



KUMARAGURU
college of technology
character is life

CHARACTER IS LIFE

Annual Digest

2021 - 2022



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Vision

To become a technical university of International Standards through continuous improvement

Mission

Impart Quality Education and Training in Engineering and Technology, to prepare students for life and work equipping them to contribute to the technological, economic and social development of India. The college pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set the students on the path to leadership.

Founder

Arutchelvar Dr.N.Mahalingam

Arutchelvar Dr. N Mahalingam is the Founder Chairman of Sakthi Group, an industrial conglomerate operating in sugar, automobiles, finance, power and logistics. Dr. N. Mahalingam was a philanthropist, educationalist and a statesman. He established a number of educational institutions and is known for his support to various spiritual and cultural organisations.

He was born on 21 March, 1923 in an agriculture family at Pollachi to P.Nachimuthu Gounder, who started the Sakthi Group in 1921 by diversifying his traditional business of hiring out bullock carts to starting passenger transport services. Nachimuthu Gounder's only son Dr. N.Mahalingam joined the business in 1943 and helped grow the business to its current level. He was the founder of many educational institutions, from schools to colleges. Some of his educational institutions are Nachimuthu Polytechnic College, NGM College, Kumaraguru College of Technology, Mahalingam College of Engineering, Kumaraguru Institute of Agriculture and in his vision, Kumaraguru College of Liberal Arts and Science was started in 2018.

He held several important positions and played major roles fostering the development of agricultural, industrial, human resource and institutional development at the State and National levels. He served as a Member of Legislative Assembly of Tamil Nadu from 1952 to 1967 and was on the Tamil Nadu State Planning Commission for two terms. His social and humanitarian considerations took his journey beyond the boundaries of industries and scholarly tenets he nurtured.

He received the Padma Bhushan award from the Government of India in 2007 for his contributions to the nation in the field of Trade and Industry. His other honors include Honorary Consul from the Government of Mauritius during 1989 to 1992 and a number of other recognition and awards.



The enigmatic life merged into the light on October 2, 2014, the birth anniversary of Mahatma Gandhi. Until the last moment, Dr. NM was doing what he believed in and envisioned talking about Saint Vallalar's philosophy. Throughout his life Dr. NM carried the twin torches of Gandhian values and Vallalar's way of life and his life is a pathway to lead a life of consciousness.

Amazed by the achievements of Dr.N.Mahalingam in establishing industries and educational institutions, I asked him when he was about eighty years old, what his next mission was and he replied that he wanted to pursue research in Sangam literature. It was another reminder to me that visionaries don't age - Excerpts from Dr. APJ Abdul Kalam's Ignited Minds

Your vision.
Our path. 4

KUMARAGURU COLLEGE OF TECHNOLOGY (KCT), Coimbatore, is an autonomous Engineering College, established in 1984 under the auspices of Ramanandha Adigalar Foundation, a part of Sakthi Group founded by Arutchelvar Dr.N.Mahalingam and has been in the pursuit of impact and excellence. Today, the institution with its 7000 staff and students, is exploring ways to enhance knowledge, and pursue research for the benefit of society and progress of the Economy under the able guidance and adept administration of Dr. B. K. Krishnaraj Vanavarayar, Chairman, Sri. M.Balasubramaniam, Correspondent and, Sri. Shankar Vanavarayar, Joint Correspondent. The institution is accredited by NAAC. Several undergraduate programmes are accredited by NBA as it meets the quality benchmark. With the persisting support of all its stakeholders, KCT continues to progress.

KCT



Dr.B.K.Krishnaraj Vanavarayar

Chairman, Kumaraguru Institutions

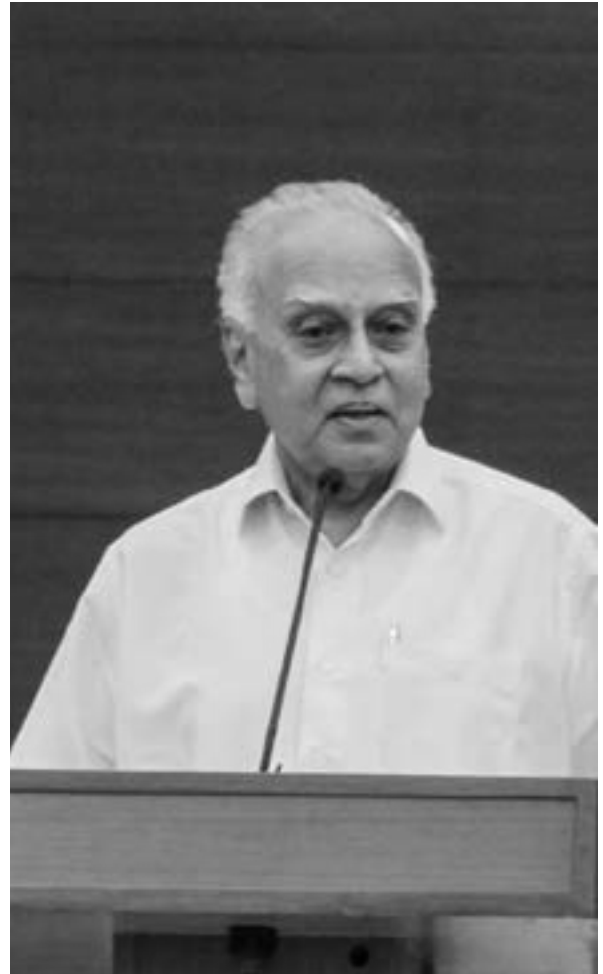
Born in an aristocratic family in Samathur, a village in the southern state of Tamil Nadu, India, he qualified himself as a barrister and later entered into business. The high ideals of Swami Vivekananda and Mahatma Gandhi had a profound impact on him.

