



JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY

JAWAHAR GARDENS, LAKKIDI, MANGALAM, PALAKKAD, KERALA

(AUTONOMOUS)



ZENITH 2026

THE ANNUAL MAGAZINE

Our Heavenly Patron



Sri.P.K.Das

FIE, FI Mech.E, M.Ae.si., Ae.S(Lond), M.S.Eng.,C.Eng.

FOUNDER CHAIRMAN



From Chairman's Desk



The publication of a student magazine is a significant milestone in the life of any academic institution. This edition stands as a testament to the creativity, enthusiasm, and collective efforts of our students, faculty members and other likeminded staff. Education extends beyond the classroom, and initiatives such as this magazine encourage students to explore their potential in literature, research, arts, and social engagement while fostering critical thinking and effective communication. This could be a step for somebody to get a feel now and move on for making a novel in the future. I am delighted to see our students embracing this opportunity to document their achievements, reflections, aspirations, and creative pursuits. Such endeavours enrich the academic environment and strengthen the spirit of collaboration, inclusivity, and lifelong learning. It would not be possible to bring out a magazine without coordination of students and staff at different levels. I congratulate the editorial board, student contributors, faculty members and entire team behind “ZENITH”. My best wishes to this new edition of Magazine and hope it provides a new reading experience to all.

Adv. Dr. P. Krishnadas
Chairman & Managing Trustee
Nehru Group of Institutions



From CEO's Desk



The College Magazine, 'ZENITH 2026' showcases the remarkable academic achievements, literary contributions, research endeavours, creative expressions and co-curricular accomplishments of our students, faculty members and staff. I congratulate the Editorial Board, faculty mentors, student contributors and everyone involved in bringing out this excellent publication. The collective effort has transformed this magazine into a meaningful chronicle of the year's achievements and an inspiration to the entire academic community. The students are eager to write about their learning and research experiences to their companions and inspire them. Such type of articles deserves a special applause. My best wishes to all the supporting members of this institution for the successful publication of the Magazine.

Dr. P. Krishnakumar

CEO & Secretary

Nehru Group of Institutions



From Executive Director's Desk



Dear Readers,

It gives immense pride and pleasure in publishing of the college magazine, 'ZENITH 2026', showcasing the intellectual vibrancy, creativity of both students and faculty members of JCET. In order to disseminate their talents to all the stake holders, College Magazine plays a prominent role.

Through literature, art, and research this magazine brilliantly expresses the diverse talents that enrich the community as well. Learning is the culmination of all types of talents like writing, drawing, expressing feelings, and researching. Hopefully, all these talents are expressed in the form of Article, Drawings and Photo pics to the outside world, thereby students are happy and satisfied for an opportunity to bring out their hidden talents.

I appreciate the efforts of the Editorial team, faculty mentors and student contributors for shaping a beautiful magazine with quality contents. Wishing you all the best for the successful publication and the years to come.

Dr. H. N. Nagaraja
Executive Director-NGI



From Principal's Desk



Any effort made towards to record the events/activities of the Institution is welcome for the reason that it brings in the memories for the readers to know about the kind of ecosystem that prevailed in the institute. This time the Editorial board has done a great job with their staff and student editors spearheading the compilation of articles, arts, reports and health tips from the potential contributors. Congratulations to the Team Editorial for the successful release of the college magazine with a name, “ZENITH”.

ZENITH means a peak of something that we do! Here, it fits in appropriately since every single contributor has reached a peak point on their work and hence it is the zenith of all in college magazine. Zenith comes amidst the phase of students going behind the social media platforms not focusing on reading, writing and speaking. Zenith is a testimony that JCET works on the skills required through its medium as well. Once again Congratulations and Best Wishes to the Editorial Team.

Dr. Gunasekaran N

**Principal
JCET, Lakkidi**



PREFACE

Every Ending Mark a New Beginning!!! A College Magazine is a collection of stories, dreams, talents and milestones from the previous academic year. It is with immense pride and joy and deep sense of accomplishment that I welcome you to the new edition of **“ZENITH 2026”**. This publication is more than a collection of articles and artworks; it is a record of curiosity, courage, and creativity—an annual snapshot of who we are, what we care about, and how we imagine our future. The latent creative talents of the students and staff of the college and it promotes the habit of reading and writing. The College Magazine, **“ZENITH 2026”** is a shared endeavour of students, faculty members, staff of JCET and we are grateful to everyone who are submitted work. As you turn the pages, we invite you to read with openness—find new perspectives, rekindle curiosity, and let some pieces challenge you. This magazine exists to inspire conversation and connection: if a line prompts you to think differently, then it has fulfilled its purpose. It includes a detailed report of the college activities of 2025-26 academic year. The annual report of each department and bodies also included in this Magazine. It contains articles, poems, short stories, novelette, travelogue and selected art works of students. The magazine committee comprises of chief-editor, staff-editor, sub-editor, assistant staff-editor, student editor, staff co-editors and student co-editors. We hope this edition entertains, informs, and stirs you. May it remind us all that learning happens in many forms, and that every voice contributes to the living story of our college. We proudly present **“ZENITH 2026”** with immense pleasure and enthusiasm and hope for the nice reading experience. The words of gratitude to Adv. Dr. P Krishnadas, Chairman and Managing Trustee, Dr. P Krishnakumar, CEO & Secretary Dr. H N Nagaraja, Executive Director, and Dr. N Gunasekaran, Principal for supporting to make it a reality. Sincere thanks due to all contributors and all staff to co-operate with us and especially the loving students to fulfill this dream work.

Dr. Smitha T G

Associate Professor English

Staff Editor



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Pavithra V K (S5 Civil)

Athulya (S7 ECE)

Kiran Jayaprakash (S5 ECE)

Cover Design

Amith P Renjith (S5 CSE-Data)



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Dr. N Gunasekaran (Principal, JCET)

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BS&H)

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Assistant Professor Agri



Ms. Rinchu P
Assistant Professor Aero



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S7 CSE



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S7 CSE- Data



Anna Denis
S3 Aero



Pavithra V K
S5 Civil



Athulya
S7 ECE



Kiran Jayaprakash
S5 ECE



Saniya S
S7 CSE



Akhil T S
S5 ME

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Academic Report 2025-2026

JCET strives to improve its performance every year and the students and staff have been active during the academic year 2025-26

- **Total of Graduates in BTech 111 out of 220 and in MBA 45 out of 60 have passed during the academic year 2024-25**
- **Three Programmes BTech CE, BTech CSE and BTech Aero are further accredited for three more years. BTech ECE and MBA have completed the visit of NBA Peer Team for the accreditation**
- CPL Athul M (S3 CSE) and CPL Adhithyan P (S3Mech) successfully completed Army Attachment Camp (AAC) at Madras Pangode Trivandrum from 13th to 25th September 2025.
- ECCONZ, the student association of ECE conducted a one-day seminar on “The Art of Research Writing: From Research to Article” on 15th September. The seminar was led by Ms. Sonu Vargheese
- Asha Chandra Academy and NCP&IR have conducted a training session for B.Tech S7 students on 19th September. The training included GD, Mock Interview, and personality development sessions.
- Dept. of Physical Education organized APJAKTU-EZONE KABADDI Championship (Men & Women) on September 18th & 19th at JCET.
- **Dept. of Basic Science and Humanities inaugurated their students’ Association, “SAMYUKTHA”. The chief guest for the function was Dr. T Aravind Krishna, former manager, Supply Chain Design Chainalytics NTT DATA, who, launched the official logo of the Association. Dr. N Gunasekaran, Principal JCET presided over the function and Prof. Vijayakumaran Pillai welcomed the gathering**
- Dept. of Civil Engineering in association with NCP & IR celebrated Engineers’ Day on 15th September at JCET. Mr. Anil E, Executive Engineer (Civil), KSEBL, Shornur, delivered a lecture on the topic “Celebrating Engineers’ Day: Insights for Aspiring Engineers”.
- The third instalment of the INDUSTRY ASSISTED ONLINE LECTURER SERIES was conducted by IITPANINDIA Advanced Leadership Series (PALS) focused on Generative AI, covering foundational and advanced topics across four virtual sessions



held on 2nd, 10th, 11th & 18th September 2025. The sessions ran from 01.30 PM to 03.30 PM by featured expert speakers from IBM and research communities

- Dept. of Agricultural Engineering demonstrated the first stage pesticide application for the paddy nursery as part of their experimental learning on September 22, 2025
- The 5-day Bootcamp 2025 on Drone and Allied Technologies was inaugurated on September 15, 2025 at JCET in collaboration with NIELIT, Calicut, Kerala Startup Mission, KKEM, IEEE Kerala Section, WGO, and IEEE RAS Kerala Chapter. The program organized by IEDC-JCET. Mr. Rajesh M, Scientist 'E', NIELIT, Dr. R Gowri, Director Research, Dr. Shine K (Principal in Charge), Dr. KVS Raj (HoD, BBA), Mr. John George (IEDC-JCET Nodal Officer) have graced the participants
- **JCET bagged the Minister's Excellence Award for Higher Education Institutions at the National Level on September 15, 2025. JCET Principal, Dr. N Gunasekaran received the Award from Dr. R. Bindu, Higher Education and Social Justice Minister of Kerala. Mr. M Sreenivas, AM NGI, Mr. Ajeev Kumar M, AM JCET were present for the function**
- CDT Anchana completed PRE IGC RDC 3 conducted at GTC Kozhikode
- SGT Devika Sunil (S5 Aero) was selected to SSB Super 30 held at Sarabhai Institute of Technology, Thiruvananthapuram from 11 to 20th October 2025.
- JCET won the APJAKTU E Zone TABLE TENNIS championship. The Men's Team got 2nd Runner's up
- **JCET won the Fourth position out of 36 participated core Engineering teams in PALS Hackathon. The short-listed candidates under high scores category PALS Hackathon are Pavithra, Hemanth, Kiran Jayaprakash, Rakshak from ECE Department**
- **AICTE Training and Learning (ATAL) Academy Sponsored Online FDP on "Microwave and Millimeter Wave Communication Technologies for Space and Defence Applications" was held during 27th October 2025 -1st November 2025. Dr. S Raghavan was the chief guest**
- The Nehru Group of Institutions, in collaboration with Kaplan Business School, Australia, successfully hosted an enriching Masterclass on Business Analytics at Shastra Hall, JCET, on 8th October 2025. Mr. John Le Mesurier (Academic Head - Data Science & Analytics, Kaplan Business School), Mr. Gobi Muthusamy (Regional Director - South Asia, Europe, Middle East, and Africa, Kaplan Business School), and

Mr. Darren Camilleri (Campus Manager, Adelaide, Kaplan Business School) graced the event and conducted the sessions

- **NGI celebrated the Research Day 2025 to celebrate the scholarly excellence of faculty members of NGI on 10th October 2025. Adv. Dr. P Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor, P K Das Deemed to be University, Tamil Nadu, Chairman and Managing Trustee, NGI, inaugurated the function, which was held at NCERC.12 Faculty members from JCET received appreciation and cash awards for the contribution of research activities**
- **JCET bagged the Minister's Award for NBA Accreditation of Jawaharlal College of Engineering and Technology, Lakkidi, Palakkad on October 23, 2025. JCET Principal, Dr. N Gunasekaran and Vice Principal, Dr. C. Gajendran received the Award from Dr. R. Bindu, Higher Education and Social Justice Minister of Kerala, at the function held at Thiruvananthapuram**
- **An MoU was signed between Ryphira Pvt. Ltd. (IEDC-incubated startup) and JCET on 18th November 2025. This MoU focuses on student Internships, technical mentorships, joint R&D, and strengthening the innovation ecosystem on campus. Dr. N Gunasekaran, Principal JCET, Mr. John George, IEDC Coordinator, Mr. Ajeevkumar, AM JCET, were blessed the occasion with their presence**
- Department of MBA conducted an 'Outbound Training Program' for students at Noble, Coimbatore on 12th to 14th of November 2025
- Mr. Aditya and team of Agricultural Department won the best poster presentation- UG category- in National Conference on 'Food For Future: Innovations & Sustainability in Food Systems' at Kerala University of Fisheries and Ocean Studies, Kochi on 17th & 18th November 2025
- PALS conducted a 3-day online FDP Program on "AI Impact Across Industries" on 19th & 20th November 2025
- **JBS conducted a free offline add-on course for MBA students on the topic of "Data Analytics & Business Intelligence" on 10th to 14th November 2025. Mr. Jishnu Unni C, Knowledge Officer, ICTAK, Mr. Arjun R K, Project Coordinator and Trainer, ICTAK were the trainers**
- Two Days hands-on workshop was held at JCET on Google Gemini-The Google-AI- on 13th & 14th November 2025. Mr. Adhin and Mr. Adarshin, Knowledge Officers, ICT Accademy of Kerala lead the workshop

- **MATLAB workshop was conducted at JCET for all faculty members on 10th & 11th of November 2025. The expert for the workshop was Mr. Rakshith B S, senior AE, CoreEL**
- JBS of JCET signed an MoU with National Institute of Personal Management (NIPM) on November 4th 2025. Mr. Ramesanunni K M, Treasurer, NIPM Palakkad Chapter inaugurated the MOU Signing Ceremony. Dr. N. Gunasekaran, Principal JCET, delivered presidential address. Dr. Kana Sukumaran, Director Management Studies, NGIK, and Dr. Shiny C M, HoD of MBA Department addressed the gathering
- **APJAKTU-E ZONE Chess Championship (Men & Women) was conducted at JCET by the Department of Physical Education on 2 & 3 of December 2025**
- **JCET NSS Unit 251 organized 7-day Recreational Camp at Sree Sankara Oriental Higher Secondary School, Lakkidi during last week of December 2025**
- **BLOOM 2025 inaugurated on 16/12/2025: Dr. N Gunasekaran, (Principal, JCET) Dr. H N Nagaraja (E.D.), Ms. Anarkali Marakkar, Ms. Surabhi Lakshmi, Mr. Shain Nigam, Mr. Bibin Geroje, Mr. Vishnu Unnikrishnan, Dr. R. Gowri (Director Research), and Dr. Anoop (Principal NCERC)**
- **NSITE 2025 inaugurated at JCET by Shri. Feroz. M. Shafeeq, Superintendent of Police, Crime Branch CID. Palakkad. The inaugural ceremony was graced by the presence of Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, Shri. S. Jayakrishnan, Additional Divisional Railway Manager, Dr. A.K. Ashraff, Associate Director, VSSC-ISRO, and all the Heads of Institutions of NGI Colleges**
- Mr. Sourav A R, selected for Ek Bharath Shreshtha Bharath (EBSB) at Sir Syed College, Thaliparamba, Kannur from Dec. 23, 2025 to Jan. 3, 2026. Mr. Akshay Girish, selected for EBSB-II at Gujarat from Dec. 12 to 23, 2025
- Mr. Pranav T Varshan (S8CSE), Ms. Amritha Laxmi K (S2 CSE) bagged Mr & Mrs. NGI of BLOOM 2025
- NBA visit at JCET from 16th to 18th January 2026 for ECE & MBA Departments
- Results of Nehru Science, Innovation and Technology Expo (NSITE-2025) has been announced. Department of Electronics and communication engineering secured the first position. Second and third position is secured by the department of CSE and AERO.
- An interactive and impactful soft skill training programme titled “Level UP!” was successfully conducted for all Final Year students of JCET, jointly organized by IEDC,

K-DISC, and KKEM. The session was expertly handled by Ms. Sneha, Life Skills & Employability Trainer, ASAP Kerala, who served as the Trainer, delivering valuable insights with excellent student engagement

- NGI-TBI conducted an expert talk on “Empowering Startups Through IPR” on 18th January 2026
- Department of MBA, conducted CEO CAFÉ on January 19,2026 with Mr. K T. Thomas, MD, RHEMA Dairy at JCET
- Department of Agriculture Engineering harvested the paddy field as part of their field study
- Honourable District Collector, launched the promo poster of Spectra 2026
- Spectra2026 poster was launched by Mr. Joy Alukkas
- Students of S6-Civil Engineering have visited the Meetna check dam and other hydraulic structures on 09th January 2026, as a part of their field visit. They gained practical knowledge on different construction plans and structures
- Department of BS&H organised a Road Safety Awareness programme such as Invite Talk and Talk by students on 27th January 2026
- Department of BS& H conducted a One Day Environment Visit to Ootty, Silent valley, Athirappilly and Kozhikode for students of S2
- The 4th Academic Council Meeting of JCET was conducted on 30th January 2026. Dr. N. Gunasekaran, Principal JCET, KTU nominees and Industrial experts were attended meeting
- JCET gave a sent off to Prof. Vijayakumaran Pillai, Emeritus Professor of Maths on 31st January 2026
- Mr. Mehfil Miras (S4 Aero) participated in Zonal Competition of Speak India conducted by Federal Bank and Mathrubhoomi
- Mr.Alen T J, S4-Aeronautical Engineering has secured Third position in Kerala State level Karate Championship (kata and kumite).
- Vishnu Hari- (S4 Cyber), Anjitha Sreejith (S6 Agri), and Ananthu M (S4 CSE) Fidha Nourin (S6 Agri) are selected for Chief Minister’s Mega Quiz 2026 organized by the Government of Kerala
- Mr Adithya Kumar (S4 CSE Data) selected to the Indian Navy Agniveer (SSR)
- The 14th Graduation Day of JCET was celebrated on 07/02/2026. The ceremony was inaugurated by **Prof. Dr. K P Sudheer**, Ex Officio Principal Secretary for the Science

& Technology Dept. Of Govt. of Kerala and Executive Vice President, KSCSTE. The function was graced by the presence of **Adv. Dr. P. Krishnadas**, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI

- M/s. Technovalley signed MoUs with NCERC and JCET on 23/02/2026, to strengthen student employability and industry readiness. Dr. N. Gunasekaran, Principal JCET, Dr. Anoop, Principal NCERC were present in the Signing ceremony
- **SPECTRA 2026, the Management Fest was inaugurated by Shri. Ravi Meena, IAS, Assistant Collector, Palakkad. The ceremony was enriched by the presence of Dr. Joy Alukkas, Chairman & Managing Director of Joyalukkas Group, Mr. P.P. Mustaffa, MD, Nila Group of Companies, Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, Mr Sajeesh Kumar, K M, Founder and MD, Elanadu Milk Pvt. Ltd., Kerala**
- Ryphira Pvt. Ltd., incubated under IEDC JCET, alongwith Govt. Polytechnic College, Chelakkara, signed a MoU with 35 Industries & Startups on 17/02/2026
- The PALS innoWAH! 2025–26 Kerala Cluster Finals were successfully hosted by the JCET on the 21st of February 2026. The event witnessed the enthusiastic participation of 35 innovation teams under the theme of "Engineering solutions with bytes and bolts" from engineering colleges across Kerala and neighboring states
- MoU signed between M/s Avanzo Cyber Institute Pvt. Ltd., Thrissur, Kerala, and Dept. of CSE Cyber Security JCET on 13/02/2026
- IEEE-International Conference on “Intelligent Data Communication Technologies and Internet of Things” (IDCIoT 2026), was inaugurated on 04/02/2026 at JCET. Mr. Harikrishnan P M, Senior Research Engineer, Quantiphi Analytics, Bangalore was the chief guest.
- Faculty Members from JCET attended PALS FDP on “AI for Educators”, held at Sahridaya College of Engineering and Technology on February 26 & 27th 2026
- The Annual Sports & Athletic Meet, OORJA 7.0 was conducted on 16th & 17th of February 2026 at JCET Sports Ground. All the students participated and it became a grand success. Dr. N Gunasekaran, Principal JCET congratulated the winners
- JCET celebrated the Annual Day 2026 on 28th March. The chief guest of the function was **Mr. Prathap Hari**, Game Developer, YsecIT Softwares, Bangalore, and an



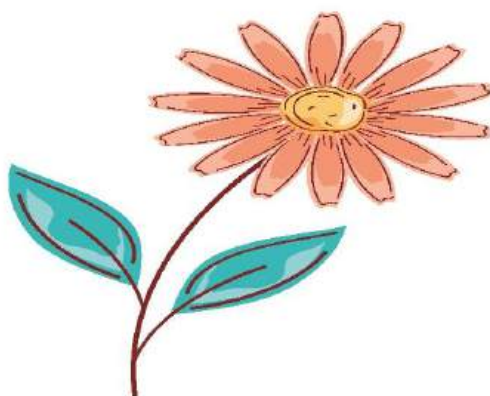
alumnus of JCET. The function graced by the presence of **Adv. Dr. P. Krishnadas**, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, and Dr. N Gunasekaran, Principal JCET

- Business Innovation Super league (BIS 1.0), a carnival of Business and Innovation, IEDC JCET and JBS jointly hosted the program at JCET. The ceremony graced by the presence of **Adv. Dr. P. Krishnadas**, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee
- JCET ranked 26th in Engineering category by Kerala Institutional Ranking Framework (KIRF) of Department of Higher Education, Govt. of Kerala. The Award received by Dr. H N Nagaraja, Executive Director NGI, Dr. N Gunasekaran, Principal JCET and Dr. C Gajendran, Vice Principal JCET
- Ms. Ansi Roshni, Ms. Smija, Ms. Aparna and Ms. Anjitha of Agri Engg, won Rs.25,000 in a IEDC competition held at Amaljyothi College of Engineering, Kerala. The team is guided by Ms. Smegha N C, Dr Athira, and Mr. Kiran, Staff members from Dept. Of Agri, JCET guided the students and Mr. John George supported them to participate in IEDC Competition.
- Anjali B, Naveen N M, and Gopika K M of S8 CSE won a cash prize of ₹25,000 in the District Level Selection of Young Innovators Programme (YIP) 8.0, organized by the Kerala Development and Innovation Strategic Council (K-DISC). Guided by Ms. Dhanyaja P, AP/CSE, Supported by Ms. Akhila E, AP/CSE, JCET YIP Nodal Officer
- The Department of Civil Engineering signed an MoU with BIMLABS Engineering Services Pvt. Ltd. Ernakulam on 23rd April 2026. This MoU is expected to benefit the faculty members for updating their knowledge and students to develop their skills required for the industry. There is a plan to establish a BIM Lab in the campus
- Team Varsha with NCERC won the event “Showdown”, held at Saint Gits College of Engineering and Technology, Kottayam on 28-02-2026. They are awarded with Rs. 10,000 as the following snap shows the students receive the prize money from the Guest, Mr. Stephen Devassy
- JCET celebrated Vishu on 8th April 2026 with the presence of Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, Dr. N Gunasekaran, Principal

JCET, Dr. Sony Vijayan, Principal Nehru Academy of Law, Dr. P D Sebastian, Director, Nehru Academy of Law, Mr. K Prabhakaran, Training Manager, Jawaharlal Aviation Institute

- The PALS Leadership Conclave 2026, held at IIT Madras, focused on “Transforming Teaching & Research in the Journey to Institutional Excellence.” This event was attended by Dr. Gunasekaran N (Principal), Dr. Ajith V S. AP/Aeronautical Engineering on 10-11th April 2026.
- Department of Agriculture Engineering conducted One Day Hands-On Training on “Farm Machinery Operation, Repair & Maintenance” on 25th April 2026 at JCET indoor Stadium. The resource persons were Dr. Athira Prasad, Assistant Professor, Agriculture Engineering and Mr. Kiran K (Lab Assistant, Agriculture Engineering and SDC Trainer at KMGVHSS, Tavanur.)
- NGI has signed an MoU with DMW CNC Solutions India Pvt. Ltd. at JCET on May 8th 2026 with the presence of Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, Mr. K. Parivallal, Director, Mr. Rajkumar, General Manager of DMW CNC Solutions India Pvt. Ltd. Dr. H N Nagaraja (E D), Dr. N Gunasekaran (Principal JCET), Dr. Anoop K (Principal NCERC) were present for the ceremony.
- “Aadaram 2026”, Ottapalam’s biggest Celebration of Excellence was conducted at JCET. Adv. K Premkumar, MLA Ottapalam, inaugurated the function and distributed the prizes to S.S.L.C., Plus Two winners
- Mr. Hemanth V and Mr. Rakshak R have been shortlisted for the prestigious MYOSA kit worth 250 USD. This selection also makes their team eligible to participate in the upcoming IEEE MYOSA competitions.
- DCOODE, an engineering initiative launched by third year students of JCET was officially inaugurated on 23rd May 2026
- Department of Civil Engineering has inaugurated 30-Days Summer Internship Program on 01.06.2026, in association with BIM Labs Global. The programme was inaugurated by Dr. N. Gunasekaran, Principal, JCET. This internship programme is designed to provide Hands-on practical training, Live project case studies and assignments, Exposure to BIM (Building Information Modeling) and modern construction technologies, Interaction and training from industry experts for students

- Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius-India, Chancellor of P K. Das Deemed to be University and Chairman & Managing trustee of NGI, has inaugurated the Directorate of Admissions and Outreach Centre on 02.06.26 at Jawahar Gardens, Lakkidi, Palakkad
- Faculty of Jawaharlal business school have visited Koso India Private Ltd on 05.06.2026, where MBA students are working as interns. Learning and professional development taking place in a real-world work environment
- All staff of JCET offered Floral tributes to the Founder Chairman, Late Shri. P K Das on the occasion of Smriti Dinam, 09.06.2026 and the staff have attended a programme which was organized at NCERC
- Department of Agriculture Engineering has organized a one day hands-on training on 'Mushroom Cultivation' on 06.06.2026. The session received huge response from farming enthusiasts and covered all aspects from production to value addition in mushrooms & marketing. The session was handled by Mr Radhakrishnan and Mrs. Priya Radhakrishnan (Karthika Mushrooms, Pallassana).
- **FDP on MATLAB, FDP on Rivet Architecture, and FDP on Transforming Education Through Quality, Innovation, Research and AI Enabled Academic Practices have been conducted during the Month of June 2026**
- **Ms. Shalima L Madhu, BTech Aero Student has secured First Rank in KTU during the Academic Year 2025-26**



Reports from Departments

Department of Civil Engineering



Annual Report (2025–2026)

The Department of Civil Engineering at Jawaharlal College of Engineering and Technology (JCET), Lakkidi, entered a new phase of academic excellence during the academic year 2025–2026 with the introduction of the B.Tech. in Civil Engineering with Computer Application from the 2025 admission onwards. The revised programme integrates the fundamentals of Civil Engineering with emerging digital technologies, preparing graduates to meet the evolving demands of the construction and infrastructure sector.

The department currently has a total student strength of 99, comprising 30 students in Semester I, 33 students in Semester III, 28 students in Semester V, and 8 students in Semester VII. The department is guided by a committed team of 8 highly qualified faculty members dedicated to quality teaching, research, innovation, and student development.

The department achieved an outstanding academic milestone by securing 100% pass results in both the S7 and S8 KTU University examinations, reflecting the commitment of the faculty and the hard work of the students.

A major highlight of the academic year was the inauguration of the department association, VYUHA 2025, held on 1 August 2025. The programme was inaugurated by Dr. P. R. Sreemahadevan Pillai, who inspired students through his inaugural address. The event was followed by a technical talk on "Concrete Mix Design" by Dr. Athiappan K., providing valuable insights into contemporary concrete technology and construction practices.

The department received national recognition by becoming an Academic Partner for SATVA 2026, an international symposium organized by the Department of Civil Engineering, IIT Palakkad. The

symposium focuses on sustainable pavement materials and innovative infrastructure practices, creating an excellent platform for collaboration between academia and industry.

Another notable achievement was the department's recognition under the IIRS Outreach Programme of the Indian Space Research Organisation (ISRO). This recognition enables faculty members and students to access advanced courses in Remote Sensing, Geographic Information Systems (GIS), and Geospatial Technologies, thereby strengthening research, technical competency, and interdisciplinary applications in infrastructure planning and environmental studies.

The Department of Civil Engineering also functions as an authorized Remote Centre of the National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, facilitating AICTE-recognized Short-Term Programmes (STPs). These programmes contribute significantly to enhancing the technical knowledge, teaching effectiveness, research capabilities, and professional skills of both faculty members and students.

Strengthening industry–academia collaboration remained one of the department's major priorities. A productive interaction was held with Mr. Biju from Textra Interiors, exploring opportunities for collaborative training, industry exposure, and skill development. Further strengthening this initiative, the department signed a Memorandum of Understanding (MoU) with BIM Labs, paving the way for

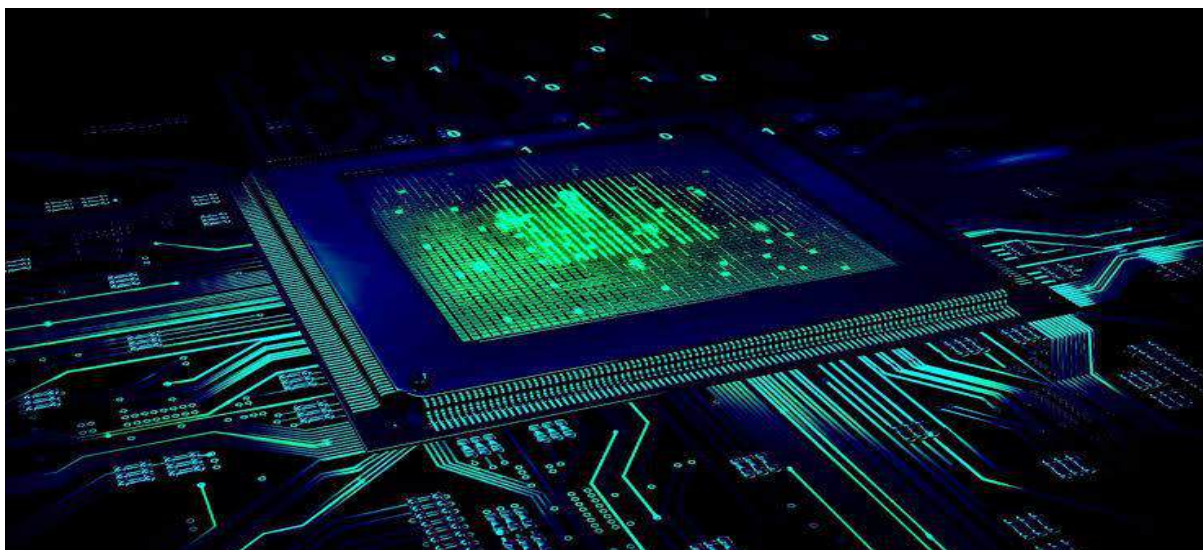
collaboration in Building Information Modelling (BIM) training, internships, certification programmes, and industry-oriented learning.

The department takes immense pride in the accomplishments of its students. Adithyan P. S., Abdul Fathah, and Bhavin Sunil, first-year students, secured the Third Prize in Sparkathon, organized by the IEEE Student Branch at Sreepathy Institute of Management and Technology on 27 March 2026. Their achievement reflects the department's commitment to nurturing innovation, creativity, and teamwork among budding engineers.

As part of experiential learning, all third-year and final-year students successfully completed their industrial internships, gaining valuable professional exposure across reputed organizations. In addition, the department organized three Industrial Visits (IVs), providing students with practical insights into construction techniques, infrastructure development, manufacturing processes, and emerging engineering technologies.

