me whole



**Lokha Varshini**
**I Year BME**

## A Sonnet of Veiled Scars....

Upon her brow, the sunlight once would rest,
A daughter's laughter, fragile as the dawn.
Yet shadows crept where innocence was pressed,
And left her spirit fractured, pale, withdrawn.

Her parents wept in silence, hearts undone,
Their prayers unanswered, echoing through years,
They bore the weight of grief no words could shun.
A quiet storm of sorrow, veiled in tears.

She walked through halls of learning, far away,
Her soul a lantern dimmed by unseen flame
The world beheld her smile, but could not say
The hidden scars that whispered still her shame.

Yet in her pain, a strength began to grow
A secret hymn the broken only know.



**Nila B**
**I year Mech**

## கல்லூரி வாழ்க்கை

பள்ளிப்பருவம் காவியமென்றால் கல்லூரி பருவம்
காலம் தீட்டிய ஓவியம் தானே...ஓவியத்தின் உன்னத
வண்ணங்களாய் ஆசிரியர்கள் அழகூட்ட பெற்றது
தானே வரம்...தென்றல் அழகாய் வருடியது போல்
பாடங்கள் யாவும் எங்கள் மனங்களை
வருடிச்சென்றது. கல்லூரியின் கணத்த இன்பம்
நண்பர்கள் ஒருபுறம் என்றால் ஆசிரியர்கள்
அமைவது மறுபுறம்..எம் துறையில் குறையில்லாமல்
நிறைவோடு ஆசியர்களின் அன்பு அமைந்தது தான்
உன்னத வரம் அவரிவர்

அல்லாமல் அனைத்து ஆசியர்களும் எங்களுக்கு
காலம் கனிந்த கற்பனை பொறித்த பேரழகுதான்
பெற்றோர் தாண்டி உற்றார் உறவினர் போல் ஊர்ந்து
மனம் மகிழ்ந்ததால் எங்கள் ஆசிரியர்களும்
எங்களுக்கு பெற்றோர் தான் இதைவிடவா அமைய
வேண்டும் கல்லூரி வாழ்க்கை...

## பெண்ணியம்

பெண்ணிய பெருந்தகையே கண்ணியம் காத்த கடல்
அலையே அன்பில் அன்னையாக ஆறுதல்
சகோதரியாக வீரத்தைப் போர் தொடுத்து பெற்றவளே
புன்னகை மட்டுமா பூவுக்கு உரியது
இன்னகையிலும் பொன் நகை பூட்டி வண்ணத்தை
வழத்தவளே விட நினைத்தாலும் விலகா பந்தம்
தானே நீ என் உடன் பிறந்திருந்தால் எட்டி
உதைத்தாலும் எடுத்தோர்க்கு
தம்பி ஆவேன் உடன் பிறவா உயிரை உடனே
வைத்துக்கொள்ள தான் ஏக்கமோ உன் சிரிப்பில் என்
சிரிப்பை ஒளித்து உருகி பார்த்தால் சிரிப்புதான்
சிரகழத்திடுமோ தனிமை விரும்பும் தந்திர மனதுக்கு
இனிமை வார்த்த இமயத்தில் ஒரு கல் நீ என்னை
விட்டால் உனக்கு வேரு தம்பி உண்டு உன்னை
விட்டால் எனக்கு வேரு அண்ணன் உண்டோ உன்
பாசத்திற்கு நான் தடையில்லை என் பாசத்திற்கோ
உனக்குள் எல்லை இல்லை அக்காளின் பாசத்தை
அளவிள்ளாமல் ஆண்ட எனக்கு அண்ணன் பாசம்
அணு தினமும் அளவிள்ளாமல் வேண்டும்



M. Thulasiiraja
II Year M.Tech CSE

## பெரு மரமும் சிறு செடியும்....

குளிர் நிழல்
கவலையின்றி சிறு செடியாய்
வளர்ந்த தருணங்கள்...
கொடும் வெயின்
முழு வெம்மையையும் தாங்கி
தன்னை வளர்த்த பெரு மரம்....
கொடும் வெயின்
சிறு வெம்மையை தாங்காமல்
வாடி போன சிறு செடி...
பெரு மரத்தின் பெரு நம்பிக்கையில்
வளர தொடங்கியது சிறு செடி...
முழு வெம்மையை சிறிது சிறுதாய்
ஏற்க தயாரானது சிறு செடி...
பெரு மரமாய் மாற அல்ல....
முழு வெம்மையை எப்படி தாங்கி
பெரு மரம் வளர்ந்தது என்பதை அறிய....
பிறகு உணர்ந்தது சிறு செடி
"குளிர் நிழல் பெரு வளர்ச்சிக்கு உதவதென"
சிறு வளர்ச்சியை நோக்கிய புதிய பாதை..
பயணிக்க தொடங்கியது சிறு செடிற.
எதிர் திசையில்..

## புகைப்படங்கள்

உறைந்த நினைவுகளின்
தொகுப்பு.....

## கவனம்

நாட்கள் செல்ல செல்ல
மிக மிக கவனமாக கையாள வேண்டி
உள்ளது
வார்த்தைகளையும் வாழ்க்கையையும்...
இரண்டுமே
திகட்ட திகட்ட கிடைத்தது
மிக மிக இனிப்பாக...
அதே நேரம்
மிக மிக கசப்பாக....



Dr. R. Pandeeswari
AP (Sr.G) / Physics

## என் வாழ்வின் புதிய வழிகாட்டி

சிறிய குழந்தையாக என் கைகளில் விளையாடியவள்,
இன்று என்னை வழிநடத்தும் தாயாக என் முன் நிற்கிறாள்.
ஒரு காலத்தில் நான் அவளுக்கு உலகத்தை
அறிமுகப்படுத்தினேன், இன்று அவளே எனக்கு
வாழ்க்கையின் அர்த்தத்தை உணர்த்துகிறாள்.

அவள் சிரிப்பில் என் சந்தோஷம், அவள் கொள்கையில்
என் நிலை. அவள் அன்பில் என் வாழ்வு
முழுவதும் ஒளிர்கிறது.

காலம் மாறினாலும், உறவு
மாறவில்லை - அம்மாவாக
இருந்த நான், இன்று
அவளின் அன்பில் ஒரு
குழந்தையாகி நிற்கிறேன்.
என் மகள் என் பெருமை
மட்டுமல்ல, என் வாழ்வின்
புதிய வழிகாட்டி.



Mrs. R. K. Ragavapriya
AP(SI.G)/EEE

மழைக்கு முன்னே கவிழும் கருமேகம்
சூரியனை தன் மையல் மறைப்பது போல...
உன் கருவிழிச் சேலை தீட்டும் மையழகில்
மெய்யெழில் பேரொளி மெல்ல மறைகிறதே!
அத்திரை முழுய சூரியனை கண்ட உடன்,
என் அகமும் புவியும் குளிர
மெய்சிர்த்துப் போனேனடி என் கண்ணே!



Mathav Krishna S S, III Yea R&A

சொல்ல வார்த்தையன்ற
மௌனம் தேர்ந்தெடுத்த மொழி உன் வழி!!

ஒவ்வொரு பார்வை புதிய அர்த்தம்
பெயர்கள் தேவையில்லை
வார்த்தை தேவையில்லை
அந்த ஒரு பார்வை போதும்
மனம் தன்னை இழக்க!



Krisha V M, II year R&A

## பாவை

(i)
வழக பலவாக நீ மேம் வைத்த காதல்
தாக்கிக்கொண்டு...
உன்னைத் தவிர வேறாரை காணாமல் நானிருக்க...
நீ மேகமாகி என் மனதில் உன்னை நீக்கா...

(ii)
அவள் அனுப்பிய செய்திகள்
என் மனதிடையே உயிராய் தணிகின்றதே?

