



KCG

COLLEGE OF TECHNOLOGY
AFFILIATED TO ANNA UNIVERSITY | AUTONOMOUS



Vol. No.3 | Issue No. 10 | October 2024

EDITORS' NOTE

Dear Reader,

October has been a remarkable month marked by excellence, innovation and new opportunities.

It is a privilege to reflect on the recognition we received for excellence in innovation and sports along with the exceptional accomplishments of our NCC cadet. In a significant step forward, our college signed MoUs with renowned organizations paving way for enriching collaborations. Alongside we inaugurated state-of-the-art labs and vibrant clubs aimed at fostering creativity, innovation and community engagements.

As usual the month featured a series of impactful educational sessions bringing together experts to share knowledge and ideas. The college hosted an award ceremony to honour long standing service and outstanding achievements. In short, this issue reflects our excellence and progress in all spheres motivating our staff and students to embrace all opportunities that lies ahead.

Happy reading!

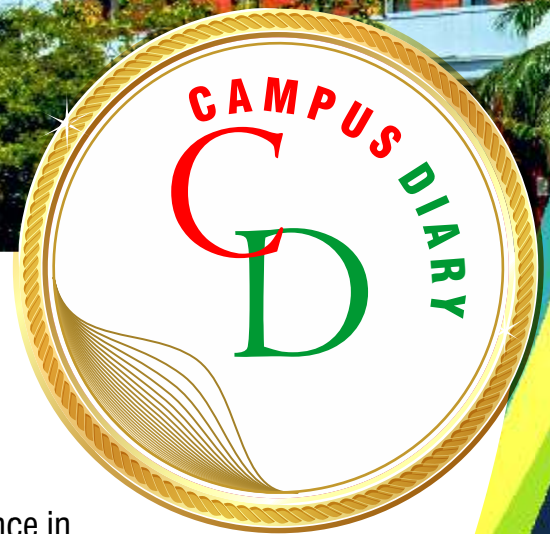
EDITORS:

Dr. R. Jaya

Associate Professor,
Department of English
Head - Student Affairs

Ms. Tephilla Joice P

Assistant Professor,
Department of Mathematics



Awards and Accolades

Excellence Award

The College is deeply honored to be the proud recipient of the prestigious Autodesk Centre of Excellence Award, presented by the **Hon'ble Thiru. Palanivel Thiaga Rajan**, Minister of Information Technology, Tamil Nadu.



Niral Thirazh – Top 50 Finalist



Two teams from KCG Tech have risen to the challenge in the Grand Final Evaluation of Niral Thirazh, where 144 out of 837 teams were shortlisted by an expert committee. Shining among them, one of our teams made it to the top 50 and brought home an impressive cash prize of Rs. 1,00,000.

Their innovative project, Sanitary Sentinel, leverages machine learning to transform public health with smart toilets and advanced maintenance analysis through Power BI. Startup TN Regional Hubs will now facilitate the next steps, offering incubation and further development opportunities to help these innovative ideas reach their full potential.

Startup TN - Winners

Team Visionaries from the College achieved a significant win at the prestigious National Level Impairathon, an innovative hackathon focused on "Assistive Technology & Special Needs" organized by StartUpTN. The team was awarded a Special Mention, presented by Coimbatore District Collector, **Mr. Gandhi Kumar Padi**, & entrepreneur **Mr. Shriram Shankar**.



Champions of Innovation

Students have achieved an outstanding 2nd place in the prestigious Smart Industry Hackathon 4.0, sponsored by Bonfiglioli. Out of over 700 initial project proposals, their exemplary performance earned them a spot in the top 30 finalists. During an intensive 48-hour hackathon, their innovative project titled "An AI-Based Platform for Energy Management System Incorporating Solar and Thermal Energy Harnessing", distinguished itself through its ingenuity and technical sophistication. This exceptional achievement was recognized with a cash prize of ₹1,00,000.