As Chairman of the Bharatiya Vidya Bhavan, he has done yeoman service to spread the glory of India through lectures and inspires the people of this region. As a prominent leader of the Rotary movement, he has worked for Universal peace and brotherhood. In appreciation of his service, Rotary has honoured him with the “Outstanding Citizen Award” for the year 2001. Rotary Club of Aarch City, Madras, gave him the ‘Lifetime Achievement Award’ in June 2007.

In the field of education, his contribution has been significant. He is the President of N.G.M.College, Pollachi and Chairman of Kumaraguru Institutions, Coimbatore. He has served in the management committees of many leading schools and colleges and worked for making values an integral part of the curriculum.

During his tenure as Chairman of The Indian Cotton Mills’ Federation, New Delhi, the apex body of the Textile Industry, a ‘Vision Statement for the whole of Textile Industry’ was prepared with the help of CRISIL and the same was released by the then Hon’ble Finance Minister Sri P.Chidambaram.

In appreciation of his Global Perspective and Secular credentials, he was invited by H.H.Pope John Paul II to attend the “Day of Prayer for Peace in the World’ held at Vatican, Italy, during January 2002. In appreciation of his social work wedded to the Gandhian ideals, he was awarded the Degree of Doctor of Laws (Honoris Causa) by Sri Avinashilingam University, Coimbatore, in the year 1999. Sri Ramakrishna Mission, Coimbatore, in commemoration of their Platinum Jubilee Celebrations, awarded him the Vivekananda National Award for Excellence in 2006.



Shri M.Balasubramaniam

Correspondent, Kumaraguru Institutions

Sri. M. Balasubramaniam is a astute Industrialist and the Correspondent of KCLAS and is also the Vice Chairman and Managing Director of Sakthi Finance Ltd. He holds a Master's in Commerce from the Loyola College, Chennai and MBA in Finance from the University of Notre Dame, USA.

He is the Managing Director of Sakthi Finance, ABT Industries Ltd and leads the biggest Tata Dealership in Tamil Nadu. He serves as a Director of Sri Bhagavathi Textiles Limited, Sri Sakthi Textiles Limited, Sakthi Auto Component Limited, ABT Limited, ABT Industries Limited, ABT Values Limited, ABT Finance Limited, Sakthi Management Services (Coimbatore) Limited, Sakthi Properties (Coimbatore) Ltd., Sakthi Logistic Services Limited, The Gounder and Company Auto Ltd., ABT Foods Retailing (India) Ltd., The Union Bus Service (P) Ltd and ABT Textiles Pvt Ltd.

He is a member of the Senate of Bharathiar University and member of the Governing Council of Nachimuthu Polytechnic, Nallamuthu Gounder Mahalingam College and Kumaraguru College of Technology. He was Vice Chairman and Chairman of CII during 1997-98 & 1998-99. He is also member in the Indian Chamber of Commerce.