(iii)
உன்னுடைய பேச்சுகளை கேட்காமல்
இயங்கவில்லை என் நாள்...இதற்குயா அன்பா?
நான் நன்கு செழித்த காதலா?
ஆனால் சில சூழ்நிலைகள் பிரித்த நம் காதல்
தூரமாகினோ...
துயரமாக என் காதலை கொன்றதே...
எதிர்பார்ப்புகளின் அளவுகள் என்னை ஆட்டலாக...
வாழ்வின் அனுபவமாகிறேன் நான்...

(iv)
அவள் முகப் பிரகாசத்தில்
என் இருண்ட நாட்களுக்கு விடியல் பிறக்கின்றனறு

அவள் கண்களில்
அழகென்ற சொல்லுக்கு அர்த்தம் பிறந்தது...

அவ்விழிகளில் விழுந்தெழுந்ததன்
என் சுவாசத்தில் அவள் பெயர் பரவின...

குழந்தை சிரிப்பில்
கன்னத்தில் விழும் அந்தச் சிறு குழி
அது வெறும் பள்ளமல்ல
நான் மிதந்து தவழும் குழந்தைத் தொட்டில்ற

அவள் இதழ் விரிக்கும்
சிறு புன்னகைகளும்ற வார்த்தைகளும்
என் வகளுக்கெல்லாம் ஒரு மருந்து போன்ற
ஊக்கத்தை போன்றவை

வயதளவில் அவள் பெண்ற
ஆனால் உள்ளமோ —
அன்பு தேடும் ஒரு பச்சைக் குழந்தை

காலம் அவளைச் சோதித்தாலும்ற
இருளவில் பிரச்சனைகள் சூழ்ந்தாலும்
அவள் கண் கலங்காமல்ற மனம் நொந்தாகாமல்

என் மார்பில் அவள் தலையை சாய்த்து
"நான் இருக்கிறேன்" என உரைத்து

என்னுடைய ஆறுதல் சொற்களால்ற
அவளுடைய கவலைகளையும் வகளையும்
குறைத்துற.

என்னுடைய மன கருவறையில்ற என் தாயுடன்
இந்த தேவதையையும்
என் குழந்தையைப் போல் நெஞ்சில் சுமக்க
இறைவா உன்னடி சேர்ந்து
மன்றாடி வேண்டுகிறேன் கடவுளே.