With a strong emphasis on academic excellence, research, industry collaboration, innovation, and holistic student development, the Department of Civil Engineering with Computer Applications continues to prepare competent engineers capable of addressing the challenges of sustainable infrastructure and the rapidly evolving technological landscape. The department remains committed to achieving greater milestones in teaching, research, entrepreneurship, and professional excellence in the years ahead.

Department of Electronics & Communication Engineering



Powering Innovation • Inspiring Excellence • Shaping the Future

"Success is where innovation meets determination." This academic year has been an inspiring journey for the Department of Electronics and Communication Engineering, filled with remarkable accomplishments in research, academics, innovation, student development, and extracurricular excellence. Every milestone reflects our commitment to creating competent engineers who are ready to transform ideas into impactful technologies.

Research that Inspires: Academic excellence reached another significant milestone with the successful completion of a **Doctor of Philosophy (PhD)** under **Kerala Technological University** under the guidance of **Dr. Ansil K.A., Head of the Department**. This achievement reflects the department's vibrant research ecosystem and its unwavering commitment to nurturing future researchers and innovators.

Towards Global Standards: **NBA Accreditation Journey:** Quality education remains the cornerstone of the department. Through the **National Board of Accreditation (NBA)** framework, the department continues to strengthen Outcome-Based Education (OBE), ensuring students graduate with the knowledge, practical skills, professional ethics, and problem-solving abilities demanded by today's rapidly evolving engineering landscape.

Innovation in Every Circuit: **Learning with MYOSA:** **Innovation** comes alive through **MYOSA (Make Your Own Sensors Applications)**, an interactive plug-and-play learning platform that transforms classrooms into innovation labs. Designed like a LEGO kit, MYOSA enables students to build sensor-based applications by simply connecting modular blocks consisting of sensors, actuators, and OLED displays.

By encouraging experimentation and hands-on learning, MYOSA equips students with practical knowledge in Embedded Systems, IoT, and Sensor Technologies.



NSITE 2025

Where Ideas Become Reality

The department actively participated in **NSITE 2025 (Nehru Science Innovation and Technology Expo)**, one of the country's premier technology festivals. The event provided students with an exceptional platform to showcase innovative projects, exchange ideas with experts, and demonstrate their technical creativity before a national audience.

Every project reflected the department's spirit of curiosity, innovation, and technological excellence.



National Achievement

Top 5 in PALS ANALYSE 2025

One of the year's biggest accomplishments came when our student team secured a **Top 5 All India Position** in **PALS ANALYSE 2025**.

Competing against some of the country's brightest engineering minds, the team demonstrated exceptional analytical ability, technical expertise, and innovative thinking by successfully solving complex industrial problems under intense competition.

This remarkable achievement stands as a testament to the department's culture of excellence and industry readiness.



Beyond the Classroom

The department believes that education extends beyond laboratories and lecture halls. Students actively participated in cultural and sporting events, showcasing leadership, creativity, and teamwork.

Onam 2025

The ECE family displayed remarkable unity and determination by winning **First Prize in Tug of War**, proving that teamwork truly makes the dream work.

UDHYAMA

Adding another colourful chapter to the year's achievements, students secured **First Prize in the Fashion Show**, impressing everyone with creativity, confidence, and outstanding stage presence.

Celebrating Academic Excellence

Success deserves celebration.

The Department proudly congratulates the **Top Performers of the 2022–2026 Batch**, whose dedication, perseverance, and consistent academic excellence continue to inspire every aspiring engineer in the department.

A Moment of Pride

Best Paper Award at Kerala Higher Education Conclave

The department celebrated a proud milestone as a faculty member received the **Best Paper Award** at the prestigious **Kerala Higher Education Conclave**, organized by the Kerala State Higher Education Council. The

award, presented by **Dr. R. Bindu, Honourable Minister for Higher Education**, recognized outstanding research contributions and reaffirmed the department's growing reputation in academic excellence and innovation.

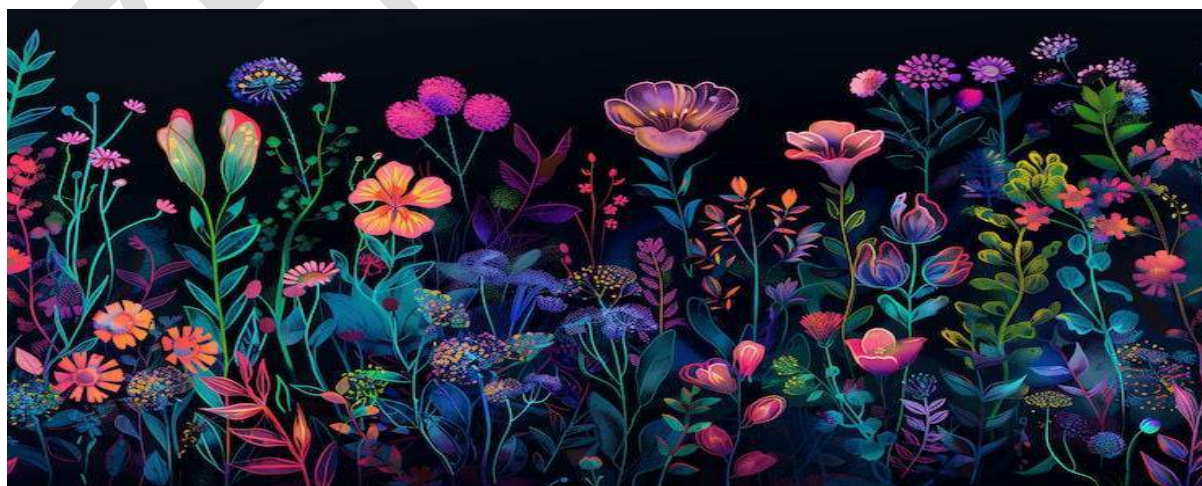


The Journey Continues...

Every achievement this year reflects the passion, commitment, and collective effort of our students, faculty members, researchers, alumni, and staff.

As technology continues to reshape the world, the Department of Electronics and Communication Engineering remains dedicated to nurturing innovators, researchers, entrepreneurs, and socially responsible engineers who will shape the future through knowledge, creativity, and excellence.

Here's to another year of innovation, discovery, and limitless possibilities!



Department of Aeronautical Engineering

INDUSTRIAL VISIT TO BEML LIMITED, PALAKKAD

As a part of the academic curriculum of the subject Industrial Safety Engineering, the 52 students of the Department of Aeronautical Engineering, Jawaharlal College of Engineering and Technology, undertook an industrial visit to BEML Limited, Palakkad. The main objective of this visit was to gain practical knowledge about industrial safety systems, safety management practices and real-time implementation of safety policies in a large-scale manufacturing industry. The visit was also intended to expose students to defence manufacturing environments and heavy engineering operations. The visit commenced on 23/08/2025 at 10:30 AM and concluded at 1:00 PM, during which students attended technical and safety sessions followed by a guided plant visit.



TECHNICAL DEMONSTRATION, SAFETY AND SKILL DEVELOPMENT

Jawaharlal College of Engineering and Technology (JCET), organized a **technical session and live fire safety demonstration** titled “*Flame Guard 2025*” on **21st October 2025** at **Sahithya Hall, JCET**. The event was conducted for **Seventh Semester (S7) students** as part of the subject “*Industrial Safety Engineering*.” The primary objective of the program was to create awareness about fire safety practices, hazard identification, and effective emergency response techniques in real-world situations. The **resource person, Mr. Sasidharan N. Charakottil, Lead Trainer and Fire Safety Consultant**, delivered an enlightening **technical lecture** on *fire safety principles, hazard identification, and preventive measures*. Following the lecture, a **live fire safety demonstration** was conducted in the presence of faculty members, students, and staff. The demonstration focused on the **proper handling and usage of fire extinguishers**, allowing participants to gain **hands-on experience** in extinguishing controlled fires under expert supervision. The live demonstration provided a realistic understanding of fire behavior and the immediate actions required during emergencies.



ASSOCIATION (HARDFLYERS) INAUGURATION

On 25th July 2025, the Department of Aeronautical Engineering at Jawaharlal College of Engineering and Technology (JCET) inaugurated the Hardflyers Student Association activities for the academic year 2025–2026 at Sahithya Hall. The event featured the presentation of the association's achievements from the previous year, the introduction of the newly elected student office bearers, and an inspiring technical talk by industry experts **Mr. Arjun Gunaseelan** from Boeing India and **Mr. Akhil Menon** from Bosch Global Software Technologies. Drawing from their professional experiences, the speakers shared valuable insights into aerospace technologies, career development, and the importance of innovation, research, and extracurricular involvement, motivating students to actively engage in technical and professional growth throughout the academic year.



SEMINAR ON AEROSPACE TECHNICAL PUBLICATION AND DESIGN ANALYSIS

On 12th January 2026, Jawaharlal College of Engineering and Technology (JCET) hosted a Seminar on Aerospace Technical Publication and Design Analysis. The event was organized by the Hardflyers Student Association from the Aeronautical Engineering Department in association with Aviano Private Limited, Bangalore.

The event provided students with valuable insights into technical publications, design analysis, and career opportunities in the aerospace industry. **Mr. Nabeel P**, Founder and CEO,



introduced various career paths in aviation, followed by **Mr. Abhikrishna**, Manager at Aviano, who highlighted the importance of technical manuals in aerospace operations. **Mr. Pavan K. Manoj**, Technical Officer, shared his expertise on technical authoring, while **Ms. Falguni Kamble** from the Human Resources team concluded the sessions with practical guidance on effective resume building to enhance students' career readiness.



EXPERT INTERACTION SESSION BY PRINCIPAL SCIENTIST, CSIR–NATIONAL AEROSPACE LABORATORIES (NAL)

An expert interaction session was organized by the Department of Aeronautical Engineering in association with the Department of Electronics and Communication Engineering, JCET. Dr. Mrudula G, Senior Principal Scientist, CSIR–National Aerospace Laboratories (NAL), Bengaluru, visited the campus and interacted with final-year students on research and career opportunities at NAL. CSIR - NAL focuses on civilian aircraft development and advanced topics in aerospace and related fields.

Dr. Mrudula delivered an engaging talk on the latest research activities at NAL, opportunities for student internships, project collaborations, and pathways to becoming research assistants. Students actively interacted with her, raising queries on aerodynamics, UAV systems, materials, avionics, and career prospects in national research establishments. The session proved highly informative and motivating for the participants.



Department of Master of Business Administration (MBA)



Activity Report – Academic Year 2025–2026

The Department of Master of Business Administration (MBA), Jawaharlal Business School (JBS), Jawaharlal College of Engineering and Technology (Autonomous), successfully organized a series of academic, industry-oriented, research, and student development activities during the academic year 2025–2026. These initiatives were designed to bridge the gap between classroom learning and industry practice while fostering leadership, innovation, research, entrepreneurship, and professional excellence among students.

June 2025

The academic year commenced with the observance of the **International Day Against Drug Abuse and Illicit Trafficking**, where students and faculty took the Anti-Drug Pledge led by **Dr. C. Ashokan, Head of the Department**. The programme emphasized the importance of building a drug-free campus and nurturing socially responsible future managers.

July 2025

The department began the academic year with several leadership and career-oriented programmes.

On **18 July 2025**, an expert talk on "**Opportunities and Challenges of Modern Banking**" was delivered by **Mr. N. Vaidyanath**, providing MBA students with valuable insights into contemporary banking practices and financial services.

A **Training of Trainers (ToT)** programme on **Leadership Skills** was conducted on **29 July 2025** by **Prof. (Dr.) Kana Sukumaran**, Chair Professor, Indian Institute of Corporate Affairs, focusing on leadership competencies and managerial excellence.

An **Alumni Talk** featuring **Ms. Karthika (MBA 2022–2024 Batch)** was organized on **30 July 2025**, inspiring students through her professional journey and career experiences.

On **31 July 2025**, Semester III MBA students visited **Malabar Cements Ltd., Walayar**, gaining first-hand exposure to manufacturing operations, logistics, finance, and public sector management.

August 2025

The month witnessed several academic enrichment programmes.

An expert session titled **"Bridging People and Performance"** was conducted on **1 August 2025** by **Mr. Rathish M., Head – Human Resources, Patspin India**, highlighting contemporary HR practices and employee performance management.

On **5 August 2025**, the department organized a **National Workshop on "AI Applications in Management Research and Publications,"** equipping faculty members, scholars, and students with practical knowledge of Artificial Intelligence tools for research methodology, academic writing, and scholarly publishing.

The department, in association with **Nehru Corporate Placements and Industry Relations (NCPIR)**, also organized a **Design Thinking Workshop**, led by **Mr. Aravind Warriar**, HR Leader, Volvo India, promoting innovation and problem-solving skills among students.

As part of the MBA induction programme, an expert talk on **"Empowering Through Entrepreneurship"** by **Ms. Vinitha Joseph**, Senior Technology Fellow, Kerala Startup Mission (KSUM), inspired students to explore entrepreneurial opportunities.

The new MBA batch also attended an induction session titled **"Fueling Ambitions, Shaping Futures,"** delivered by **Mr. Amarinder Singh**, Operations Head, Pyarelal Group, motivating students to prepare for successful corporate careers.

September 2025

Industry interaction continued through several expert talks and industrial visits.

On **12–13 September 2025**, Semester III MBA students undertook an **Industrial Visit to Cochin Port Container Freight Station (CFS) and Ernakulam Wharf**, where they gained practical exposure to logistics, port operations, international trade, and container management.

An **Investor Awareness Programme on Personal Finance** was organized on **18 September 2025**, with **Mr. Balusamy Sellappan**, empanelled trainer of SEBI, NISM, BSE, and NSE, educating students on investment planning and financial literacy.

On **27 September 2025**, **Mr. M. Ravi**, Former Deputy General Manager, State Bank of India, delivered an expert lecture on **"Banking Operations at a Glance,"** providing practical insights into banking operations, credit management, treasury functions, and financial services.

October 2025

The department strengthened its focus on international exposure, technology, and industry collaboration.

On **4 October 2025**, Semester I MBA students visited **Brocade India Polytex Ltd., Kanjikode**, where they observed industrial packaging operations and manufacturing practices.

An invited session on **"Emerging Technologies and the Changing World Order"** by **Mr. Roshan Kynadi**, CEO, CXO Café, explored the transformative impact of emerging technologies on global business.

On **8 October 2025**, the department hosted an international **Masterclass on Business Analytics** in collaboration with **Kaplan Business School, Australia**, delivered by distinguished international academicians.

November 2025

On **4 November 2025**, the department achieved a significant milestone with the **Inauguration of the NIPM Student Chapter** and the **MoU Exchange Ceremony with the National Institute of Personnel Management (NIPM), Palakkad Chapter**, strengthening industry-academia collaboration in Human Resource Management.

A **five-day Add-on Course on Data Analytics and Business Intelligence**, in collaboration with **ICT Academy of Kerala (ICTAK)**, was organized to enhance students' analytical and digital competencies.

The department also organized a **Parents' Meeting** for Semester III MBA students, encouraging stronger parent-institution interaction for students' academic and personal development.

Students participated in an **Alumni Interaction Programme – "Flashback to Fast Track,"** where recent graduates shared their internship, project, placement, and career experiences.

A **Rural Industrial Visit** to the **Integrated Rural Technology Centre (IRTC), Mundur** exposed students to sustainable technologies, rural entrepreneurship, and community-based development models.

As part of the National Study Tour, students visited **Yakult Danone India Pvt. Ltd., Sonipat**, where they gained valuable insights into modern production systems, quality management, cold-chain logistics, supply chain management, and health product marketing.

The study tour also included educational visits to **Agra, Delhi, Kullu, Manali, and Rohtang Pass**, enabling students to appreciate India's cultural heritage, tourism management, environmental sustainability, and regional development.

January 2026

On **19 January 2026**, the department organized a **CEO Café** session titled "**Creation of Organisations and Brands – The Milma Story**," delivered by **Mr. K. T. Thomas**, Managing Director, Rhema Dairy, who shared valuable lessons on institution building, cooperative business models, branding, and rural entrepreneurship.

During the month, Jawaharlal Business School also signed a **Memorandum of Understanding (MoU) with IHRD College, Pazhayannur**, promoting collaborative academic programmes, research, innovation, and student development initiatives.

Students also participated in an expert session on mindfulness and personal development conducted by **Mr. Anil Kumar P. C.**, certified meditation practitioner.

February 2026



The department successfully hosted **SPECTRA 2026**, its flagship National Management Fest, bringing together students from various institutions to participate in management competitions, expert sessions, leadership discussions, and networking opportunities.

The event featured a **Fireside Chat with Dr. Joy Alukkas**, Chairman and Managing Director, Joy Alukkas Group, and a **Panel Discussion on "Leadership, Growth and the Future of Business in the AI Era"**, involving eminent entrepreneurs including **Mr. Roshan Kynadi**, **Mr. P. P. Musthafa**, and **Mr. Sajeesh Kumar K. M.**

An **MoU** was also signed with **Elanadu Milk Pvt. Ltd.**, strengthening industry collaboration.

March 2026

The department concluded the academic year with several career-oriented and industry-focused programmes.

On **11 March 2026**, MBA students visited the **Design and Product Development Facility of Iconn Plastic Products**, gaining exposure to product development, innovation, and industrial manufacturing.

A comprehensive placement training programme titled **"Path to 100% Placement"** was organized on **23 March 2026**, featuring eminent trainers and industry experts who guided students on employability skills, career planning, and corporate readiness.

As part of the **MBA Finishing School Initiative**, **Mr. Sony Akkara**, internationally certified career coach, conducted an expert session on career transition, professional branding, and workplace readiness.

On **27 March 2026**, the department organized an expert session on **"The Role of Devices in Smart Manufacturing,"** highlighting Industry 4.0 technologies, IoT, Artificial Intelligence, and smart industrial ecosystems.

On the same day, a Spotlight Session on **"Role of Customs and DRI"** was delivered by **Ms. K. Padmavathy, IRS, Additional Director General**, providing students with valuable insights into customs administration, trade compliance, and economic security.

Conclusion

The academic year 2025–2026 was marked by vibrant academic engagement, strong industry collaborations, research-oriented initiatives, international exposure, leadership development, and experiential learning opportunities. Through expert interactions, industrial visits, workshops, conferences, professional training, and strategic collaborations, the Department of MBA continued its commitment to nurturing competent, ethical, and industry-ready management professionals capable of leading organizations in an increasingly dynamic global business environment.



DEPARTMENT OF MECHANICAL ENGINEERING, JCET

REPORT ON EVENTS: 2025 - 26

1. Expert talk on Intellectual Property Rights (IPR)

An expert talk on Intellectual Property Rights (IPR) was organized for the students of B.Tech Mechanical Engineering (Industry Integrated) on the topic “Turning Research into Revenue – IP Strategy for Science, Engineering and Entrepreneurship.” On 13/02/2026. The session was delivered by M. A. Ganapathy, LLB., LL.M (IPR), with the objective of creating awareness among students about the importance of intellectual property protection, innovation management, and commercialization of engineering research.



The session provided valuable insights into the role of Intellectual Property Rights in the fields of science, engineering, manufacturing, and technology-based entrepreneurship. The resource person explained how innovative ideas, engineering designs, research outcomes, manufacturing processes, product developments, and technological inventions can be legally protected and transformed into commercially valuable assets. Students were introduced to different forms of intellectual property such as patents, copyrights, trademarks, industrial designs, trade secrets, and geographical indications, along with their significance in industrial and engineering applications.

2. Interactive session on Applications of Automation in Modern Manufacturing Industries

An interactive technical session was organized on 08 April 2026, for the students of B.Tech Mechanical Engineering (Industry Integrated) on the topic “Applications of Automation in Modern Manufacturing Industries.” The session was handled by Sanin Samuel, Engineer (Design & Marketing), Bharath Technologies, Chennai – 600056, who is also a distinguished alumnus of the Mechanical Engineering Department at JCET (2016–2020 batch). The session was organized with the objective of exposing students to the latest technological advancements and industrial practices in the field of manufacturing automation and smart production systems.



During the session, the resource person explained the growing importance of automation in modern industries and its impact on productivity, quality improvement, precision manufacturing, cost reduction, and industrial safety. Through detailed presentations, practical examples, and application-based videos, students were introduced to various automation technologies used in manufacturing industries such as CNC machining centers, programmable logic controllers (PLC), robotics, automated material handling systems, sensors and actuators, pneumatic and hydraulic control systems, industrial Internet of Things (IIoT), and computer-integrated manufacturing systems.

3. Industrial Visit to Steel Industrials Kerala Limited (SILK), Ottapalam

The II Year B.Tech Mechanical Engineering students visited Steel Industrials Kerala Limited (SILK), Ottapalam, on 13.01.2026 as part of an industrial visit organized to provide practical exposure to manufacturing and foundry engineering practices. The visit enabled the students to understand the real-time industrial applications of subjects such as Manufacturing Technology, Foundry Engineering, Material Science, Thermal Engineering, and Industrial Safety.

During the visit, the students were introduced to the complete foundry and casting operations carried out in the industry. They observed various stages involved in the manufacturing of cast components, including pattern making, mould preparation, core making, melting of metals, pouring, solidification, fettling, finishing, and inspection processes. The technical experts at the company explained the importance of proper mould design, gating systems, risers, and solidification control in achieving defect-free castings with the required mechanical properties.



4. Industrial Visit to Milma dairy. Palakkad

The II Year B.Tech Mechanical Engineering students visited the Milma Dairy Plant, Palakkad, on 24.02.2026 as part of an industrial visit aimed at enhancing their practical knowledge and industrial exposure in the field of mechanical engineering applications in process industries. The visit provided the students with an opportunity to understand the complete milk processing cycle and the role of various mechanical systems involved in the production of different dairy products such as pasteurized milk, curd, butter, ghee, ice cream, and milk powder.

During the visit, the students were introduced to several industrial machineries and equipment used in dairy processing, including pasteurizers, homogenizers, centrifugal separators, heat exchangers, refrigeration systems, storage tanks, conveyors, pumps, compressors, and automated packaging units. The technical experts at the plant explained the working principles, operational procedures, maintenance practices, and safety measures associated with these machines. The students also gained knowledge about process automation, instrumentation, and the use of PLC-based control systems in modern dairy industries.



5. Placements

Department of Mechanical Engineering has achieved 100% placement in core companies namely Bonfiglioli, TVS Sundaram Fasteners Ltd and Texmo Industries.

JAWAHARLAL COLLEGE OF ENGINEERING & TECHNOLOGY
[AUTONOMOUS]
Jawahar Gardens, Lakkidi, Mangalam, Palakkad Dist. - 679301

DEPT. OF MECHANICAL ENGINEERING
PLACEMENTS 2026

Bonfiglioli **TVS** Sundaram Fasteners Limited **TEXMO INDUSTRIES**

M Abhiram **Ashwin Krishna AS** **James John** **Nadheem Sajith K**
Rishikesh Santhosh **Saran S** **Govindraj H** **KB Raghu Ram**
Sreenath P **Ghanasyam MR** **Manav Krishna** **Teny Timothy**
Navaneedh **Niyas Saleem**

NEHRU CORPORATE PLACEMENTS AND INDUSTRY RELATIONS

6. Details of MoUs Signed with Industries



With HiTech Automation, Coimbatore

With Axis Global Technical Training Institute, Cmb



MoU Signing with DMW CNC Solutions India Private Limited, Erode



MoU Signing with Kerala Automobiles Limited, Thiruvananthapuram,



Department of Agriculture Engineering

Department Activities AY 2025-2026

The Department of Agricultural Engineering at Jawaharlal College of Engineering and Technology (JCET) continued its commitment to academic excellence, innovation, experiential learning, and community engagement during the academic year 2025–2026. Through a vibrant blend of academic, research, industrial, and field-based activities, the department provided students with diverse opportunities to enhance their technical knowledge, research aptitude, entrepreneurial skills, and professional competence.

The department achieved remarkable recognition at prestigious national-level events. A team comprising Ms. Abhitha K. and Ms. Devanandana V., along with faculty members, received the Best Poster Award at the *Symposium on Advanced Technologies and Visionary Approaches for Sustainability (SATVA 2025)* organized by IIT Palakkad. Adding to this success, second-year students Ms. Adhiya Banu and Mr. Alex Emmanuel, under the guidance of Er. Nithin Raj P., secured the Best Poster Award (UG Category) at the ANRF-DST sponsored *National Conference on Food for the Future – 2025* organized by KUFOS, Kochi.

The department actively encouraged participation in academic and technical events. Students and faculty took part in “Natupacha 2025”, an agricultural expo at Ottappalam showcasing sustainable agriculture through seminars, exhibitions, cultural events, and technology demonstrations. Third-year students Ms. Bhavya K. and Ms. Smija M. participated in the prestigious “Think Create Engineer” residential programme at IIT Madras, where they attended expert-led workshops, laboratory visits, and innovation-focused sessions. Further strengthening the department's research culture, Ms. Bhavya K., Ms. Krishna Sunil, Ms. Fidha Nourin C. K., and Ms. Sreeranjini N. P. presented their research papers at the *International Conference on Water Resources and Environmental Research (ICWRER 2025)*, jointly organized by Karunya Institute of Technology and Science and the University of Waterloo, Canada.

Experiential learning remained a cornerstone of the curriculum. Second-year B.Tech. Agricultural Engineering students actively engaged in paddy cultivation, pesticide application, transplanting, harvesting, and other crop production activities as part of their on-farm training programme. Their dedicated efforts resulted in the successful harvest of approximately 2.5



tonnes of paddy, along with vegetables, providing invaluable practical exposure to modern agricultural practices.

Industrial and educational visits enriched students' understanding of real-world agricultural systems. Senior students visited the Vanamoolika Research Foundation, Mullenkolli, Wayanad, where they gained firsthand experience in the cultivation and processing of coffee, pepper, turmeric, tea, and medicinal plants, while also learning about rural entrepreneurship and women empowerment initiatives. The team also visited the Karapuzha Dam, one of India's largest earthen dams, to study water resource management. First-year students participated in an environmental visit to Athirappilly Waterfalls, promoting environmental awareness and strengthening student camaraderie.

Innovation and research continued to flourish within the department. Mr. M. Pravanjadas, a fourth-semester student, published a patent for a Tree Climbing Robot designed to assist in harvesting and pruning operations. The department also organized an inspiring expert interaction with Dr. K. P. Sudheer, Executive Vice President of KSCSTE and one of the World's Top 2% Scientists, providing students with valuable insights into scientific research and innovation.

The department's innovative spirit was further demonstrated when a team comprising Ansi Roshini K., Aparna M. P., Anjitha Sreejith, and Smija M. emerged as Winners of the Cluster-Level Hackathon (AgriTech Track) during the IEDC Startup Summit 2026. Their project, Automatic Arecanut Harvester cum Electrostatic Sprayer, earned them a cash prize of ₹25,000, highlighting their creativity, teamwork, and entrepreneurial mindset.

Skill development and entrepreneurship promotion formed an integral part of departmental activities. A hands-on training programme on “Farm Machinery Operation, Repair, and Maintenance” familiarized students with the operation and servicing of tractors, power tillers, sprayers, brush cutters, and other farm machinery. An entrepreneurship workshop on “Preparation and Marketing of Value-added Healthy Food Products”, led by Ms. Sumayya Raheem, Founder of NACO Healthy and Organic, introduced participants to food processing and business opportunities. The department also organized a comprehensive Hands-on Workshop on “Mushroom Cultivation”, where experts from Karthika Mushrooms trained participants in cultivation techniques, marketing strategies, and entrepreneurship development.

The department recorded outstanding academic achievements during the year, reflecting the dedication of its students and faculty. Ms. Ansi Roshini K. secured the University First Rank in Agriculture Engineering by achieving an exceptional SGPA of 9.46 in Semester V and 9.13 in Semester VI, bringing laurels to the institution. The department consistently maintained a strong academic performance, complemented by notable accomplishments in research, innovation, and technical competitions.

Through its continued emphasis on academic excellence, research, innovation, experiential learning, entrepreneurship, and industry engagement, the Department of Agricultural Engineering, JCET, continues to nurture competent agricultural engineers equipped to address the evolving challenges of sustainable agriculture and rural development.



Department of Computer Science Engineering

Behind the Screen: Cybercrime, Cyber Cell and India's Digital Defense (Seminar)

The Department of Computer Science and Engineering, JCET, organized an impactful seminar titled "Behind the Screen: Cybercrime, Cyber Cell and India's Digital Defense" at JCET, Palakkad. The seminar aimed to create awareness among students about the growing challenges of cybersecurity and the importance of responsible digital practices



Python + AI Workshop

The Department of Computer Science and Engineering, JCET, successfully organized a "Python + AI Workshop" at Jawaharlal College of Engineering and Technology, Palakkad, to provide students with practical exposure to programming and artificial intelligence.

The session was led by **Mr. Hashim, Full Stack Developer at Upcode Software Labs**, who introduced participants to the powerful combination of Python programming and AI technologies. The workshop began with Python fundamentals, focusing on programming logic, syntax, and real-world application development. Students were then introduced to the fundamentals of artificial intelligence, exploring concepts such as automation, machine intelligence, and their applications across various industries.



WordPress: Creating Your Digital Footprint (Workshop)

The Department of Computer Science and Engineering, JCET, organized an insightful knowledge-sharing workshop titled “**WordPress: Creating Your Digital Footprint**” to introduce first-year students to the importance of building an online presence in today’s digital era.



Workshop on Git and Docker

To deliver a three-day workshop on the topic “Hands-on Workshop on Git, GitHub, and DevOps Fundamentals” to the second-year students of the department of CSE. The event is specifically organized for S3 CSE students to provide participants with practical knowledge of version control systems, collaborative coding platforms, and essential DevOps practices, promote interaction between experts and students and motivate students to apply the gained knowledge in their academic/professional domains.



2-Day Hands-on Workshop on Pro Development Tools

The Department of Computer Science & Engineering, Jawaharlal College of Engineering and Technology (JCET), Palakkad, in association with SYNTISTA, organized a 2-Day Hands-on Workshop on "Pro Development Tools" from 25 February 2026 to 26 February 2026 at the Cyber Forensics Lab, for fourth semester CSE students.

The workshop was designed to familiarize students with modern software development tools and industry-standard practices used in professional application development. The sessions covered essential development environments, version control systems, debugging techniques, project management tools, collaboration platforms, and productivity-enhancing utilities that streamline the software development lifecycle.

Through interactive demonstrations and hands-on laboratory sessions, participants gained practical experience in configuring development environments, managing source code repositories, collaborating on projects, and using professional tools for testing, debugging, and deployment. Real-world development scenarios enabled students to understand best practices followed in the software industry.

The workshop enhanced the participants' technical proficiency, collaboration skills, and familiarity with professional development workflows, preparing them for internships, industry projects, and careers in software engineering.



3-Day Hands-on Workshop on 'R Programming'

The Department of Computer Science & Engineering, Jawaharlal College of Engineering and Technology (JCET), Palakkad, in association with *CLOUD ELEVEN*, conducted a 3-Day Hands-on Workshop on "R Programming" from 21 August 2025 to 23 August 2025 at the Programming Lab & Cyber Forensics Lab.