Shri Shankar Vanavarayar

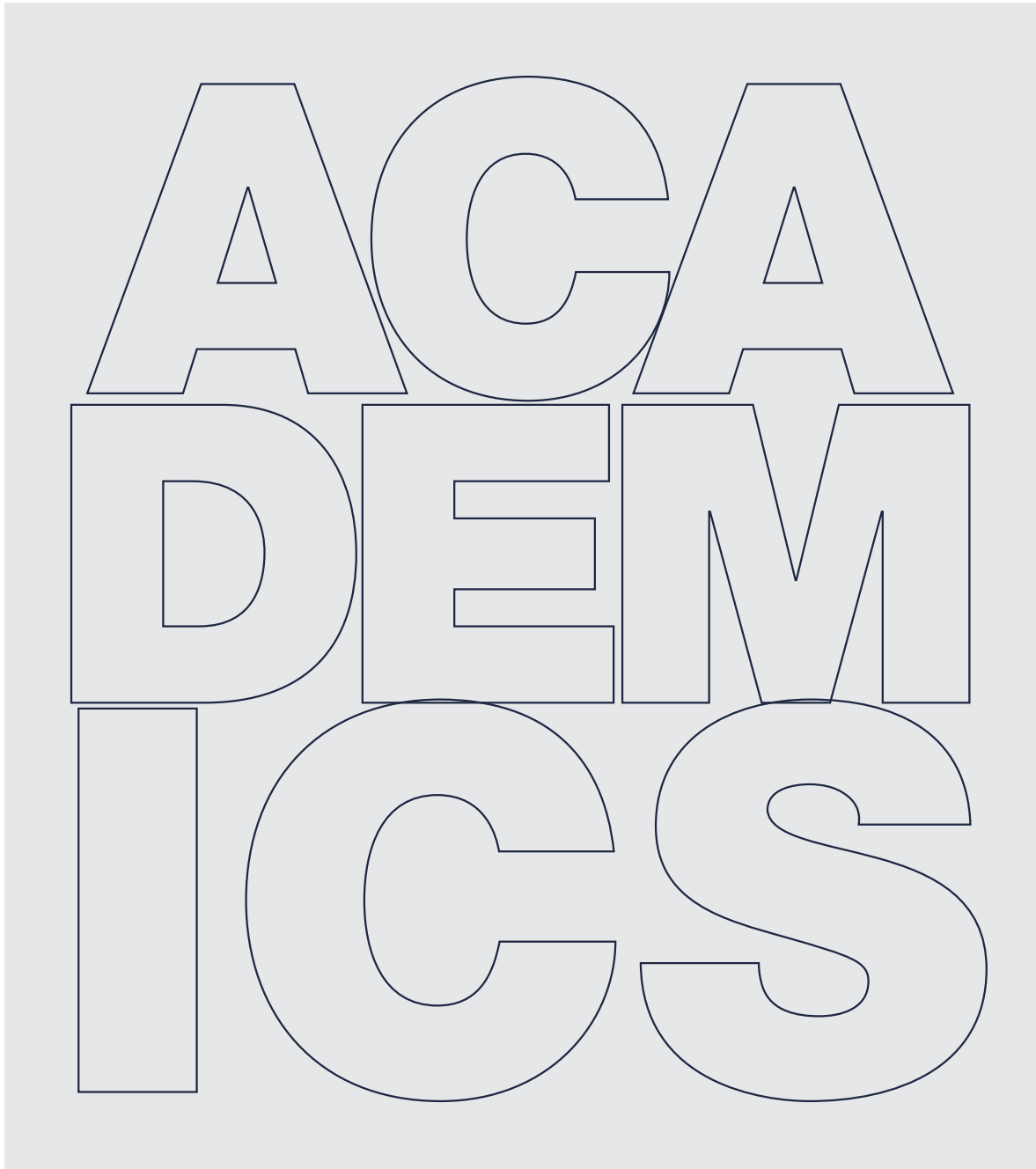
Joint Correspondent, Kumaraguru Institutions

Shri Shankar Vanavarayar is an accomplished business and organisation leader, a spirited patron of arts, history and heritage, a successful entrepreneur and an inspired educationist. In a highly dynamic and diversified professional career spread over 15 years he has held leadership positions in businesses, education institutions, social development organizations and programs within The Sakthi Group, and in the Confederation of Indian Industry (CII). He has a proven track record in building teams, strategic planning, managing programs and operations in multiple domains spanning business (textiles, automotive, financial services, agri-foods, retail), education (arts, science & technology), culture and heritage, community and social development, international youth affairs, cross-national institutions and alliances etc.

As the National Chairman of Young Indians (YI) in 2011- 2012, he played a key role in the creation of the Commonwealth Asia Alliance of Young Entrepreneurs (CAAYE). He also led Indian delegations and has represented India as the Global Young Leader in the BOAO Forum in Hong Kong (2011) and China (2012) and has delivered keynote speeches at the Commonwealth Business Forum London, CHOGM Perth summit (2011), G20 France, and Aspen Institute Seminar, Italy (2010). In his role as Managing Trustee of The Vanavarayar Foundation and keeping with the legacy of his ancestors, he has organized tours, lectures, book publications and awareness programs towards the cause of preserving and portraying the architecture, heritage, culture and history of the Kongu region. As Member of the Apex Body of Siruthuli, he led several projects aimed at enhancing water conservation and rejuvenation through education programs, communication campaigns, and by fostering wider community participation. As the President of Kumaraguru Institutions and as Vice-Chairman of National Council for Higher Education in CII, he aims at transforming the Indian higher education system



through path-breaking reforms in governance, learner centric academic programs and infrastructure, research & innovation driven industry partnership, international collaboration among others. Shankar has led strategy, events, publications, communications and policy making within CII at the regional (South India) and the national level in areas such as higher education, youth affairs, entrepreneurship, family business and skill building.



Aeronautical Engineering

The Department of Aeronautical Engineering of KCT was established with a vision to attain excellence and global reputation in Aeronautical Engineering Education and Research. Well qualified and dedicated faculty team specialized in different areas of Aeronautical and Aerospace Engineering contribute to effective teaching learning. The department has a state of art laboratory and infrastructure facilities to support the research and consultancy activities. Computational Fluid Dynamics, Experimental High speed and Low speed Aerodynamics, Composite Materials and UAV are the thrust areas focused in the department. Students take part in Aero modelling Club and Students for Exploration and Development of Space (SEDS) club activities round the year to enhance their leadership qualities.