Prasanna Balaji A
III Year ECE





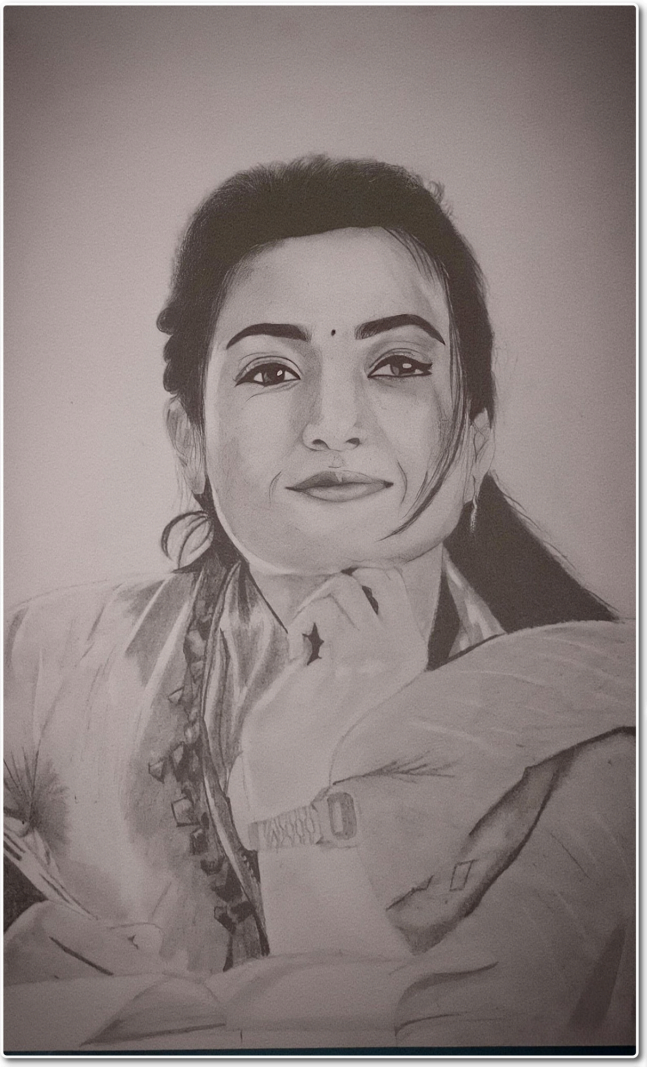


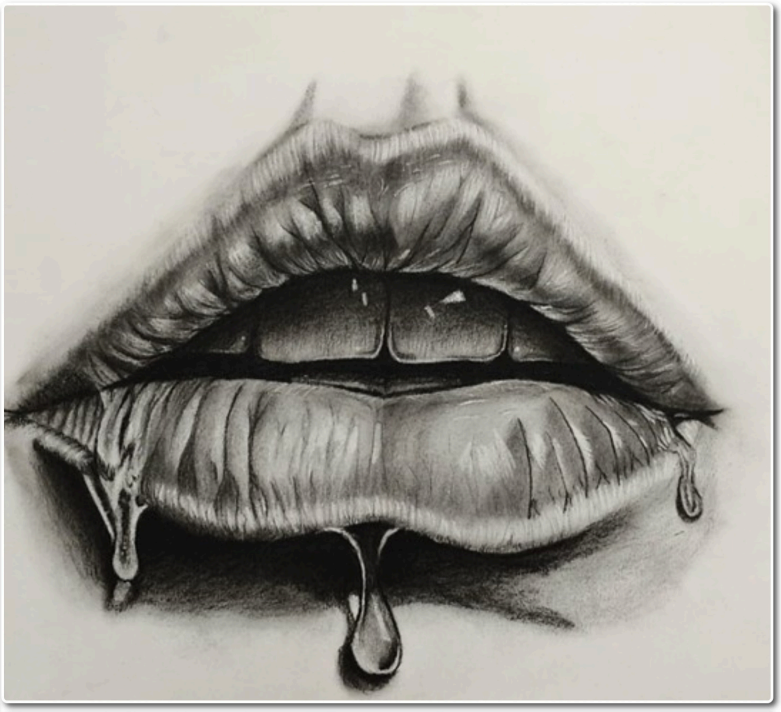


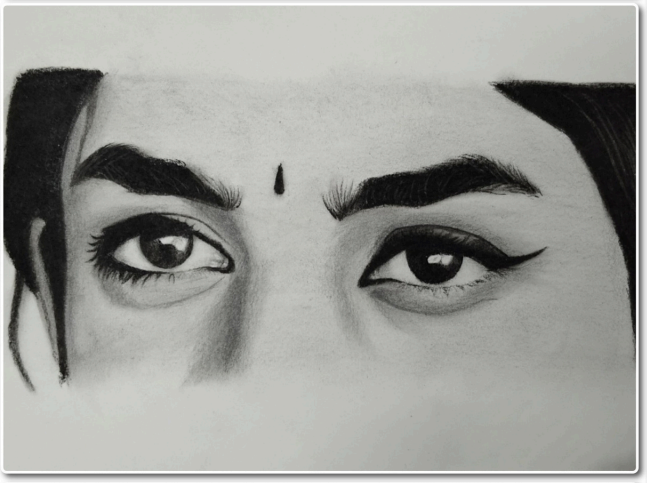


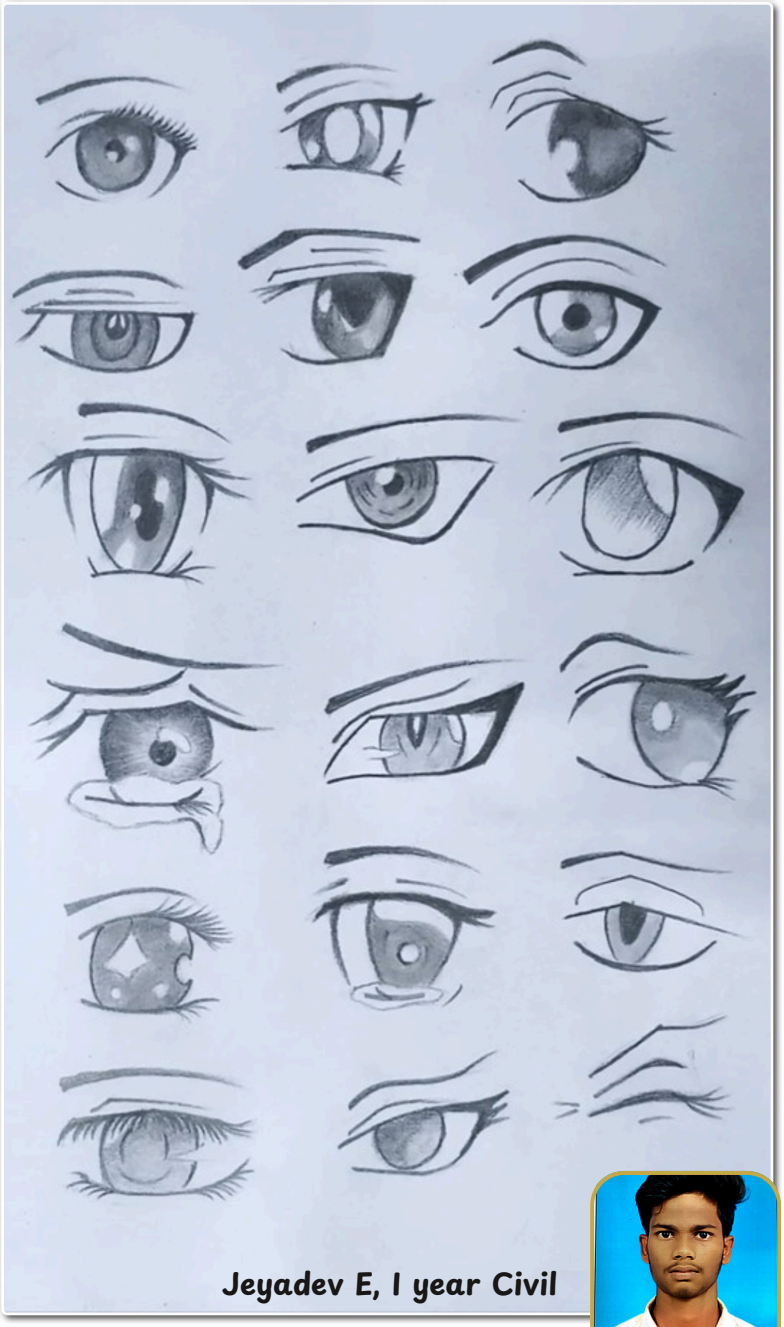


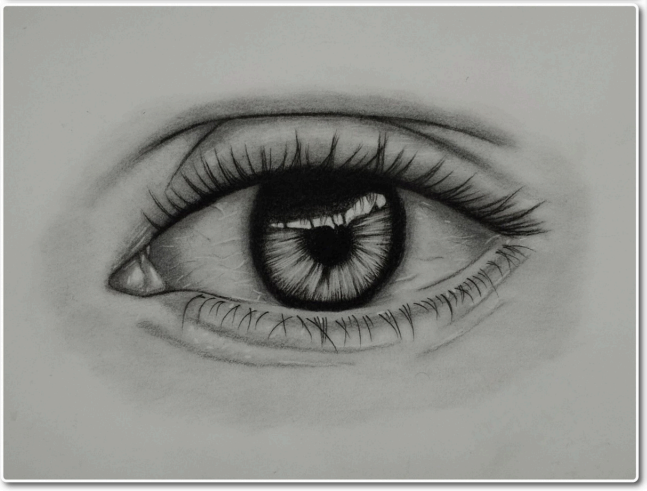
Aaradhana, I Year IT











Jeyadev E, I year Civil











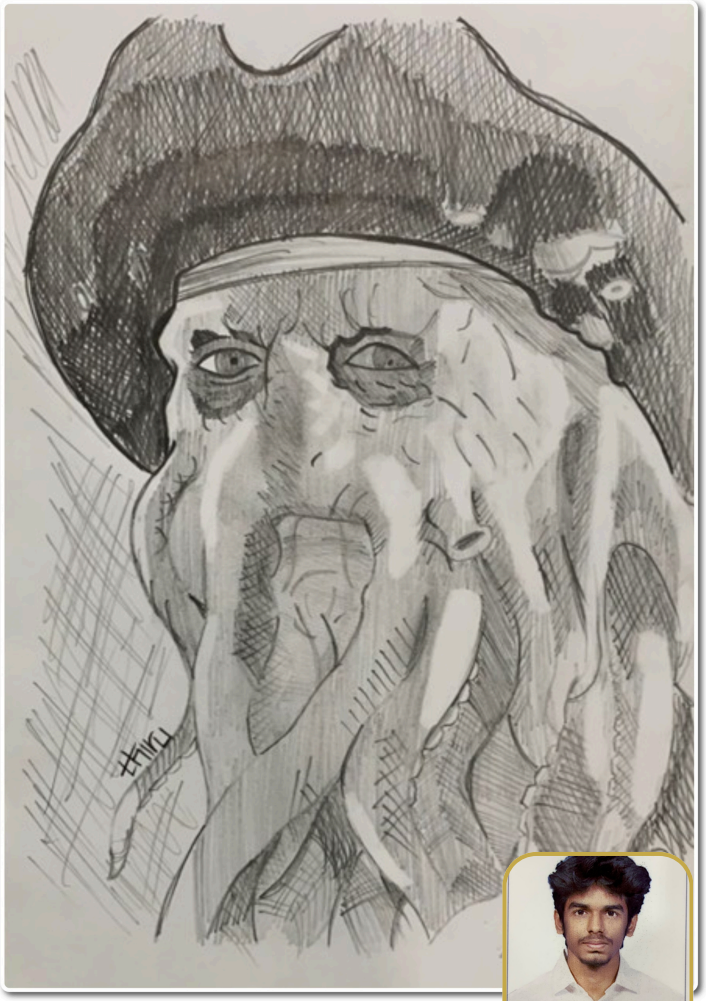


Kirthigan, III Year ECE



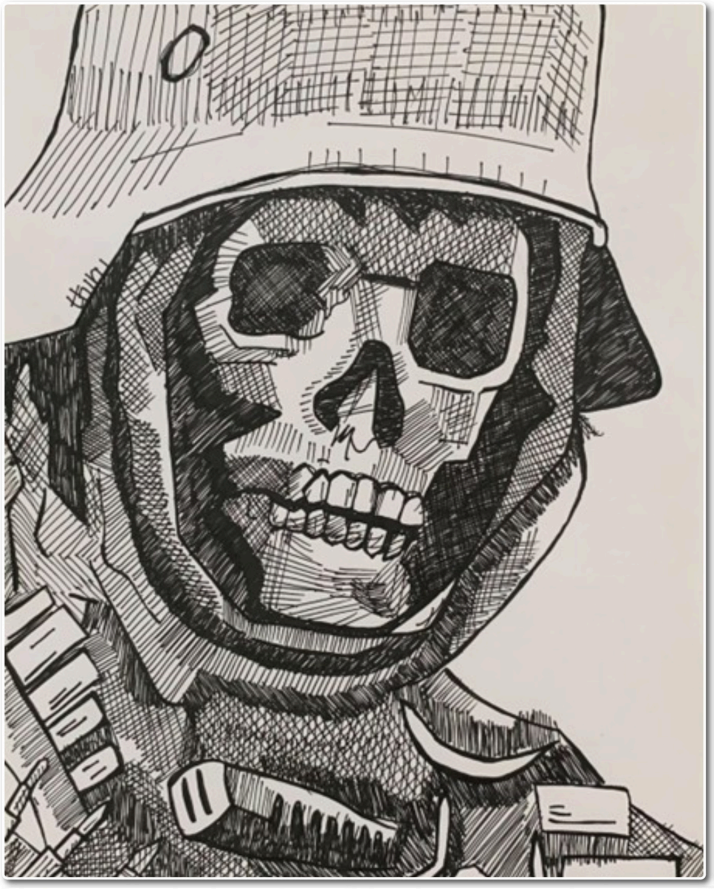


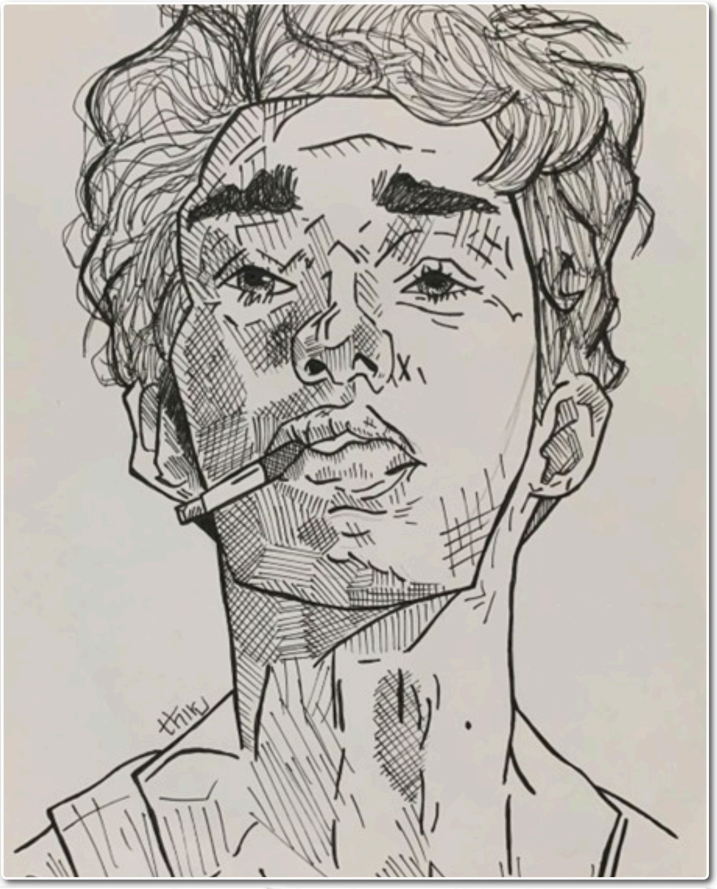