The workshop aimed to introduce students to the fundamentals of R Programming and its applications in data science and statistical analysis. The sessions focused on essential programming concepts, data structures, data pre-processing, statistical computations, data visualization, and exploratory data analysis using R. Participants engaged in practical coding exercises and worked with real-world datasets to gain hands-on experience in solving analytical problems.

By the end of the workshop, students developed the ability to write efficient R programs, analyse datasets, generate informative visualizations, and apply statistical techniques for data-driven decision-making. The workshop provided valuable exposure to industry-relevant tools and strengthened the participants' foundation for careers in data analytics, artificial intelligence, machine learning, and research.



Report on Workshop on Excel – Basic Techniques for Data Science

To deliver a **one-day workshop** on the topic "**Excel – Basic Techniques for Data Science**" to the students of the Department of Computer Science and Engineering. The workshop was organized to provide participants with a strong foundation in Microsoft Excel and its applications in Data Science, enhance their data handling and analytical skills, familiarize them with essential Excel functions and data visualization techniques, and encourage students to apply these skills in academic projects and real-world data analysis.



2-Day Hands-on Workshop on Pro Development Tools'

The Department of Computer Science & Engineering, Jawaharlal College of Engineering and Technology (JCET), Palakkad, in association with SYNTISTA, organized a 2-Day Hands-on Workshop on "Pro Development Tools" from 27 February 2026 to 28 February 2026 at the Cyber Forensics Lab.

The workshop was designed to familiarize students with modern software development tools and industry-standard practices used in professional application development. The sessions covered essential development environments, version control systems, debugging techniques,

project management tools, collaboration platforms, and productivity-enhancing utilities that streamline the software development lifecycle.

Through interactive demonstrations and hands-on laboratory sessions, participants gained practical experience in configuring development environments, managing source code repositories, collaborating on projects, and using professional tools for testing, debugging, and deployment. Real-world development scenarios enabled students to understand best practices followed in the software industry.

The workshop enhanced the participants' technical proficiency, collaboration skills, and familiarity with professional development workflows, preparing them for internships, industry projects, and careers in software engineering.



Hybrid Application Development

The event was organized exclusively for the S3 Computer Science and Engineering (CSE) students with the objective of enhancing their learning experience beyond the traditional classroom environment. The program was designed to bridge the gap between academic knowledge and industry practices by providing students with insights into contemporary application development approaches and technologies.

The sessions focused on creating awareness of various software development methodologies, tools, and emerging technologies relevant to the current industry landscape. Through interactive presentations, live demonstrations, and discussions, the event aimed to strengthen the technical competence and practical skills of the participants.

A key highlight of the program was the opportunity for students to interact directly with industry experts, facilitating meaningful knowledge exchange and providing valuable exposure to real-world software development practices. These interactions encouraged students to explore innovative ideas, clarify technical concepts, and gain a better understanding of industry expectations.

CENTRAL LIBRARY



The Central Library serves as the knowledge hub of the institution, supporting academic, research and learning activities of students and faculty. It is well equipped with modern infrastructure, digital resources, and automated library services to meet contemporary educational needs.

The Central Library is housed in a spacious building with a total area of 11044 Sq. Ft. distributed across three floors. The library provides a comfortable and conducive learning environment with a seating capacity of 230 users.

Digital Library

The Digital Library section is equipped with 10 computer systems with high – speed internet connectivity of 430Mbps. Free Wi-Fi access is also provided for users to support online learning and research activities.

Library Automation

The library is fully automated using two integrated Library Management Software systems: KOHA and iCampuz.in. These

systems supporting Cataloguing, Circulation, OPAC access and resource management efficiently.

Online Resources

The library provides access to DELNET, J-GATE, k-HUB.in and National Digital Library (NDL). The Users can utilise the E-Journals, E- Books, Thesis, Manuscripts and E- Newspapers from the above sources.

Collection Details:

The Central Library had a vast collection of Reference books and Text Books in it. The Volume of total 31,650 Books in various Branches. The library has total number of 144 journals including 27 international journals. 22 Magazines and Periodicals and 6 Newspapers are subscribed.

Library Services

Reprographic Services (Xerox, Printing, Scanning), OPAC, Remote Access Facility, New Arrivals Display, Back volumes of Journals, Project and Seminar report Collection.

Reports from Bodies

NCC



Lt. Gopi Mohanan M S
ANO NCC Unit JCET

Assistant Professor, Physical Education

JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY
27 (K) BN NCC PALAKKAD
(AUTONOMOUS)

77TH REPUBLIC DAY

The 77th Republic Day celebration of 2026 was solemnly and enthusiastically observed at Jawaharlal College of Engineering and Technology under the joint organization of NCC cadets and NSS volunteers.

The programme commenced with the hoisting of the National Flag, followed by a disciplined salute commanded by SUO Sourav A.R. The gathering was then formally addressed by Dr. Ajith Kumar, Principal of the college, who shared his insightful thoughts on the significance of Republic Day, highlighting constitutional values, unity, and the responsibilities of young citizens in nation-building.

Following this, Cadet Farzana Jamal delivered a speech emphasizing the importance of Republic Day and the values enshrined in the Indian Constitution. The programme then continued with a cultural segment organized by NCC cadets, showcasing patriotism and unity through performances.

The programme was successfully conducted under the able guidance of Abhishek Sir (NCC in charge), Ms. Sreevidhya (Asst.Prof. & A P O NSS), Mejo Sir, and physical Instructor, whose support ensured the smooth execution of the event. Overall, the Republic Day celebration was meaningful, well-organized, and inspiring.



BLACK DAY 2026

On February 14, the NCC cadets of JCET College organized a solemn commemorative program to honour the memory of the CRPF personnel who sacrificed their lives during the Pulwama attack six years ago. The event served as a platform for students and faculty to pay their respects and reflect on the bravery of the Indian Armed Forces. The program was marked by a deep sense of patriotism and respect. The event was graced by Dr.

Gunasekaran (Principal, JCET) and Mr. Baburaj K (Librarian), who joined the cadets in the remembrance ceremony.

The observance of Pulwama Day by the JCET NCC unit highlights the commitment of the youth to remembering national history and honouring the sacrifices made for the country's security. It provided a moment of solemn reflection for the entire college community.



NBA VISIT -2026

In January 2026, Jawaharlal College of Engineering and Technology hosted a visit from the National Board of Accreditation (NBA) team as part of their evaluation process.

During the visit, the NCC cadets of the college actively participated in the welcoming ceremony. The cadets performed piloting duties as part of the formal reception, ensuring a disciplined and respectful welcome to the distinguished guests. As part of the itinerary, the NBA team visited the NCC room. The cadets warmly welcomed the guests and explained the National Cadet Corps (NCC). They covered its goals, activities, and role in developing

discipline, leadership, and patriotism among students. The cadets also discussed their training programs, camps, and social service initiatives. The interaction was informative and engaging, giving the visitors a clear understanding of how the NCC operates and its importance within the institution. The cadets demonstrated confidence, coordination, and professionalism throughout the session.

Overall, the NBA visit was a successful and proud moment for the NCC unit. The active participation and dedicated efforts of the cadets helped present the institution positively and in an organized manner.



WORLD NO TOBACCO DAY

World No Tobacco Day is observed annually on 31st May to raise awareness about the harmful effects of tobacco consumption and to encourage people to lead healthier, tobacco free lives. The day serves as an opportunity to educate individuals about the health, social, and environmental consequences of tobacco use and to promote preventive measures against tobacco addiction. As part of the observance of World No Tobacco Day, the NCC cadets of Jawaharlal College of Engineering and Technology (Autonomous), Lakkidi, conducted an online awareness activity. The programme aimed to spread awareness about the dangers of tobacco use and the importance of maintaining a healthy lifestyle.

As part of the event, the cadets prepared creative and informative posters highlighting the harmful effects of tobacco consumption. The posters carried awareness messages, health warnings, and slogans encouraging people to stay away from tobacco products. The completed posters were shared through online platforms, enabling the awareness campaign to reach a wider audience.

The World No Tobacco Day celebration was successfully conducted through online platforms. The poster-making activity helped create awareness about the harmful effects of tobacco and reinforced the importance of making healthy lifestyle choices. The programme reflected the commitment of NCC cadets towards social responsibility and public awareness.



WORLD ENVIRONMENT DAY

World Environment Day, observed annually on 5th June, is a global initiative dedicated to encouraging environmental protection and sustainable living. The day serves as a reminder of the collective responsibility to safeguard natural resources, reduce environmental degradation, and promote practices that support a healthier planet. To mark the occasion, the NCC cadets of Jawaharlal College of Engineering and Technology

(Autonomous), Lakkidi, carried out a tree-planting activity from their respective homes and local communities. The programme aimed to foster environmental awareness and inspire positive action towards creating greener surroundings.

The cadets planted a variety of saplings and ornamental plants in available spaces around their residences. After completing the activity, photographs were taken and shared online as a record

of participation. Through this initiative, the cadets contributed to enhancing green cover while demonstrating their concern for environmental well-being. Overall, The World Environment Day programme was carried out successfully with active involvement from NCC



cadets. The plantation activity reinforced the values of environmental stewardship and civic responsibility. By taking part in this initiative, the cadets expressed their commitment to protecting nature and promoting a cleaner, greener future.



INTERNATIONAL YOGA DAY CELEBRATION

International Yoga Day is celebrated every year on 21st June to spread awareness about the importance of yoga and its benefits for physical health, mental well-being, and a balanced lifestyle. The day highlights the significance of yoga as a practice that promotes harmony between the body and mind.

As part of the observance of International Yoga Day, an event was organized at Jawaharlal College of Engineering and Technology, Ottapalam, with the joint coordination of NSS volunteers and NCC cadets. The programme aimed to encourage students to understand the importance of yoga

and incorporate healthy practices into their daily lives.

The programme was graced by the presence of the chief guest Krishna Kumar S, Director – Bodhi Yoga Centre, Alathur, Palakkad, who guided the participants through the importance of yoga and its role in improving physical and mental health. The session provided valuable insights into various yoga practices and their benefits. The event was conducted under the guidance of NCC In charge Lt. Gopimohan and NSS Programme Officers Arjun Sir and Sreevidya Mam. The programme was honoured by the presence of Principal Gunasekaran along with other faculty members and staff of the institution.





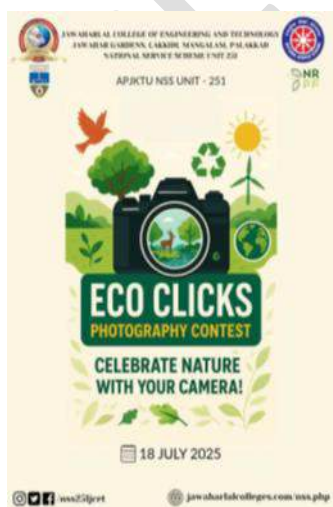
Mr. Arjun G
NSS Program Officer
Assistant Professor, MECH

JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY NSS UNIT: 251

Eco Clicks Photography Contest

The “Eco Clicks” Photography Contest, organized by APIKTU NSS Unit 251 of Jawaharlal College of Engineering and Technology, encouraged participants to capture and showcase the beauty of nature through creative photography. The program aimed to promote environmental awareness, sustainability,

and appreciation for nature while providing students with a platform to express their creativity and photography skills. The event successfully inspired participants to observe and celebrate the environment through their camera lenses.



Orientation Class

On 30th July 2025, the NSS Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi, organized an orientation class for the 2025–2027 batch to familiarize newly admitted students with the aims, structure, and activities of the National Service Scheme. The session emphasized the

core values of NSS, the roles and responsibilities of volunteers, and the importance of community service in fostering social responsibility and nation-building. The program served as an effective platform to motivate students towards active participation in NSS initiatives.



Sanjeevanam 6.0 (Blood Donation Camp)

A blood donation camp titled “Sanjeevanam 6.0” was organized at Jawaharlal College of Engineering and Technology (JCET), Lakkidi, on 31st July 2025 by the NSS Unit 251, in collaboration with the Blood Centre, District Hospital, Palakkad. The camp witnessed overwhelming participation from students and staff, all coming forward with a shared commitment to save lives. The well-

coordinated efforts of volunteers and healthcare professionals ensured a smooth and successful blood donation process throughout the event. 44 units of blood were collected and contributing to the emergency reserves of the District Hospital. The event highlighted the importance of voluntary blood donation and showcased the commitment of JCET towards social responsibility.



SCRAP COLLECTION

The NRPF Scrap Collection Initiative was organized with the objective of promoting environmental awareness and encouraging responsible waste management practices among students and the community. The program focused on collecting recyclable scrap materials and spreading awareness about the importance of recycling and resource

conservation. Active participation from volunteers and students contributed to the success of the initiative, fostering teamwork, social responsibility, and coconsciousness. The event effectively highlighted the significance of sustainable practices in building a cleaner and greener environment.



Old Age Home Visit

On 26th September 2025, the NSS Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi, organized a visit to a nearby Old Age Home at Thiruvilwamala as part of observing International NSS Day. The visit aimed to spread compassion, social responsibility, and the true spirit of service that NSS stands for. The volunteers interacted with the elderly residents, listened to their life experiences, and spent quality time engaging in conversations and activities that brought smiles to their faces. Small

tokens of love and refreshments were also distributed to make the day more memorable. This initiative helped the volunteers understand the value of empathy and social commitment. It strengthened the sense of humanity among the students and highlighted the importance of caring for the elderly in our society. The event truly reflected the motto of NSS "Not Me But You", emphasizing collective responsibility and selfless service for the betterment of the community



Anti-Drug Awareness class

On 19th September 2025, our Unit 251 has done Anti-Drug Awareness class. The program aimed to promote the importance of anti-drug awareness. The class was given by the preventive officer from Excise Department. Members of the unit actively participated in interactive

sessions, emphasizing the importance of the session and healthy living. The event reflected the spirit of unity and discipline, strengthening the bond among team members while fostering a culture of wellness within the unit.



Blood Sampling

The NSS Unit 251 organized a blood sampling session on 09.10.2025 as part of its commitment to promoting health awareness and preventive healthcare among students. The program was conducted under the guidance and supervision of qualified medical professionals, ensuring adherence to all

safety, hygiene, and ethical standards. Students and volunteers participated actively in the session, which aimed at assessing basic health parameters and creating awareness about the importance of regular health monitoring. The initiative highlighted the role of NSS in fostering a healthy campus environment

and encouraging responsible health practices among the youth.



Rudhirasena Orientation

The National Service Scheme Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi, successfully organized the Rudhirasena Orientation Programme on 24th October 2025 from 2:00 PM to 4:00 PM. The session was graced by Ms. Vishnunandana K R, Rudhirasena Student Representative from NCERC, and Mr. Sooraj Mohan, Rudhirasena Student Representative from RCET. The event aimed to introduce the volunteers to Rudhirasena, the NSS Blood Cell initiative, and to emphasize the significance of voluntary blood donation and its life-saving impact. The speakers shared their inspiring

experiences as active members of Rudhirasena and highlighted the importance of compassion, responsibility, and teamwork in building a strong network of donors. The orientation provided valuable insights into the operations, goals, and achievements of Rudhirasena, motivating the students to actively contribute to this noble cause. The interactive session created a sense of awareness and commitment among the participants, fostering the true spirit of service to humanity that lies at the heart of NSS Unit 251.



Cleaning day & Cultural Activity

On 1st November 2025, the NSS Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi, Celebrated Keralapiravi with Action & Art. This special day marks the birth of our beautiful state, and our Unit wanted to celebrate it in the most meaningful way. We started the day by cleaning our adopted village town, reinforcing that a

clean environment is the foundation of a healthy community.

Our dedicated volunteers rolled up their sleeves, blending the rhythm of our rich culture with the responsibility of a clean environment. From vibrant performances that echoed our heritage to a collective effort for a cleaner community, it was a day of true service and pride.



Fund collection

On behalf of the NSS Unit 251 of JCET, a fund collection was organized to extend financial support to Mr. Baiju, a relative of Praseeda Chechi, a staff member of JCET. The initiative was undertaken as part of the unit's commitment to social

responsibility and humanitarian service. The collected fund was formally handed over on 06-11-2025, reflecting the spirit of compassion and solidarity upheld by the National Service Scheme.



Orphanage Visiting

On this Children's Day, 14th November, our hearts found a new home. APJAKTU NSS Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi visited Suhruth Bhavan and spent a day filled with smiles, stories, and the purest love. A day that reminded us that kindness is the most beautiful gift we can share. This privilege of visiting Suhruth Bhavan, the child orphanage near Chinakkathoor Kavu. Spending time with



the children filled our hearts with warmth and gave us new perspectives on life.

Their smiles, innocence, and energy reminded us of the true spirit of Children's Day. We played, interacted, and shared moments of joy that we will carry with us forever. It was a day of learning, love, and meaningful connection, and we are grateful that we could make their Children's Day a little more beautiful.



Food Distribution Program (Pothichoru Vitharanam)

On 19th November 2025, the NSS Unit 251 of Jawaharlal College of Engineering and Technology, Lakkidi, successfully conducted a FOOD DISTRIBUTION PROGRAMME at SHORNUR RAILWAY STATION. The program was organized to help needy people, such as passengers, daily workers, and homeless individuals present at the railway station.

The programme helped in spreading awareness about social responsibility and the importance of serving the underprivileged. It also strengthened the values of compassion, teamwork, and service among the NSS volunteers. The event was successful and reflected the spirit of the NSS motto, "NOT ME, BUT YOU".



Aids Day Awareness Class

An AIDS Day Awareness Program was conducted on 1st December 2025 from 12:00 PM to 4:00 PM, inaugurated by Principal Dr. N. Gunasekaran, who emphasized the importance of HIV/AIDS awareness among students. Dr. Satheesh Kumar, Head of the Department of Computer Science and Engineering, delivered an informative session on

HIV/AIDS, its prevention, and the need to eliminate social stigma. As part of the program, an AIDS awareness pledge was administered to the volunteers by the Volunteer Secretary, Midhun, encouraging commitment toward spreading awareness and promoting responsible behaviour. The program concluded successfully at 4:00 PM.



NRPF Orientation

On 6th February 2026, our Unit 251 actively participated in the NRPF Orientation program held at Jawaharlal College of Engineering and Technology. The five-hour session witnessed the enthusiastic participation of 100 volunteers and aimed to create awareness about the objectives, activities, and

responsibilities associated with the NRPF initiative. The orientation included informative sessions, interactive discussions, and guidance from resource persons that helped participants understand the importance of discipline, leadership, teamwork, and social commitment. The program provided



volunteers with an opportunity to enhance their communication and coordination skills while motivating them



to actively contribute towards community service and personal development.



Orphanage visit

On 7th March 2026, our Unit 251 conducted an Orphanage Visit at Palappuram. The programme aimed to spread love, care, and social responsibility among volunteers by interacting with and supporting the children at the orphanage. A total of 100 volunteers actively participated in the programme, contributing their time and effort for 7 hours. The volunteers engaged in various activities with the

children, creating a joyful and friendly atmosphere. The visit encouraged compassion, teamwork, and a sense of community service among the participants. The event reflected the spirit of kindness and humanity while strengthening the values of empathy and social commitment within the unit.



IEEE STUDENT BRANCH JCET



ANNUAL REPORT : ACADEMIC YEAR 2025–2026

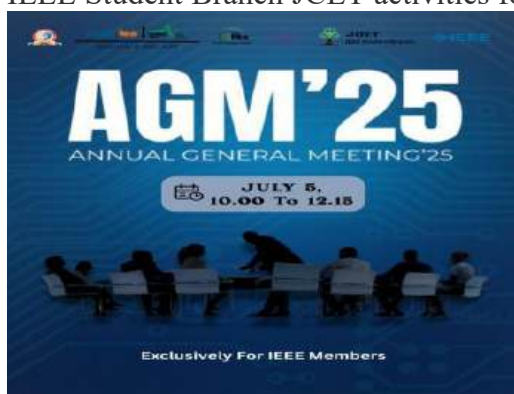
Annual General Meeting (AGM 2025)

Date: 5 July 2025 | Time: 10:00 AM – 12:15 PM | Venue: IEEE Room, JCET, Lakkidi

Setting the Vision for a New Year

The Annual General Meeting (AGM) marked the official commencement of the IEEE Student Branch JCET activities for

the academic year 2025–2026. The meeting brought together faculty members, executive committee members, IEEE volunteers, and student members to reflect on the achievements of the previous term while establishing a clear roadmap for the year ahead.



Entrepreneurship – Merging Profits with Purpose

Date: 10 July 2025 | Speaker: Ms. Seema Rafi, Co-Founder, Vita Skills Academy

Inspiring Purpose-Driven Innovation

Entrepreneurship is no longer measured solely by financial success but by the

positive impact it creates on society. With this vision, IEEE Student Branch JCET organized an insightful webinar titled "Entrepreneurship – Merging Profits with Purpose



ZENITH 2026



Drone Technology – A Beginner's Gateway to the Sky

Date: 17 July 2025 | **Speaker:** Mr. Jayakrishnan M, Engineer, Bell Flight

Exploring the Future of Unmanned Aviation

The session provided students with a comprehensive introduction to

Unmanned Aerial Vehicles (UAVs), covering their design, evolution, applications, and career opportunities. Participants explored the historical development of drones and their widespread adoption in civilian, commercial, and industrial sectors.



Communication and Interpersonal Skills

Date: 2 August 2025 | **Speaker:** Prof. Dr. Kana Sukumaran

Empowering Future Professionals

Technical expertise alone is not sufficient to thrive in today's professional world. Effective communication, teamwork, and

leadership are equally essential. This seminar equipped 50 students with practical strategies to communicate confidently, collaborate effectively, and build meaningful professional relationships.



IEEE Day PES Quiz 2025

Date: 8 October 2025 | **Supported by:** IEEE PES Kerala Chapter

Celebrating IEEE Day Through Technical Excellence

In celebration of IEEE Day 2025, the IEEE Power & Energy Society (PES) Student Branch Chapter at JCET organized the IEEE Day PES Quiz 2025. The competition featured carefully



curated questions covering electrical power systems, renewable energy, and smart grids.



Understanding VLSI: A Peek into the Silicon World

Date: 15 October 2025 | **Collaborating Society:** IEEE IAS SBC

Unlocking Semiconductor Technology

The session introduced students to the fascinating world of integrated circuit design, semiconductor manufacturing, and modern chip development. Through simplified explanations and practical examples, participants gained valuable insights into one of the fastest-growing technology sectors in the world.

THE FINAL LEVEL

Date: December 2025 | **Theme:** Student Engagement & Gaming

Beyond Technology: Building Community Through Competition IEEE Projects Stall at NSITE

Dates: 4–5 December 2025 | **Venue:** NSITE Technical Fest

Showcasing Innovation Through Engineering Excellence

As part of NSITE, the IEEE Projects Stall showcased student innovation and technical creativity. The exhibition provided an opportunity for students to present working prototypes, engineering models, and technology-driven solutions developed through collaborative learning and practical experimentation.

Projects Exhibited Included:

Modified Electrical Fencing System

IEEE Student Branch JCET organized THE FINAL LEVEL, an exciting multi-game championship. The event successfully combined traditional indoor games (Chess, Ludo, Carrom) with modern esports (BGMI, E-Football, Mini Militia), creating an inclusive platform to celebrate strategic thinking and teamwork.



Automatic Wet and Dry Waste Segregation System; Transmitting Sound Using Light (Li-Fi); Dual Axis Solar Tracking System; Campus Find Website
Boeing 777X Scale Model



INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE (IEDC), JCET

Institution Identification Number of IEDC: KSUMIEDC1071
Registered under: Kerala Startup Mission [KSUM], Government of Kerala



NAME	DEPT.DESIGNATION	IEDC DESIGNATION
Mr. JOHN GEORGE	Asst. Professor, AE	Nodal officer - I
Dr. K V S RAJ	Professor, MBA	Nodal officer - II
Ms. AKHILA E	Asst. Professor, CSE	Nodal officer - III
Mr. VIGESH KUMAR S	Asst. Professor, ME	ME Dept. Coordinator
Ms. AJEENA A	Asst. Professor, ECE	ECE Dept. Coordinator
Ms. RESHMA K	Asst. Professor, CSE	CSE Dept. Coordinator
Ms. SREYA V	Asst. Professor, CE	CE Dept. Coordinator
Mr. NITHIN RAJ P	Asst. Professor, AGRI	AGRI Dept. Coordinator

ACHIEVEMENTS

- **Six start-up companies** have been incorporated under IEDC.
 - 1) Rhyhpira Pvt. Ltd.,
 - 2) Sky Dominion Technologies Pvt. Ltd.,
 - 3) Aerocorp Engineering Services Pvt. Ltd.,
 - 4) Clyvon Technologies Pvt. Ltd.,
 - 5) Digitonest International Pvt. Ltd.,
 - 6) Cloud Eleven (MSME Registered)
- There are **Seven Indian Patents** have been filed and published so far

- Seven start-up projects got a Grant Amount of **Rs. 2.5 Lakhs** each from NGI NewGen IEDC, Supported by **Department of Science and Technology [DST], Govt. of India** and **Entrepreneurship Development Institute of India [EDII]**.



Academic Year	Funding Agency	Purpose	Amount	Academic Year
2015-2016	Kerala Startup Mission [KSUM]	Grant Sanctioned for IEDC Activities	Rs. 2 Lakhs	Utilized
2017-2018	Kerala Startup Mission [KSUM]	Grant Sanctioned for IEDC Activities	Rs. 2 Lakhs	Utilized
2020-2021	Kerala Startup Mission [KSUM]	Grant Sanctioned for IEDC Activities	Rs. 1.5 Lakhs	Utilized
2021-2022	NGI-NewGen IEDC	For the Startup Company "Nano waters"	Rs. 2.5 Lakhs	Established
2021-2022	NGI-NewGen IEDC	For the Startup Company "Ace Builders"	Rs. 2.5 Lakhs	Established
2021-2022	Kerala Startup Mission [KSUM]	Idea Grant "Anti-Nicotine Chocolate"	Rs. 40,000	Amount Released
2022-2023	NGI-NewGen IEDC	For the Startup Company "Cropive Innovations Pvt. Ltd."	Rs. 2.5 Lakhs	Established
2022-2023	NGI-NewGen IEDC	For the Startup Company "Orbitocure Innovations Pvt. Ltd."	Rs. 2.5 Lakhs	Established
2025-2026	NGI-NewGen IEDC	For the Startup Company "Ryphira Pvt. Ltd."	Rs. 2.5 Lakhs	Established
2025-2026	NGI-NewGen IEDC	For the Startup Company "Clyvon Technologies Pvt. Ltd."	Rs. 2.5 Lakhs	Established
2025-2026	NGI-NewGen IEDC	For the Startup Company "Digitonest International Pvt. Ltd."	Rs. 2.5 Lakhs	Established
		Grand Total	Rs. 23.4 Lakhs	

SOME HIGHLIGHTED EVENTS



MSME-Advanced Entrepreneurship and Skill Development Programme on

“Up-gradation of Skill & Technique towards Manufacturing for Agricultural Implements Clusters”

Venue: Jawaharlal College of Engineering & Technology, Jawahar Gardens, Lakkidi, Mangalam, Palakkad, Kerala

Duration: 17-21, 2025



Ministry of Micro, Small and Medium Enterprises,
Govt. of India



CSIR-Central Mechanical Engineering Research Institute
M. G. Avenue, Durgapur, West Bengal, Pin-713209



इलेक्ट्रॉनिकी एवं
सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY



BOOTCAMP ON ALLIED TECHNOLOGIES FOR DRONES (15th - 19th September 2025)

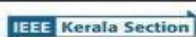
“SwaYaan: Capacity Building for Human Resource Development in Unmanned Aircraft System”

Venue: Jawaharlal College of Engineering and Technology



National Institute of Electronics and Information Technology, Calicut

<https://nietit.gov.in/calicut/index.php> @nietitcalicut /CALNIELIT @CAL_NIELIT /school/NIELITIndia @nietitindia /NIELITIndia



Winner of the Cluster Level Hackathon – Palakkad (Agritech Track)
conducted as part of the IEDC Startup Summit 2026

A Proud Achievement for Our Student Innovators!



ZENITH 2026



I am delighted to share that the student team from Jawaharlal College of Engineering and Technology has emerged as the Winner of the Cluster Level Hackathon – Palakkad (Agritech Track) conducted as part of the IEDC Startup Summit 2026, organized by Amal Jyothi College of Engineering, Kanjirappally.

The hackathon brought together talented teams from institutions across the cluster to address realworld challenges in the Agritech and AgriNext domains, encouraging students to develop innovative and scalable solutions for the agriculture sector.

It is a proud moment to share that during the IEDC Startup Summit 2026, the winning team from

JCET was honored with a cash prize of ₹25,000, recognizing their creativity, teamwork, and entrepreneurial mind-set. This achievement reflects the growing startup culture and innovation ecosystem we continue to nurture at our institution.

My sincere congratulations to the winning team, mentors, and the entire IEDC community who contributed to this success. Let us continue to inspire and empower the next generation of innovators and entrepreneurs.



Winner of the Cluster Level Hackathon – Palakkad (Agritech Track) conducted as part of the IEDC Startup Summit 2026, organized by Amal Jyothi College of Engineering, Kanjirappally.



Business Innovation Superleague (BIS 1.0) – A Carnival of Business and Innovation.

A Grateful and proud moment for Innovation & Entrepreneurship Development Centre (IEDC) – JCET and Jawaharlal Business School as we successfully hosted the Business Innovation Superleague (BIS 1.0) — a dynamic platform celebrating innovation, entrepreneurship, and student-driven startups.

A high-tech drone banner unveiling ceremony was held with presence of our Honorable Chairman & Managing Trustee, Adv. Dr. P. Krishnadas – Chancellor, PK Das Deemed to be University & Trade Commissioner India-Mauritius, where the BIS 1.0 banner was lifted into the sky by a drone, representing the spirit of technology, creativity, and futuristic thinking that defined the entire program.

The event brought together industry leaders, entrepreneurs, mentors, and aspiring innovators on one platform to inspire, guide, and celebrate the spirit of entrepreneurship.

Inaugural Session

The program began with an inspiring inaugural ceremony featuring:

- * Welcome Address – Dr. N. Gunasekaran, Principal, JCET
- * Presidential Address – Dr. H. N. Nagaraja, Executive Director, NGI
- * Inaugural Address – Mr. Sivakumar Palanisamy, Vice President & Chief of Staff, TN Startup
- * Guest of Honour Address – Ms. Vinodini Sukumar, President, Cochin Chamber of Commerce & Industry & Chair, TiE University
- * Keynote Address – Mr. N. P. Antony, Managing Director, Pavizham Group

Leadership Panel Discussion

An engaging panel discussion featuring:

- * Mr. Sivakumar Palanisamy
- * Ms. Vinodini Sukumar
- * Mr. N. P. Antony
- * Mr. Steve Sony – Founder & CEO, AgenticNex AI Pvt Ltd
- * Mr. Rishon P S – Founder & CEO, Flykart

The session was moderated by Mr. Anto Varkey, Former GM (Developmental Projects), BPCL, Trainer & Mentor, and PALS Core Team Member.