Student Strength	241
Year of Establishment	2006
Faculty Strength	12

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Imperative Advancements

- The accreditation of the institution has been successfully renewed by the NBA, ensuring its recognition and quality standards until 2025.
- In January 2022, an important milestone was achieved through the signing of a Memorandum of Understanding (MOU) with Next Leap Aeronautics, solidifying a strategic partnership to foster collaboration and innovation.
- The collective efforts of both students and faculty members have resulted in a remarkable advancement in research publications, reflecting their commitment to academic excellence and knowledge dissemination.
- A significant research project worth 49 Lakhs, funded by ARDB, has been undertaken to explore new frontiers and address critical challenges in the aerospace domain.
- The teaching faculty has demonstrated substantial progress in the completion of PhD degrees, contributing to their professional growth and expertise, and further enriching the academic environment.
- In collaboration with Capgemini, specialized industry-specific courses on Product Life Cycle Management and Flight Physics have been conducted, equipping students with practical skills and enhancing their employability prospects within the aerospace industry.
- Substantial investments have been made to enhance infrastructure facilities, particularly in the area of Non-Destructive Testing, enabling advanced research and development activities in this crucial field.
- With the establishment of the Regional Center of Aerospace Industry Development in association with the Association of Tamil Nadu, a platform has been created to promote innovation, industry collaboration, and the overall growth of the aerospace sector in the region.

Industry Partnership

- Jet Aerospace Aviation Research Center has been partnered with the department to incorporate Research Activities, short/long term training sessions on Aerospace/Aviation sector, and improve the skillset of engineering students in Research and Development.
- A partnership has been formed with the Semi-Conductor Laboratory for Research & Development in the areas of Advanced VLSI Device Fabrication and MEMS Fabrication.
- Garuda Aerospace has been partnered with the department for Summer/Winter Internships.
- A partnership has been established with the P3 group of companies for student internships.
- IINVYSIS Pvt Ltd, an avionics company based in Bangalore, has been partnered with for training and placement.
- Mano Aircraft Pvt Ltd, Coimbatore, has been partnered with for technology transfer and student training in composite materials testing and fabrication.

Research Introduction

The department's primary focus lies in researching areas that can expand the accessibility and practicality of technology, directly benefiting our society. We firmly believe that such efforts will undoubtedly improve the overall quality of life for individuals. Our department strives to take the lead in research areas aimed at addressing diverse societal challenges and finding effective solutions.

01 faculty completed PhD this year

Research plan for the year 2021-22:

Our research activities are facilitated by state-of-the-art resources such as a low-speed wind tunnel, an agricultural drone testing lab, and a composite fabrication lab.

The department actively engages students in research projects to elevate their skill levels and foster growth.

Research Topics

- Drone design - Agriculture purpose
- Composite materials from natural fiber - Eco friendly
- Experimental & Computational Aerodynamics

Research Objectives

- Bringing technology in to agriculture
- To create a design or a solution that would be environment friendly
- To solve high-end fluid flow problems of defence
- Total no of researches done in the year 2021 - 2022 or doing currently by the faculty and total amount of funding received for these research projects

Student researches:

For non-funded research:

- 18BAE015 - Deviparameswari K, 18BAE022 - Sumanth Easwar K S carried out research work titled "Development of rigid aircraft six degree of freedom model in MATLAB" in CABS DRDO during January 2022 – May 2022
- 18BAE004 - Sai shankaran B, 18BAE013 - Akshay Kumar N, 18BAE064 - Lohith V carried out research work titled "Design and Development of Indigenous Micro GTE with Enhanced Specific Thrust" in LeapAero, Bangalore during January 2022 – May 2022
- 18BAE208 Meenakshi S., 18BAE059 - Vaidegi R carried out research work titled "Design and analysis of antenna installation to mount blade antenna" in CABS, DRDO during January 2022 – May 2022
- 18BAE026 - Kavin R, 18BAE027 - Senthamilselvan A carried out research work titled "Mathematical modelling of aircraft's six degrees of freedom using matlab" in CABS, DRDO during January 2022 – May 2022
- 18BAE005 - Feonsa Antonitta B carried out research work titled "Numerical investigation of unsteady fluid dynamic phenomena associated with flapping airfoil" in CEMILAC, DRDO during January 2022 – May 2022

Faculty Researches:

For funded research:

- A project on "Design of Transonic Test Section for Tri-Sonic Wind Tunnel" was carried out and completed by Dr Premkumar PS, Associate Professor & Mr Muthukumar S, AP, Aero in 2021-22. DRDL, Hyderabad funded a sum of 9.44 lakhs.
- A project on "Engine Installation and Cooling flow study on MALE UAV" was carried out by Dr Premkumar PS, Associate Professor, Mr R Arul Praksh, AP, Aero & Mr Muthukumar S, AP, Aero in 2021-22. ADE, DRDO funded a sum of 9.84 lakhs.
- A project on "CFD analysis of flow over Channelized AAAU & internal flow uniformity studies inside AAAU" was carried out by Dr Premkumar PS, Associate Professor & Mr Muthukumar S, AP, Aero in 2021-22. CABS, DRDO, Bangalore funded a sum of 9.9 lakhs towards the project.

Faculty publications:

- Raja, V.; Solaiappan, S.K.; Rajendran, P.; Madasamy, S.K.; Jung, S. Conceptual Design and Multi-Disciplinary Computational **11**

Investigations of Multirotor Unmanned Aerial Vehicle for Environmental Applications. Appl. Sci. 2021, 11, 8364. <https://doi.org/10.3390/app11188364>.