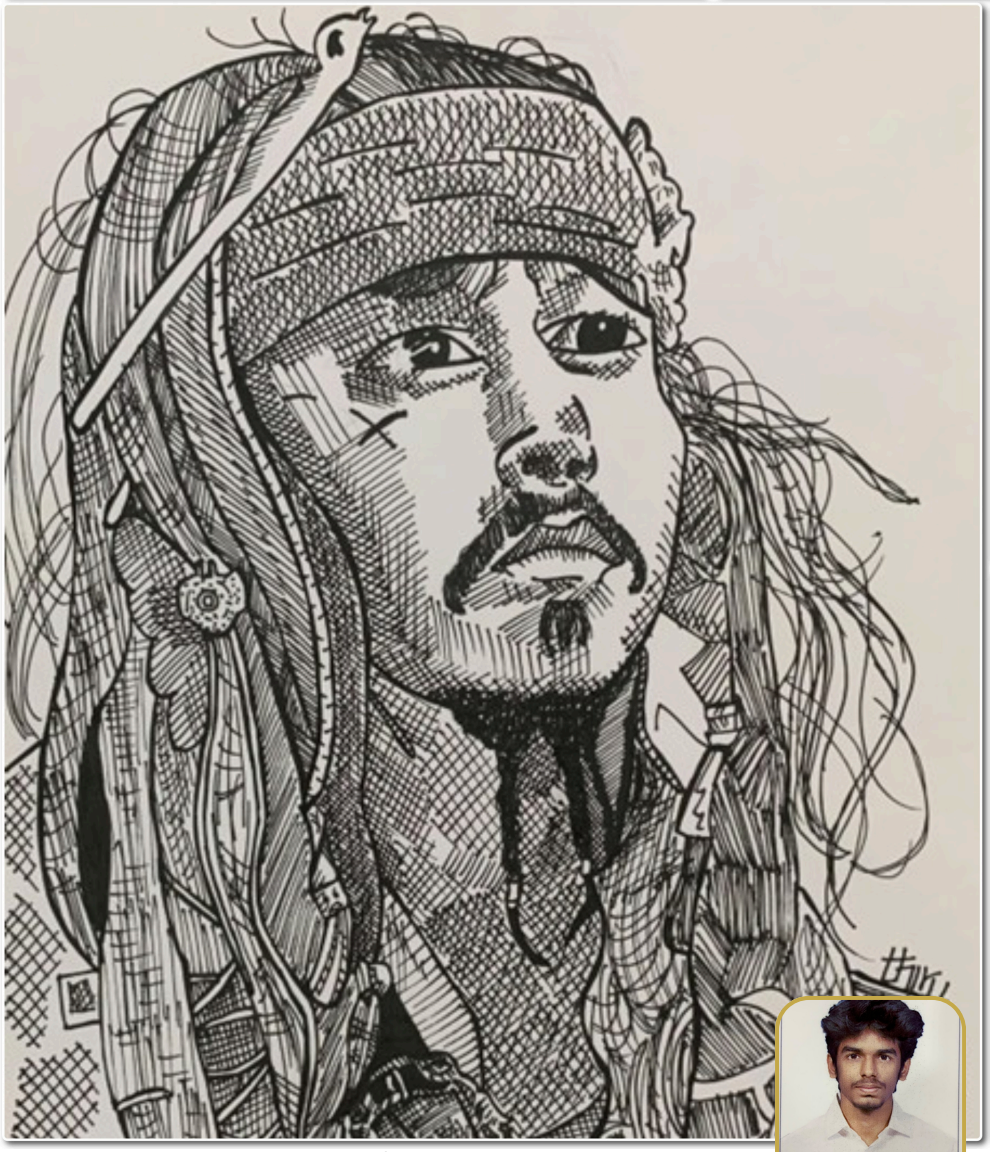


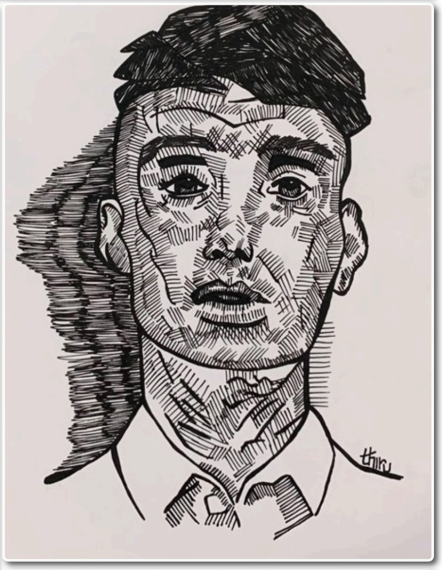


Thirumurugan, I Year Aero





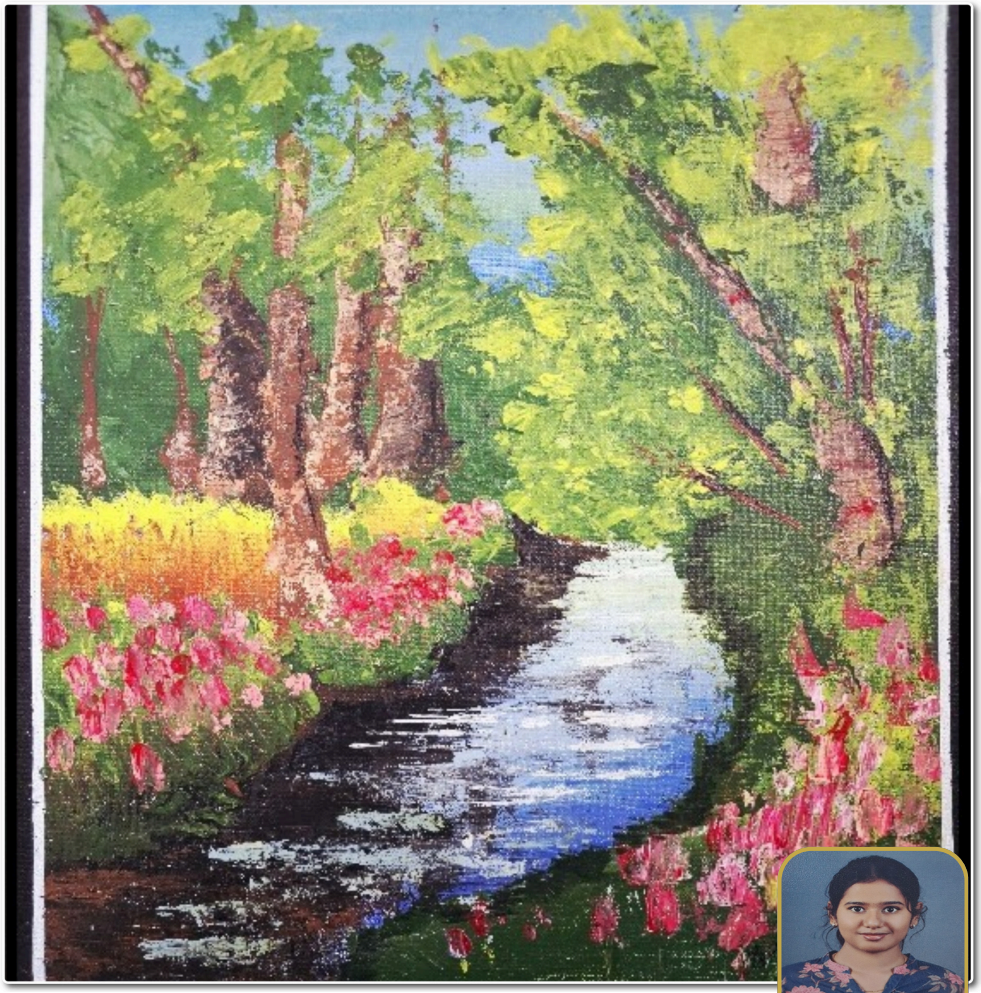








**Thirumurugan, I Year Aero**







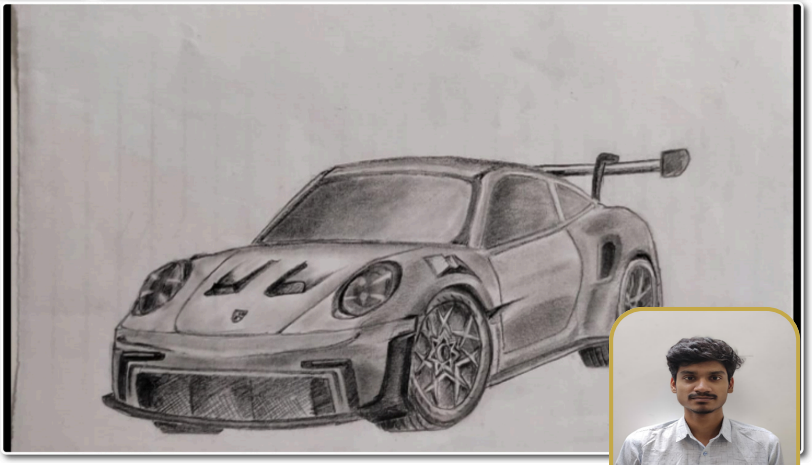


**Asvitha V, II Year IT**









**Deveshwaran S, III Year IT**



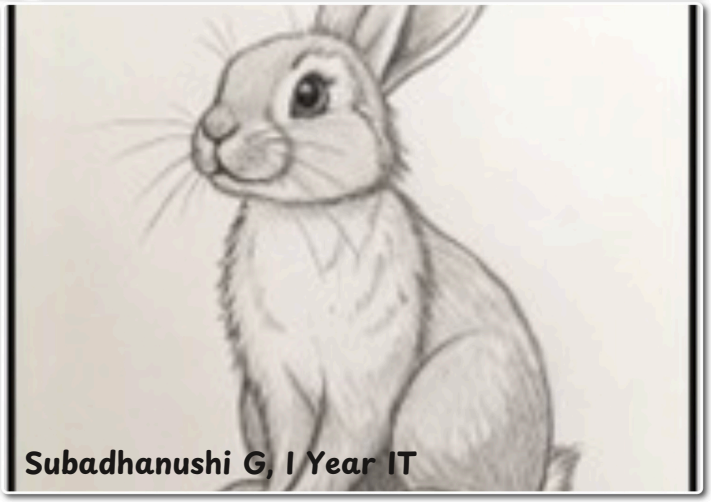




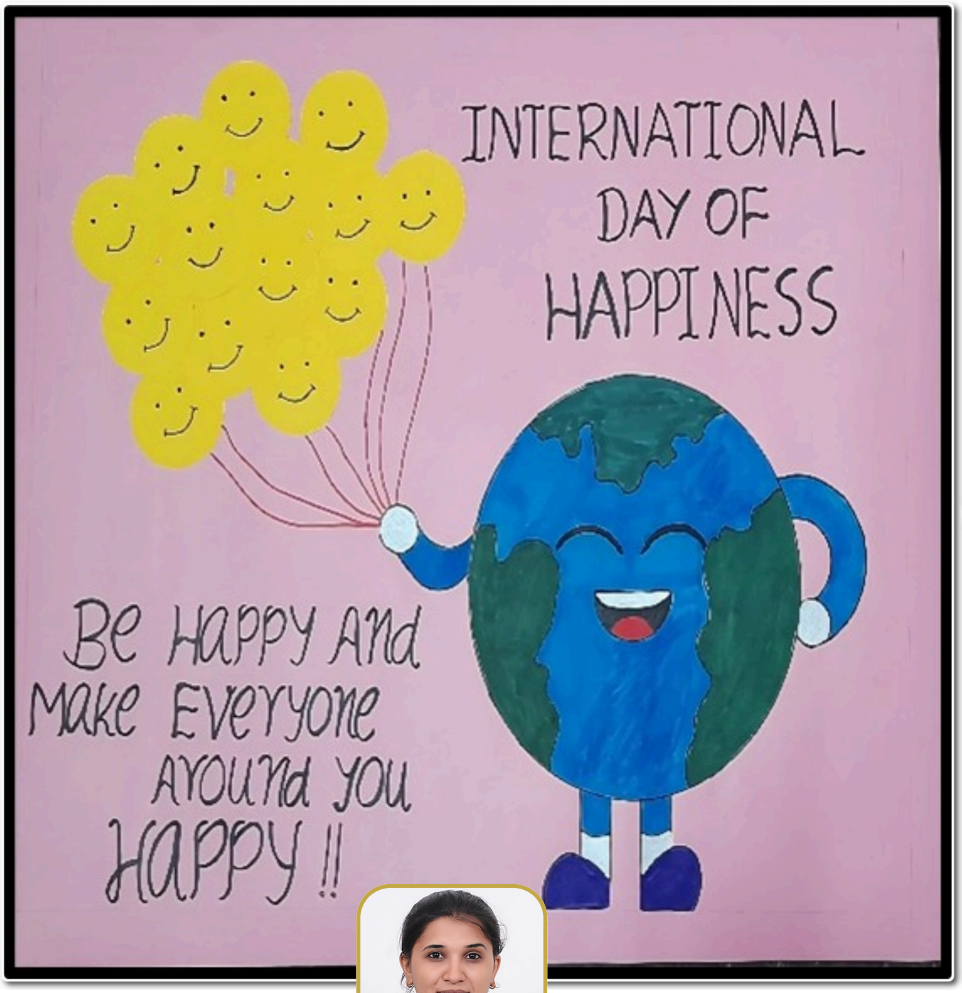
Danishka, II Year IT







Subadhanushi G, I Year IT












Ms. K. Sindhu, AP/IT