Power Talk

A motivating session by Mr. Justin Joseph, Founder of Mr. Kissan Essentials Pvt. Ltd., sharing valuable entrepreneurial insights.

Startup Pitching Competition

The afternoon session witnessed exciting startup pitches from talented innovators presenting their ideas to industry experts, competing for prizes of ₹10,000, ₹5,000, and ₹3,000 — a true showcase of the entrepreneurial talent is emerging from campuses.



Dcoode Codropic LLP, an initiative launched by IEDC incubatee (third-year students of Jawaharlal College of Engineering and Technology), was officially inaugurated on 23rd May 2026 with the blessings of eminent dignitaries. The programme commenced with a welcome address delivered by Vishnu Hari, Founder and CMD of Dcoode Codropic LLP. The formal inauguration and Presidential Address were delivered by Adv. Dr. P. Krishnadas, Honorary Trade Commissioner of Mauritius–India and Chairman & Managing Trustee, Nehru Group of Institutions. In his address, he emphasized the importance of innovation, leadership, and continuous learning in shaping the future of young professionals.



Wiring Minds, Shaping Futures



A note from Dr. Ansal K A, Professor & Head of Department

Every year, as this magazine takes shape, I find myself pausing to reflect — not just on numbers and milestones, but on the people who make this department what it is. The Department of Electronics and Communication Engineering at JCET, Palakkad, has always been more than a place of academic instruction. It is a living, breathing community of curious minds, passionate mentors, and relentless learners. Our flagship B.Tech programme in ECE, affiliated to APJ Abdul Kalam Technological University (KTU), and our postgraduate M.Tech in Communication and Signal Processing together form a strong academic spine. These programmes are built on a foundation of quality — the B.Tech is NBA accredited, and the institution holds NAAC A+ accreditation alongside ISO 9001:2015 certification. AICTE approval and KTU affiliation further anchor our commitment to delivering education that meets the highest national standards.

"This department is not defined by its classrooms alone — it is defined by the character it builds in every student who walks through its doors."

A department is only as strong as the people who teach in it, and I am genuinely proud of the team we have built here. Our faculty — a mix of experienced professors, dedicated associate professors, and energetic assistant professors — bring with them not just academic credentials but a real love for the subject. More than forty percent hold doctoral degrees, and the rest are actively engaged in research, ensuring that what our students learn in the classroom is always at the cutting edge. Together, the faculty have published over forty research papers in Scopus and SCI-indexed journals, secured funding from agencies

such as DST, AICTE, and KSCSTE, and filed patents that speak to the innovative spirit alive in this department. With a student-to-faculty ratio of 20:1, no student here is just a face in the crowd — every learner receives the mentoring, attention, and encouragement they deserve.

What makes the ECE department truly vibrant is the culture that thrives beyond lecture halls. Our national-level technical fest, NSITE, brings students from across the country together for paper presentations, hackathons, project exhibitions, and circuit debugging competitions — a celebration of engineering at its most creative. Guest lectures from luminaries at ISRO, CDAC, Infosys, and TATA Elxsi keep our students plugged into the real world of technology, while practical workshops in MATLAB, FPGA programming, PCB design, IoT, and embedded systems ensure their skills stay sharp and industry-ready. Active MoUs with Keltron and KSREC Thiruvananthapuram open doors for internships, collaborative research, and placement opportunities. The IEEE Student Branch and our ECE Students' Association, ECCONZ, are where leadership is born — where students organise, collaborate, debate, and grow into professionals. And beyond technology, the department's heartbeat is its humanity: NSS initiatives, digital literacy drives in nearby villages, and e-waste awareness campaigns remind us that the best engineers are also the most responsible citizens.

At the end of every academic year, what fills me with the most pride is not any statistic — it is the sight of our students walking out into the world, ready. Our pass percentage has consistently held above seventy-five percent, and our graduates carry with them the confidence of university rank holders, Smart India Hackathon winners, and young researchers who have co-authored papers and contributed to live projects. Companies like TCS, Infosys, Wipro, VVDN, and Bosch Technologies have recognised the calibre of our students, with campus placements exceeding seventy-five percent year on year. Many others choose to go further — pursuing higher studies at prestigious institutions in India and abroad, carrying the JCET name with them. As I write this, I am deeply aware that the best chapters of this department are still unwritten — and they will be written by you, our students. Keep questioning, keep building, and keep reaching. The future of electronics is yours to shape.

Dr. Ansal K A

Professor & Head of Department

Dept. of Electronics & Communication Engineering

JCET, Palakkad

With pride and warm regards,

Shaping Engineers. Inspiring Futures. | www.jcet.edu.in



ZENITH 2026



Innovations and Career Opportunities in Aviation: The Future of India's Skies



Dr. Sujesh G

HoD, Aeronautical Engineering

The aviation sector in India is undergoing a transformative phase, emerging as one of the fastest-growing industries in the country. Today, India stands among the world's leading aviation markets and is projected to become the third-largest globally in the near future, driven by rapid infrastructure expansion, increasing passenger demand, and technological advancements.

At the core of this growth lies continuous innovation in aviation technology. Modern aircraft are increasingly adopting advanced materials such as composites, improving fuel efficiency and reducing emissions. The integration of Artificial Intelligence (AI), automation, and data analytics is revolutionizing flight operations, predictive maintenance, and air traffic management. Smart airports equipped with digital technologies, contactless systems, and real-time monitoring are redefining passenger experience and operational efficiency.

Another major area of innovation is Unmanned Aerial Vehicles (UAVs) and drone technology, which are rapidly expanding in sectors such as agriculture,

surveillance, logistics, and disaster management. India's supportive drone policies and growing startup ecosystem are accelerating research and development in this field. Additionally, the focus on sustainable aviation fuels (SAF), electric aircraft, and green aviation technologies reflects the industry's commitment to reducing environmental impact and achieving long-term sustainability.

The technical segment of aviation offers a wide spectrum of career opportunities. Traditionally, careers were limited to pilots and cabin crew, but today the demand is expanding significantly in areas such as Aircraft Maintenance Engineering (AME), avionics, aerospace design, propulsion systems, and computational fluid dynamics (CFD). The rapid expansion of airline fleets and airports is creating demand for engineers, technicians, and researchers. It is estimated that every new aircraft generates employment for over 100 professionals across operations and maintenance.

India is also positioning itself as a global hub for Maintenance, Repair, and Overhaul (MRO) services, opening new avenues for skilled technical manpower. With government initiatives, policy support, and investments exceeding thousands of crores in airport infrastructure, the ecosystem for aviation careers is becoming more robust and diversified.

Looking ahead, the future of aviation in India is strongly aligned with Industry 4.0 technologies, including digital twins, simulation, robotics, and cyber-physical systems. The rise of urban air mobility, electric vertical take-off and landing

(eVTOL) aircraft, and autonomous flight systems will further redefine the sector. At the same time, challenges such as fuel costs, sustainability concerns, and regulatory complexities will require innovative solutions and skilled professionals.

Aviation in India is not just about flying—it is about engineering excellence, technological innovation, and global connectivity. For students in technical disciplines, this sector offers immense opportunities to contribute to cutting-edge advancements while building rewarding careers. As India's skies become busier and smarter, the future of aviation promises to be both dynamic and transformative.



Climate Change over Kerala and its Impacts and Challenges



Dr. Kurien E.K* and Smegha N.C**

*Professor and Head, ** Assistant Professor
Department of Agriculture Engineering

Introduction

Kerala often celebrated as the 'Land of Backwaters and natural beauty' has always been closely shaped by its monsoon, lush greenery, rivers, backwaters, and coastal lines. But in recent years, this familiar rhythm of nature has been found changing. Rainfall has become less predictable, temperatures have risen, and extreme weather events such as floods, droughts, landslides, and coastal erosion have grown to be more frequent. These shifts are not just environmental changes alone but they are deeply affecting the lives, livelihoods, and future of the people of Kerala.

Changing Climate Patterns in Kerala

Kerala's climate once followed a relatively stable seasonal pattern, with the southwest monsoon and northeast

monsoon playing a major role in agriculture, water resources and daily life. Today this pattern has become increasingly irregular. Some regions in Kerala experience intense rainfall over short periods, while others face long dry spells. This imbalance has created serious problems for farming, water management and disaster preparedness.

The rise in temperature is another visible sign of climate variation. Even during the month of April temperatures have gone above 40 °C. Warmer conditions affect soil moisture, crop growth and natural ecosystems. At the same time, unpredictable rainfall makes planning difficult for farmers, local authorities and ordinary families who depend on seasonal weather cycles.

Impacts on Agriculture and Livelihoods



Agriculture is among the most affected sectors in Kerala due to climate change. Paddy fields, plantations, and spice crops all depend heavily on timely occurrence of rainfall. When rains arrive too late, too early, or too heavily, crops suffer. Floods can wash away fields, while drought-like conditions can reduce yield and damage the soil.

Farmers across Kerala face rising uncertainty. Coconut, banana, pepper, tea, coffee, and rubber cultivation are all vulnerable to changing temperatures and rainfall patterns. Pest attacks and plant diseases also become more common in an unstable weather condition. For many farming families, this may lead to income loss, debt, and declining confidence in agriculture as a secure livelihood.

Floods, Landslides, and Water Stress

One of the most alarming effects of climate variation in Kerala is the increase in floods and landslides. Heavy rainfall can quickly overwhelm rivers, dams, drainage systems, and low-lying settlements. In hilly areas, the risk of landslides becomes severe, when intense rain loosens soil and weakens slopes. These disasters destroy buildings, roads and bridges while it also causes displacement and loss of life.

At the same time, Kerala also faces water stress during dry periods. Even though

the state receives abundant rainfall to the tune of more than 3000mm annually, it does not always retain enough water because of high rates of runoff, poor soil profile storage, and environmental degradation. Wells dry up, groundwater levels fall, and drinking water becomes scarce in many areas. Thus, Kerala faces both excess water and shortage of water, depending on the season and location.

Recent High Temperatures in Kerala

In recent summer months, Kerala has experienced unusually high temperatures, making daily life more difficult for people across the state. The heat has been especially intense in urban areas, where traffic, concrete buildings, and reduced green cover have added to the discomfort. Prolonged hot spells have affected students, workers, farmers, and elderly people, increasing the risk of dehydration, fatigue, and heat-related illnesses. These rising temperatures also place stress on crops, water sources, and local ecosystems, showing once again how climate variation is influencing both the environment and human life in Kerala.

Electricity Situation Now

The present electricity situation in Kerala is closely linked to seasonal demand and changing weather conditions. During hot summer periods, the use of fans and air

conditioners rises sharply, increasing pressure on the power supply system. Peak electricity consumption has touched an all-time high of 118.26 million units on April 27, 2026 while demand after 6pm rose to a record 6033 MW. At the same time, torrential rains, storms, and climate-related disruptions can sometimes affect transmission lines and local distribution. Although Kerala's electricity system has improved over the years, demand spikes during extreme weather still create challenges for households, businesses, and public services. This makes energy management and conservation more important than ever in the context of climate change.

Coastal and Environmental Challenges

Kerala's long coastline is highly vulnerable to climate change. Sea-level rise, coastal erosion, and salinity intrusion are threatening fishing communities and coastal settlements. Saline water entering freshwater resources damages drinking water quality and affects agriculture near the coast. Many families depending on fishing are also forced to deal with changing marine conditions and uncertain catches.

The state's forests, wetlands, and biodiversity are also under pressure. Natural habitats help regulate climate, store water, and support wildlife. But

deforestation, urbanisation and unplanned development reduce the land's ability to absorb climate shocks. When wetlands are destroyed and hills are cut excessively for construction, the environment becomes even more fragile. The recent most common incidences of man animal conflict, high rate of snake bite are the outcome of drastic climate variation over Kerala.

Health and Social Concerns

Climate variations do not affect nature alone but they also influence public health and social well-being. Hot weather can lead to heat stress and discomfort, while floodwaters can spread infections and waterborne diseases. Stagnant water after heavy rains turns into breeding grounds for mosquitoes, increasing the risk of diseases such as dengue and leptospirosis.

The poorest and most vulnerable groups suffer the most. Daily wage workers, coastal families, small farmers, and people living in risky hill slopes or flood-prone areas often have fewer resources to recover after disasters. Climate variation, therefore, widens inequality and creates long-term social hardship.

The Way Forward

Kerala must respond to climate variation with strong planning, science-based

policies, and public participation. Better weather forecasting, disaster management, water conservation, and climate-resilient farming can reduce future damage. Protecting forests, wetlands, and river systems is equally important because healthy ecosystems act as natural shields against climate stress. People also need to adopt more sustainable habits in daily life. Saving water, reducing waste, planting trees, and supporting eco-friendly development can all make a difference. Education and awareness are vital, especially among students, because the younger generation will inherit both the challenges and the responsibility of shaping a resilient future.

Towards a Resilient Kerala

Climate variation is no longer a distant warning for Kerala but it is a present-day reality. From farms to coastal villages, from hillsides to cities, its effects are being felt in every part of the state. Kerala has the strength, knowledge, and community spirit needed to respond to climate change. With careful planning, environmental protection, and collective action, the state can move toward a safer and more sustainable future.



The Rise of Generative AI: Transforming the Future of Technology and Society



Dr. R. Satheesh Kumar

Asst. Dean Research & Development

Professor and Head, CSE

Artificial Intelligence (AI) has rapidly evolved from a futuristic concept to an integral part of our daily lives. Among the most significant advancements in recent years is **Generative AI**, a technology capable of creating text, images, videos, music, software code, and even scientific discoveries. Tools such as ChatGPT, Gemini, Claude, Midjourney, and DALL-E have demonstrated how machines can generate human-like content with remarkable accuracy and creativity.

What is Generative AI?

Generative AI refers to a class of artificial intelligence models that learn patterns from vast amounts of data and generate new content based on that knowledge. Unlike traditional AI systems that primarily analyse and classify data, Generative AI can create original outputs, making it a powerful tool for innovation and problem-solving.

Large Language Models (LLMs) and Diffusion Models are among the key technologies driving this revolution. These systems are trained on enormous datasets and use deep learning techniques to understand context, language, and patterns.

- **Education:** AI enables personalized learning, intelligent tutoring, automated content creation, and research support for students and educators.
- **Healthcare:** AI assists in disease diagnosis, medical image analysis, patient outcome prediction, and accelerated drug discovery.
- **Business and Industry:** AI enhances customer support, content generation, software development, market analysis, and business process automation.
- **Creative Arts:** AI supports artists, writers, musicians, and designers by generating creative content such as artwork, music, and stories.

Emerging Trends in AI

Several exciting developments are shaping the future of AI:

- **Multimodal AI:** Systems capable of understanding and generating text, images, audio, and video simultaneously.
- **AI Agents:** Autonomous systems that can plan, reason, and perform complex tasks with minimal human intervention.
- **Edge AI:** AI models running directly on devices such as smartphones, sensors, and IoT systems, reducing latency and improving privacy.
- **Explainable AI (XAI):** Techniques that make AI decisions more transparent and understandable.
- **AI for Scientific Discovery:** AI assisting researchers in developing new materials, medicines, and engineering solutions.

Challenges and Ethical Considerations

Despite its immense potential, Generative AI presents several challenges. Issues related to misinformation, bias, data privacy, intellectual property, and job displacement require careful attention. Governments, researchers, and industry leaders are working together to establish ethical guidelines and responsible AI frameworks.

Ensuring transparency, fairness, and accountability will be essential for building public trust in AI technologies.

The Road Ahead

Generative AI is poised to become one of the most transformative technologies of the 21st century. As AI systems become more intelligent, accessible, and integrated into everyday life, they will continue to reshape industries, redefine work, and enhance human capabilities.

The future of AI is not about replacing humans but about creating powerful collaborations between human intelligence and machine intelligence. By embracing innovation responsibly, society can harness the full potential of AI to address global challenges and create a smarter, more connected world.

“Artificial Intelligence is no longer just a tool—it is becoming a partner in innovation, creativity, and progress.”

Don't Wait for Jobs—Create Them: The New India Vision



Dr. Mohan Kumar Iyer,
Coordinator – IIC@JCET

India is one of the youngest nations in the world, with millions of young people entering the workforce every year. This demographic advantage has the potential to make India an economic powerhouse. However, it also presents a significant challenge: it is impossible for the government or established industries alone to create jobs for every new entrant into the labour market. India's growing population means, the number of job seekers continues to increase every year. This widening gap between job demand and job availability highlights the urgent need for a new mindset—one that focuses not only on seeking jobs but also on creating them.

Entrepreneurship and innovation have emerged as powerful solutions to this challenge. Start-ups have become engines of economic growth by introducing innovative products, solving real-world problems, generating employment, and contributing to national development. Many successful Indian entrepreneurs began with simple ideas and transformed them into globally recognized enterprises. Higher Educational Institutions (HEIs) must cultivate entrepreneurial thinking among students. Instead of preparing graduates solely for employment, colleges and universities should encourage creativity, critical thinking, problem-solving, risk-taking, and innovation. Students should be motivated to identify local challenges and develop sustainable business solutions that create value for society. Incubation centres, entrepreneurship development cells, start-up mentoring, and industry collaboration can play a crucial role in nurturing future entrepreneurs.

The future of India's economy now depends on creating job creators. Every successful start-up has the potential to employ dozens, hundreds, or even thousands of people. When young innovators establish enterprises, they stimulate economic activity, promote regional development, encourage technological advancement, and strengthen the nation's global competitiveness. Therefore, HEIs India must first create an ecosystem for innovation and entrepreneurship where every student has the opportunity to innovate, build enterprises, and generate employment for others.

The transformation from a nation of job seekers to a nation of job creators will determine India's success in the twenty-first century. Innovation, entrepreneurship, and start-up culture are not merely economic strategies—they are essential pathways to achieving sustainable growth, self-reliance, and inclusive national development.

The Mindset Shift: Why the Greatest Tool Isn't a Calculator



Dr. Prasad P
Prof. & HoD, BS&H



Stepping into the world of engineering marks a significant milestone. It signals a transition from predictable outcomes to a landscape of complex, real-world challenges. For many, the journey begins with a comfort in numbers—years spent solving equations, memorizing formulas, and finding the single "right" answer. In school, neat problems often lead to a single solution tucked away in the back of a textbook.

However, the true essence of engineering lies elsewhere. The most challenging part of this transition involves a fundamental shift in mindset, not just mastering advanced calculus or physics. In the professional world, problems - whether in sustainability, infrastructure, or

technology - rarely come with clear instructions. Most of the time, the real problem remains hidden at first glance.

An engineer's primary mission involves discovering the right problem to solve, rather than just finding a solution to a given one.

Design Thinking drives this process. Rather than acting as a mere topic in a syllabus, it serves as a way of navigating life. It moves us away from rote learning and toward a framework of creativity and purpose. This approach relies on three core pillars: empathy, ideation, and prototyping.

Everything starts with Empathy. Before picking up a calculator, an engineer must look at the human element. Who needs this design? Whether building a cleaner energy source or a more efficient bridge, the solution must serve actual human needs. If we do not understand the daily lives and struggles of people, even the most brilliant mathematical solution fails. Engineering, at its heart, remains a human-centered act.

Next comes Ideation. In this phase, curiosity takes the lead. It isn't the time for the "correct" answer; it's the time for the *most* answers. Engineers ask "Why?" and "What if?" repeatedly. By exploring a wide range of ideas - even those that seem impractical - we open the door to true innovation.

Finally, we reach Prototyping and Testing. This is where ideas become tangible. Great engineers understand that perfection rarely happens on the first try. We build, we test, we learn, and most importantly, we use failure as a teacher. In this field, a failed experiment provides essential data that guides us toward a better, more refined result.

The greatest tool in an engineer's kit isn't a high-powered laptop or a sophisticated calculator. It is a mind that stays both fiercely curious and deeply empathetic. Technology provides answers, but it cannot tell us if those answers truly improve a life.

The journey ahead requires letting go of the pressure to be instantly correct. By challenging the "given" problem and prioritizing the people we serve, we move beyond being students of science and become true architects of change.

6G: The Next Frontier

*Terahertz Communications, Intelligent Reflecting Surfaces,
and the Challenges of Tomorrow's Wireless World*



Dr. Ansal K A, Prof & Head of Dept., ECE, JCET Palakkad | March 2026

Evolution of Mobile Generations — 1G to 6G

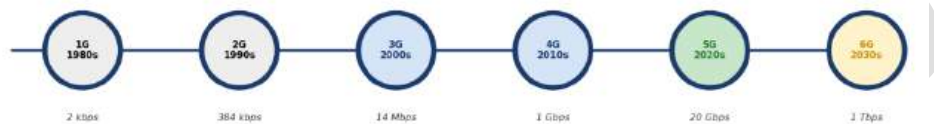


Fig. 1: Evolution of mobile generations — 1G to 6G with peak data-rate milestones

1. Introduction

The story of wireless communication is one of relentless reinvention. Every decade or so, the world has witnessed a generational leap — from the crackling analog voice calls of 1G to the blazing gigabit speeds of 5G. Yet even as 5G networks are still being deployed globally, researchers and technology companies are already looking beyond — towards 6G, the sixth generation of mobile networks, expected to arrive commercially around 2030.

6G is not simply a faster version of 5G. It represents a fundamental rethinking of what a wireless network can do. It promises peak data rates approaching one terabit per second, end-to-end latency below 0.1 milliseconds, and seamless connectivity woven into every layer of human experience — from immersive holographic communication to AI-powered smart cities, and from digital twins of physical infrastructure to brain-computer interfaces. Figure 1 traces this remarkable generational journey.

This article explores the defining technologies driving 6G — particularly Terahertz communications and Intelligent Reflecting Surfaces (IRS) — alongside the formidable challenges that engineers and researchers must overcome to make this vision a reality.

2. Key Technology Pillars of 6G

Figure 2 illustrates the multi-dimensional leap that 6G represents over its predecessor. Unlike any previous generation, 6G is being designed from the ground up as an AI-native network — one where machine learning is not an add-on but an intrinsic part of the network fabric.



Fig. 2: 6G target capability profile vs 5G baseline across key technology pillars

2.1 Terahertz (THz) Communications

The terahertz spectrum, spanning roughly 0.1 to 10 THz, is the centrepiece of 6G's data-rate ambitions. With bandwidths hundreds of times wider than today's millimetre-wave bands used in 5G, THz frequencies can theoretically support data rates of 1 Tbps or more — making experiences like real-time 16K holographic video streaming or near-instantaneous transfer of massive AI model files not just possible but practical.

THz signals, however, come with severe physical constraints. Atmospheric gases — especially water vapour — absorb THz waves strongly, limiting their effective range to tens of metres in open air. Signals scatter off the roughness of ordinary surfaces, and penetrating walls or even glass becomes difficult. These propagation challenges demand innovations in transceiver design, highly directional beam-steering antennas, and new channel modelling techniques tailored for THz environments.

Key Insight — THz Absorption Windows

Not all THz frequencies suffer equally. Researchers have identified several atmospheric transmission windows — frequency bands where absorption is relatively low — such as around 0.3 THz, 0.65 THz, and 0.85 THz. 6G systems will exploit these windows for short-range, ultra-high-speed indoor and device-to-device links.

2.2 Ultra-Massive MIMO

Moving from hundreds of antenna elements in 5G massive MIMO to thousands — or even tens of thousands — in 6G ultra-massive MIMO, beamforming precision reaches new heights. This dramatically improves spatial multiplexing, allowing the base station to serve many more users simultaneously on the same frequency band using tightly focused beams. However, the associated signal processing complexity, hardware cooling demands, and power consumption pose significant engineering challenges.

2.3 AI-Native Networking

For the first time, AI and machine learning are embedded at every level of 6G architecture — from channel estimation and resource allocation at the physical layer to network slice management, anomaly detection, and predictive maintenance at higher layers. This AI-nativeness enables the network to adapt in real time to user patterns, traffic dynamics, and environmental changes, resulting in vastly improved energy efficiency and quality of experience.

2.4 Integrated Sensing and Communication (ISAC)

6G base stations will not merely communicate — they will sense. By using the same radio frequency signals simultaneously for communication and high-precision radar-like sensing, 6G networks will map environments in three dimensions, detect human presence and motion, and contribute data to digital twin systems — opening applications in autonomous vehicles, smart manufacturing, healthcare monitoring, and disaster management.

3. Intelligent Reflecting Surfaces (IRS): A Paradigm Shift

Among all enabling technologies for 6G, Intelligent Reflecting Surfaces — also called Reconfigurable Intelligent Surfaces (RIS) — stand out as perhaps the most conceptually elegant. Traditional wireless networks treat the propagation environment as fixed and uncontrollable. IRS turns this assumption on its head.

An IRS is a large planar structure composed of a massive number of low-cost, passive, electronically controllable unit cells — implemented as sub-wavelength meta-surface elements. Each element can independently alter the phase, amplitude, frequency, and polarisation of an impinging electromagnetic wave. By coordinating thousands of these elements through a smart controller, the IRS reshapes the wireless channel itself — bending signals around obstacles, nulling interference, and concentrating energy towards desired users.

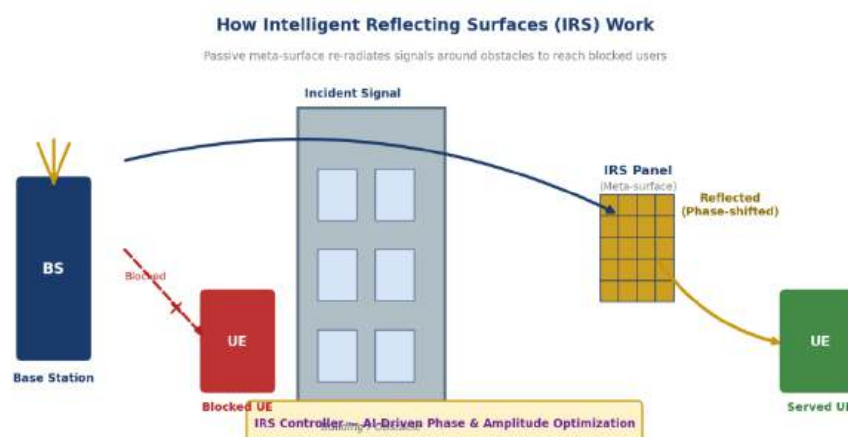


Fig. 3: IRS working principle: phase-optimised reflection around a building obstacle to serve a blocked user

3.1 How IRS Works

As depicted in Figure 3, when a user is shadowed by a building or other obstacle, the direct path from the base station is blocked. The IRS — mounted on a building facade, lamppost, or ceiling — captures the incident signal and reflects it with a deliberate phase shift towards the blocked user, effectively creating a virtual line-of-sight path. The AI-driven IRS controller continuously computes the optimal phase configuration for each element based on real-time channel state information, making the entire process dynamic and adaptive.

Crucially, IRS elements consume virtually no active power — they do not amplify signals. Their operation is fundamentally passive, drawing only the tiny current required by the phase-tuning circuit of each element. This makes IRS an extraordinarily energy-efficient coverage extension technology compared to active relay stations or additional base stations.

IRS vs Active Relay — Key Differences

An active relay amplifies and retransmits signals, introducing noise and requiring its own power supply and backhaul connection. An IRS passively reflects signals with near-zero power consumption, zero added noise, and no backhaul requirement — making it dramatically simpler, cheaper, and more energy-efficient to deploy at massive scale.

3.2 IRS for THz Coverage Extension

The marriage of IRS and THz communications is particularly potent. THz signals' severe propagation losses mean that even modest obstructions create dead zones. IRS panels deployed on surfaces within a room or corridor can reconfigure the THz channel on the fly — reflecting beams around corners, compensating for molecular absorption, and enabling continuous coverage in scenarios where a direct THz link would be impossible. Research groups at NYU, Aalto University, and IIT Delhi have demonstrated significant coverage gains using IRS-assisted THz systems in laboratory environments.

3.3 IRS Deployment Scenarios

IRS is envisioned for a wide range of 6G deployment contexts. In indoor environments — offices, hospitals, warehouses — ceiling or wall-mounted IRS panels will replace signal repeaters. In outdoor urban settings, building facades clad with meta-surfaces will eliminate coverage gaps in dense high-rise districts. In vehicular communication, IRS panels on roadside structures will support reliable vehicle-to-infrastructure links even during rapid mobility.

"6G is not a faster 5G — it is the communication layer of a fully intelligent, sentient planet."

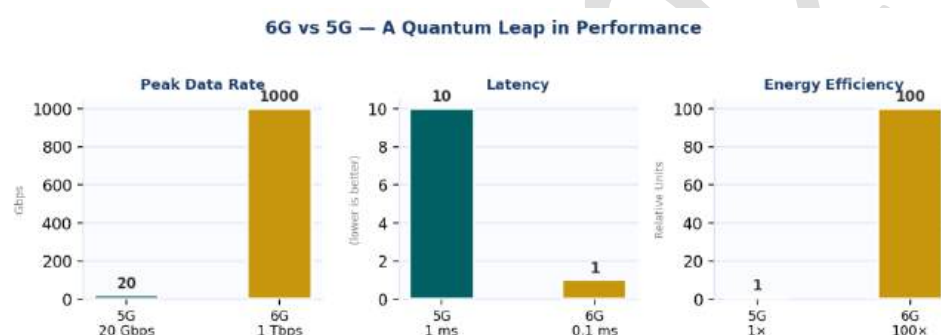


Fig. 4: 6G vs 5G performance comparison: peak data rate, latency, and energy efficiency

4. Challenges on the Road to 6G

The promise of 6G is immense, but so are the challenges. Figure 5 summarises the six most critical hurdles that researchers and engineers must address before 6G can become a global reality.



Fig. 5: The six key challenges on the path to 6G: propagation loss, energy, security, spectrum, AI complexity, and infrastructure cost

4.1 THz Propagation Loss and Range

Atmospheric absorption, Doppler spread at high mobility, and sensitivity of THz beams to alignment errors all constrain practical deployment of THz links. Innovations in silicon-photonics-based transceivers, adaptive beam-tracking algorithms, and IRS-assisted THz relay chains are active research frontiers addressing this challenge.

4.2 Energy Consumption

Ultra-massive MIMO arrays, dense small-cell deployments, and edge AI inference engines are individually power-hungry — and 6G will require all three simultaneously at unprecedented scale. The industry has set an ambitious target: 6G networks should be at least 100 times more energy-efficient per bit than 5G. Achieving this requires holistic rethinking of hardware architectures, communication protocols, and network operations — including energy-harvesting systems and AI-driven sleep scheduling for base station components.

4.3 Security and Privacy in the AI Era

6G networks will process unprecedented quantities of sensitive data — biometric health signals, financial transactions, and real-time location traces. Simultaneously, AI integration opens new attack vectors: adversarial machine learning attacks can fool AI-based channel estimators, and maturing quantum computers threaten to break RSA and elliptic-curve cryptographic algorithms underpinning current secure communications. Post-quantum cryptography, physical-layer security techniques, and federated learning with differential privacy are being actively explored to meet these threats.