- Jiang, Y.; Raji, A.P.; Raja, V.; Wang, F.; AL-bonsrulah, H.A.Z.; Murugesan, R.; Ranganathan, S. Multi-Disciplinary Optimizations of Small-Scale Gravitational Vortex Hydropower (SGVHP) System through Computational Hydrodynamic and Hydro-Structural Analyses. Sustainability 2022, 14, 727. <https://doi.org/10.3390/su14020727>.
- Raja, V.; Solaiappan, S.K.; Kumar, L.; Marimuthu, A.; Gnanasekaran, R.K.; Choi, Y. Design and Computational Analyses of Nature Inspired Unmanned Amphibious Vehicle for Deep Sea Mining. Minerals 2022, 12, 342. <https://doi.org/10.3390/min12030342>.
- Wang, Y.; Raja, V.; Madasamy, S.K.; Padmanaban, S.; AL-bonsrulah, H.A.Z.; Ramaiah, M.; Rajendran, P.; Raji, A.P.; Muzirafuti, A.; Wang, F. Multi-Parametric Investigations on Aerodynamic Force, Aeroacoustic, and Engine Energy Utilizations Based Development of Intercity Bus Associates with Various Drag Reduction Techniques through Advanced Engineering Approaches. Sustainability 2022, 14, 5948. <https://doi.org/10.3390/su14105948>.
- Rohini Janaki Balamurugan, Hussein A Z AL-bonsrulah, Vijayanandh Raja, Lokeshkumar Kumar, Sri Diviyalakshmi Kannan, Senthil Kumar Madasamy, Raffik Rasheed, Parvathy Rajendran, Mohammed Al-Bahrani, Design and Multiperspectivity based performance investigations of H-Darrieus vertical Axis wind turbine through computational fluid dynamics adopted with moving reference frame approaches, International Journal of Low-Carbon Technologies, 2022, ctac055, <https://doi.org/10.1093/ijlct/ctac055>

Student Publications

- Vigneshwaran R., Surya B., Tharani Tharan S., Senthil Kumar M., Ramesh M., Vijayanandh R. (2021) Multi-disciplinary Analyses on Hydro Rotor Using Computational Hydrodynamic Simulation (CHS). In: Siddiqui N.A., Bahukhandi K.D., Tauseef S.M., Koranga N. (eds) Advances in Environment Engineering and Management. Springer Proceedings in Earth and Environmental Sciences. Springer, Cham. 34, pp 445-462, 2021, https://doi.org/10.1007/978-3-030-79065-3_34.
- Vijayanandh Raja, Meenakshi Samy, Keerthana Nachimuthu, Samrithi Sathyamoorthy, Deviparameswari Krishnasamy, Arul Prakash Raji, Raj Kumar Gnanasekaran, Senthil Kumar Madasamy, Naveen Kumar Kulandaiyappan, Vijayakumar Mathaiyan and Jagadeeshwaran Ponmariappan, Material Optimizations on UAV's axial flow compressor blade by using FSI Approach, AIAA SCITECH 2022 Forum, January 3-7, 2022, San Diego, CA & Virtual, <https://doi.org/10.2514/6.2022-1090>. Published Online: 29 Dec 2021.
- M. Ramesh. R. Vijayanandh, P. Jagadeeshwaran, K. Deviparameswari, S. Meenakshi, Prisha K. Asher R. Vaidegi, B. Feonsa Antonitta, Impact behavioral studies on various composite materials using Fluid-Structure interaction (FSI), Materials Today: Proceedings, Volume 51, Part 1, 2022, Pages 1134-1140. <https://doi.org/10.1016/j.matpr.2021.07.112>.

Consultancy

- During the academic year 2021-22, Mrs. S. Kiruthika, Assistant Professor, provided consultancy services to Leads Solutions, Bangalore, for the "Design and Analysis of Passenger Access Ladder." The project generated a revenue of Rs. 94,400.
- Mrs. S. Kiruthika, Assistant Professor, conducted a consultancy project on "FE Analysis of Paddy Soaking Tank" for SKF Boilers & Driers, Mangalore. The project generated a revenue of Rs. 41,300 during the academic year 2021-22.
- Mr. Naveen Kumar, Assistant Professor, carried out testing of various sensors under a vibration environment to assess accuracy

and quality for ZED Digital, Coimbatore. This project generated a revenue of Rs. 10,000.

Student Achievement

- Haribalan S (19BAE042), Manoj Kumar R (19BAE032), and Krishna Priya M (19BAE020) have been certified by the International Astronomical Search Collaboration (IASC) and NASA as the discoverers of the following asteroids: IND2020, VIK0119, APJ2707, and POK1814.
- Veda Shraviya (17BAE048) has joined the esteemed Indian Air Force as a fighter aircraft pilot after successfully clearing the AFCAT exam.
- Sai Sankaran (18BAE004), Kavin (18BAE026), Haribalan S (19BAE042), and Prasitha (19BAE016) are among the students who have cleared the GATE exam 2021-22 in the Aerospace domain. They have achieved national ranks of 113, 548, 799, and 866, respectively.