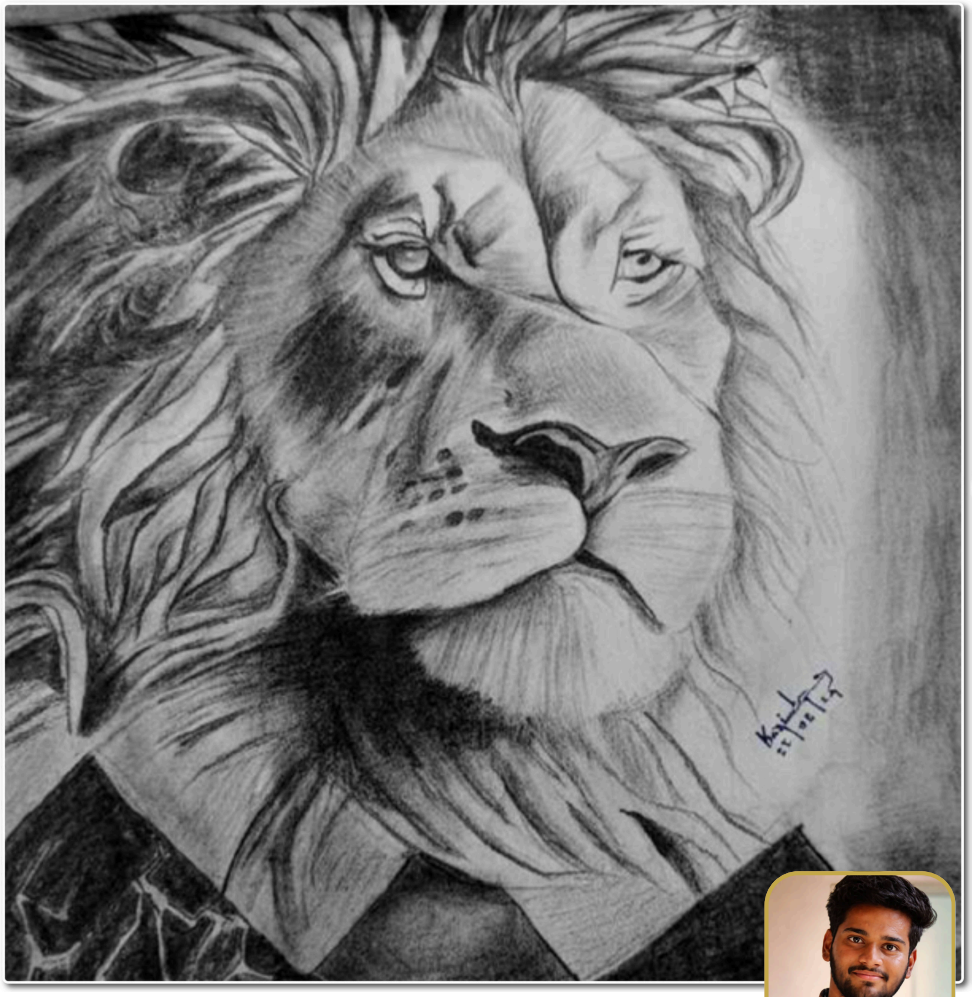


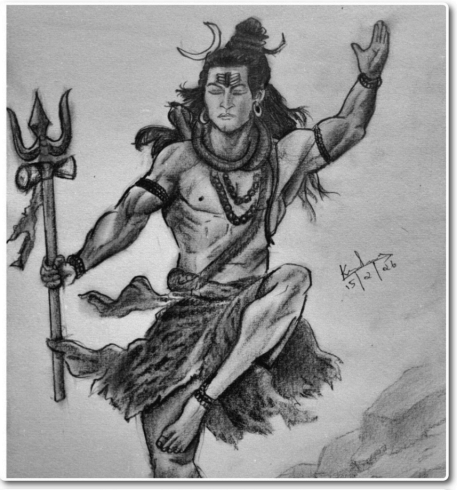






Kanishkaa, II Year M.Tech CSE





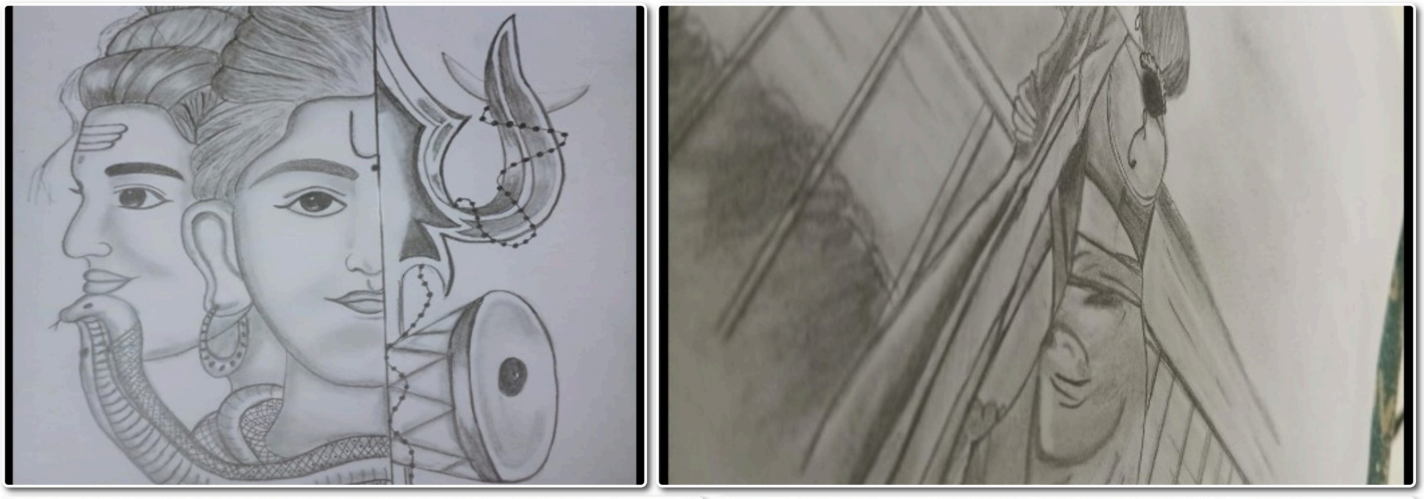


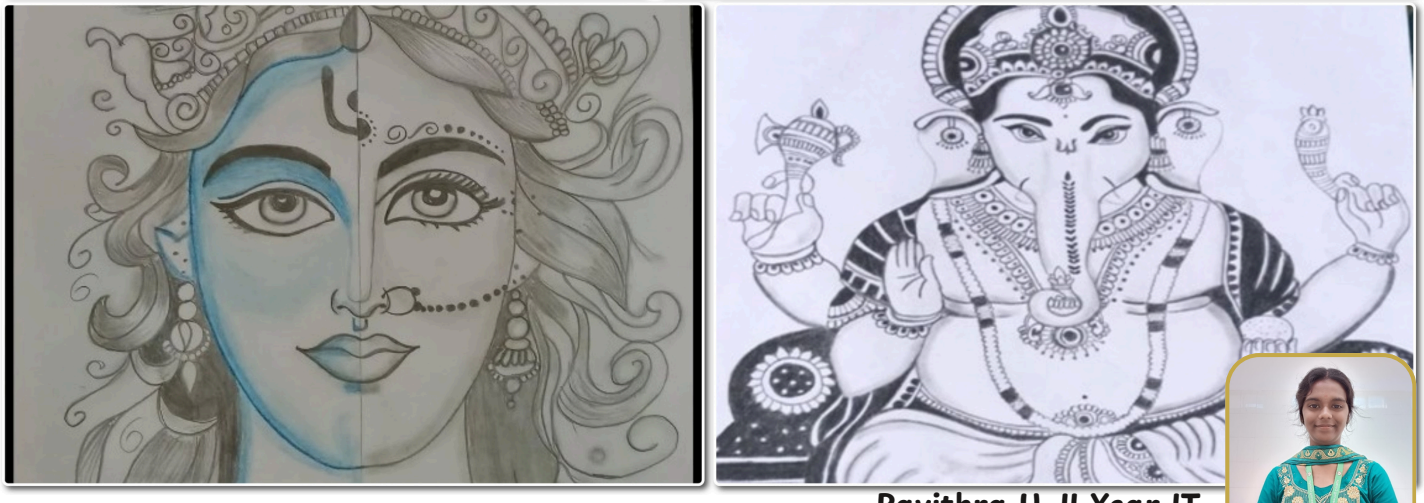


Kirhsnan S, I Year R&A

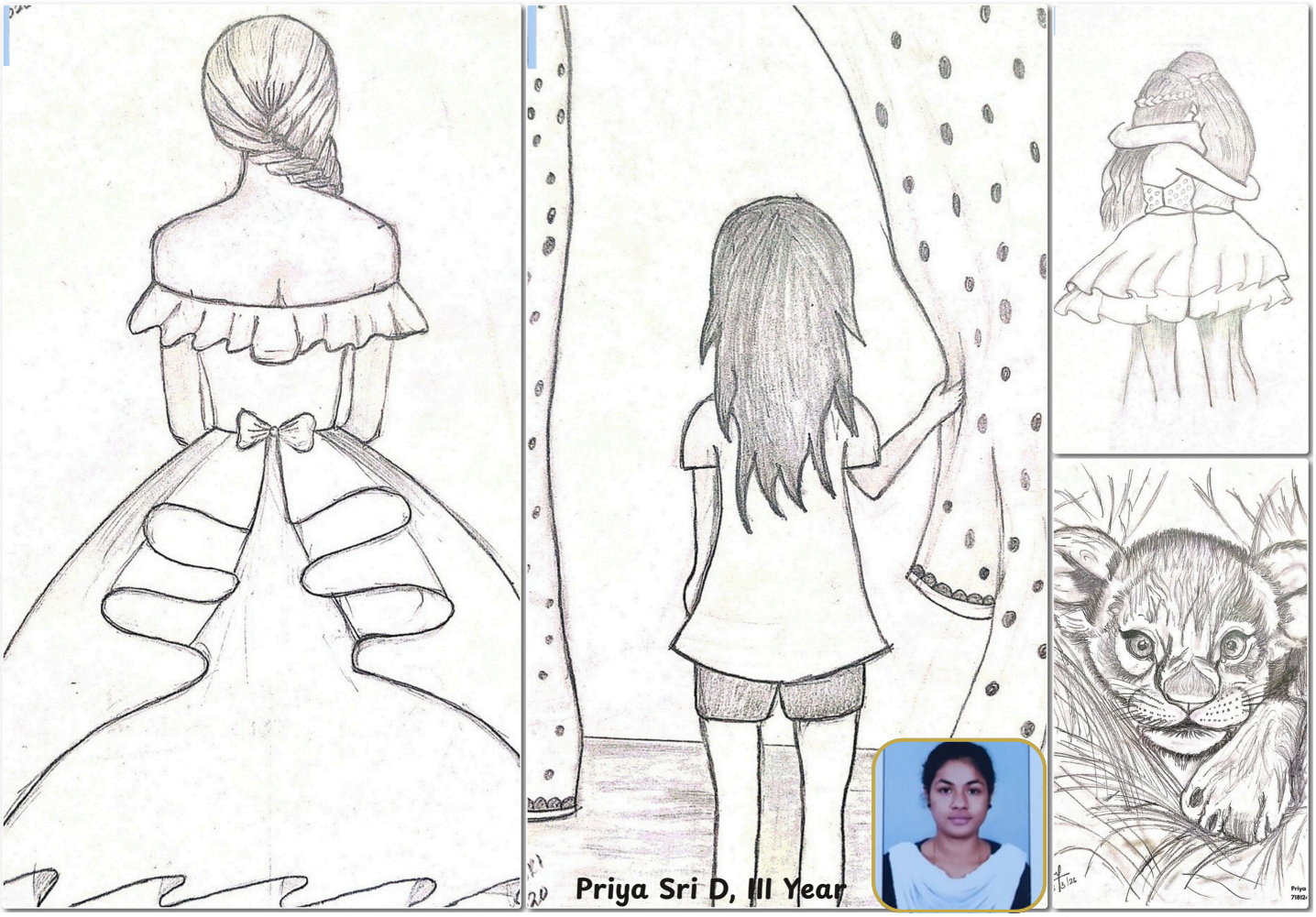


Mehavarshini, III Year ECE





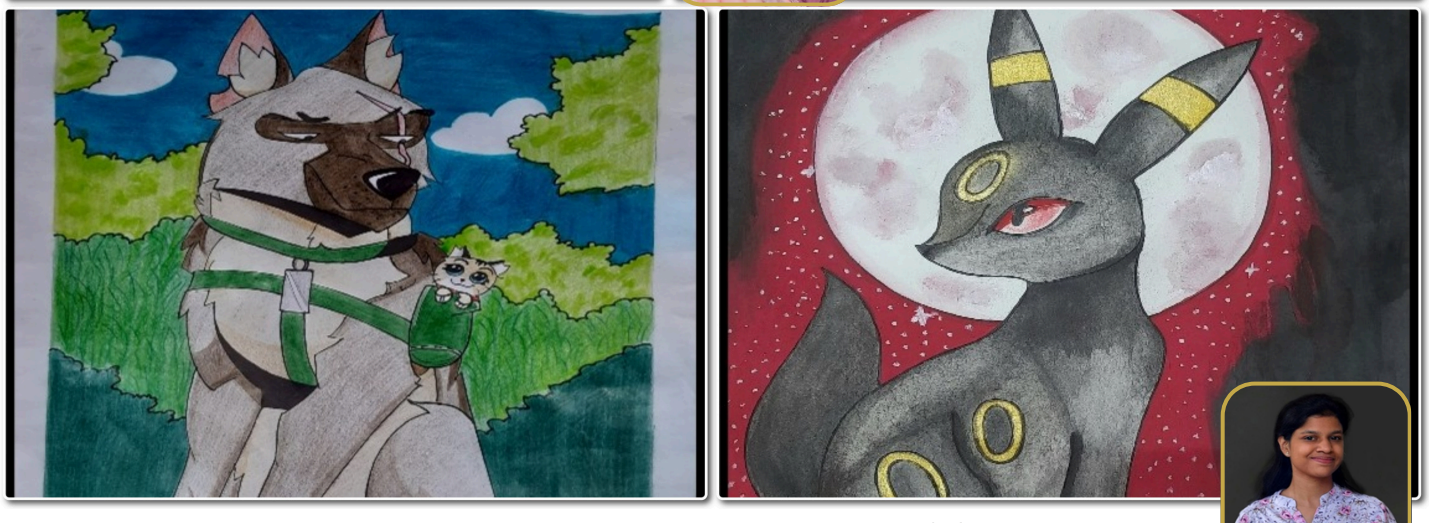
Pavithra U, II Year IT



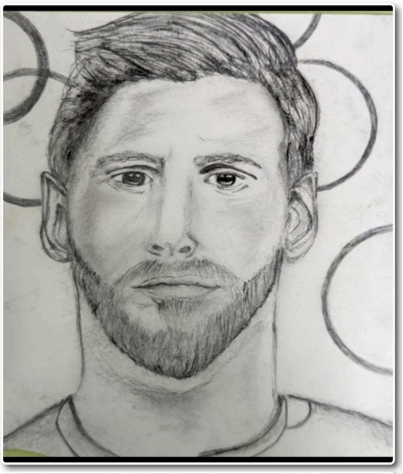
Priya Sri D, III Year

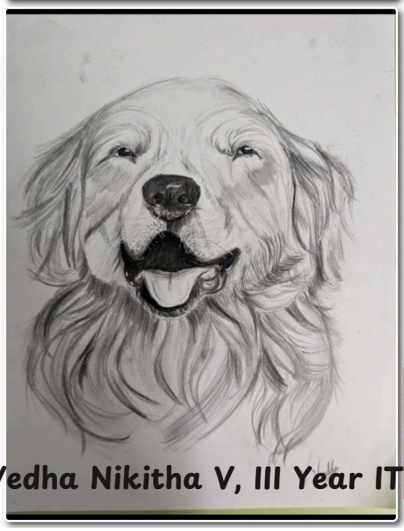


Mrs. R. K. Ragavapriya