Team Tech AZURE wins 2nd Place with a Cash Prize of INR 1 Lakh at the Smart Industry Hackathon 4.0, sponsored by Bonfiglioli.

Project Title:
An AI-Based Platform for Energy Management System Incorporated with Harnessing of Solar & Thermal Energy.

Team Members:
Shaik Althaf, EEE
Nafisa B, Aerospace Engineering

Kalam Young Innovator Award



Dr. M. Vignesh Kumar, Head Project Development Cell received the Dr. Kalam Best Mentor Award by World Youth Federation and the award was presented by **Mr Santhosh Muruganantham** - Co Founder of Kolapasi.

Abishek J A, Final Year, ECE secured the Kalam Young Innovator Award from the World Youth Federation! Selected as one of only 94 awardees out of 1,586 participants.



A National Honour

Cadet Swetha B, a 3rd year student from the Department of Information Technology was selected to represent the KCG NCC company at the prestigious All India Thal Sainik Camp (AITSC) in New Delhi. Competing in map reading and firing events, Cadet Swetha's sharpshooting skills, especially hitting targets from 25 metres, set her apart in a rigorous selection process.



Sports Achievements

1. **D.Latika** of first year ECE has won the Bronze Medal in C M Trophy Boxing championship and received a cash award of Rs.50,000/-
2. **Gnanavarshni** of final Year ECE has won Gold in Anna University Inter Zonal Taekwondo Championship held at Stella Mary's Engineering College.
3. KCG Football Team won the third place in the Anna University Zonal Tournament held at Md. Sathak Engineering College.
4. A Total of 81 students and two staff participated in a panel discussion on road to Olympics Brisbane Australia 2032 held at HITS.
5. KCG Football Team won the fourth place in Founder Chancellor Trophy and won a cash award of Rs. 7,000/-.
6. **Dinesh R** of third year ECE won a Gold Medal in Chennai District Karate Selections and qualified to participate in the State Selections to be held in January 2025.

Memorandum of Understanding



On 3rd October 2024, the college formalized a significant partnership by signing a MoU with NASSCOM for FutureSkills. The MoU was crafted by **Mr. Enid Verghese**, Deputy Director of the Hindustan Group of Institutions, and **Mr. Udaya Sankar**, National Lead for Academia and Government Relations at NASSCOM, in the esteemed presence of **Dr. Anand Jacob Verghese**, Chairman of the Hindustan Group of Institutions.

This collaboration is poised to create a dynamic learning ecosystem through NASSCOM's FutureSkills platform, empowering students with opportunities for upskilling. Following the signing, students were introduced to the transformative potential of NASSCOM's FutureSkills initiative—"Transforming India's Talent Story with the National Digital Skilling Platform"—led by **Mr. Udaya Sankar**, alongside **Ms. Sujithra**, Tamil Nadu Lead, Sector Skills Council, FutureSkills Prime, NASSCOM.



The College has entered into a MoU with Aquaconnect, an aquaculture technology platform pioneering the use of AI and satellite remote sensing to bring transparency and efficiency to the seafood value chain.

The MoU was formalized by **Mr. Enid Verghese**, Deputy Director of Hindustan Group of Institutions, and **Mr. K. S. Rajamanohar**, Founder and CEO of Aquaconnect, alongside **Mr. Murugan Chidhambaram**, Head of Digital Transformation at Aquaconnect, and **Dr. M. Muthukannan**, Principal of KCG College of Technology.

This collaboration will provide students with valuable access to resources, expert mentorship, and incubation opportunities, nurturing entrepreneurship and innovation in the field of aquaculture. Additionally, it promotes hands-on experience with sustainable practices, paving the way for rewarding careers in the burgeoning blue economy.

Memorandum of Understanding



The College has officially signed an MoU with National Taiwan University of Science and Technology (NTUST), Taiwan, on October 23, 2024. Ranked #392 in the QS World University Rankings 2025, NTUST is a premier public university in Taipei City.