Faculty Achievement

- In the academic year 2021-22, Dr. M. Senthilkumar successfully completed his PhD in the field of Aerodynamics under the guidance of Dr. A. S. Krishnan, Associate Professor in the Department of Mechanical Engineering at Anna University.
- Dr. Premkumar P. S., Associate Professor, received the prestigious MentorX award for Best Faculty in Student Development from MentorX, a private non-profit organization.
- Dr. Sundararaj, Head of the Aeronautical Department, has been appointed as the Coimbatore Regional Coordinator for the Aerospace Industry Development Association of Tamil Nadu (AIDAT).

MoU

- MoU with Unitek Hydraulics Coimbatore for providing "Industry internship to students "
- MoU with Valeth Hitech Composites Pvt. Ltd. Hyderabad for "faculty visit and training"
- MoU with Nextleap Aeronautics, Bangalore for "Students Internship and collaborative research projects "
- MoU with Institute of Defence Scientists and Technologists for "Coordination of PG Program M.Tech Defense Technology "

Milestone Events

- During the "Coimbatore Defence Conclave" that took place on July 27th, 2022, the Aeronautical Department achieved a significant milestone by launching its postgraduate program in "M.Tech Defence Technology." Simultaneously, the AIDAT Coimbatore Regional Centre was inaugurated at the premises of the Aeronautical Department, marking a momentous occasion.
- One credit course on "Fabrication and Testing of Composite Materials" conducted in collaboration with the Mano aircraft pvt limited, Coimbatore for 4 days from 11/5/2022 to 14/5/2022.
- In honor of the esteemed Dr. A P J Abdul Kalam on his birthday, the department organized the fifth edition of "KALAM 2K21." This event was specifically tailored for school and college students and featured a range of activities, including a UAV design contest, quizzes, and more.
- The Aeronautical Department, in collaboration with KCIRI, organized a one-day online seminar focused on the advancements and career prospects in Defence Technology. The event garnered participation from nearly 400 individuals across the country. Esteemed experts from DRDO and the private defence industry were invited to deliver insightful webinars highlighting the diverse opportunities available in the field of Defence.

- One day technical webinar on “Dynamic Soaring: A Possibility for UAV Flight Missions” handled by IIT Madras professor Dr.Ranjth Mohan of Aerospace department. The webinar conducted in collaboration with The Institution of Engineers (India), Coimbatore Local Centre.

Alumni

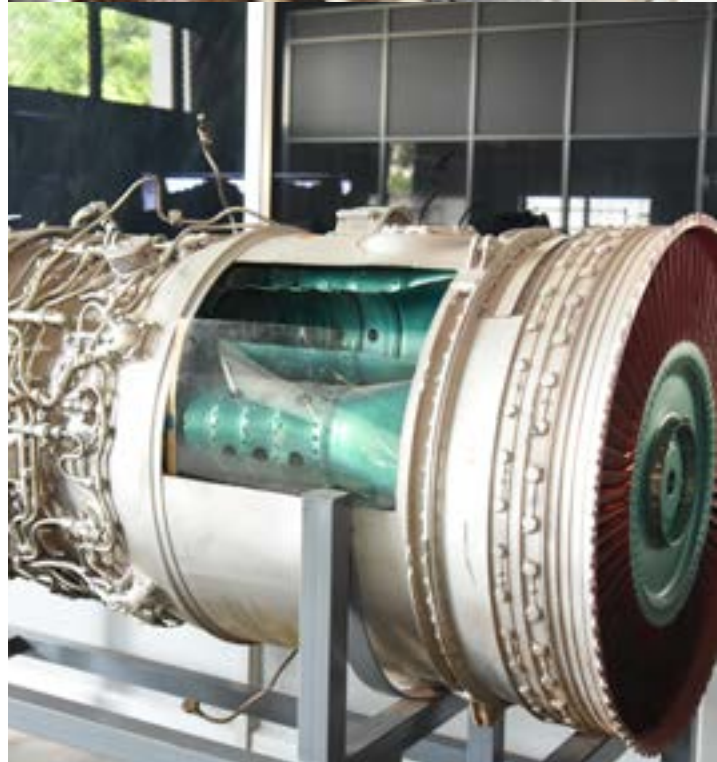
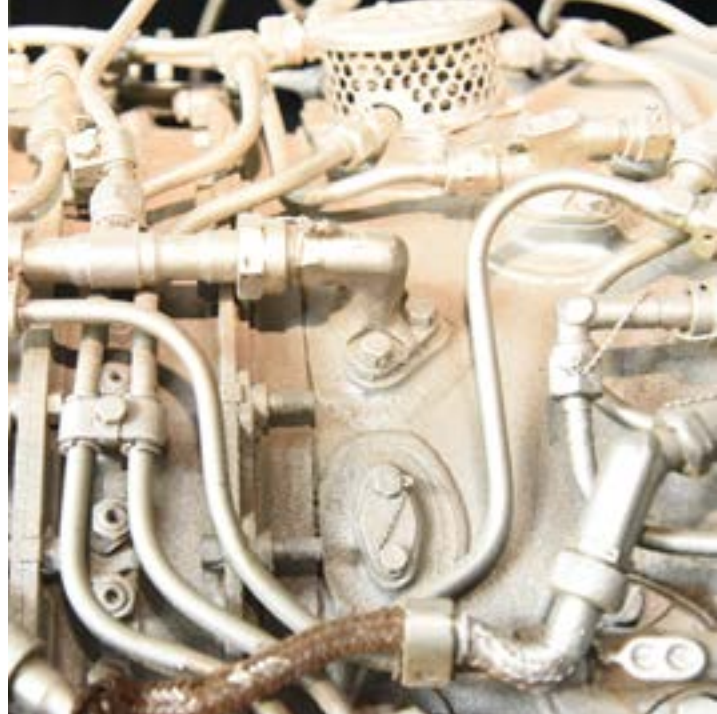
- Mr. RajaVarman AVR of 2013 batch , Senior Technical Writer at Azuga visited the department for a seminar on “How to plan for startup and legal and ethical steps” on April 6th 2022.
- Ms. Priyadharshini of 2016 batch , who have cleared TANCET and presently working in VESTAS, gave a talk on the topic “preparation for the TANCET exam” on 23/4/2022. The interaction clarified the students’ doubts