AP(SI.G)/EEE



Varshika S, III Year IT

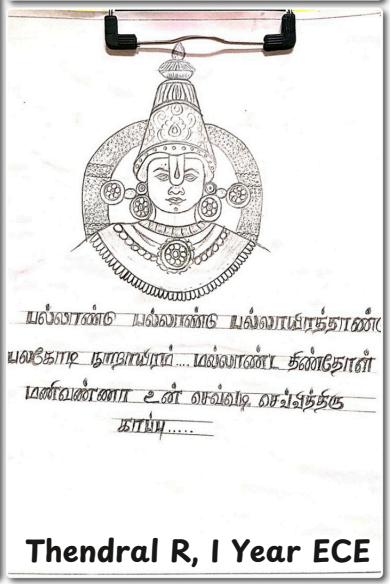




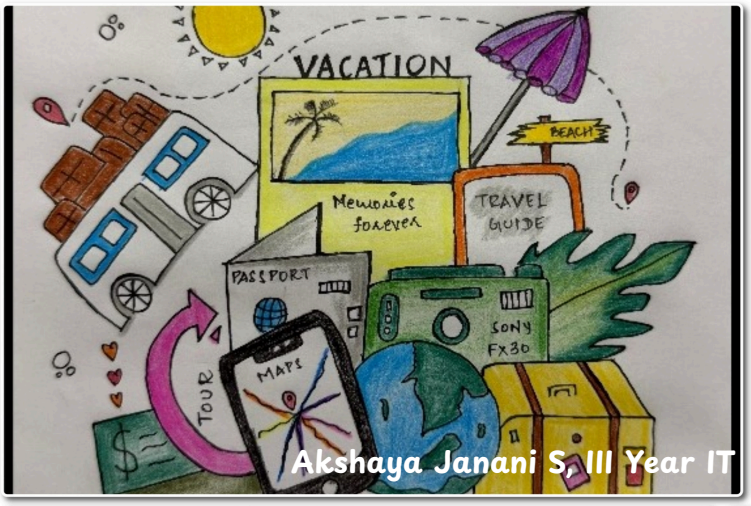
Vedha Nikitha V, III Year IT








Thendral R, I Year ECE




Akshaya Janani S, III Year IT







Dharshana R, II Year IT

சிவப்பு உறுதியின் சின்னம்!

விழுந்த தருணங்களின் குருதி அல்ல அது,
மீண்டும் எழும் மனதின் தீப்பொறி.

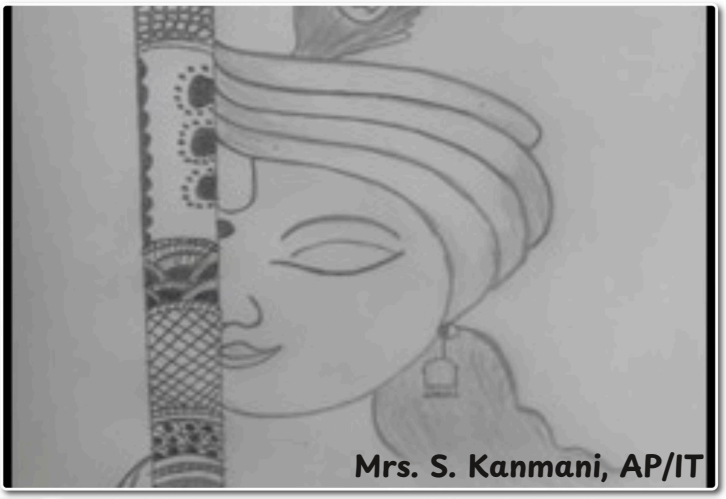
தோல்வியில் விழுந்தாலும்,
மீண்டும் எழும் உயிரின் அடையாளம்.



என் நிழல் கூட,