This strategic collaboration was endorsed by **Mr. Enid Verghese Jacob**, Deputy Director of Hindustan Group of Institutions, Professor **Song-Jeng Huang**, Director of ATW SSHE - RC and Professor in Mechanical Engineering at NTUST and **Dr. Sathiyalingam**, Project Manager, NTUST. The delegation also toured KCG Tech's Aeronautical and Aerospace Engineering laboratories, paving the way for promising future endeavors in research and development across multiple engineering domains.



The College has entered into a Memorandum of Understanding (MoU) with 3D Monotech, a leading provider of advanced 3D printing products and solutions. This partnership aims to drive innovation in additive manufacturing, enabling students to gain hands-on experience in one of today's most transformative technologies. The MoU was formalized by **Mr. Enid Verghese**, Deputy Director of Hindustan Group of Institutions, along with **Mr. Rajesh Miruthunjayan**, Vice President of 3D Products & Solutions, and **Mr. Babu Krishnamoorthy A**, National Head of Institutional & Government Business from 3D Monotech.

Department of Aeronautical and Aerospace Engineering Inauguration of the KCG SAE Aero Club

The inauguration of the KCG SAE Aero Club took place on October 1, 2024. The club aims to provide students with a platform to explore their passion for aerospace engineering, gain hands-on experience, and collaborate on innovative projects. With inspiring speeches from industry experts and esteemed faculty, the launch event marked a significant milestone in KCG Tech's commitment to fostering practical knowledge and technical excellence in aviation.



Department of Computing Sciences Inauguration of Labs

The inauguration of the Kaspersky-Norton Cyber Security Lab and Dabbala Rajagopal AI/ML Lab was held on 30th October 2024. The state-of-the-art labs were inaugurated by our esteemed Founder Chairperson, **Dr. Elizabeth Verghese**, alongside **Dr. Anand Jacob Verghese**, Chairman of HGI and the Management.



School of Fashion Technology

The Blooms of Preloved Things

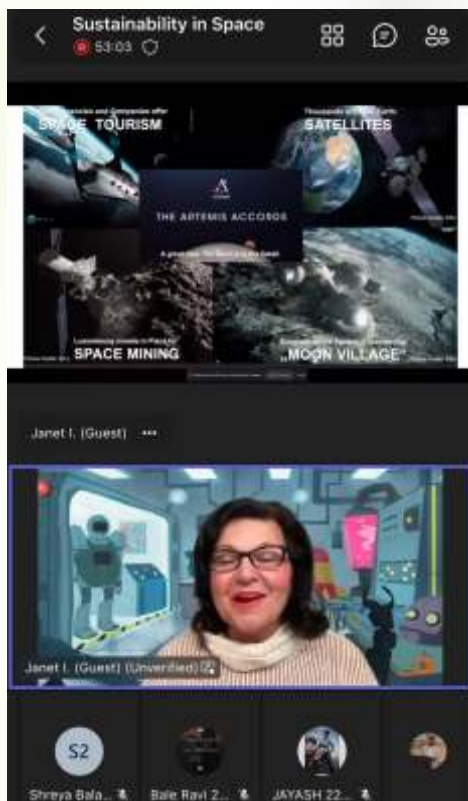
The Blooms of Preloved Things—KCG Tech's floral installation at BiG FM's Eco Carnival—celebrated creativity and sustainability. Guided by artist **Mrudhubashini**, students upcycled 10 kg of cloth waste, transforming it into stunning blooms inspired by southern favorites like jasmine, fire lilies, and birds of paradise. This collaborative project allowed students from the School of Fashion Technology (SoFT) to gain hands-on experience in sustainable art while showcasing their talents to over 25,000 attendees. We are proud to have saved waste from the landfill, creating something beautiful and meaningful for the community.