Social Impact

- Under the leadership of Mr. Darshan Kumar, a team successfully created an indigenous agricultural drone designed specifically for crop fertilizer spraying. This innovative development opens new avenues for technology-driven agricultural practices, which are currently in high demand

Next Year Goals And Plans

- Foster collaboration and establish strategic partnerships by formalizing Memorandums of Understanding (MOUs) with renowned industries and prestigious research laboratories.
- Drive a culture of research excellence among students and faculty members, placing emphasis on continuously enhancing research productivity. This includes an unwavering commitment to increasing the quantity and quality of publications in reputable journals and conferences.
- Undertake impactful research projects supported by esteemed organizations such as ARDB and ISRO, among others. These projects are carefully selected to address critical challenges and contribute to technological advancements in aerospace, defense, and related domains.
- Provide comprehensive support and encouragement to the teaching faculty in pursuing and completing their PhD degrees. This initiative recognizes the importance of their professional growth and expertise, enhancing the academic environment and reinforcing a culture of academic excellence.
- Establish a dedicated Center of Excellence focused on Unmanned Aerial Vehicles (UAVs), furthering the institution's expertise and capabilities in this emerging field. This center will serve as a hub for cutting-edge research, innovation, and training in UAV technology, addressing both civil and defense applications.
- Develop a recognized Research center with a mandate to undertake societally impactful research projects. This center will play a pivotal role in guiding and mentoring PhD scholars, fostering a conducive environment for transformative research outcomes and societal contributions.
- 7. Strengthen networking and collaboration with prominent Aerospace and Defense-based industries. By forging strategic partnerships, the institution aims to facilitate knowledge sharing, industry insights, and collaborative initiatives that bridge academia and industry, ultimately benefiting both sectors.
- 8. Establish a Center of Excellence dedicated to Unmanned Aerial Vehicles (UAVs) and a Drone License center. These centers will provide comprehensive training, certification, and research facilities for UAVs, fostering innovation, safety, and compliance in the rapidly evolving drone industry.
- 9. Enhance career opportunities for students in core industries by offering industry-specific courses. These courses are tailored to meet the demands of the industry and equip students with the necessary skills, knowledge, and practical experience, opening doors to rewarding careers in their respective fields.



Artificial Intelligence and Data Science

The Department of Artificial Intelligence and Data Science has been incubated in a working laboratory and built around the world-class CDIO Standard 3 integrated curriculum, which puts cutting-edge knowledge at the forefront of engineering education. B.Tech AI & DS is a precisely curated 4-year programme that brings together product, process, system thinking, eastern culture and interdisciplinary skill-sets, specifically tailored around data science and artificial intelligence. It is the outcome of several years of academic and practical research from the Kumaraguru College of Technology and Forge, India's premier technology incubator. It draws from several proven curricular models that have been successfully implemented and from current learning systems that are practised in the best universities worldwide.

Student Strength
Year of Establishment
Faculty Strength

126
2020
03

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Imperative Advancements

- Expert session in Applied Machine Learning: An expert session in Applied machine learning was organized for the second year aspirants. Mr. Navaneeth Malingan, CEO and Founder of Nunari Labs, Coimbatore felicitated the sessions
- Expert Session on Problem Solving and Ideation: An expert session in Session on Problem Solving and Ideation was organized for the second-year aspirants. Mr. Navaneeth Malingan, CEO and Founder of Nunnari Labs, Coimbatore has felicitated the sessions.
- Pyrate Land - A student initiative: A two-day online event was organized by the Department of Artificial Intelligence & Data Science during 25 & 26 th of June 2021
- Dr. Sudharson D AP/AI&DS had submitted a patent titled as "Pareto Distribution based CatBoost Algorithm for Software Reliability Estimation" to IPR portal on 20.01.2022
- Ms. Sri Geetha M and team won a prize money of Rs.20,000 in the Manipal institute of technology hackathon in October 2022 and was shortlisted for seed grant of about Rs.25,00,000 and applied for the same under BIRAC BIG Scheme.
- Ms. Sri Geetha .M has mentored a team and the team has participated in Buoyanci innovation challenge 2022 which has been specially recognized for demonstration of their prototype solution for vertebrae detection and labeling.
- Dr. Sudharson was awarded with Engal Aasan in Teacher's Day Celebration event by Kumaraguru College of Technology, Coimbatore