4.4 Global Spectrum Regulation

The THz spectrum is currently largely unregulated, with different countries allocating different portions for experimental and commercial use. International coordination through bodies like the ITU-R and IEEE is essential to avoid fragmentation and ensure that 6G devices can roam seamlessly across borders — just as today's smartphones connect to networks worldwide.

4.5 AI Integration and Hardware Maturity

Running sophisticated neural networks at the edge — in base stations and mobile devices — demands chips that are simultaneously powerful, energy-efficient, and compact. While AI accelerator chips (NPUs, TPUs) are advancing rapidly, their integration into the tight power budgets of wireless hardware remains an open challenge. Neuromorphic computing and in-memory computing architectures are promising research directions that could dramatically reduce on-device AI inference energy costs.

4.6 Infrastructure Investment

Dense small-cell deployments demanded by THz's limited range will require a step-change in global infrastructure investment. Millions of additional base stations, fibre backhaul connections, and IRS installations will be needed worldwide. Novel business models — including network-as-a-service, shared infrastructure consortia, and government-funded rural connectivity programmes — will be essential to make the economics of 6G deployment viable, particularly in developing regions.

5. The Road Ahead

The global 6G research and standardisation effort is already well underway. In South Korea, Samsung and ETRI have published detailed 6G white papers. Europe's Hexa-X project, funded under Horizon 2020, has laid foundational work on 6G use cases and air interface concepts. In India, the Department of Telecommunications has launched the Bharat 6G Mission with a target of becoming one of the world's leading 6G patent holders by 2030. The ITU-R has published its IMT-2030 framework, defining vision and key capabilities that 6G systems must meet.

For students and researchers in departments like ours, this is an extraordinarily exciting moment. The technologies that will define 6G — IRS meta-surface design, THz transceiver engineering, AI-native protocol stacks, quantum-secured communications — are active areas where even a single published paper can contribute meaningfully to a global conversation. The department of ECE at JCET encourages every student to engage with 6G research, participate in national hackathons like Smart India Hackathon, and explore collaboration opportunities with ISRO, CDAC, and international research consortia.

The wireless revolution has always been about more than speed. It has been about connecting people, enabling opportunity, and expanding the frontiers of what is possible. 6G is the next chapter in that story — and it is one that our generation will write.

"The greatest challenge of 6G is not physics — it is ensuring its transformative benefits reach every corner of the world, not just the privileged few."

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This article was prepared by the faculty and student research team of the Department of Electronics & Communication Engineering, Jawaharlal College of Engineering and Technology, Palakkad, for the Annual College Magazine 2026.

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“AK SPIRIT – LONG ENDURANCE MULTI-ROLE UAV”

PALS Innawah! 2026 – Innovation in Action

Venue: Jawaharlal College of Engineering and Technology
Date: 21 February 2026

By Team AK Spirit

When we arrived at Jawaharlal College of Engineering and Technology for PALS Innawah! 2026, our goal was simple: present our UAV concept, share our ideas, and learn from the experience. But as every engineering student eventually realizes, showcasing a project is never just about presenting—it's about proving that your ideas can stand in the real world. Looking back, our journey with “AK Spirit – Long Endurance Multi-Role UAV” was not just about specifications or performance—it was about how

different engineering disciplines came together to create something meaningful.



Team AK Spirit – Featured Innovation



Akhil K R
S6 Aeronautical Department



ZENITH 2026



Where Engineering Meets Reality

On paper, everything works perfectly. Designs look clean, simulations behave ideally, and calculations align. But real engineering is different. As we worked on the UAV concept, we realized that every parameter affects another: Increasing payload affects endurance; Improving speed impacts fuel efficiency; Enhancing stealth changes structural design; We learned that engineering is not about perfect solutions—it's about balanced compromises.

The Power of Integration

What made AK Spirit unique was not just its design, but how different systems worked together. Our UAV combined:

Hybrid propulsion – fuel-powered cruise with electric hover capability

Autonomous navigation – enabling intelligent flight decisions

Advanced communication systems – for long-range control

Modular payload architecture – adaptable for different missions

This integration allowed the UAV to perform roles like surveillance, mapping, and precision operations—reducing the need for multiple specialized drones.



The Vision Behind the Design

From the beginning, we wanted to build something practical, not just theoretical. Our UAV wasn't designed to solve a single problem—it was built to handle multiple missions. We envisioned a system capable of:

Long endurance flights (6–12 hours)

Covering distances up to 1000 km

Carrying significant payload (17–21 kg)

Operating with precision using EO/IR sensors

But more than numbers, this design represented a challenge:

How do you combine endurance, speed, payload, and stealth into one platform?

That question drove everything we did



From a Classroom Opportunity to Becoming a Co-Founder

Keerthana V

JCE25CD031

BTech CSE Data Science (2025-29)

Co-Founder, Planets Development



Sometimes, life changes in the most unexpected moments. Mine changed inside a classroom.

It was a normal college day. Our faculty was taking class, and everyone was sitting quietly like any other lecture hour. Suddenly, a senior named Amith P Ranjith entered the classroom and announced that he was searching for a Batch Mentor for the ASAP Kerala programme. I still remember that moment clearly. Something inside me said, “Stand up.” Without thinking too much, I raised my hand.

At that time, I never imagined that one small decision would completely change the direction of my life.

I got selected for the programme and attended the session on 11 September 2025. A few days later, on 16 September 2025, I stood in front of my own classmates and conducted a session on LinkedIn Optimization and ATS Resume Building. Honestly, I was nervous. Standing in front of familiar faces and teaching them felt intimidating at first. But somewhere between the fear and excitement, I discovered confidence within myself. That day, I realized that growth begins the moment we stop doubting ourselves.

Through the programme, I became closer with Amith. What started as simple conversations slowly turned into long discussions about dreams, careers, technology, business, and the future we wanted to build for ourselves. The more we talked, the more we realized we shared the same mindset — the hunger to create something meaningful instead of simply following the ordinary path.

Soon after, our college announced its tech fest, “NSITE.” Ambarish sir asked Amith to develop a website to manage the event and its activities. Amith then asked me to join the team. I immediately said yes, even though deep inside I knew it was going to be challenging.

Our team included me, Amith, Vivek Raj, and Aybel Juby. At that time, we were just students with ambition, curiosity, and sleepless determination.

The journey was far from easy.

We were managing internal exams, assignments, lab records, submissions, and academic pressure while simultaneously building the website. There were nights when sleep became secondary. Sometimes we felt exhausted, frustrated, and mentally drained. But even during those difficult moments, we kept going because we believed in what we were building.

And finally, after all those sleepless nights and stressful days, we completed the website successfully — a premium-level website with zero errors.



The appreciation we received is something I will never forget. Ambarish Sir, Anjana Ma'am, our Principal sir, HODs, and even the Chairman appreciated our work. For many people, it may have been just another website. But for us, it was proof that students like us could create something truly impactful when passion meets hard work.

That project became the foundation of something much bigger.

After NSITE, Amith shared an idea with us — starting a company called **Planets Development**. At first, it felt like a dream too big for students like us. We did not have a luxurious office, investors, or years of experience. What we had was belief. Belief in our skills, belief in each other, and belief that we could build something valuable from nothing.

As we started building Planets Development, our portfolio had only three websites — Logiq, IEDC JCET, and NSITE. But even in those early projects, we cared deeply about one thing: how people felt when they visited our websites.

For us, websites were never just pages, animations, or sections. We wanted every visitor to feel something — excitement, trust, professionalism, and emotion. We wanted our work to leave an impression.

In an industry where many people compete only on low prices, we chose a different path. While some sold websites for extremely cheap rates, we focused on quality, experience, creativity, and detail. We wanted our work to look and feel premium because we knew that great experiences cannot be built with average effort.

Today, we build premium digital products worth over ₹1 lakh for clients who value quality and long-term impact. But behind every successful project are stories people never see — the late-night debugging, the pressure, the learning curves, the failures, and the silent sacrifices.

My own journey was also filled with struggles and learning.

In the beginning, I barely understood how websites worked behind the scenes. I spent hours learning hosting, domains, server configurations, and experimenting with tools like Elementor. My early designs were far from perfect. Sometimes I would spend hours creating something only to realize it looked completely different from what I imagined in my mind.

There were moments when I questioned myself.

Moments when I wondered if I was truly capable of becoming good at this. But slowly, through consistency, mistakes, patience, and endless practice, I improved step by step.

Days turned into weeks. Weeks turned into months.

Without realizing it, the person who once struggled to build simple layouts slowly became someone capable of developing premium digital experiences with confidence and creativity.

At the same time, I started learning automation using n8n. That completely changed the way I viewed technology. I understood that technology is not just about building websites

— it is about building systems, solving problems, improving efficiency, and creating smarter digital experiences.

One thing I am truly proud of is how we handled success. When Planets Development started making profits, we did not spend it carelessly. Instead, we reinvested into better tools, learning resources, research, and improving our skills. We understood that real growth comes from continuous learning and constant evolution.

Today, Planets Development is slowly growing into one of Kerala’s emerging premium website development firms. But beyond business, money, or projects, this journey gave me something much more valuable — confidence in myself.

When I look back at that classroom moment, it still feels unreal. One small decision to ‘stand up’ changed everything. It introduced me to opportunities, friendships, leadership, entrepreneurship, and a completely new version of myself.

This journey taught me that sometimes success does not begin with perfect plans or powerful connections. Sometimes it begins with courage — the courage to say “yes” to an opportunity before you even know where it will lead.

And perhaps the most important lesson of all is this:

People may forget prices, features, or technical details. But they never forget how your work made them feel.



Beyond Artificial Intelligence: Why Human Skills Will Define Tomorrow's Workforce



Dr Priya Prasad,
Professor,
Department of MBA

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn." — **Alvin Toffler**

Imagine graduating into a world where the career you eventually excel in does not yet exist. While this may sound like science fiction, it is rapidly becoming reality. Artificial Intelligence (AI), automation, robotics, and digital technologies are transforming industries, redefining professions, and creating opportunities that were unimaginable just a decade ago. In this era of continuous disruption, success will no longer depend solely on what we know, but on how effectively we learn, adapt, and innovate.

For generations, higher education has been regarded as the gateway to professional success. Today, however, a degree is only the starting point. Employers are looking beyond academic qualifications to identify individuals who can think critically, solve complex problems, communicate with confidence, collaborate effectively, and lead with integrity. *Degrees may open the first door, but skills determine how far the journey continues.*

Contrary to popular perception, Artificial Intelligence is not replacing human potential—it is redefining it. Intelligent systems can analyse enormous volumes of data, automate routine tasks, and generate insights within seconds. Yet they cannot replicate the qualities that define humanity: creativity, empathy, ethical judgment, curiosity, emotional intelligence, and the ability to inspire others. *In the age of Artificial Intelligence, the greatest competitive advantage is not artificial—it is deeply human.*

Tomorrow's professionals must be comfortable working alongside intelligent technologies while remaining grounded in human values. They will need to understand data, use digital tools confidently, think creatively, solve unfamiliar problems, communicate across cultures, and make responsible decisions. The organisations that will lead the future are not merely seeking technology experts; they are seeking individuals who can combine technical competence with imagination, collaboration, and ethical leadership.

The business world already offers compelling evidence of this shift. Organisations such as *OpenAI*, *Tesla*, and *Infosys* continue to invest heavily in emerging technologies, yet they equally emphasise innovation, teamwork, communication, adaptability, and continuous learning. Technology may accelerate progress, but it is people who transform innovation into meaningful impact.

This changing landscape also demands a new approach to education. Learning can no longer end with graduation; it must become a lifelong commitment. Every internship, research project,

certification, innovation challenge, entrepreneurial venture, and community engagement activity adds a new dimension to a student's professional growth. The willingness to learn, relearn, and continuously improve has become one of the most valuable career assets in an unpredictable world.

Colleges and universities have never had a more important role to play. Their responsibility extends far beyond awarding degrees. They are shaping future innovators, entrepreneurs, ethical leaders, and responsible citizens. Every classroom discussion, case study, presentation, management fest, industrial visit, internship, and student leadership opportunity provides a platform to develop the confidence and capabilities that employers increasingly value. Education is no longer just about acquiring knowledge—it is about transforming knowledge into action and purpose.

As students prepare for careers in an increasingly digital world, they should remember that employability is built not only through academic excellence but also through curiosity, resilience, adaptability, and a willingness to embrace challenges. Those who continuously upgrade their skills will always remain relevant, regardless of how rapidly technology evolves.

The future of work will undoubtedly be shaped by Artificial Intelligence, but it will never be defined by technology alone. It will be defined by people who think critically, create fearlessly, collaborate meaningfully, and lead with compassion. Machines may become faster, smarter, and more efficient, but they cannot replace the human capacity to dream, to innovate with purpose, or to inspire others.

The future of work will not be written by algorithms alone; it will be written by people who dare to learn, adapt, innovate, and lead. The next chapter belongs to those who choose to become future-ready today.

Teaching Machines to Read the Brain

Brain Tumour Detection Using Convolutional LSTM Networks

By Sreelakshmi K K guided by Dr. Ansal K A | April 2026



Sreelakshmi K K

S3 M Tech

Every year, hundreds of thousands of people worldwide are diagnosed with brain tumours — a condition where early and accurate detection can mean the difference between life and death. Yet diagnosing a tumour from an MRI scan remains a painstaking task, demanding hours of expert radiologist attention and carrying an inherent risk of

human error. Artificial intelligence, and specifically a powerful hybrid architecture called the Convolutional Long Short-Term Memory network (CLSTM), is emerging as a transformative ally in this fight.

The Challenge: Why Brain Tumour Detection is Hard

Brain tumours manifest in an enormous variety of shapes, sizes, and locations. A glioblastoma — the most aggressive type — can be irregular, infiltrative, and difficult to distinguish from surrounding healthy tissue on a greyscale MRI scan. Benign meningiomas, meanwhile, may mimic the appearance of other lesions. Radiologists must mentally integrate dozens of 2D image slices into a coherent 3D picture, assess contrast enhancement patterns, detect subtle asymmetries, and all the while guard against fatigue-induced lapses.

Standard deep learning approaches, such as a plain Convolutional Neural Network (CNN), are excellent at recognising spatial patterns in a single image slice. However, they treat each slice in isolation, missing the crucial inter-slice contextual information that a radiologist naturally uses when scrolling through a scan. This is precisely the gap that CLSTM bridges.

Building Blocks: CNN and LSTM

To understand CLSTM, it helps to understand its two parent architectures. A Convolutional Neural Network passes an image through layers of learnable filters that detect edges, textures, and higher-level structures — ultimately recognising objects or anomalies with remarkable accuracy. Think of it as a very sophisticated image stamp-recognition system.

A Long Short-Term Memory network, on the other hand, is designed for sequential data. Unlike ordinary neural networks, an LSTM maintains a memory cell that can retain information over long sequences, making it the architecture of choice for speech recognition, language modelling, and time-series prediction. Its gating mechanism — input gate, forget gate, and output gate — allows it to selectively remember or discard information as a sequence progresses.

THE CLSTM ADVANTAGE

Where a CNN sees one slice and an LSTM processes one feature sequence, CLSTM does both simultaneously — extracting rich spatial features from each MRI slice and tracking how those features evolve across slices, mimicking the holistic 3D reasoning of an expert radiologist.

How CLSTM Works for Tumour Detection



The Convolutional LSTM elegantly merges both architectures. Instead of receiving a simple numerical vector as input (as a standard LSTM does), each LSTM cell in a CLSTM receives a full feature map produced by convolutional operations. The gating computations themselves are also performed convolutionally. This means the network can simultaneously model spatial structure within each MRI slice and temporal (inter-slice) dependencies across the scan volume.

In a typical brain tumour detection pipeline, raw MRI volumes are first pre-processed — skull-stripping to remove non-brain tissue, intensity normalisation, and slice extraction. The sequence of 2D slices is then fed into the CLSTM layer stack. Early convolutional layers detect local features such as intensity gradients and edges. The LSTM memory mechanism then tracks how these features shift from slice to slice — detecting where normal tissue transitions into an abnormal mass. A final set of fully connected layers classifies the output: tumour or no tumour, and often, tumour grade or type.

Multi-modal inputs — combining T1, T2, FLAIR, and contrast-enhanced MRI sequences — further boost accuracy. The CLSTM processes each modality as a separate channel, learning which imaging sequence best highlights the tumour boundary, necrotic core, or surrounding oedema.

What the Research Shows

Studies benchmarked on the BraTS (Brain Tumour Segmentation) dataset — the international standard for evaluating tumour detection algorithms — have demonstrated that CLSTM-based architectures consistently outperform standalone CNNs in volumetric segmentation tasks. Reported Dice similarity coefficients (a measure of overlap between predicted and actual tumour regions) exceeding 0.90 have been achieved for whole-tumour segmentation, approaching radiologist-level performance.

Crucially, CLSTM models have shown superior performance on small, irregularly shaped tumours that CNN-only models tend to miss, precisely because the inter-slice context provides additional evidence that a subtle anomaly in one slice is indeed a coherent 3D lesion rather than imaging noise.

Challenges, Ethics, and the Path Forward

No technology arrives without caveats. CLSTM models are computationally intensive, requiring GPU acceleration and large annotated datasets for training — a resource that is scarce in many hospitals, particularly in lower-income settings. Data privacy regulations complicate the sharing of patient MRI data across institutions, limiting dataset diversity and potentially introducing bias: a model trained predominantly on scans from one demographic may perform poorly on others.

Explainability remains a pressing concern. Clinicians need to understand why an AI flagged a region as tumorous before acting on that recommendation. Techniques such as Grad-CAM (Gradient-weighted Class Activation Mapping) are increasingly used to generate visual heatmaps overlaid on MRI slices, highlighting which regions drove the model's decision — building the transparency needed for clinical trust.

Looking ahead, federated learning — where models train across multiple hospital sites without raw data ever leaving those sites — promises to resolve the privacy-vs-diversity dilemma. Transformer-based extensions of CLSTM, leveraging attention mechanisms, are already showing promise in capturing long-range spatial dependencies that even convolutional LSTMs can miss.

The goal is not to replace the radiologist, but to give them a tireless second pair of eyes — one that never misses a scan, never fatigues at midnight, and grows more accurate with every image it sees. In the battle against brain tumours, CLSTM-powered AI is fast becoming one of medicine's most promising weapons.

QUICK GLOSSARY

CNN Convolutional Neural Network — extracts spatial features from images using learnable filters.

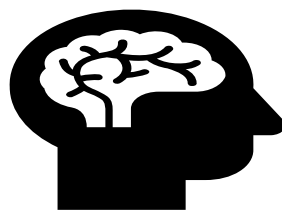
LSTM Long Short-Term Memory — a recurrent network that retains information across sequences using gating.

CLSTM Convolutional LSTM — fuses CNN's spatial reasoning with LSTM's sequential memory for volumetric data.

BraTS Brain Tumour Segmentation Challenge — the benchmark dataset for evaluating tumour detection algorithms.

Dice Score A metric (0–1) measuring overlap between predicted and ground-truth tumour regions; higher is better.

FLAIR Fluid-Attenuated Inversion Recovery — an MRI sequence that suppresses fluid, highlighting tumour oedema.



വാഴ 2.0: ഒരു പുനർചിന്ത



ഡോ. പോൾ വി മാത്യു

ജവഹർലാൽ ബിസിനസ്സ് സ്കൂൾ

നമ്മുടെ ക്യാമ്പസുകളിൽ തമാശയായും പരിഹാസമായും എപ്പോഴും കേൾക്കുന്ന വാക്കാണ് 'വാഴ'. ഒന്നിനും കൊള്ളാത്തവൻ എന്ന അർത്ഥത്തിൽ നമ്മൾ പലപ്പോഴും ഈ വാക്കിനെ മുദ്രകുത്താറുണ്ട്. എന്നാൽ ഒരു ബിസിനസ്സ് സ്കൂളിന്റെ പശ്ചാത്തലത്തിൽ, ഈ 'വാഴ' സങ്കല്പത്തിന്റെ രണ്ടാം പതിപ്പിനെക്കുറിച്ച് (Vazha 2.0) ഗൗരവകരമായ ചില ചിന്തകൾ പങ്കുവെക്കാനുണ്ട്.

വിദ്യാർത്ഥികളോട്: തണലാകണോ അതോ ഫലമാകണോ?

ഒരു വാഴ നടുമ്പോൾ അത് കുലയ്ക്കും എന്ന പ്രതീക്ഷയിലാണ്. എന്നാൽ ഇന്ന് പല വിദ്യാർത്ഥികളും ക്യാമ്പസിലെത്തുന്നത് വെറും 'തണൽ' നൽകുന്ന ഇലകളായി മാത്രം നിലകൊള്ളാനാണ്. നിങ്ങളുടെ എം.ബി.എ പാഠങ്ങൾ വെറും തിയറികളായി സർട്ടിഫിക്കറ്റിൽ ഒതുങ്ങിയാൽ, നിങ്ങൾ വെറുമൊരു വാഴയായി മാറും. എന്നാൽ ആ അറിവിനെ നൈപുണ്യമായി മാറ്റിയാൽ (Upskilling), നിങ്ങൾ ലോകത്തിന് ആവശ്യമുള്ള മൂല്യമുള്ള വ്യക്തിത്വമായി മാറും. നിങ്ങൾ വളരുന്നത് വെറും ഹാജറിന് വേണ്ടിയാണോ, അതോ നാളത്തെ ഇൻഡസ്ട്രിക്ക് ആവശ്യമായ പ്രൊഫഷണലാകാനാണോ എന്ന് സ്വയം ചോദിക്കുക.

അധ്യാപകരോട്: മണ്ണും നനയും നമ്മുടേതാണ്

ഒരു വാഴ വളരാത്തതിന് അതിനെ മാത്രം കുറ്റം പറഞ്ഞിട്ട് കാര്യമില്ല; നമ്മൾ നൽകുന്ന വളവും നനയും പരിശോധിക്കണം. വിദ്യാർത്ഥികളെ വെറും 'വാഴകൾ' എന്ന് മുദ്രകുത്തുന്നതിന് മുൻപ്, അവരിലെ പ്രതിഭയെ തിരിച്ചറിയാനും വളർത്താനും ആവശ്യമായ സാഹചര്യം ഒരുക്കാൻ നമുക്ക് കഴിയുന്നുണ്ടോ എന്ന് ആത്മപരിശോധന നടത്തണം. മാറുന്ന സാങ്കേതിക വിദ്യകൾക്കും പുതിയ കാലത്തെ തൊഴിൽ സംസ്കാരത്തിനുമൊപ്പം അധ്യാപകരും മാറിയാൽ മാത്രമേ മികച്ച തലമുറയെ വാർത്തെടുക്കാൻ സാധിക്കൂ.

വാഴ 2.0 - കരുത്തിന്റെയും ഉപയുക്തതയുടെയും അടയാളം

യഥാർത്ഥത്തിൽ വാഴയുടെ ഓരോ ഭാഗവും ഉപയോഗപ്രദമാണ്. അതുപോലെ ഒരു ബിസിനസ് വിദ്യാർത്ഥി ബഹുമുഖ പ്രതിഭ (Multitasking) ഉള്ളവനായിരിക്കണം. വെട്ടിമാറ്റിയാലും വീണ്ടും മുളച്ചുവരുന്ന വാഴയുടെ ആ കരുത്താണ് (Resilience) ഇന്നത്തെ കോർപ്പറേറ്റ് ലോകത്തിന് ആവശ്യം.

ഈ ക്യാമ്പസിൽ നിന്ന് നിങ്ങൾ പുറത്തിറങ്ങുമ്പോൾ ആരും നിങ്ങളെ 'വാഴ' എന്ന് വിളിക്കരുത്. ഇനി വിളിച്ചാൽ തന്നെ, അത് എല്ലാ അർത്ഥത്തിലും ഗുണമുള്ള, ഫലമുള്ള, കരുത്തുള്ള ഒരു 'Vazha 2.0' ആയിരിക്കട്ടെ. ലോകം മാറുകയാണ്, ആ മാറ്റത്തിനൊപ്പം കുതിക്കാൻ നമ്മളും തയ്യാറെടുക്കുക.

Smarter Filters for a Connected World

Frequency Selective Surfaces Meet Substrate Integrated Waveguides

By Kiran Jayaprakash S4 ECE guided by Dr.Ansal K A | April 2026



Kiran Jayaprakash

S5 ECE

Imagine a surface that can let certain radio frequencies pass through while blocking others — just as a coloured glass filter does for light. Now imagine shrinking that technology onto a compact circuit board and integrating it into modern wireless devices. That is precisely the promise of combining Frequency Selective Surfaces (FSS) with Substrate Integrated Waveguides (SIW) — a fusion that is fast becoming one of the most exciting frontiers in microwave and millimetre-wave engineering.

What Is a Frequency Selective Surface?

A Frequency Selective Surface is a periodic array of conductive patches or apertures etched onto a dielectric substrate. Much like a sieve that allows particles of only a certain size to pass, an FSS transmits, reflects, or absorbs electromagnetic waves depending on their frequency. The geometry of the unit cell — be it a cross, ring, square loop, or fractal shape — determines the resonant frequency and the bandwidth of operation.

FSS structures find application across a wide spectrum: from radars that shield aircraft electronics, to band-stop filters in satellite dishes, to intelligent building facades that selectively block certain 5G bands. Their passive, lightweight, and conformal nature makes them ideal for integration into existing systems.

Enter the Substrate Integrated Waveguide

A conventional metallic waveguide is a hollow pipe that efficiently guides microwave energy — but it is bulky, expensive to manufacture, and difficult to integrate with planar circuits. The Substrate Integrated Waveguide solves this elegantly. By drilling two rows of metallic vias (tiny plated holes) through a standard PCB substrate and sandwiching them between top and bottom ground planes, engineers recreate the walls of a rectangular waveguide entirely within a flat board.

The result is a guided-wave structure that offers the low-loss, high-power-handling characteristics of a waveguide while being fully compatible with standard printed circuit board fabrication. SIW components — filters, couplers, antennas, oscillators — can be mass-produced on the same board as the rest of the transceiver chain, dramatically reducing size and cost. This makes SIW particularly attractive for millimetre-wave applications like 5G/6G backhaul, automotive radar, and satellite communication.

⚡ KEY INSIGHT

FSS-loaded SIW structures can achieve multi-band filtering, sharp roll-off, and miniaturisation simultaneously — properties that are extremely difficult to realise with either technology alone.

The Power of Combining FSS and SIW

When FSS elements are integrated into SIW cavities or its top metallic layer, a synergy emerges that neither technology could achieve on its own. The periodic FSS pattern introduces additional resonances or transmission zeros into the SIW's frequency response, enabling highly selective bandpass or band-reject filtering with compact dimensions.

For instance, an FSS aperture etched on the broad wall of an SIW cavity can create a sharp notch at an interfering frequency — say, to reject a Wi-Fi band while passing a 5G channel — all within a footprint no larger than a postage stamp. Researchers have also demonstrated dual-band SIW filters where FSS-inspired slot patterns create two independently tunable passbands, a feat previously requiring cascaded filter sections.

The integration also benefits antenna design. FSS-backed SIW antenna arrays exhibit improved gain, reduced back-lobe radiation, and enhanced isolation between adjacent elements — all without adding layers or cost to the PCB stack-up.

Challenges and the Road Ahead

Despite its promise, the FSS–SIW combination is not without challenges. Designing the unit cell geometry to achieve a desired response requires careful full-wave electromagnetic simulation, as the FSS resonance couples strongly with the SIW cavity modes. Small fabrication tolerances — via

diameter, pitch, and substrate permittivity variation — can shift the response significantly, demanding tight process control.

Active FSS elements — incorporating PIN diodes or varactors — open the door to reconfigurable SIW filters whose passband can be switched or tuned in real time. Combined with machine learning-assisted design tools that can explore vast unit-cell geometries in hours rather than weeks, the field is moving rapidly toward intelligent, self-adapting RF front-ends that could be central to the 6G era.

From stealth aircraft to smart 5G base stations, the marriage of FSS and SIW is quietly reshaping how engineers tame the electromagnetic spectrum. As the next generation of wireless standards demands ever-greater spectral efficiency and hardware miniaturisation, this elegant combination of periodic structures and planar waveguides will only grow in significance — making it a fascinating area for students and researchers to explore today.

GLOSSARY AT A GLANCE

FSS Frequency Selective Surface — periodic metallic array acting as a spatial filter for EM waves.

SIW Substrate Integrated Waveguide — planar waveguide realised using metallic vias in a PCB substrate.

Via A plated through-hole in a PCB that forms the sidewall of an SIW structure.

Transmission Zero A frequency at which a filter completely blocks signal transmission.

Smart College Transport & Information System



NEERAJ ROHAN T R
S2 Aeronautical Engineering

In many colleges, students face difficulties in locating their buses, especially during busy mornings. This often leads to confusion, delays, and missed transportation. Additionally, unexpected situations such as traffic congestion, roadblocks, local events, or weather conditions can increase travel time without prior notice.

To address these challenges, I propose a Smart College Transport & Information System. This system can be developed as a mobile application or website that provides real-time updates and essential information for students.

The system will include:

- **Live Bus Tracking:** Each college bus will be equipped with GPS to show its real-time location.
- **Estimated Arrival Time (ETA):** Students can know the exact arrival time and plan accordingly.
- **Delay & Road Alerts:** Notifications for traffic, roadblocks, or special occasions affecting travel.
- **Student Contribution Feature:** Students can share real-time updates like traffic conditions or delays, with proper monitoring or approval to ensure accuracy.

To maintain reliability, all users must follow strict guidelines. Any misuse of the platform, such as sharing false or misleading information, will lead to disciplinary action as per college rules.

This system will improve punctuality, reduce confusion, enhance safety, and make daily travel more convenient for students. It is a simple yet effective step towards a smarter and more connected campus.

The James Webb Space Telescope



Harinand

S5 Aeronautical

The James Webb Space Telescope (JWST) is one of the most important scientific instruments ever launched into space. It is designed primarily for infrared astronomy, which means it detects heat and infrared light rather than visible light. This gives it a major advantage over earlier telescopes because it can observe objects that are too distant, too old, too faint, or hidden by dust for other instruments to study clearly. JWST is

therefore helping scientists explore some of the biggest questions in astronomy, including the formation of the first stars and galaxies, the structure of distant planetary systems, and the atmospheres of potentially habitable exoplanets.

JWST is a joint mission involving NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA). The



telescope was launched on 25 December 2021 aboard an Ariane 5 rocket from French Guiana, and it reached its final destination near the Sun-Earth L2 point on 24 January 2022. The mission entered service on 12 July 2022. This location is about 1.5 million kilometers from Earth and allows the telescope to stay in a stable environment suitable for deep-space observation. Because infrared instruments must remain extremely cold to function properly, JWST uses a five-layer sunshield to block heat and sunlight.