Educational Sessions

Department of Aeronautical and Aerospace Engineering

World Space Week



On account of World Space Week 2024, on 8th October a webinar on Sustainability in Space featured **Ms. Janet Ivey**, who shared valuable insights on the importance of preserving the space environment. II and III-year Aeronautical and Aerospace Engineering students participated, gaining knowledge about space sustainability and the role of education in inspiring future scientists and engineers. The session concluded with an engaging Q&A, leaving students motivated and informed.

Educational Sessions

Department of Computing Sciences

Tech Talk

Tech Talk & Demo on Network Security & VAPT was held on 8th October 2024. **Mr L Krishna**, Scientist, SETS, Govt of India and **Mr L Vikram**, Project Associate, SETS, Govt of India were the resource persons.



Panel Discussion

Panel Discussion on AI in Application Domains was held on 30th October 2024.



MODERATOR

Mr Murali Rangarajan
Founder & Chief Technology Officer
Velocius AI Labs

PANELISTS

Mr Karthik Subramanian
Senior Solution Architect
HCL Technologies Ltd

Mr Ananth Boopathi
Senior Manager,
Platform & Cybersecurity Portfolio,
Expeditors

Mr Murugan Chidhambaram
Head of Digital Transformation
Aquaconnect

Department of Electronics and Communication Engineering

Emerging Trends in Semiconductor Energy Harvesting

A Seminar on Emerging Trends in Semiconductor Energy Harvesting was held on 3rd October 2024.

Dr Kishore Kumar PC, Senior Engineer, Nexperia R&D, Penang, Malaysia was the resource person.



Industrial Visit

Second year students of the department visited TANSAM at Tidel Park on 8th October 2024. Students gained knowledge on IOT Technologies, 3D printing, Industrial robot, E-Vehicles.



Educational Sessions

Department of Mechanical Engineering

Workshop on Non-Destructive Testing Methods

The Non-Destructive Testing (NDT) Workshop held on 9th October 2024 offered students an in-depth exploration of advanced NDT techniques and their industrial applications. Led by esteemed experts **Mr. C.P. Venkatesh & Mr. Arun Jebaboosan T** from SMEC Automation Pvt. Ltd., the workshop featured both theoretical insights and hands-on demonstrations of Ultrasonic Testing (UT), Magnetic Particle Testing (MT), and Liquid Penetrant Testing (PT). Attendees gained valuable knowledge on the role of NDT in safeguarding material integrity across sectors such as aerospace and construction, leaving with keen appreciation for the workshop's practical relevance and expertise shared.



Faculty Interactions

Seminar on

Magnesium Composite for Hydrogen Storage Application

On 23rd October 2024, a Faculty Interaction on Magnesium Composite for Hydrogen Storage Application was held, featuring Professor **Song-Jeng Huang**, Director of ATW SSHE-RC and Professor of Mechanical Engineering at NTUST, and **Dr. Sathiyalingam**, Project Manager at NTUST, as the resource persons.



Educational Sessions

Prevention of Sexual Harassment (POSH)

A session on POSH was conducted on 22nd October 2024 for teaching & non-teaching staff. **Ms Swapna Sundar**, Director – Legal IP DOME Strategy Advisors, Senior Partner M/S, **P V S Giridhar Associates** – Law Chamber was the resource person.



Institution Innovation Cell

Seminar on Problem solving and Ideation Workshop

A session on Problem solving and Ideation Workshop on 23rd October 2024. **Dr Hari Baabu**, Asso Head, Centre for Entrepreneurship, Kumaraguru Institutions was the resource person.



Civil Aspirants Club Talk on The Power of IAS / IPS



Civil Services Aspirants Club organized a Talk on "The Power of IAS/IPS" on 30th October 2024 at F14 Seminar Hall. A total of 80 students from across first, second, third and final year attended the programme. **Dr. Densingh Joshua Israel**, Coordinator - Hindustan Professional Career Academy and Associate Professor - School of Management presented an overview of Civil Services Program Initiatives on HITS Campus. **Mr. Surjith Selestine**, Founder & Director, Bureaucraft gave an overview of the different examinations conducted by the central and state governments with special significance to the UPSC examination, In his speech, **Dr M Rajaram**, IAS (R) passionately highlighted the numerous benefits of becoming a civil service officer, drawing from his own experiences.