என்னுடன் போராட கற்றுக்கொண்டது.

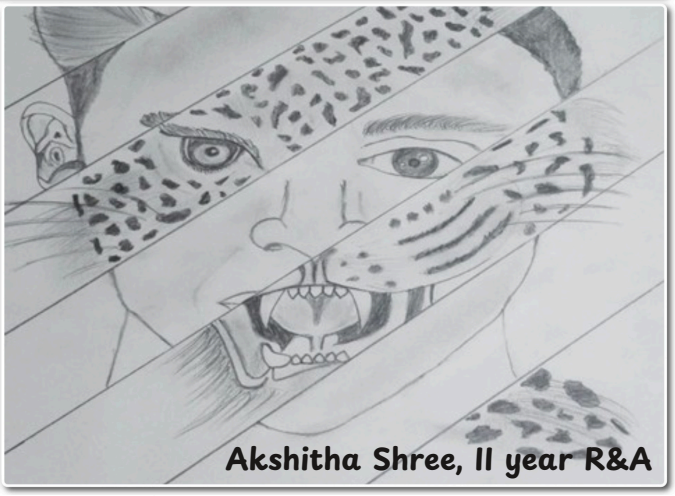
சிவப்பு நிழல் சொல்லும் ஒன்று–
"நீ நின்றால் தோல்வி,
நடந்தால் வெற்றி!"

Dr. S. Bhaggiaraj, ASP/IT



Mrs. S. Kanmani, AP/IT





Akshitha Shree, II year R&A



Kavipriya T, I Year IT



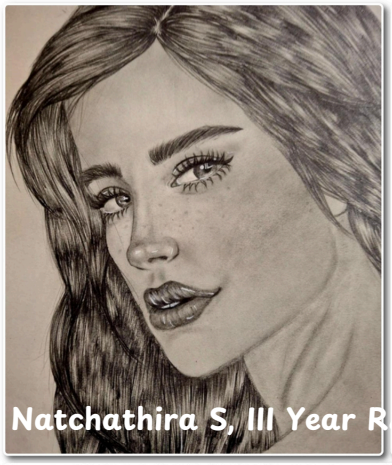
Joshika, I Year ECE



Kishore K I, III Year R&A



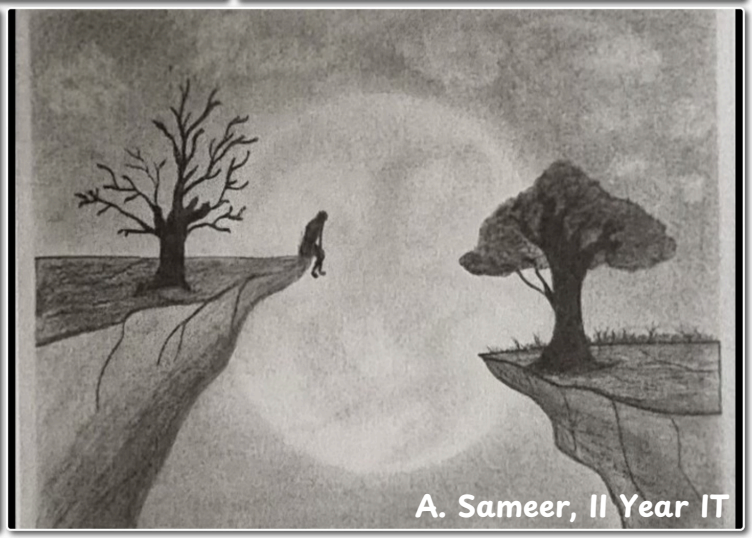
Madhan R, I Year ECE


Natchathira S, III Year R&A


Sivani M, II Year IT


Saranya S B, III year IT


Naveen Raj S, III Year R&A


A. Sameer, II Year IT

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Dr. Vichitra Sivaji
Prof & Head / English

Dr. C. Joanna Pauline
AP (Sl.G) / English

Dr. K. Savitha
AP (Sl.G) / English

Mr. K. Robin Johny
AP (Sr.G) / Aero


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R. Adhithya | A. Kowshikan - Mechanical Engineering

V. Lathika Shri | Kanish Velayutham - Computer Science and Engineering



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