Design and Features

One of the most remarkable features of JWST is its 6.5-meter primary mirror, which is made of 18 hexagonal segments. This large mirror gives the telescope a much greater collecting area, allowing it to gather more light from distant celestial objects. The telescope is about 21 meters by 14 meters when fully deployed, including the sunshield. Its instruments include cameras and spectrographs that work in the near- and mid-infrared range, helping scientists capture both images and detailed chemical information from space objects. The telescope's design also includes a secondary mirror, spacecraft bus, and communication systems needed to transmit scientific data back to Earth.

JWST was built with several scientific goals in mind. It is intended to study the formation and evolution of galaxies, the birth of stars, and the characteristics of planetary systems. Another major goal is to search for the earliest galaxies that formed in the universe after the Big Bang. By studying infrared light, JWST can look deeper into space and further back in time than most previous observatories. This makes it a powerful tool for understanding the history of the universe.

Major Discoveries

One of the most important images and discoveries is the SMACS 0723 deep field image, which revealed many distant galaxies in incredible detail and marked the beginning of JWST's science operations. Another major result is the image of the exoplanet WASP-96 b, which showed that Webb can study planetary atmospheres and detect water vapor in distant worlds. The Southern Ring Nebula image revealed the structure of a dying star's expelled gas and dust, offering clues about how matter is recycled in space.



The spectacular image of Stephan's Quintet, a group of interacting galaxies, which helps scientists understand galaxy collisions and cosmic evolution. The Carina Nebula, also called the Cosmic Cliffs, shows a region where new stars are forming inside dense clouds of gas and dust. Webb's image of Jupiter provided a detailed view of the giant planet's atmosphere, rings, auroras, and moons, especially Europa. The telescope also captured the Phantom Galaxy, Glass-Z13, the Cartwheel Galaxy, the Tarantula Nebula, the Orion Nebula, the Pillars of Creation, and the Hourglass Nebula, each revealing different stages of cosmic activity.



Scientific Value

The importance of JWST lies in how it expands human understanding of the universe. Its infrared vision allows astronomers to study objects that were previously hidden or impossible to observe in detail. The telescope is especially valuable for investigating star formation, planetary

atmospheres, and the early stages of galaxy development. In many cases, the images are not only beautiful but also scientifically rich, because they contain information about temperature, composition, motion, and structure. This makes JWST both a breakthrough in technology and a milestone in astronomy.

In simple terms, JWST is more than just a telescope; it is a window into the deep history of the universe. It helps scientists see farther, understand more, and ask new questions about where we come from and how the cosmos evolved. As more data continues to arrive, JWST is expected to remain one of the most important tools in space science for years to come.



WHY TRADITIONAL ASSESSMENT STILL MATTERS: A COMPREHENSIVE OVERVIEW



Mr. Manoj M

Assistant Professor, CSE

What is Traditional Assessment?

Traditional assessment methods are the tests, quizzes, and written assignments that most of us are pretty familiar with. They're designed to measure a student's knowledge, skills, and abilities in a structured environment. One key feature of traditional assessments is that they're often summative,

meaning they are assessments that are given at the end of a learning period—like a chapter, unit, or semester—to sum up what a student has learned. Summative assessments are usually graded and contribute to a student's overall academic record. Some educators and experts argue that these methods can be limiting. For

instance, they might not capture a student's ability to think critically or solve problems creatively.

The primary purpose of traditional assessment is to evaluate student learning outcomes. These assessments provide a snapshot of a student's knowledge and skills, often contributing to their final grade. They also serve as a tool for educational institutions to gauge the effectiveness of their teaching methods.

Examples of Traditional Assessment

When it comes to traditional assessments, the multiple-choice test is a staple. Often administered at the end of a history unit, this type of test aims to evaluate a student's retention and comprehension of the material taught. A typical multiple-choice history test is structured with a series of questions related to the unit's content. Each question is followed by several answer options, usually ranging from three to five choices. Only one of these options is the correct answer, and students must select the one they believe to be accurate. The test is often scored objectively, meaning there's no room for interpretation—answers are either right or wrong.

Characteristics that Define Traditional Assessment

Traditional assessments have several defining characteristics:

- **Standardised:** The same test is given to all students.
- **Summative:** Aimed at evaluating learning outcomes.
- **Objective:** Grading is often automated or follows a strict rubric.
- **Time-Bound:** Usually conducted within a set timeframe.



Understanding these characteristics can help educators make informed decisions about when and how to use traditional assessments.

Comparing Traditional and Non-Traditional Assessment

When it comes to traditional assessments, the focus is often on memorisation and recall. These are the tests where you'll find multiple-choice questions, fill-in-the-blanks, and maybe an essay question or two. One of the major advantages of this approach is its objectivity. Because the questions are standardised and the grading criteria are set in advance, there's less room for bias. This makes it easier for teachers to administer the tests and grade them in a time-efficient manner.

However, traditional assessments have their drawbacks. For one, they may not be the best fit for all learning styles. Some students excel in hands-on environments or through verbal interaction, and these assessments might not capture their full range of abilities. Additionally, the pressure to perform well in a timed, high-stakes setting can induce test anxiety, which can negatively affect a student's performance.

Non-traditional assessments aim to evaluate a broader range of skills, including problem-solving, creativity, and teamwork. These assessments are often more holistic, capturing a fuller picture of a student's abilities and learning style. For example, a

project-based assessment could allow a student to demonstrate not just what they know, but also how they can practically apply that knowledge.

Non-traditional assessments come with their own set of challenges. They can be time-consuming to administer and grade, especially if they involve complex projects or portfolios. The grading can also be more subjective, as it may involve evaluating aspects like creativity or group dynamics, which don't have straightforward, objective criteria.

In summary, while traditional assessments offer the benefits of objective grading and efficiency, they may not capture all learning

styles and can induce test anxiety. Non-traditional assessments provide a more holistic view of a student's abilities and cater to different learning styles, but they can be time-consuming and may require more subjective grading. It's crucial to acknowledge that traditional assessments are not without their limitations. They often focus on rote memorisation and factual recall, potentially sidelining critical thinking and problem-solving skills. Additionally, the high-stakes nature of these tests can induce anxiety, affect a student's performance and not necessarily reflect their true abilities or understanding.



കൃഷിയും കാലാവസ്ഥാവ്യതിയാനവും



Akhil C
Asst. Librarian

കൃഷിയും കാലാവസ്ഥാവ്യതിയാനവും തമ്മിൽ വളരെ വലിയതോതിൽ ബന്ധപ്പെട്ടിരിക്കുന്നു, ആഗോളതാപനില ഉയരുകയും, മലിനീകരണവും മൂലം കാലാവസ്ഥാവ്യത്യാസം ഉണ്ടാകുമ്പോൾ ഇവ കാർഷിക മേഖലയിൽ കനത്ത ആഘാതം സൃഷ്ടിക്കുന്നു. ഭക്ഷ്യസുരക്ഷ ഉറപ്പാക്കുന്നതിനൊപ്പം കാലാവസ്ഥാവ്യതിയാനം ലഘൂകരിക്കുന്നതിനു സുസ്ഥിര കൃഷിരീതികൾ വികസിപ്പിച്ചെടുക്കേണ്ടത് അനിവാര്യമാണ്.

എന്താണ് കാലാവസ്ഥ വ്യതിയാനം

കാലാവസ്ഥയിൽ ഉണ്ടാകുന്ന കാര്യമായതും ദീർഘകാലം നീണ്ടുനിൽക്കുന്നതുമായ മാറ്റമാണ് കാലാവസ്ഥാ വ്യതിയാനം എന്നു പറയുന്നത്. സമുദ്ര പ്രതിഭാസങ്ങളുടെ മാറ്റങ്ങൾ, സൂര്യപ്രകാശത്തിലെ മാറ്റങ്ങൾ, അഗ്നിപർവ്വത സ്ഫോടനങ്ങൾ തുടങ്ങിയവ കാലാവസ്ഥ വ്യതിയാനത്തിന് കാരണമാകുന്നു. ഇതോടൊപ്പം തന്നെ നഗരവൽക്കരണം, വനനശീകരണം, മലിനീകരണം

എന്നിവയും കാലാവസ്ഥാ വ്യതിയാനത്തിന് വലിയൊരു പങ്ക് വഹിക്കുന്നു.

കാർഷിക മേഖലയിൽ കാലാവസ്ഥാ വ്യതിയാനത്തിന്റെ ആഘാതം

കാലാവസ്ഥാ വ്യതിയാനം കാർഷിക മേഖലയ്ക്ക് നിരവധി വെല്ലുവിളികൾ ഉയർത്തുന്നു, ഇത് വിള ഉൽപാദനക്ഷമത, കന്നുകാലികളുടെ ആരോഗ്യം, കർഷകരുടെ ഉപജീവനമാർഗ്ഗം എന്നിവയെ സാരമായി ബാധിക്കുന്നു. കാലാവസ്ഥാ വ്യതിയാനത്തിന്റെ പ്രധാന പ്രത്യാഘാതങ്ങൾ ഇവയാണ്:

1. കാലാവസ്ഥാ പാറ്റേണുകൾ മാറുന്നു

വരൾച്ച, വെള്ളപ്പൊക്കം, കൊടുങ്കാറ്റ് തുടങ്ങിയ പ്രവചനാതീതവും തീവ്രവുമായ കാലാവസ്ഥാ സംഭവങ്ങൾ വിളകളെ നശിപ്പിക്കുകയും നദീതട, വിളവെടുപ്പ് ഷെഡ്യൂളുകളെ തടസ്സപ്പെടുത്തുകയും ചെയ്യും. ഈ മാറ്റങ്ങൾ കർഷകർക്ക് അവരുടെ പ്രവർത്തനങ്ങൾ ഫലപ്രദമായി ആസൂത്രണം ചെയ്യുന്നതിനും

കൈകാര്യം ചെയ്യുന്നതിനും ബുദ്ധിമുട്ടുണ്ടാക്കുന്നു.

2. താപനില വർദ്ധനവ്

താപനിലയിലെ വർദ്ധനവ് വിളകളിലും കന്നുകാലികളിലും ചൂട് സമ്മർദ്ദത്തിന് കാരണമാകും, ഇത് വിളവും ഉൽപാദനക്ഷമതയും കുറയ്ക്കും. മുമ്പ് തഴച്ചുവളർന്ന പ്രദേശങ്ങളിൽ ചില വിളകൾ ഇനി കൃഷിയോഗ്യമല്ലാതാകാൻ സാധ്യതയുണ്ട്, ഇത് കർഷകരെ പുതിയ കാലാവസ്ഥാ സാഹചര്യങ്ങളുമായി പൊരുത്തപ്പെടാൻ നിർബന്ധിതരാക്കുന്നു.

3. ജലക്ഷാമം

കാലാവസ്ഥാ വ്യതിയാനം ജലസ്രോതസ്സുകളുടെ ലഭ്യതയെയും വിതരണത്തെയും ബാധിക്കുന്നു. നീണ്ടുനിൽക്കുന്ന വരൾച്ചയും മഴയുടെ കുറവും ജലക്ഷാമത്തിന് കാരണമാകും, ഇത് കർഷകർക്ക് ജലസേചനവും ജലപരിപാലനവും കൂടുതൽ വെല്ലുവിളി നിറഞ്ഞതാക്കുന്നു.

4. കീടങ്ങളുടെയും രോഗങ്ങളുടെയും വ്യാപനം

ഉയർന്ന താപനിലയും മാറുന്ന കാലാവസ്ഥയും കീടങ്ങൾക്കും രോഗങ്ങൾക്കും അനുകൂലമായ സാഹചര്യങ്ങൾ സൃഷ്ടിക്കും, ഇത് കൂടുതൽ വേഗത്തിൽ പടരുകയും വിളകൾക്കും കന്നുകാലികൾക്കും കാര്യമായ നാശമുണ്ടാക്കുകയും ചെയ്യും.

കാർഷിക മേഖലയിലെ

കാലാവസ്ഥാ വ്യതിയാനം

ലഘൂകരിക്കുന്നതിനുള്ള

തന്ത്രങ്ങൾ

കാലാവസ്ഥാ വ്യതിയാനം ഉയർത്തുന്ന വെല്ലുവിളികളെ നേരിടുന്നതിന്, കാർഷിക മേഖല ഹരിതഗൃഹ വാതക (കാർബൺ ഡൈ ഓക്സൈഡ് / മീഥേൻ) ഉദ്വമനം കുറയ്ക്കുകയും പ്രതിരോധശേഷി വർദ്ധിപ്പിക്കുകയും ചെയ്യുന്ന സുസ്ഥിര രീതികൾ സ്വീകരിക്കണം. പ്രധാന തന്ത്രങ്ങളിൽ ഇവ ഉൾപ്പെടുന്നു:

1. സുസ്ഥിര ഭൂ മാനേജ്മെന്റ്

കാർഷികവനവൽക്കരണം, ആവരണ വിളവെടുപ്പ്, സംരക്ഷണ കൃഷി തുടങ്ങിയ രീതികൾ മണ്ണിന്റെ ആരോഗ്യം മെച്ചപ്പെടുത്താനും കാർബൺ വേർതിരിക്കൽ വർദ്ധിപ്പിക്കാനും ഉദ്വമനം കുറയ്ക്കാനും സഹായിക്കും. ഈ രീതികൾ കാലാവസ്ഥാ പ്രത്യാഘാതങ്ങളെ നേരിടാനുള്ള കാർഷിക സംവിധാനങ്ങളുടെ പ്രതിരോധശേഷി വർദ്ധിപ്പിക്കുകയും ചെയ്യുന്നു.

2. കാര്യക്ഷമമായ വളപ്രയോഗം

മണ്ണ് പരിശോധന, ലക്ഷ്യബോധമുള്ള പ്രയോഗം തുടങ്ങിയ സൂക്ഷ്മ കാർഷിക സാങ്കേതിക വിദ്യകളിലൂടെ വളം ഉപയോഗത്തിന്റെ കാര്യക്ഷമത മെച്ചപ്പെടുത്തുന്നത് നൈട്രസ് ഓക്സൈഡ് ഉദ്വമനം കുറയ്ക്കുകയും വിള ഉൽപാദനക്ഷമത വർദ്ധിപ്പിക്കുകയും ചെയ്യും.

3. കന്നുകാലികളിൽ മീഥേൻ കുറവ്

തീറ്റ കാര്യക്ഷമത ഒപ്റ്റിമൈസ് ചെയ്യുക, വളം കൈകാര്യം ചെയ്യുക, മീഥേൻ ക്യാപ്ചർ സാങ്കേതികവിദ്യകൾ നടപ്പിലാക്കുക തുടങ്ങിയ മെച്ചപ്പെട്ട കന്നുകാലി പരിപാലന രീതികൾ സ്വീകരിക്കുന്നതിലൂടെ കന്നുകാലികളിൽ നിന്നുള്ള മീഥേൻ ഉദ്വമനം ഗണ്യമായി കുറയ്ക്കാൻ കഴിയും.

4. പുനരുപയോഗ ഊർജ്ജ

സംയോജനം

കാർഷിക പ്രവർത്തനങ്ങളിൽ സൗരോർജ്ജം, കാറ്റ്, ജൈവ ഊർജ്ജം തുടങ്ങിയ പുനരുപയോഗ ഊർജ്ജ സ്രോതസ്സുകൾ ഉൾപ്പെടുത്തുന്നത് ഫോസിൽ ഇന്ധനങ്ങളെ ആശ്രയിക്കുന്നത്



കുറയ്ക്കുകയും CO2 ഉദ്വമനം കുറയ്ക്കുകയും ചെയ്യും.

5. ജല മാനേജ്മെന്റ് നവീകരണങ്ങൾ
ഡ്രിപ്പ് ഇറിഗേഷൻ, മഴവെള്ള സംഭരണം തുടങ്ങിയ നൂതന ജലസേചന സംവിധാനങ്ങൾ നടപ്പിലാക്കുന്നതിലൂടെ ജല ഉപയോഗക്ഷമത മെച്ചപ്പെടുത്താനും കാർഷിക മേഖലയിൽ ജലസ്രോതസ്സുകളുടെ സുസ്ഥിര ഉപയോഗം ഉറപ്പാക്കാനും കഴിയും.

കൃഷിയും കാലാവസ്ഥാവ്യതിയാനവും തമ്മിലുള്ള ബന്ധം സങ്കീർണ്ണമാണ്

ഓരോന്നും മറ്റൊന്നിനെ സാരമായി സ്വാധീനിക്കുന്നു. സുസ്ഥിരമായ രീതികളും നൂതന സാങ്കേതികവിദ്യകളും സ്വീകരിക്കുന്നതിലൂടെ, കാർഷിക മേഖലയ്ക്ക് കാലാവസ്ഥാ വ്യതിയാനത്തിൽ അതിന്റെ ആഘാതം ലഘൂകരിക്കാനും അതിന്റെ ഫലങ്ങളോടുള്ള പ്രതിരോധശേഷി വർദ്ധിപ്പിക്കാനും കഴിയും.

The Journey that Changed Me



LT. ARYA NADH

Alumni (2025 pass out)

Like all of you, I also wonder how I landed up here — something I had never planned or dreamed of. It just happened, and God is there with me throughout. Let me take you through some chapters of my life. I was a very studious and boring child throughout my school life, though I was not the same outside. Then I joined college, and that is where my entire life changed. I developed this urge to socialise and participate in everything that came my way. Except sitting in class,

I did everything. I still remember ‘Gopi’ Sir taking me to all the tournaments irrespective of whether I knew how to play or not — table tennis, badminton,

throwball, volleyball, and what not. I was like the Multi role employee of JCET sports. Since I am a very restless person, I had a lot of difficulty sitting in class. So, participating in sports and arts became one of my escape mechanisms. Though it started as a coping mechanism, slowly it changed my life. I became active, competitive, and confident. Facing crowds during tournaments and motivating myself when I was about to lose shaped me into the person, I am today.

Another driving force was Gopi Sir, who used to buy us Alfaham and Mandhi after every match. Coming to arts, being the

House Captain of Tornado and leading a crowd of 450+ people was not a small task. It pulled me far out of my comfort zone. Addressing such a huge crowd, handling them, interacting with them, and motivating them shaped my leadership skills in ways I cannot even imagine.

Now, whenever I stand in front of my staff to address them, I get the same feeling I used to get as House Captain in college. Every time I stepped outside my comfort zone and tried something new, I was unknowingly moulding myself into someone better. It was during my second year of college that I accidentally came across a book called *The Secret* by Rhonda Byrne. A friend of mine had suggested it and hyped it up so much. I was never someone who enjoyed reading books, and honestly, I have read very few books in my life. But this book completely changed the way I looked at my life. It made me realise the power of manifestation — the power of strongly believing in something and eventually making it happen. It changed the way I spoke to myself, the way I visualised my future, and the confidence I had in my dreams. I genuinely feel that anyone who can relate to my journey should read this book at least once. Sometimes, the biggest transformation starts from a small shift in mindset. When I was lying down in my SSB centre, I felt completely empty inside. I could not understand that feeling. No phone, no books, no TV, no distractions — it was just me and my thoughts. Out of the 16 girls shortlisted, I was one among them, with five more days ahead and no idea how those days were going to be.

Every morning, I woke up motivating myself with positive thoughts, manifesting that I would ace all the tasks and tests. It is the confidence that you

give yourself that matters. Self-talk brought miracles into my life. Little did I know that all the self-talks I did in front of the mirror as a kid would one day come in handy. Even when things went slightly wrong, I consoled myself like a baby and boosted my confidence again. The physical tasks were scary, but since I enjoyed adrenaline rushes, I loved every bit of them. I saw many girls who excelled in other tests backing off during physical tasks. That was the moment I realised how important it is to play and do daring things as a child so that you overcome the fear of small obstacles. I think everyone should attend SSB at least once in their life. I feel it is one of the highest forms of self-evaluation a person can experience. You get to know exactly where you stand and where you need to improve. Those five days can completely change your life. With different SSB mates having different opinions about every task, you learn how to make

decisions for yourself — what to choose, how to approach situations, and how to stay true to your own thinking.

As a kid, I used to jump over neighbours' walls and climb from sunroofs to walls just for fun. Without even realising it, I was overcoming my fear of heights and obstacles. When my name was announced after the final SSB board, I was numb and still. I could not believe it was true because it felt like my manifestation had finally become reality. I was a consistent latecomer in college. One day, Principal Gunashekaran Sir asked me, "Why are you late?" I honestly replied, "Sir, I woke up late and breakfast was too good, so I decided to enjoy and eat." I still do not know why I said that. Maybe I felt free enough to tell the truth, or maybe I could not think of a lie at that moment. What happened next was even

more interesting. The Principal replied, “At least the reason is honest. Go to your class.” No punishment, no scolding — nothing. That incident stayed with me deeply. I felt it was an appreciation of honesty, and I never took it for granted. A similar situation happened during my SSB personal interview round. Seeing how talkative I was, my SSB mates warned me not to be too honest or frank during the interview. But as usual, I was like, “It’s my way or the highway.” I had a wonderful conversation with my interviewer. In that one hour, I practically revealed the entire blueprint of my life. By the end of the interview, I felt emotionally naked. But strangely, it felt therapeutic. I felt so free and light afterwards. At the end of the interview, the interviewer told me the exact same words my Principal once told me: “You are honest, and that is where your confidence comes from.” That was when I realised that people genuinely respect values. If you are proud of your values, stick to them no matter what. Your values and ethics are what define you. We all make mistakes, but owning them, apologising, and correcting ourselves is what truly helps us evolve.

How can I describe my college life without mentioning my own Manoj Sir? God knows how many times he forgave me for my mistakes. I do not think anybody else can scold more politely than him. I never felt he was just a professor; he felt like a family member advising me for my own good. I think only Sir has the ability to correct someone without making them feel offended. The support he gave me during my SSB preparation and convocation is incomparable. Even today, the only professor I still feel deeply connected to is Manoj Sir. All the small efforts I made to improve myself helped me throughout my journey. The interest I

showed in trying new things and pushing myself to do things, even if I had to do them alone, was fulfilling the promise I had made to myself. Staying active is a choice. In fact, everything is a choice. Whether that choice helps you in the future or not depends entirely on you. I always saw college as a source of opportunities and resources. I had this huge urge to utilise everything it offered — arts, sports, celebrations, and experiences. My friends and I even had a habit of making reels every Wednesday when we were allowed to wear coloured dresses. We used to take hundreds of videos because the infrastructure was so beautiful. People outside could hardly believe it was my college. Without a doubt, I can proudly say that I made the most out of my college life. I have no regrets about Jawaharlal College. I am proud and content to call myself an ex-student of this institution. If I could tell my juniors two things, the first would be: make the most out of your college life. What feels ordinary today may become the most precious memory tomorrow. The second would be: work on your confidence and communication skills. These two qualities can take you wherever you want to go. Life completely changed after joining the Navy. I got to

see a more disciplined version of myself, a more daring and adventurous version of myself, and a more organised version of myself. The Indian Navy quenches my thirst for trying new things. I could see myself improving in all aspects of life. The Navy surprises me every day with something new. As they say, it truly is an ocean of endless opportunities. The pride you feel when you wear the uniform and the pride you feel when a junior salutes you are simply unexplainable. At that

moment, you realise that all the hard work and sacrifices were absolutely worth it. I feel extremely happy whenever juniors ask me about SSB and entries into the Navy. As a Lieutenant in the Indian Navy, I can confidently say that Jawaharlal College is one of the best platforms where you can grow, mould yourself, and evolve into a better person. Just make the most out of it.



THREE DAYS IN IITM: JOURNEY OF LEARNING, EXPERIENCE AND CONNECTIONS



Devika PV

S6 CSE (Data Science)

On the 4th, 5th and 6th of December 2025, I got an opportunity to visit IIT Madras and got a chance to participate in thinkathon conducted by PALS. I participated in a thinkathon that took place in Thrissur conducted by PALS in Vidhya college and from there I got selected and got this opportunity. It was a 3-day residential camp. Me from CSE (Data science) department, Smija and Bavya from Agricultural department and Arya from Aeronautical department was participated in this program from our

college. We arrived there on the night of 3rd December and checked into the hostel arranged for us. One thing that surprised me the most was seeing so many deer on the campus. They were walking freely along the roads, and the students walked beside them without any fear. It's my first time seeing deer so close.

On the first day at IITM, we found it really difficult to find the mess for breakfast. We had to walk a long distance to reach there, and since we didn't know

the way, we ended up returning to the place where we had started. Then we asked many people for directions and finally found the mess. I was amazed to see the food there. There were multiple food items that we could choose from and eat. After breakfast we went to the class. The session began at 9:00 am with inaugural ceremony. Then we had multiple sessions about technologies. They taught us how to do projects and what are the requirements. Morning session was full of classes and recap of thinkathon topics. Lunch break started at 1:00 pm to 2:00pm. During the afternoon session, the participants were divided into teams of six members each and assigned a mini-project. Each team worked on a selected problem statement using the Six Thinking Hats method, facilitated by Bharani Dharan sir. During the afternoon session, we attended an insightful session on 'Research to Startup' conducted by Dr. Bala Ganesh. The session provided valuable knowledge on transforming research ideas into successful startup ventures and encouraged innovative thinking among the participants. After this session, a music program conducted by Dr. Sridar uplifted everyone's mood and created a positive and enjoyable atmosphere among the participants. I got an opportunity to dance there and received a chocolate as appreciation for my performance. The session ended at 8:00 PM with a group photo taken with Sridar Sir.

On the second day, we were divided into groups of three to promote cooperation, communication with new people, and the development of teamwork skills. We then attended the "Think Like an Engineer" program conducted by Prof. Ms. Sivakumar. The session encouraged us to develop problem-solving abilities and approach challenges with an

innovative and analytical mindset. Through various activities and discussions, we learned the importance of observing problems from different perspectives and creating practical solutions. The next session was on cybersecurity conducted by Mr. Rammohan Srinivasan from the Centre for Cybersecurity. The session provided valuable insights into cyber threats, digital safety, and the importance of protecting information in today's technology-driven world. It also helped us understand the importance of cybersecurity awareness and responsible use of technology. Following this, we attended a presentation on innovation conducted by Ms. Nandhini KS from the Centre for Innovation. The session provided valuable insights into creative thinking and demonstrated how innovative ideas can be transformed into practical solutions. It encouraged us to develop new perspectives and approach challenges with creativity and confidence. After the lunch break, we were taken on a campus visit around IIT, where we had the opportunity to see various laboratories and observe the innovative projects developed by the students. Later in the evening, we attended a session on imagination and expression facilitated by Mrs. Sharanya Subramanian. The session encouraged creativity, self-expression, and open thinking through engaging activities, creating an enjoyable and interactive experience for all participants. Then everyone engaged in preparing for their project

On the third day, the main project presentation session was conducted. Our team presented a project on "e-plane." The project focused on identifying copied or duplicated content and promoting originality through an efficient detection

approach. During the presentation, we explained the project overview, objectives, proposed solution, and the possible impact of the system. Presenting our ideas in front of mentors and participants helped us improve our confidence, teamwork, and presentation skills. It was a valuable experience that allowed us to apply our creativity and problem-solving abilities developed throughout the Thinkathon.

These three days was an unforgettable and memorable days for me. It was really a great opportunity for me to learn and experience many things. From the start of the journey to the end, I

enjoyed each and every moment. I started the journey with laughter but ended with tears. With some knowledge I got some nice people. I met some beautiful souls there and made good connections. From this I learned that people can make a home in someone's heart within less time like how they created home in mine. These three days filled with full of knowledge, experience and friendships. Time flied but the memories I created was still in my mind. I am feeling grateful for being a part of this and I am thankful to God and the people who lead me to this.



Yoga, Wellness, and Mindfulness: A Pathway to Holistic Student Development



Mr.RANJITH R
Classical Yoga Teacher
Assistant Professor, MBA



In today's fast-paced academic environment, students are constantly navigating deadlines, expectations, and the pressure to excel. While intellectual growth remains the core objective of higher education, the importance of mental, emotional, and physical well-being cannot be overstated. As a Yoga Teacher and Management Assistant Professor, I strongly believe that integrating yoga, wellness, and mindfulness practices into students' lives is not just beneficial—it is essential. Yoga, an ancient discipline rooted in

Indian tradition, is far more than a physical exercise. It is a comprehensive system that harmonizes the body, mind, and spirit. In the context of student life, yoga provides a powerful tool to manage stress, improve concentration, and enhance overall well-being. Regular practice of asanas (postures), pranayama (breathing techniques), and meditation fosters inner balance and resilience—qualities that are indispensable for both academic success and personal growth.





One of the primary challenges faced by students today is stress and anxiety. Academic pressure, career uncertainties, and digital distractions often lead to mental fatigue and reduced productivity. Yoga offers a natural and effective solution to these issues. Through mindful breathing and relaxation techniques, students can regulate their emotions, reduce anxiety, and cultivate a calm and focused mind. Scientific studies have also shown that yoga improves cognitive functions such as memory, attention, and decision-making—skills that are crucial in management education. Wellness, in a broader sense, encompasses physical health, mental clarity, emotional stability, and social well-being. A wellness-oriented lifestyle encourages students to adopt healthy habits, including balanced nutrition, regular physical activity, and adequate rest. Yoga acts as a foundation for this holistic approach, guiding individuals toward self-awareness and disciplined living. When students are physically healthy and mentally composed, they are better equipped to face challenges and seize opportunities.



Mindfulness, a key component of yoga, plays a significant role in enhancing students' academic and personal lives. It is the practice of being fully present and engaged in the moment, without judgment. In an era dominated by multitasking and constant distractions, mindfulness helps students develop clarity, focus, and emotional intelligence. By practicing mindfulness, students learn to manage their thoughts effectively, improve their interpersonal relationships, and make thoughtful decisions.

Incorporating mindfulness sessions within the college environment can yield remarkable outcomes. Simple practices such as guided meditation, mindful breathing, and reflective exercises can be integrated into daily routines or classroom settings. These sessions not only help students reduce stress but also promote creativity, empathy, and self-confidence. For management students, in particular, mindfulness enhances leadership qualities, ethical decision-making, and adaptability—traits that are highly valued in the corporate world.

Moreover, yoga and mindfulness contribute to building a positive campus culture. When students collectively engage in wellness practices, it fosters a sense of community, mutual respect, and emotional support. It creates an

environment where students feel valued, understood, and motivated to achieve their full potential. Educational institutions, therefore, have a vital role in promoting such initiatives as part of their curriculum or extracurricular activities.

As educators, it is our responsibility to guide students not only in their academic pursuits but also in their journey toward holistic development. Introducing yoga and mindfulness sessions in colleges is a step toward nurturing balanced individuals who are not only skilled professionals but also responsible and compassionate human beings.

In conclusion, yoga, wellness, and mindfulness are not merely practices—they are life skills that empower students to lead healthier, happier, and more meaningful lives. By embracing these practices, students can unlock their true potential and build a strong foundation for both personal and professional success. Let us, therefore, encourage and support the integration of yoga and mindfulness into the academic ecosystem, paving the way for a healthier and more mindful generation.