NSS Unit of KCG College of Technology Swachatha Hi Seva

In observance of Gandhi Jayanthi on 2nd October 2024, a Swachhata Hi Seva initiative was conducted, where students cleaned Sholinganallur Beach and contributed towards a Clean and Green India.



Cardiorespiratory Health Camp



In association with Kauvery Hospital & Y's Service Club of Karapakkam, Chennai and YMC of KCG College Youth, Cardiorespiratory Health Camp was organised on 8th October 2024

Special Awards 2024

The Special Awards 2024 ceremony was held on 30th October 2024. Faculty members who had served the institution for over 10 years were honored for their dedicated service, while those who excelled in research and projects were recognized as Promising Faculty. Departments were awarded for their achievements in academics and research excellence, with the Best Department of the College also receiving special recognition. The awards were presented by our esteemed Founder Chairperson, **Dr. Elizabeth Verghese**, alongside **Dr. Anand Jacob Verghese**, Chairman of HGI, and other members of the management.



VIVANTA' 24

Vivanta 2024 an Intercollegiate symposium was conducted on 4th & 5th October 2024. A total of 1400 students participated and exhibited their talents.



Celebrations

Ayudha Pooja

The college celebrated Ayudha Pooja on 10th October 2024, on campus, where non-teaching staff were honored with gifts as part of the festivities.





AR- VR Club

A session on the installation of Unity App and creating an account in it was led by Abhishek, a student of AI&DS. The session proved informative and he clarified all the doubts raised by the participants.



Construction Club

The session on "Soil Test and Surveying in Civil Construction" provided hands-on experience on various soil properties that affect construction, such as compaction, permeability, and moisture content. The session also introduced students to the fundamentals of land surveying using tools like Theodolites, Levelling Instruments, and Total Stations.



Drone Club

In an aeromodelling activity for creating an RC plane, participants selected a design based on factors like size, performance, and purpose. They used design software to create detailed, tiled A4 sheet plans, which were printed, cut, and carefully aligned to form a complete template. This template was used to cut the plane's components from materials like balsa wood or foam, ensuring precision. Finally, the parts were assembled with adhesives, focusing on proper alignment and fit to maintain the plane's structural integrity.



IoT Club

Participants explored key hardware components like microcontrollers (ESP8266, ESP32), sensors, actuators, and communication modules, along with power supply options. They learned circuit prototyping using breadboards, including setting up microcontrollers, GPIO programming, PWM, and interfacing sensors and actuators.



Math Club

Math quiz was conducted which included sudoku, logical reasoning, puzzle solving, and aptitude questions.

Mobile App Club

Mobile App Development Workshop provided insights on app development, focusing specifically on Dart and Flutter. The session completely explained Dart, with its clear syntax and strong performance, serving as the backbone for Flutter, which allows for creating visually appealing, natively compiled applications from a single codebase. Participants engaged in hands-on activities, building simple applications to reinforce their learning.



Programming Club

The session "Algorithmic Optimization" was led by **Prithyanga**, a final-year student. Using real-life examples, she explained optimization techniques clearly. The following strategies for optimizing algorithms were discussed.

- ✦ Analyze Complexity: Understand the algorithm's time and space complexity.
- ✦ Data Structures: Choose the right data structure to improve performance.
- ✦ Algorithmic Techniques:
 - Divide and Conquer: Break problems into smaller sub problems, solve them independently, and combine results.
 - Greedy Algorithms: Make the locally optimal choice at each stage with the hope of finding a global optimum.



Robotics Club

The session focused on building a line follower robot utilizing IR sensors and Arduino. Participants learned about the importance of IR sensors in detecting the line and how the Arduino processes the sensor inputs to control the robot's motors. After assembling the chassis and attaching the motors, the IR sensors were positioned at the front of the robot to allow real-time detection of the line. Once the hardware assembly was completed, the basic logic behind the robot's movement-how the robot turns or moves forward based on the sensor inputs was discussed. The session provided valuable hands-on experience with robotics concepts such as sensor integration, motor control, and real-time decision-making, giving students a solid foundation for more complex projects in the future.



Space Exploration Club

A guest lecture titled "Unveil the Cosmos and Astronomical Telescopes" was led by **Mrs. Komala Murugesan**, the proprietor of Devadas Telescopes, Chennai, who is an expert in the field of telescope manufacturing and astronomy. She shared her knowledge of the different types of astronomical telescopes, their uses, and the technological advancements in telescope design. The session provided an in-depth understanding of how telescopes have evolved and how they can be used to observe celestial phenomena.



Civil Services Aspirants Club



A talk on "Mastering Government Exams" was delivered by **Ms. S. Gnana Dency**, Student Coordinator, Civil Services Aspirants Club, KCG College of Technology. She gave a comprehensive presentation on the syllabus of the civil services examination. She discussed elaborately selecting the main subjects and preparing for the exam. She also talked about the achievers from Tamil Nadu. It gave students a clearer perspective on the challenges and rewards of pursuing a career in civil service.

Dance Club



The session by **Mr. Surendar**, a renowned choreographer, focused on Freestyle choreography for the popular new song "Aasa Kooda." The students were deeply involved in an intensive practice session, showcasing their dance skills and techniques as they prepared for performances at upcoming college events.



Eco Club

The Eco Club conducted a poster competition on UNSDG 1 No Poverty particularly on the theme of Food loss and Food waste. **Dr. Susan Jacob**, Assistant Professor served as the judge.



Fine Arts Club

A workshop on clay modeling was conducted by **Ms. Mrudhubashini**, a professional artist and sculptor with a Master's in Fine Arts specializing in sculpture from the College of Fine Arts, Boston University. Students worked in teams to create their clay models, collaborating throughout the process. The workshop concluded with students presenting beautiful and creative art pieces.

Film Appreciation Club



The session began discussing various film genres led by **Ms Priya**, Assistant Professor of English. The Iranian film "Children of Heaven" themed on empathy and the significance of family relationships was screened. Following the screening, an interactive analysis allowed students to share their thoughts and insights, fostering a lively discussion. The students were then assigned a project to create a short film centered on empathy and family bonds.

Tamil Mandram

In a creative event students showcased their poetic talents by composing poems inspired by selected images. Each picture, rich in visual and thematic depth, encouraged participants to explore their imagination and express emotions through poetic verses. The event highlighted the students' linguistic creativity and cultural pride, fostering an appreciation for Tamil literature.



Heritage Club

The students visited Semphozhil 24, a vibrant fair with over 250 stalls promoting organic farming, native livestock, food, traditional arts, sports, and much more at the YMCA ground, Nandanam. The fair aimed to connect Chennai people with their roots and promote a sustainable lifestyle.



Literary Club

The Literary Club conducted "Talk Your Way," in which the members eloquently discussed various countries' aesthetics, cultures, and values. Many participants focused on the United States, France, Japan, and South Korea, highlighting these nations' rich culture, cleanliness, job opportunities, and stunning natural landscapes. A few students spoke about Germany, Finland, Iceland, and Dubai, drawing from the experiences of their relatives who work there and sharing insights into life in these countries. This session gave students deeper insights into various countries and their unique experiences.



Music Club

The music club conducted a Vocal Training Workshop facilitated by **Ms. Varsha R. Mallya**, a singer and chorister. Participants introduced themselves musically, creating a harmonious and engaging atmosphere. They further into the science behind singing covering various aspects of vocal techniques. Ms. Varsha expertly explained them using practical examples and demonstrations. Finally, the group learned to sing the song 'Imagine' by John Lennon in harmony, providing an introduction to part singing.