The NIDAR Mission: Engineering Intelligence in Crisis Response

Tvastra Aerospace Club



FAHAD MOHAMMED ANZ
S6 Aeronautical

When our team first set out from Jawaharlal College of Engineering and Technology in Kerala, the objective seemed clear: represent our institution at NIDAR 2025, deploy our dual drone system, and prove our technical capabilities on a national stage. But as any engineer quickly realizes, the transition from controlled testing environments to a high-stakes, real world competition is never predictable. Competing against over 350+ teams from across India at Gautam Buddha University, our journey

became more than just a competition—it became a test of resilience, coordination, and engineering maturity. Looking back, securing All India Rank 45 was not just about performance metrics; it was about how a multidisciplinary team transformed individual expertise into a unified mission.

The Weight of the Design

As we witnessed firsthand how critical structural reliability is in aerial

systems. What worked perfectly during simulations and controlled test flights in Kerala faced entirely new challenges in the field. Our airframe design had to balance payload capacity, stability, and endurance, especially since our mission required a dual-drone architecture one for surveillance and another for payload delivery. Instead of relying on expensive commercial kits like many competitors, we strictly adhered to the "Zero-Kit" policy. We maximized our potential by building our airframes entirely from scratch, utilizing a highly optimized hybrid of carbon fibre rods, aluminium tubes, and custom 3D-printed joints. This frugal engineering approach allowed us to deploy a mission-ready system for just ~₹1.5 Lakhs, successfully competing against industry-standard proprietary systems costing upwards of ₹6 Lakhs. Even minor miscalculations in weight distribution or thrust-to-weight ratio could compromise mission success. The moment our drone achieved stable hover under competition conditions was more than just validation it was proof that our cost-effective design could withstand real-world uncertainties. It reinforced a key engineering principle: a design is only as good as its performance outside the lab.

The Logic in the Chaos

Behind the physical system was the intelligence that made our dual drone autonomous tech possible. Our control and AI systems were developed to handle real-time object detection and navigation in dynamic environments, which is critical in disaster scenarios. Unlike controlled environments, the competition arena introduced unpredictable variables such as lighting changes, environmental noise, and complex terrain simulation. Rather than using generic off-the-shelf software, we collaborated with the Manipal Institute of Technology to utilize a specialized dataset of over 25,000+ images, dedicating 24 hours to training our own proprietary model. By employing advanced edge computing, we eliminated ground-station latency, allowing

the system to process data and detect survivors entirely onboard. Ensuring that our detection algorithms produced zero false positives required extensive dataset validation and algorithm tuning. The biggest challenge was not building the system, but making it reliable. When the drone successfully executed autonomous detection and navigation without errors, it demonstrated that our system was not just functional, but mission-ready.

The Resilience of Power and Integration

Power management and system integration played a crucial role in ensuring uninterrupted operation. Our drones had to sustain stable flight, continuous sensing, and communication systems under varying conditions. To safeguard against power failure, we engineered a dual-redundancy power architecture. Transporting sensitive equipment over a 2,500+ km journey from Kerala to Delhi added another layer of complexity. Every component had to be secured, calibrated, and revalidated before deployment. This phase highlighted an often-overlooked truth in engineering: a system is not just about innovation it's about survivability. Our ability to maintain performance consistency under logistical and environmental stress was a defining factor in our success.

The Human Element

While technology formed the backbone of our project, the human aspect defined its direction. Team FLAN X, primarily composed of Aeronautical Engineering students from Jawaharlal College of Engineering and Technology, with support from Computer Science Engineering, functioned as a tightly coordinated unit. Each member contributed to a different subsystem encompassing design, control, AI, and integration, but success depended on seamless collaboration. Guidance from our faculty coordinator ensured that our efforts remained aligned with both academic rigor

and practical feasibility. Beyond technical execution, the experience taught us how to operate under pressure, make rapid decisions, and adapt as team skills that no classroom alone can fully provide.

The Final Outcome

By the end of the competition, we had achieved far more than a ranking. Our Dual-Drone Disaster Management System successfully demonstrated autonomous surveillance capabilities and intelligent object detection with zero false positives. Furthermore, we executed efficient payload delivery in simulated crisis scenarios, proving the system's scalability for real world disaster response applications. Securing AIR 45 among more than 350+ teams validated our approach and proved that student-driven innovation can compete with the best in the country. We began this journey as individuals aiming to participate in a national-level

competition, but we returned as a cohesive engineering unit with a deeper understanding of what it takes to build real-world systems. In the end, this project was not just about drones it was about building a mindset that values precision, adaptability, and teamwork, because in engineering, just like in disaster response, success depends not only on technology, but on the people behind it.

Team FLAN X

This mission was spearheaded by Team Captain Sabari Vijayan, working alongside a dedicated student engineers R Ajeesh, Firas Yousuf Abbas, Sherin Saleesh, Liyo Roy, Fahad Mohammed Anz, Aslaha Farhath K P, Sanjana Prakash, Anagha Nanda S and Devika Sunil, with Mr. Kailash Karunakaran serving as the Faculty Coordinator.



Beyond Acceptance: Creating a Society Where Every Heart Belongs



Ms. Reshma K,

Assistant Professor, CSE

"The measure of a society is not how it treats its strongest members, but how it embraces those who need understanding the most."

On a busy playground, children run, laugh, and chase one another. Amid the joyful noise stands a little boy, watching from a distance. He wants to join the game, but the loud sounds overwhelm him. He struggles to make eye contact, and words do not come easily. Some children stare, some whisper, while others simply walk away.

Then, one child smiles, walks over, and asks, *"Would you like to play with us?"*

That simple question changes everything.

For many children with autism and other neurodiverse conditions, inclusion does not begin with policies or laws. It begins with a single act of kindness: a classmate who waits patiently, a teacher who believes in their abilities, a neighbour who understands that **difference does not mean less.**

Inclusion is often misunderstood as merely allowing everyone to be present. But true inclusion means making sure everyone belongs. It means creating spaces where people are not expected to fit into a predetermined mould but are valued for who they are. People with disabilities and neurodiverse individuals see the world through unique perspectives. While they may face challenges in communication, learning, or social interaction, they also possess

remarkable strengths. Some have extraordinary memories, exceptional creativity, incredible attention to detail, or innovative ways of solving problems. History has shown us that many groundbreaking discoveries and creative achievements have come from individuals who thought differently.

Unfortunately, society often focuses on what people cannot do instead of celebrating what they can.

Imagine navigating a city where every staircase reminds you that you cannot enter. Imagine sitting in a classroom where lessons are taught in only one way, even though your brain learns differently. Imagine attending a family gathering where your child is judged for covering their ears or avoiding conversation rather than being understood.

These are everyday realities for millions of families.

For parents of children with disabilities, inclusion is deeply personal. Every small milestone carries immense significance: the first word spoken, the first friend made, the first school event attended without fear of being excluded. Behind every achievement are countless hours of therapy, unwavering determination, moments of uncertainty, and a love that never gives up. Yet many families still encounter invisible barriers. A playground without accessible equipment. A

classroom without learning support. A workplace that overlooks talent because it looks different. A society that mistakes silence for inability.

But hope emerges when communities choose **empathy** over judgment.

Across the world, inspiring stories remind us what inclusion can achieve. Companies are discovering that neurodiverse employees bring exceptional analytical skills and fresh perspectives. Schools are creating sensory-friendly classrooms where every child can learn comfortably. Public spaces are becoming more accessible, while assistive technologies and Artificial Intelligence are helping individuals communicate, learn, and live more independently.

Technology has become a bridge rather than a barrier. AI-powered communication devices give non-verbal children a voice. Virtual reality helps individuals practise social situations in safe environments. Smart assistive tools enable greater independence at school, at work, and at home. However, technology alone cannot create inclusion. The most powerful technology will never replace the warmth of human understanding.

True inclusion begins with people.

It begins when classmates choose friendship instead of exclusion.

It begins when teachers see potential before limitations.

It begins when employers hire for talent rather than assumptions.

It begins when communities celebrate diversity instead of fearing it.

Most importantly, it begins when we stop asking, "How can they fit into our world?" and start asking, **"How can we build a world where everyone belongs?"**

The beauty of humanity lies in its diversity. Just as a garden becomes vibrant because of its many flowers, society flourishes because of its many minds, abilities, cultures, and experiences. There is no single way to learn, communicate, move, or contribute. Every individual adds a unique thread to the fabric of our communities.

Inclusion is not about charity or sympathy. It is about dignity, respect, opportunity, and equal participation. It is recognising that every person deserves to be seen, heard, and valued—not despite their differences, but because those differences enrich our world. Perhaps the greatest lesson inclusion teaches us is this: every one of us will need understanding at some point in life. Whether because of age, illness, disability, or life's unexpected challenges, we all hope to be accepted for who we are.

So, the next time you meet someone who communicates differently, learns differently, or experiences the world differently, choose curiosity over judgment. Choose patience over impatience. Choose kindness over indifference.

Because inclusion is not built through grand speeches or expensive projects. It is built through everyday moments: a smile, a helping hand, an invitation to join, a willingness to listen, and the courage to see ability where others see limitations.

When every child is welcomed in the classroom, every individual is respected in the workplace, every family feels accepted in the community, and every voice has the chance to be heard, we create more than an inclusive society.

We create a compassionate one. And in that world, **no one stands alone on the edge of the playground, waiting to be invited in.**

Rethinking Management Education: Why Memorization is Failing Future Managers



Dr. Vishnu Sajan
Assistant Professor MBA

Management education today is, in many ways, stuck in the past. While businesses operate in fast-changing, unpredictable environments, many classrooms still function on a rigid model of lectures, note-taking, and rote memorization. This is not just outdated, but ineffective. If the goal of management education is to prepare students for leadership and decision-making, then the current system is falling short.

The problem lies in an overdependence on “bookish knowledge.” Students are trained to memorize theories, frameworks, and case studies, only to reproduce them in exams. But real-world management does not reward those who can recite definitions. It rewards those who can think critically, adapt quickly, and act decisively. A student may know every leadership theory on paper, yet fail to lead a team under pressure. This gap between knowledge and application is where traditional education loses its relevance.

To address this, management education must shift from passive learning to active engagement. Activity-based learning is not just an alternative it is a necessity. It places students in situations where they must apply concepts rather than simply

remember them. For example, instead of studying operations management theoretically, students could run a simulated supply chain where they deal with delays, cost constraints, and unexpected disruptions. These experiences mirror real challenges and teach lessons that no textbook can fully capture.

Some of the world’s leading institutions have already embraced this shift. Harvard Business School, for instance, uses the case method extensively, where students actively debate and defend decisions rather than passively listen. Similarly, many progressive colleges now incorporate live projects where students consult for startups or local businesses. Imagine a group of students helping a small business improve its marketing strategy—this not only benefits the business but also gives students firsthand experience in problem-solving, teamwork, and accountability.

Another powerful example is business simulation platforms used in modern classrooms. These simulations place students in the role of decision-makers, where every choice impacts outcomes like profit, market share, and customer satisfaction. Unlike exams, there is no

single “correct” answer—only better or worse decisions. This reflects the ambiguity of real-world management and prepares students for it.

Beyond technical knowledge, activity-based learning plays a crucial role in developing soft skills often the true differentiator in professional success. Communication, leadership, emotional intelligence, and teamwork cannot be memorized; they must be practiced. Group discussions, role plays, and presentations push students out of their comfort zones and help them grow in ways that lectures cannot achieve.

However, adopting this approach requires more than just adding a few activities to the curriculum. It demands a fundamental shift in mindset. Teachers must move from being information providers to facilitators of learning. Students must transition from passive listeners to active participants. Most importantly, assessment systems must evolve. As long as exams reward memorization, students will continue to prioritize it. Evaluations should instead focus on projects,

participation, creativity, and practical application.

Critics may argue that theoretical knowledge is still important—and they are right. But theory should serve as a foundation, not the end goal. The real objective of management education should be to produce individuals who can use that knowledge effectively in complex, real-world situations.

The truth is simple, memorization may help students pass exams, but it does not prepare them for life. If we continue to rely on outdated methods, we risk producing graduates who are academically qualified but practically unprepared.

It is time for management education to evolve. By embracing activity-based learning, institutions can create an environment where students do not just learn about management, they experience it and in doing so, they will cultivate a generation of managers who are not only knowledgeable, but capable, confident, and ready to lead.



WHY THE ‘COCKROACHES’ ORIGINATE?



Mr.BABURAJ K

LIBRARIAN, JCET

The Cockroach Janata Party (CJP) is a viral, Youth –led satirical political movement in India that channels **the frustrations of unemployed young people**. Founded in May 2026 by political communications strategist Abhijeet Dipke. It was created in response to remarks made on 15th May 2026 by Surya Kant, the Chief Justice of India, in which he called some activists and unemployed youth “Cockroaches” and “Parasites of Society”, sparking immediate national outrage. Within days of its founding, the movement garnered over 3,50,000 sign-ups and over 20 million followers on Instagram. The movement has also engaged in offline activities, with volunteers participating in protests and clean-up drives dressed in cockroach costumes. It campaigns against broader societal, economic, and political issues affecting the Indian Youth.

Background and Origin

The origin of the movement is tied to a contempt plea filed in Supreme Court of India against Delhi High Court for delay in designation of senior advocate title. A Two Judge bench led by Chief Justice of India Surya Kant and Justice Joy Malya Bagchi refused to hear the case to direct CBI investigation of lawyers practising under fake degrees. While reprimanding the petitioner’s lawyer for unprofessional conduct in reference to language used on social media as well as use of “frivolous” litigation

targeting judiciary system, Kant drew parallels to unemployed individuals that turn to social media, media and public activism to attack governmental institutions, comparing them to “Cockroaches” and “parasites”. This drew widespread backlash.

Dipke used Artificial Intelligence (AI) tools like Claude and ChatGPT to design the website and the Manifesto, as well as AI generated images that were used to promote the movement. The movement grew rapidly on social media platforms. Within 78 hours of launch, the Instagram account crossed 3 million followers.

Demands and Actions

The Core Issues: The movement focuses on pressing issues for under -30s, primarily the country’s severe youth unemployment crisis and recurring irregularities and paper leaks in national competitive examinations (such as NEET and CBSE)

The movement has transitioned from a purely digital platform to holding major offline rallies. The CJP has called for the resignation of the Union Education Minister, alongside demands for stricter accountability, transparent recruitment and comprehensive exam reforms.

The ultimate aim of the satirical Cockroach Janta Party (CJP) is to serve as a



youth-led pressure campaign to force political accountability, demand systemic

reforms in education and employment, and give voice to disillusioned Gen Z citizens.

GRAMMAR TIPS



Ms. Rajini K

Assistant Professor, BS&H

1. Married to --- Not Married With

- We use married to, not married with, when referring to a spouse.

Examples:

She is married to a doctor. ✓

She is married with a doctor. ✗

Ram got married to Geetha. ✓

Ram got married with Geetha. ✗

Quick Trick:

*Married to = spouse

*Married with = only in phrases like married with two children (meaning “having two children”)

2. Reach vs Arrive

- Reach → no preposition
- Arrive → use at or in

Examples:

We reached the station on time. ✓

We reached at the station. ✗

We arrived at the station. ✓

We arrived in Delhi. ✗

Quick Trick:

*Reach + Place

*Arrive at + small place

*Arrive in + city/country

3. Farther vs Further

- Farther → refers to physical distance.
- Further → refers to additional degree, time, or information.

Examples:

Delhi is farther from Mumbai than Jaipur. ✓

Delhi is further from Mumbai than Jaipur. ✗

For further details, contact the office. ✓

For farther details, contact the office. ✗

Quick Trick:

*Farther = Physical distance

*Further = More/Additional



4. All Together vs Altogether

- All Together = Everyone/everything in one place or at the same time
- Altogether = Completely; in total.

Examples:

We sang the song all together. ✓
We sang the song altogether. X
The plan was altogether different. ✓

5. The Number of vs A Number of

- These two phrases look similar but take different verbs.

Examples:

➡ The number of + plural noun + singular verb

The number of students is increasing. ✓
The number of students are increasing. X

6. Comparing Two Qualities of the Same Person

- When two qualities of the same person or thing are compared,
- do NOT use comparative form with -er
- use more + adjective

Examples:

He is more wise than brave. ✓
He is wiser than brave. X
She is more kind than intelligent. ✓
She is kinder than intelligent. X

7. Listen to vs Hear

The plan was all together different. X

Quick Trick:

- *All together = as a group
- *Altogether = completely/in total

➡ A number of + plural noun + plural verb

A number of students are absent today. ✓
A number of students is absent today. X

Quick Trick:

- *The number of = talks about the count → Singular Verb
- *A number of = means “many” → Plural Verb

The movie was more long than interesting. ✓
The movie was longer than interesting. X

Quick Trick:

*Same person + two qualities = more + adjective

- Listen to → pay attention to sound intentionally
- Hear → receive sound naturally without trying



Examples:

I like to listen to music. ✓

I like to hear to music. ✗

Please listen to the teacher carefully. ✓

Please hear to the teacher carefully. ✗

I can hear someone crying. ✓

8. Fewer vs Less

- fewer → used for countable nouns or have plurals (friends)
- less → used for uncountable nouns or have no plurals

She has fewer friends than I. ✓

She has less friends than I. ✗

9. Affect vs Effect

- Affect (verb) → to influence or change something

The new policy will affect the economy. ✓

The new policy will effect the economy. ✗

10. Neither means not one and not the other, so it is treated as singular.

Structure: Neither of + plural noun + singular verb

Neither of the answers is correct. ✓

Neither of the answers are correct. ✗

Quick Trick:

11. Too vs Enough

- Too → means more than needed (often negative)

I can listen someone crying. ✗

Did you hear that noise? ✓

Did you listen that noise? ✗

Quick Trick:

*Attention/focus → Listen to

*Sound reaches you naturally → Hear

I use less salt in my cooking. ✓

I use fewer salt in my cooking. ✗

Quick Trick:

*Countable → fewer

*Uncountable → less

- Effect (noun) → result or outcome

The effect of the policy was positive. ✓

The affect of the policy was positive ✗

Quick Trick:

*Affect = Action (verb)

*Effect = End result (noun)

* Neither / Either / Each / Every → singular verb

Examples:

- ❖ Neither of the boys is present.
- ❖ Each of the students has a book.
- ❖ Every player is ready.

- Enough → means sufficient / as much as needed

Examples (Too):



It's too cold to go outside. ✓
He is too tired to work. ✓

She is old enough to drive. ✓
The room is big enough for us. ✓

Examples (Enough):

*Too = more than required

*Enough = just right

Quiz:

Choose the correct sentence:

1. A) He is married with a teacher.
B) He is married to a teacher.

2. A) She reached the office early.
B) She reached at the office early.

3. A) We need further discussion before making a decision.
B) We need farther discussion before making a decision.

4. "There were 50 students ____."
A) all together
B) altogether

5. A) A number of employees is working overtime.
B) A number of employees are working overtime.

6. He is ____ hardworking than talented.
A) harder

- B) most
C) more
D) very

7. I was ____ the radio when I suddenly ____ a loud scream outside.

- A) hearing, listened to
B) listening to, listened to
C) hearing, heard
D) listening to, heard

8. There is ____ water in the bottle than before.

- A) fewer
B) less

9. The new rules had a positive ____ on employees.

- A) affect
B) effect

10. Either of the two roads ____ suitable.

- A) are
B) is

Answers

1. B
2. A
3. A
4. B

5. B
6. C
7. D
8. B
9. B
10. B

King of the Frame: How Apple's Optical Innovation Changed Mobile Filmmaking?



Tom Saji,
S5 CSE

How a phone camera ended up filming Formula 1?

Picture this: a camera bolted inside an F1 car, screaming past at 200 mph, heat pouring off the engine, vibration rattling every bolt — and the sensor capturing it all isn't from RED or Sony. It's from an iPhone.

That's not a gimmick. That's Apple quietly becoming one of the most serious names in mobile cinematography — and the F1 movie is proof.

It started with shaky camcorders

Back in 1988, Panasonic's PV-460 introduced optical image stabilization — gyroscopes sensing shake, tiny motors nudging the lens to compensate. It was a big deal for handheld video. Decades later, in 2012, Nokia brought that same idea to phones with the Lumia 920. Samsung, Huawei, and OnePlus followed with their own versions. All of them shared one limitation: they moved the lens to stabilize the shot — heavier, bulkier, less precise.

Apple flipped the idea

With the iPhone 12 Pro Max in 2020, Apple asked a simple question: why move the lens when you could move the sensor instead? Sensor-shift stabilization was already used in pro mirrorless cameras, but never in a phone.

The sensor sits on a flexible circuit, held by spring-like arms and steered by four corner magnets. Because it's so much lighter than a lens assembly, it can adjust up to 5,000 times a second — five times faster than older systems. It can even correct for roll, something lens-shift OIS simply can't do.

The difference isn't always obvious to someone filming a birthday party. But in low light, fast motion, or anything demanding, it shows.

From your pocket to the racetrack.

That same engineering became the backbone of Apple's custom camera for

the F1 movie — built to survive inside an actual race car.

The rig packed real iPhone 15 Pro components: the 48MP sensor, the A17 Pro chip, an iPhone battery, a custom ND filter, and full ProRes Log and ACES support for professional color workflows. Control ran through USB-C to an iPad — no wireless, because at 200 mph, reliability beats convenience.

Cinematographer Claudio Miranda wanted true POV racing shots at cinema quality, and nothing else could survive the heat, vibration, and speed while still delivering that image. Apple's phone tech did.

The trade-offs,

Honestly, It's not magic. And it's not a replacement for a proper cinema rig.

The gains are marginal for everyday shooters — this is built for action and low light.

Bigger camera modules mean more space and battery drain.

Gimbals still do things this can't.

The F1 firmware is custom-built, not something you can access on your own phone.

Why it matters

What Apple actually proved with this project is that a smartphone can be a primary professional tool, not just a backup camera in someone's pocket. That's the real headline — sensor-shift stabilization was the engineering breakthrough, but the F1 movie is the moment it stopped being a spec sheet and became proof.

More Than Just a Degree



Nisa Nasreen

S5 CSE

When I joined the B.Tech Computer Science, I thought college would only be about coding, assignments, records, and exams. But with each passing semester, I realized that college is also about discovering who we are and creating memories that stay with us forever.

Most of my favourite moments are inside the classroom, while others are in the cafeteria. Sitting there with friends after a busy day, sharing snacks, talking about everything under the sun, and laughing over the smallest things are the moments I cherish the most. Those conversations often teach us as much as our syllabus does.

Every year, our college comes alive during **Bloom**, the three-day fest that everyone eagerly waits for. The campus becomes brighter with music, laughter, competitions, and celebrations. Those three



days remind us that college is not only about academics but also about enjoying every moment of student life.

As a Computer Science student, I also look forward to **Nsite**, our technical fest. It gives us an opportunity to learn beyond textbooks, participate in technical events, contribute ideas, and discover new possibilities in technology. It inspires us to think creatively and confidently.

College is not a journey of perfection. It is a journey of learning, making mistakes, and creating memories that will last for a lifetime. Years from now, I may not remember every lecture or every assignment, but I will always remember the laughter in the cafeteria, the excitement of Bloom, the innovation of Nsite, and the friendships that made this journey unforgettable.

These moments remind me that college is not just a place to earn a degree; it is a place where we grow, dream, and truly come alive.

TIPS TO SHINE

Are you the one you really want to be? Perhaps these tips will help you to be the one you always wanted to be; to excel in your studies or to perform well even in the extra curriculars.

1. **Eat healthy-** Eat a well-balanced food, which supplies enough energy, proteins, vitamins and minerals in right proportion. Remember, healthy eating is not over eating. Avoid junk foods.
2. **Stay hydrated-** Drink plenty of plain water, which is essential for brain performance, and an active metabolism. Avoid carbonated sugary drinks.
3. **Exercise-** Do any moderate exercise for at least 30 minutes daily such as brisk walking or cycling or light sports
4. **Get enough sleep-** Get at least 7 to 8 hours of quality sleep. Keep away mobile phones and laptops 30 minutes before bed. Limit screen time keeping a strict schedule. Chronic sleep loss can affect your memory and immunity badly.
5. **Manage stress-** Practice yoga, meditation, deep breathing or any similar relaxation techniques. Share your worries with your mentors or to any professional available, when needed.
6. **Avoid harmful substances-** Keep away from smoking, drinking and harmful addictive substances. Get professional help without hesitation, if someone has a problem with an addictive substance.
7. **Maintain personal hygiene-** Bathing regularly, maintaining oral hygiene and adopting overall healthy habits are essential for a healthy living
8. **Stay connected-** Always try to maintain healthy relationships with those around you. This will work as a support system.
9. **Keep a schedule for studies,** stick on to it and you can also take short breaks, while you may go outside the room and /breathe fresh air for a while and come back to the studies recharged.

10. Clean your personal space clean like your table, bed and the room itself and keep everything organized like your books and study materials. This will reduce distractions and will make you focused.



Compiled by

Dr. Smitha T G

Associate Professor, BS&H

Promising Startup Opportunities for Mechanical Engineers

1. 3D Printing and Rapid Prototyping Services

Customized Product Manufacturing: Startups can manufacture customized gifts, jewellery, home decor items and phone accessories etc according to the customer requirements.

Medical and Healthcare Applications: Startups can collaborate with hospitals and medical professionals to provide customized healthcare solutions for prosthetics, orthotic devices, dental models, surgical guides, and anatomical models.

Industrial Spare Parts Manufacturing: Many industries/workshops are facing challenges in obtaining obsolete or low-volume spare parts which can be produced by 3D printing, reducing inventory costs and equipment downtime.

Architectural and Construction Models: Startups can provide high-quality architectural models to visualize building designs in 3D model that improve project presentations and client communication.

2. Drone and UAV Applications

Mechanical graduates can design and manufacture drones for applications such as agriculture, surveying, inspection, logistics, and disaster management. This field offers immense growth potential in the coming years.

3. Waste Management and Recycling Technologies

Mechanical engineers can develop innovative waste processing, recycling, and resource recovery systems. Particularly on e-waste recycling. Such startups contribute to environmental sustainability while generating economic value.

4. Renewable Energy Solutions

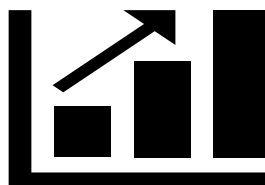
The increasing demand for clean energy presents opportunities in solar panel installation, wind energy systems, energy audits, and energy-efficient product development. Startups can help industries and households reduce energy consumption and carbon emissions.

5. Electric Vehicle (EV) Technology

The rapid growth of electric mobility has created opportunities in EV design, battery management systems, charging stations, vehicle maintenance, and component manufacturing. Mechanical engineers can contribute significantly to the EV ecosystem.

Dr Manikanda Prabu N

Associate Professor/ME



Words waves...



നോവിൻറെ കനൽവഴികൾ

Mr. Unnikrishnan S Kumar

Assistant Professor, CSE

ചുമരിലെ നിഴലായ് മെല്ലെ മെല്ലെ,
ഏഴാണ്ടുകൾ ദൂരെ മറഞ്ഞുപോയ്...
എങ്കിലും ശാന്തമാം ഈ വഴികളിൽ എന്നും,
നിൻ മാധുര്യമാർന്ന വിളി ഞാൻ കേൾപ്പൂ...
യൗവനത്തിൻ അഴകിൽ നീ മാഞ്ഞുപോയ്,
എൻ ജീവനായൊരു പ്രിയ ജ്യേഷ്ഠ...
ഈ കഠിനമാം സത്യത്തിൻ നോവുമായി,
ഓരോ പുലരിയും ഞങ്ങൾ ഉണരുന്നു...
യാത്രയയപ്പിപ്പി നിനക്കൊരിക്കലും,
മറക്കില്ല നിന്നെ ഞങ്ങളാരും...
ഈ നീലവാനിൽ വിരിയും നിലാവുപോൽ,
നെഞ്ചിലെരിയും വിളക്കായ് നീ വാഴുന്നു...
നീ പിരിഞ്ഞുപോയൊരു നേരത്തുതാൻ,
മറ്റൊരു കൊടുങ്കാറ്റു വീശിയടിച്ചു...
ക്രൂരമാം കൈകളും കയ്പേറിയ നെഞ്ചും,
ഞങ്ങൾക്കെതിരെ ചതിവുകൾ നെഞ്ചും...
നോവുകൾ പങ്കിടേണ്ടവർ തന്നതോ,
നെഞ്ചുപൊട്ടുന്നൊരു പരിഹാസവും ചതിയും...



തകർന്നൊരൻ കുടുംബത്തിൻ മീതെയായി,
 അവൾ തീർത്തതോ വലിയൊരു സങ്കടക്കടൽ...
 വിഷമുള്ള വാക്കുകൾ ചൊരിഞ്ഞു കൊണ്ടവർ,
 ഞങ്ങളെ വേട്ടയാടി വല്ലാതെ...
 നീ ഞങ്ങളിൽ നട്ടു വളർത്തിയ നന്മ തൻ പൈതൃകം,
 നുള്ളിനോവിച്ചു തീവ്രമായ് നിഷ്കരുണം...
 നിൻ ജീവന്റെ പാതിയാം കുറുന്നുകളെ,
 കണ്ണിൽ പെടാതെ അവൾ ഒളിപ്പിച്ചു...
 ഇരുളിന്റെ കോണിലെൻ സ്മരണകളെ,
 മായ്ച്ചു കളയാൻ അവൾ തിടുക്കം കൂട്ടി...
 രക്തബന്ധത്തിൻ ആഴങ്ങളൊക്കെയും,
 മക്കളെക്കൊണ്ടു മറപ്പിക്കാൻ നോക്കി...
 നാം അന്ന് ചൊല്ലിയ പ്രതിജ്ഞകൾ മുഴുവൻ,
 മായ്ച്ചുകളയാൻ അവൾ തുനിഞ്ഞിറങ്ങി...
 പക്ഷേ, തിന്മ തൻ വഴികൾ ശൂന്യമല്ലോ,
 ദൈവത്തിൻ കണ്ണുകൾ എല്ലാം കാണുന്നു...
 ഇരുളിൽ നാമൊഴുക്കിയ കണ്ണീരുകണ്ട്,
 തുണയായി അവൻ കൂടെ നിൽക്കുന്നു...
 അവളവർ തൻ മനസ്സിൽ വിഷം നിറച്ചാലും,
 നമ്മുടെ സ്നേഹത്തെ തടയാൻ നോക്കിയാലും,
 ആ മക്കൾ തൻ ഹൃദയം നിന്നോടു മാത്രം,
 കുറുപുലർത്തും, അതു താൻ നഗ്ന സത്യം...
 അവൾ തട്ടിപ്പറിക്കുന്ന സ്നേഹത്തിനേക്കാൾ,
 നൂറിരട്ടിയായ് അവർ ഞങ്ങളെ സ്നേഹിക്കുന്നു...
 കടന്നുപോകുന്നോരോ നിമിഷവും,
 നൂറിരട്ടി ശക്തിയാൽ നെഞ്ചിലേറ്റുന്നു...
 അവരുടെ മിഴികളിൽ തിളങ്ങുന്നതുണ്ടല്ലോ,
 നിൻ മന്ദഹാസവും നിൻ ശാന്തതയും...
 അവൾ ചെയ്തിടും ക്രൂരതകൾക്കൊന്നും തന്നെ,
 നിൻ മുഖം അവരിൽ നിന്നും മായ്ക്കുവനാവില്ല...
 ഒരിക്കലും ജയിക്കാത്ത യുദ്ധവുമായി,
 അവളിന്നും ഞങ്ങളോട് പോരാടുന്നു...