Photography and Video Club

A workshop titled "Picture Perfect: DSLR Workshop" led by **Mr. R. Rahul**, Event Manager guided club members in professional camera handling techniques. Mr. Rahul's presentation included essential photography techniques that significantly enhanced the members' understanding of the art form. He covered various aspects of DSLR usage, focusing on composition, lighting, & camera settings, which are crucial for capturing high-quality images. The workshop culminated in a practical photo shoot around the college campus, where all members engaged enthusiastically.



Quiz Club

Headlines and High Stakes, the current affairs based quiz, aimed to enhance general knowledge and memory power of the members. Faculty coordinators and student coordinators orchestrated the quiz session, dividing participants into random groups of three students each. These groups competed in four quiz rounds- (i) Buzz - Enhancing general knowledge through Quizzes (ii) Champions of the Rings" - A sports knowledge showdown (iii) "Country Codes" - A creative, emoji-based country identification challenge and (iv) "Brick by Brick" - Exploring architectural marvels and current news. The top three teams were rewarded with cash awards, while all other participants received candies as a gesture of appreciation for their enthusiasm and participation.



Publication in SCI Indexed Journals - October 2024

Authors	Journal Name	Article Title	Impact Factor	ISSN	Indexing
M. Robinson Joel , Prof, Dept. of CSE	Data & Knowledge Engineering	Big data classification using SpinalNet-Fuzzy-ResNeXt based on spark architecture with data mining approach	2.7	0169-023X	SCI, Anna University Annexure I, Q2 Journal
Krishnamurthy, M , Prof. & Head, Dept. of CSE	Wireless Networks	M-EOS: modified-equilibrium optimization-based stacked CNN for insider threat detection	2	1022-0038	SCI, AU Annexure I, Q2 Journal
Dr.M. Arulprakasajothi , Prof., Dept of Mechanical Engineering	T h e r m a l Science & Engineering Progress	Improving the performance of heat sinks through the integration of fins and the utilization of graphene-mixed latent heat energy storage	7.2	2451-9049	SCI, Anna University Annexure I, Q1 Journal
M. Krishnamurthy, K.Yesodha , Dept of CSE	Peer-to-Peer Networking & Applications	Intrusion detection system extended CNN & artificial bee colony optimization in wireless sensor networks	2.8	1936-6442	SCI, Anna University Annexure I, Q2 Journal
Dillibabu Venugopal , Dept of Automobile Engineering	Environmental Science & Pollution Research	Plastic pyrolytic oils as renewable fuel: improving its physical properties and ignition patterns by waste renewable source—an experimental analysis	5.4	0944-1344	SCI, Anna University Annexure I, Q1 Journal

15 papers got published and indexed in Scopus during October 2024 KCG Faculty - Doctorate Completed Details

Faculty	Title	Funding Agency	Days	Amount
Dr. Deepa Jose , Prof. & Head, Research, Dept of ECE	International Conference on Computing & Communication Networks (ICCCNET 2024) organised by Manchester Metropolitan University	Anusandhan National Research Foundation S E R B under the International Travel Grant (ITS)	17 th & 18 th Oct 2024	Rs. 1.8 Lakhs
Dr. Deepa Jose , Prof. & Head, Research, Dept of ECE	Quantum Computing and Machine Learning Solutions: Pathways to Sustainable Development	Assistance to Professional Bodies & Seminar / Symposia Scheme	09 th to 13 th Dec 2024.	Rs. 2 Lakhs

International Research Paper Presentation

Research Paper -Novel Spike Simulated Artificial Neural Network for ECG Classification was presented by **Dr. Deepa Jose**, Head Research at International Conference on Computing & Communication Networks (ICCCNET 2024) held at Manchester Metropolitan University, United Kingdom on 17th & 18th Oct 2024.



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Aero Hangar



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