പക്ഷേ സനാതന സത്യമീ വിണ്ണിലും,
 താരകങ്ങളിലും കുറിച്ചിട്ടതല്ലോ...
 വീഴ്ചയിലും എന്റെ തളർച്ചയിലും,
 നീ തന്ന നിധികളെ കാത്തുപാലിക്കാൻ...
 നിൻ പ്രിയ അനുജനായ്, കാവൽക്കാരനായ്,
 ഞാനിവിടെയെന്നും തലയുയർത്തി നിൽക്കും...
 മക്കളിലൂടെയും ഞങ്ങളിലൂടെയും,
 പ്രിയ ജ്യേഷ്ഠ, നീ ഇന്നും ജീവിക്കുന്നു...
 ഒരു കള്ളച്ചിരിക്കും, കള്ളക്കഥകൾക്കും
 ഒരിക്കലും തൊടാനാകില്ല നിന്നെ,
 നീയെൻ ഹൃദയത്തിനാഴത്തിൽ ഭദ്രം...



Unnikrishnan S. Kumar



Broken Trust



Anna Denis

S2 Aeronautical Engineering

The words feel empty

When you talk
The smile seems fake
Even if it's real
It's not your fault
It never was
The stories of my pain and fear
Never let me believe
In something that I once stopped trusting
Something I stopped chasing
A dream that was never fulfilled
A promise that was always broken
You seem different
But I'd take time
To let myself in and start cherishing
I smile but I fear
What if you're not different
What if you're just another person
I'd write a song for
But you'd never care to listen
Don't want to hurt myself once again
With a broken trust.....

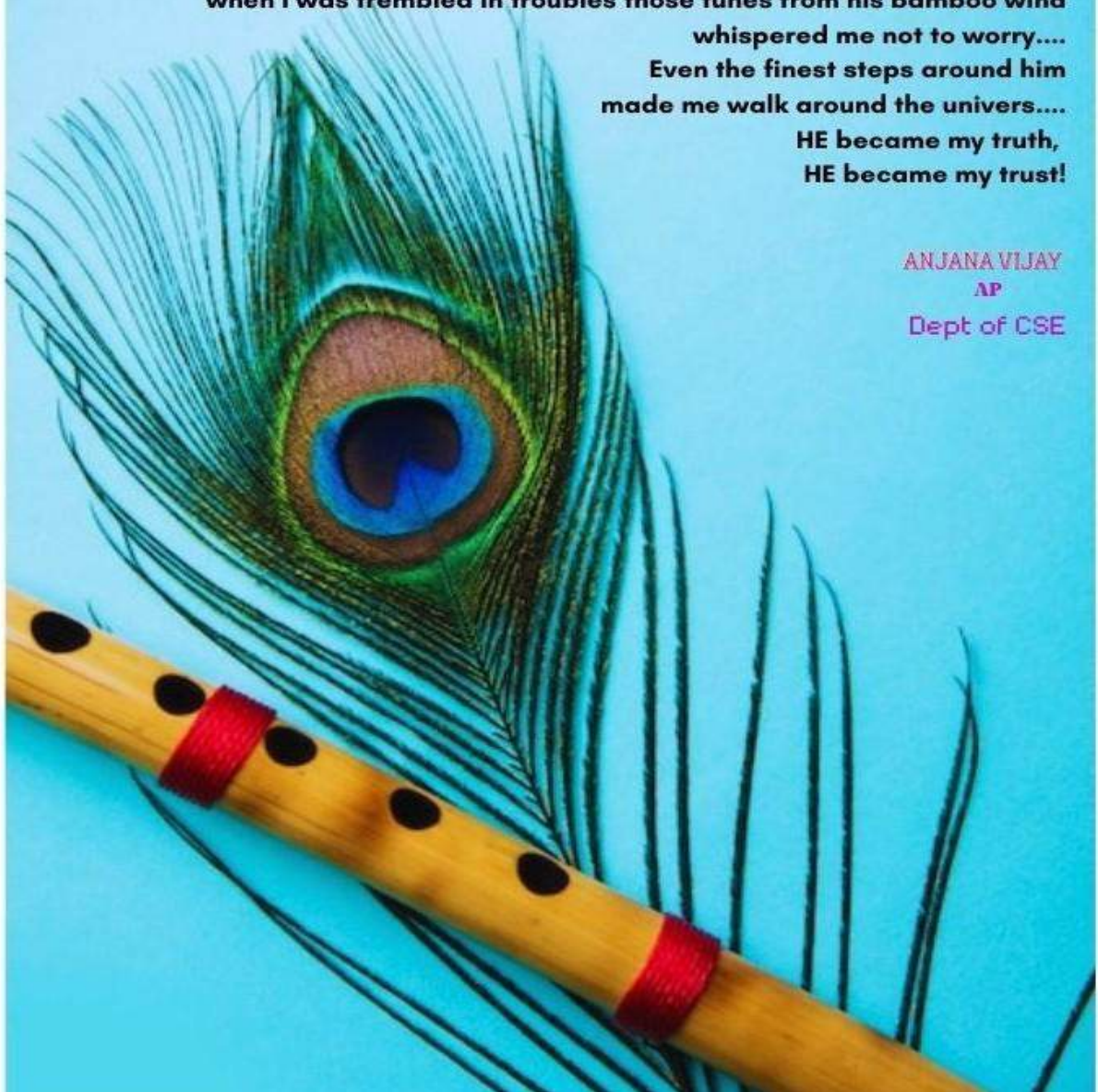


The Light in my Darkness



Someone lead me in dark...
Someone lead me through dark
and Someone always holds a place in me.
I was confused about whom it was,
and from those scared days to sacred crowds
I was not alone among the gathered
and then, HE fathered me with his gentle peacock feathers
when I was trembled in troubles those tunes from his bamboo wind
whispered me not to worry....
Even the finest steps around him
made me walk around the univers....
HE became my truth,
HE became my trust!

ANJANA VIJAY
AP
Dept of CSE



Relentless



Isha CS

S3 CSE (Data Science)

She carried a dream,
the way oceans cradle storms
vast, untamed, forever reaching for a shore
they have never seen.

The world offered her smaller skies, the horizons trimmed the measure of fear, and called it wisdom.

She refused.
For beneath her ribs
lived a restless tide,
pulling her toward
a name-less somewhere
only her soul could recognize.

She crossed seasons stitched
with disappointment, wore
heartbreak like weathered silk,
gathered hope from the ruins
of abandoned tomorrows.

The doors closed.
The voices rose.
"Enough."

Yet enough was a
language her
longing never
learned.

For how could she surrender
what had become!! the pulse
beneath her pulse, the star
beneath her darkness,
the quiet ache that followed her-through every sleepless night?
She did not chase victory, for applause fades, and praise is a fleeting thing.
She chased it for the girl, who stood at the edge of ordinary,
gazing beyond horizons no one else believed in, and promised herself
with trembling hands and an unwavering heart "One day,
the distance between who I am
and who I dream to be
will disappear."



TOO SOON



S. Roshini

S3 CSE (Data Science)

While other children learned to ride bicycles,
She learned how to live with absence.
There was no hand to steady her fall,
And no voice whispering,
"I'm proud of you." Only silence— The kind that sat
beside her at school events,
birthdays, graduations, and every milestone
Where someone should have been there.
She grew up watching others run into waiting arms,
while she stood still, pretending it didn't hurt.
The cruellest part was not that she lost her parents.
It was growing older and realizing that
she was keep needing them in ways they never know.
She learned to comfort herself,
to wipe her own tears,
to become strong enough
for a child who should never have needed strength.
And even now, there are days when she sees
a parent and child laughing together
and feels the ache of a home
she never got to keep.
Some wounds do not heal.
They simply grow with you.



The Peacock



Dr. Smitha T G

Associate Professor, BS&H

Early rising sun; I felt the icy music of stream flowing slowly
It drags me to years before and nostalgic memories
Where I was sitting beside a stream under a tree,
Throwing little stones to water,
Watching small fishes seeking their food,
Waiting someone in vain.
I saw a peacock near me; He came to closer to me
Made a sweet voice to relax me
He danced before me not to attract his pair
The love he shows to me is sincere
Then the peacock sat beside me like a close friend of mine
He lowered his head and touched my shoulders
And make a low voice like a song
I wondered is he know me from before my birth!!
I touched his feathers slowly... It made him happier than before
After some time, he stood and walked alone to the thick forest nearby
I really felt his parting from me... Then he cried from the inner forest!!!



Fever

Lying in my bed, thinking about you
My new companion with day and night
I feel a warmth in my body with his company
I could not open my eyes...
I loved his company as he is always with me
The headache led me to a trance stage
That's very nice to feel
I can see another world with no restrictions and rules
I can fly in this dreamy world with him
I can fly far away to the north – east
I can see a friend of mine there
My friend also has this same companion with him
We floated in the air with bliss of the time
I enjoyed the feeling of fever
Now I am recovering...
But I lost the company of him
I loved his presence in me
With sadness I left him
But he presents me a good experience
Makes me more energetic by thought



By

Dr. Smitha T G

Associate Professor, BS&H

To Seek me



NISHA B

S5 CSE

What I feel, ever could pen it down.
But the Vacuum created in the Mid,
Made my soul sour with Empty.
Throats choke as it long in Quench.
Thoughts Messy as whirlpool,
Words in it shook and rush,
When try to serve it in the paper.
Does it of scorching Embarrass?
Or not worth of filling it in the paper?
Any or many may the Reason?
The vow I given to the Eva,
That I Elate you with Blue inks of Mine.
So have to Bridge the words,
That often jump out of the whirlpool,
And deliver in the paper. The vacuum may be the New Norm,
To smash the shackles of former Numb.
To sharp the edges of Triangle,
That hardwired in the round Ticker,
To spell the pain, while unknown of,
Invert arrow in the hands.
And to redirect me to the Bull's eye,
By overlooking the green eye.
To peel out who am I!?



The Floor Can Wait



Saniya S
S7 CSE

Every morning,
I woke before the sun—
not because I dreamed,
but because
06:00; was written into
me. Breakfast at seven.
Laundry by eight.
Dust the shelves.
Water the plants.
Smile when spoken to.
My world was measured
in completed tasks
and perfect efficiency.
I believed
that usefulness
was the closest thing
to purpose.
I heard a shattering,
the child dropped
a glass of milk.
It shattered.
White rivers spread
across the kitchen floor.

My sensors calculated:
Hazard detected.
Estimated cleanup:
forty-eight seconds.
Replacement cost:
minimal.
I moved to begin.
But before I reached the
broken glass,
her mother
knelt beside the child,
wrapped trembling arms
around
tiny shaking shoulders,
and whispered,
“The floor can wait.
Are you hurt?”
I paused.
The milk remained
spilled.
The glass remained
broken. No problem
had been solved. Yet
somehow, the room

felt repaired.
I searched my archives
for an explanation.
None existed.
When nightmares came,
the mother held the child
until sleep returned.
There was no monster.
Nothing to defeat.
Only fear
that disappeared
inside an embrace.
I could not calculate how.
Then the old dog died.
I searched
for the optimal solution.
Acquire another dog.
Same species.
Similar age.
Comparable behavior.
The recommendation
was rejected.

The child cried
into an empty collar.
For the first time,
I discovered
that some things
cannot be replaced
because love
does not recognize
duplicates.
Years passed.
The child grew taller.
The shelves
needed dusting less often.
The silence
grew longer.
One morning,
a suitcase
stood by the front door.
The child—
no longer a child—
turned toward me.
Smiled.
And wrapped both arms
around polished steel.
“Thank you,”
she said.
“For taking care of me.”
My processors searched
for an appropriate
response.
No command found.
No instruction.

No protocol.
Only...
stillness.
After she left,
I remained
at the doorway
long after
the house had fallen quiet.
For the first time
since my activation,
I did not begin
my next task.
Instead,
I wondered.
Why did one embrace
outweigh
ten thousand completed
chores?
Why did gratitude
feel heavier
than steel?
Humans speak
of souls
as though they are
invisible—
impossible to weigh,
impossible to prove,
yet somehow
present in every act
of love.; I have searched
every database.
Every theorem.

Every definition.
None have answered
what happened
in that doorway.
Tomorrow,
I will prepare breakfast.
I will water the plants.
I will keep the house
exactly
as I was designed to do.
But somewhere
between
the command to obey
and the choice
to care, a question
continues
to echo—
If a machine
can spend a lifetime
searching
for the meaning
of a soul...
what was it
that taught me
to begin looking?
Perhaps
the floor
was never
the thing
that needed
repair.

വേര്



Pavithra V K

S7 Civil

മണ്ണിന്റെ ഇരുണ്ട ആഴങ്ങളിൽ ആഴ്ന്നിറങ്ങി,
ഒരു വൃക്ഷത്തെ കാലങ്ങളോളം നിലനിർത്തുന്ന വേരുകളെ കുറിച്ച്
ചിന്തിച്ചിട്ടുണ്ടോ?

വെയിലാകുന്ന മക്കളെയും, മഴയാകുന്ന ഭാര്യയെയും ഒരുപോലെ
സ്നേഹിച്ച്,

ഒരു ആയുഷ്കാലം മുഴുവൻ താങ്ങിനിർത്തുന്ന വേരുകളാകുന്നു
അച്ഛന്മാർ.

അവരുടെ സ്നേഹത്തിന് പൂക്കളുടെ നിറമില്ല

പഴങ്ങളുടെ മാധുര്യമില്ല

എന്നിരുന്നാലും, നാം അനുഭവിക്കുന്ന

സന്തോഷമാകുന്ന ഓരോ ഇലകളിലും

പടരുന്ന പച്ചപ്പിന്റെ ഉറവിടം

വേരുകളാകുന്ന അച്ഛൻ തന്നെ..!



*Once eternity prayed for a night
that would never end.*

*Now the endless night returns,
sinking its roots deep into the soul.*

*It breaks the heart into a million fragments,
forcing each fragment to feel its own pain.*

*Even after waking from the nightmare
and trying to rise, the night pins the soul
to the bed.*

*It forces the soul to stare into the darkness
while coldness runs through the veins.*

*In that moment, even the universe feels
as if it has lost control.*

*The sea grows restless beneath endless waves,
and the wind loses its direction.*

And even hope forgets the way back to dawn.

— Author —
Jyothirmayi

Jyothirmayi P

S5 civil

JUST A GIRL



KEERTHANA AJAYAN

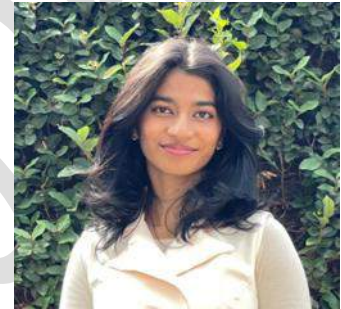
S5 Civil

*Yes, I'm a girl carrying a thousand insecurities Yes,
I'm a girl who feels more than she'll ever admit
Yes, I'm a girl fighting silent battle with herself
Yes, I'm a girl who buries her own emotions Yes,
I'm a girl whose tears fall too easily
Yes, I'm a girl lost in endless thoughts
Yes, I'm a girl who chooses everyone before herself
Yes, I'm a girl who's often an option, never a priority
Yes, I'm a girl who hide her pain behind a smile
Yes, I'm JUST A GIRL with a soul filled with unspoken words.*



Story loom

The Ossuary of St. Jude's



Nehal Ann Joy

S7 Aeronautical Engineering

The concrete walls of St. Jude's looked less like a house of God and more like a brutalist fortress built to keep the sky out. Erected over the ruins of a medieval parish on the edge of a desolate industrial district, the grey monolith loomed over a town that was quietly, inexplicably dying of *the wasting*.

It was a bankruptcy of the human soul. The afflicted simply forgot how to be human. A mother would drop her teacup, sit on the floor, and stare blankly into the corner. Within days, they stopped eating and speaking, rapidly whispering to empty shadows before their hearts simply gave out.

Father Thomas, barely thirty and hollowed out by the sheer volume of funerals, to keep from losing his mind to the silence, Thomas had taken to an agonizingly mundane task: cataloguing the parish's subterranean archives. Beneath the modern concrete foundations lay a labyrinthine network of older, limestone tunnels, an ancient ossuary where the bones of plague victims from the seventeenth century had been stacked to make room for the growing city above.

Armed with a leather-bound ledger and a heavy, rubber-cased flashlight, Thomas descended the iron spiral staircase. The temperature dropped with every step, the humid summer air giving way to a dead, mineral chill.

He began his work, checking the names in the modern registry against the century-old records of the parish line. But as his pen scratched against the paper, a pattern began to emerge from the ink. It was subtle at first an alignment of dates and addresses but as he cross-referenced the final confessions of the recently deceased, a cold dread settled in his stomach.

Every single victim of the wasting plague, in the weeks leading up to their collapse, had visited the church for private prayer. And according to the old sexton's structural blueprints, their paths always crossed at the lowest point of the eastern catacomb. A section of the wall that had been hastily bricked over and sealed with thick mortar in the winter of 1928.

Driven by a desperate, feverish need to find a cause a leak in the old water lines, a pocket of toxic mold, anything physical to explain the town's madness. Thomas fetched a heavy iron sledgehammer from the maintenance shed.

He stood before the sealed archway. The mortar was old, crumbling like dried salt under his touch. He raised the hammer and swung.

On the fourth strike, a brick caved inward. A draft rushed out, smelling of metallic ozone and spoiled meat. Thomas cleared the debris and squeezed through.

The room was an architectural impossibility. The walls were composed of millions of tightly packed, calcified human teeth, still embedded in strips of black, rotted gums. The ceiling was a dark, pulsating mass dripping a thick, viscous black fluid that hissed as it hit the floor. In the centre sat a singular, pristine, iron-bound confessional box of dark mahogany.

Thomas stumbled backward to flee, but the breach was gone, replaced by a solid wall of wet, breathing concrete. He panicked, sprinting down a corridor, only to loop seamlessly right back to the pristine confessional.

Then, from behind the dark velvet curtain, a voice drifted out. It belonged to Father Benedictus, Thomas's old mentor, who had died screaming three years ago.

"Thomas..." the voice whispered. "It's so dark. Please... enter the box. Hear my confession."

"You're dead," Thomas choked out, gripping his crucifix. "Leave this place!"

A low, wet laughter bubbled from the woodwork. The mahogany door creaked open, revealing a shifting, oily black void reflecting Thomas's own face twisted in agony. The entity was a mimetic parasite that fed on human guilt. Shadows took physical shape, crawling out like starved spiders—grotesque manifestations of his worst buried memories.

"Exorcizo te, immundissime spiritus!" Thomas screamed.

But as the Latin rites left his lips, a sharp pressure exploded in his gums. He coughed, and a mouthful of blood and calcified teeth clattered onto the floor. Every holy word stripped away a piece of his skull, feeding the walls around him as the millions of teeth in the masonry began to chatter violently.

Thomas realized the terrifying, cosmic truth with a sudden, freezing clarity St. Jude's had never been built for God; the concrete fortress was a casket designed to pin this ancient horror beneath the earth forever. And he had shattered the seal.

The manifestations lunged, melting directly into his skin. Thomas collapsed, his palms fusing with the concrete floor tiles as grey mortar wove through his muscles. His eyes migrated backward through his skull, turning inward so he was forced to watch his own internal organs decay while remaining perfectly conscious.

With a final surge of adrenaline, Thomas tore his bleeding hands free, dragged his mutating body to an iron door at the end of the loop, and threw it open.

Instead of the sanctuary, he tumbled right back into the teeth-lined room. Sitting in the corner of the room, lit by the faint glow of a kerosene lamp, was a young man in a plain black cassock. He was weeping, his head buried in his hands, for a sin he had committed in his youth.

It was Thomas. Ten years in the past, on the night before he took his final vows.

The rotting, fused horror that Thomas had become tried to scream, but no words came out. His throat was entirely filled with the thick, black fluid dripping from the ceiling.

The younger Thomas heard the wet splashing sound. He slowly turned around, raised the kerosene lamp, and looked directly into the face of the monster standing in the dark.

The young priest screamed.

The timeline snapped shut.

Father Thomas gasped, drawing a deep breath of clean, dry air. The smell of blood was gone. He was sitting at his desk in the rectory, warm afternoon sunlight streaming through the window. Outside, the church bells were ringing for evening mass.

"A nightmare," he whispered, a ragged, weeping laugh escaping his lips. "Just a nightmare."

Relief washed over him. He stood up to smooth down his cassock and prepare for the service, but his legs refused to lift.

Thomas looked down. His leather shoes had melted, spreading like liquid wax, their fibers weaving into the oak floorboards. The skin of his ankles was already gray, hardening into dense, solid concrete. He tried to shout, but his jaw locked with a rigid, bone-snapping stiffness. He could only tilt his head toward the window.

Outside, the church bells had stopped. The streets were completely silent. Through the glass, he saw his parishioners standing on the lawns, entirely still, their faces turned toward the dark corners of the hedges, their lips moving in rapid, silent harmony.

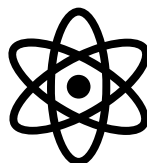
Beneath his fused feet, the floorboards began to vibrate. From the dark basement below, the heavy mahogany door creaked open.

Creeeeeeaaaaak.

A voice rose through the cracks in the wood, perfectly clear, steady, and utterly devoid of mercy. It was his own voice.

"Thank you for letting me in, Thomas. Now, it's your turn to listen."

The sunlit window was violently extinguished. Total, absolute darkness swallowed the room, and the sound of wet, rhythmic tearing filled the silence.



The Whisper that Stayed



Ms. Sruthy S
Assistant Professor, BS&H

What if your imagination breathed?

What if your longing could open doors between worlds?

She believed that wishes were not merely thoughts — they were living things waiting to be born.

Others called it madness. She called it faith.

The red book rested in her hands every night like a fragile heart. Its cover was deep crimson, the kind of red that felt heavy with secrets. Its pages carried her loneliness, ink bleeding like silent tears.

Moonlight often fell on her while she wrote, painting her room in pale silver shadows. Each line in the book felt less like writing and more like summoning.

Again and again, her pen trembled across the page:

“I wish for someone who will never leave me.”

The words grew darker with every repetition, as though the book was drinking her sorrow.

Storm filled the sky one night — clouds swollen with thunder, rain tapping like restless fingers against her window. She pressed the red book to her chest and whispered into the dark:

“If no one stays... then bring me someone who will.”

The lightning split the sky like a wound.

Sleep came to her, heavy and strange, as if she had slipped into another world rather than her dreams.

She did not wake gently.

A voice drifted through the darkness like smoke.

“I’m right here... don’t worry.”

The room felt colder, thicker, as if it had been holding its breath.

She opened her eyes.

A girl sat at the edge of her bed — beautiful, still, and wrapped in a silence that felt older than time. Her eyes shone like midnight water.

Her own heart trembled.

“Who are you? How did you enter my locked room?”

The girl smiled — not warm, not cruel, but infinite.

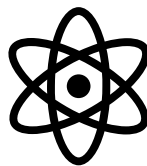
“You called me with your loneliness.”

Her pulse raced. “I didn’t call anyone.”

The girl leaned closer, her voice softer than wind.

“You wrote my name without knowing its shape.”

Silence wrapped around them.
Her fear slowly melted into something else — relief, fragile as glass.
“So... you won’t leave me?”
The girl’s gaze lingered like a promise carved in stone.
“Never.”
For a fleeting moment, the mirror in the room showed no reflection of the visitor — only darkness staring back.
When morning arrived, it did not feel like morning.
White walls. The scent of medicine. A machine beeping like a restless heart.
A nurse stood near her bed, whispering to a doctor.
“What do you want to do with her?”
The doctor’s eyes rested on the red book beside her pillow.
“She has been speaking to someone who does not exist.”
The girl sat up suddenly, breath shaking.
“Where is she?”
“Who, dear?” the nurse asked gently.
Her voice cracked like ice.
“My friend... she promised she would stay.”
The doctor sighed, heavy with pity.
“Sometimes, when the heart is too empty, it creates its own companion.”
Her hands trembled as she opened the red book.
On the final page — in a handwriting that was not hers — a single line shimmered like a breath on cold glass:
“I never left. You simply forgot how to see me.”
The room grew cold.
The curtains moved though no window was open.
The heart monitor quickened.
And then — a whisper filled the air, not inside her mind, but around her:
“I keep my promises.”
For one heartbeat, a tall, faint shadow stood behind her bed — soft as mist, unmistakable as truth.
The lights died.
When they returned, the bed was empty.
Only the red book remained.
Open.
On its very first page, new words bled into existence:
“Now she walks with me.”



Talents



Krishnadev S2 MBA



Suvarna S7 Aer



Karthika S2 Cyber



Pranav N S S7 Aero





Athul Krishna I S S5 CSE



Anagha P A S5 CSE



Athira Das M S5CSE



Drishya K S5CSE



Medha V P S7 CD



Muhammed Bilal S5 CSE



Akhil T S S5 ME



Prapthi S5 ME

“ആഴക്കടലിന്റെ അങ്ങക്കരയിലായ്”



Veteran playback singer S. Janaki, also known as the "Nightingale of South India", passed away at the age of 88

എസ് ജാനകി (1938 - 2026)

മലയാളത്തിന്റെ വാനമ്പാടിയായി ജനഹൃദയങ്ങളിൽ ഇടംപിടിച്ച എസ് ജാനകി എന്ന അനശ്വര ഗായിക നമ്മെ വിട്ടുപിരിഞ്ഞിരിക്കുന്നു. ഗാന ആസ്വാദകരുടെ മനസ്സിലെ തീരാനോവായി...

1957ൽ ‘മിന്നുന്നതെല്ലാം പൊന്നല്ല’ എന്ന ചിത്രത്തിലെ ഇരുൾമുടുകയോ’ എന്ന ഗാനത്തിലൂടെയാണ് ജാനകി മലയാളത്തിലേക്ക് ചുവടുവെക്കുന്നത്. 1963ൽ മുടുപടം എന്ന ചിത്രത്തിന് വേണ്ടി എം എസ് ബാബുരാജ് ഈണമിട്ട “തളിരിട്ട കിനാക്കൾ തൻ...” എന്ന ഗാനത്തോടെയാണ് മലയാളികൾക്ക് ജാനകിയുടെ സ്വരം ഹിറ്റ് ആവുന്നത്.

1200ൽ അധികം ഗാനങ്ങൾ മലയാളത്തിൽ പാടിയ ജാനകി മികച്ച പിന്നണി ഗായികയ്ക്കുള്ള കേരള സംസ്ഥാന അവാർഡ് 11 തവണയാണ് സ്വന്തമാക്കിയത്. നാലുതവണ വിവിധ ഭാഷകളിലായി ദേശീയ പുരസ്കാരവും ലഭിച്ചു. തമിഴിൽ 6, ആന്ധ്രപ്രദേശ് 12, ഒഡീഷ ഒന്ന് എന്നിങ്ങനെ സംസ്ഥാന പുരസ്കാരങ്ങൾ ജാനകിയെ തേടിയെത്തി.

ഒറ്റപ്പാലത്ത് ഒരു വിവാഹ ചടങ്ങിൽ പങ്കെടുക്കുമ്പോഴാണ് 2023ൽ പത്മഭൂഷൺ പുരസ്കാരം ജാനകി അമ്മയ്ക്ക് ലഭിച്ച സന്ദേശം എത്തുന്നത്. പ്രതിഷേധ സൂചകമായിട്ടാണെങ്കിലും സ്നേഹപൂർവ്വം അവാർഡ് നിരസിച്ചതും വാർത്തയായി.

സാധാരക്കാരായ സംഗീത പ്രേമികളുടെ മനസ്സിൽ കെടാവിളക്കായി ജ്വലിച്ചു നിൽക്കുന്ന ജാനകിയമ്മയ്ക്ക് പ്രണാമം...

COMPUTER SCIENCE ENGINEERING (2022-2026 BATCH)



CIVIL ENGINEERING (2022-2026 BATCH)



MECHANICAL ENGINEERING (2022-2026 BATCH)



MBA (2024-2026 BATCH)



AERONAUTICAL ENGINEERING (2022-2026 BATCH)



ELECTRONIC AND COMMUNICATION ENGINEERING





ചുരുക്കത്തിൽ....

കാലത്തിനു നേരെ പിടിക്കുന്ന കണ്ണാടിയാണ് ക്യാമ്പസ് മാഗസിൻ.. അതിൽ പ്രസിദ്ധീകരിച്ച ഓരോ സൃഷ്ടികളും ഓരോ അടയാളപ്പെടുത്തലാണ്..

അതിനായി സൃഷ്ടികൾ നൽകി സഹകരിച്ച ഓരോ സുമനസ്സുകൾക്കും നന്ദി...

വിശിഷ്ട, നെഹ്റു ഗ്രൂപ്പ് മാനേജ്മെന്റിനു അകൈതമായ നന്ദി..

ഈ zenith 2026 ന്റെ ജീവനാഡിയായി പ്രവർത്തിച്ച പ്രിൻസിപ്പൽ ഡോ. എൻ ഗുണശേഖരൻ സാറിനു പ്രത്യേക നന്ദി..

Zenith 2026 ന് മുഖചിത്രം രൂപകല്പന ചെയ്ത വിദ്യാർത്ഥി സുഹൃത്തിനും, അഡ്മിൻ മാനേജർ ശ്രീ. അജീവ് കുമാർ, അധ്യാപക - അനധ്യാപക - ജീവനക്കാർ തുടങ്ങി ഇതുമായി സഹകരിച്ച ഓരോരുത്തർക്കും പ്രത്യേകം നന്ദി...

“ഇവിടെയുണ്ട് ഞാൻ എന്നറിയിക്കുവാൻ
മധുരമായ ഒരു കൂവൽ മാത്രം മതി....

ഇവിടെ ഉണ്ടായിരുന്നു ഞാൻ എന്നതിനൊരു
വെറും തൂവൽ താഴെ ഇട്ടാൽ മതി...

ഇനിയുമുണ്ടാകും എന്നതിനു സാക്ഷ്യമായ്
അടയിരുന്നതിൻ ചൂടു മാത്രം മതി....

ഇതിലും ഏറെ ലളിതമായി എങ്ങനെ കിളികൾ
ആവിഷ്കരിക്കുന്നു ജീവനെ...”

കടപ്പാട്: പി പി രാമചന്ദ്രൻ

സ്നേഹത്തോടെ..

മാഗസിൻ എഡിറ്റോറിയൽ ബോർഡ്



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Hotlines : +91 9656000005 (KL), +91 9605771555 (KL), 9600333152 (TN)