Research

- BIRAC BIG Scheme: Applied for Rs. 25,00,000/- Seed grant for the project titled "Ultrasound Nerve Segmentation using Deep Learning" Principal Investigator: Sri Geetha M

Publication

Faculty publications:

- DD. Sudharson, S. Darshana, S. Navin Rohith, K. Priyanka, A. Fathima and F. M. Mohammed Farooq Abdulla, "Self-Reliant Dimensionality Reduction That Uses Improved Pareto Distribution PCA Framework," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2021, pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675770.
- D. Sudharson, S. Ashfia Fathima, P. S. Kailas, K. S. Thrisha Vaishnavi, S. Darshana and A. Bhuvaneshwaran, "Performance Evaluation of Improved Adaboost Framework in Randomized Phases Through Stumps," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2021, pp. 1-6, doi: 10.1109/ICAECA52838.2021.9675739.
- Antony Seba, P., Bibal Benifa, J.V. (2022). Perceptive Analysis of Chronic Kidney Disease Data Through Conceptual Visualization. In: Das, A.K., Nayak, J., Naik, B., Vimal, S., Pelusi, D. (eds) Computational Intelligence in Pattern Recognition. CIPR 2022. Lecture Notes in Networks and Systems, vol 480. Springer, Singapore. https://doi.org/10.1007/978-981-19-3089-8_11
- Seba, P.A., Benifa, J.V.B. A Hybrid Analytic Model for the Effective Prediction of Different Stages in Chronic Kidney

Ailments. Wireless Pers Commun 126, 581–604 (2022). <https://doi.org/10.1007/s11277-022-09759-y>

- Dorai, Sudharson & P, Divya & M, Ratheeshkumar & A, Saravanan & K, Nithiyashree & J, Srinithi. (2022). A PD ANN Machine Learning Framework for Reliability Optimization in Application Software. 1-4. 10.1109/STCR55312.2022.10009626.
- Dorai, Sudharson & Vignesh, K & Aman, Mr & Dubey, Kumar & Vaishnavi, Ms. (2022). Classification of Diabetics and Cardiovascular Diseases using Machine Learning Frameworks. 3. 1848-1853.

Student publications

- D. Sudharson, S. Darshana, S. Navin Rohith, K. Priyanka, A. Fathima and F. M. Mohammed Farooq Abdulla, "Self-Reliant Dimensionality Reduction That Uses Improved Pareto Distribution PCA Framework," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2021, pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675770.
- D. Sudharson, S. Ashfia Fathima, P. S. Kailas, K. S. Thrisha Vaishnavi, S. Darshana and A. Bhuvaneshwaran, "Performance Evaluation of Improved Adaboost Framework in Randomized Phases Through Stumps," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2021, pp. 1-6, doi: 10.1109/ICAECA52838.2021.9675739.
- D. Sudharson, S. O. Retheneka, L. Yogeswari, S. J. Logita, S. Shankari and S. M. N. Surraya, "Enhancing the Efficiency of Lung Disease Prediction using CatBoost and Expectation Maximization Algorithms," 2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA), Coimbatore, India, 2022, pp. 57-61, doi: 10.1109/ICIRCA54612.2022.9985761.
- Dorai, Sudharson & P, Divya & M, Ratheeshkumar & A, Saravanan & K, Nithiyashree & J, Srinithi. (2022). A PD ANN Machine Learning Framework for Reliability Optimization in Application Software. 1-4. 10.1109/STCR55312.2022.10009626.
- K. Suganya, S. Nethra, S. S. Dhanyaa, D. Sudharson, "Data Communication Using Cryptography Encryption", Asian Journal of Computer Science Engineering 2022;ISSN 2581 – 3781;7(2):1-5

Patents

- Dr. Sudharson D AP/AI&DS had submitted a patent titled as "Pareto Distribution based CatBoost Algorithm for Software Reliability Estimation" to IPR portal on 20.01.2022

Milestone Events

- The department has achieved Dual intake eligibility from the year 2022
- Won 3 National Level Hackathons
- Successfully organised many guest lectures and inhouse webinars
- Won internal recognitions in chess championship events
- Successfully filed a patent

Achievements

Student publications:

- Mr. Arunmadhavan E V R From Second Year Ai&Ds Secured First Price (Gold Medal) In Karate Championship 2021 Which Was Held In 28.11.2021.
- Ms. Priyanka K From Second Year Ai&Ds Has Made A Notable Achievement Representing India In Woman International Master And Won Silver Medal In Classical Event And Bronze Medal In Blitz Rapid Event At Asian Junior U-20 Chess Girls' Championship
- Mr. Arun Madhavan From Second Year Ai&Ds Participated In Anna University Games- Bronze Medal In Karate Hosted From 24.02.2022 To 27.02.2022

10 faculty publication in National & International Journals

05 student publication in National & International Journals

01 faculty as peer reviewers in National & International Journals

- Ms.priyanka(20bad030) From Second Year Ai&Ds Won The National Women Teams Chess Championship 2022 Held At Jalgaon, Maharashtra Representing Airport Authority Of India. Also Won Individual Gold Medal In Her Board.

Faculty Achievements

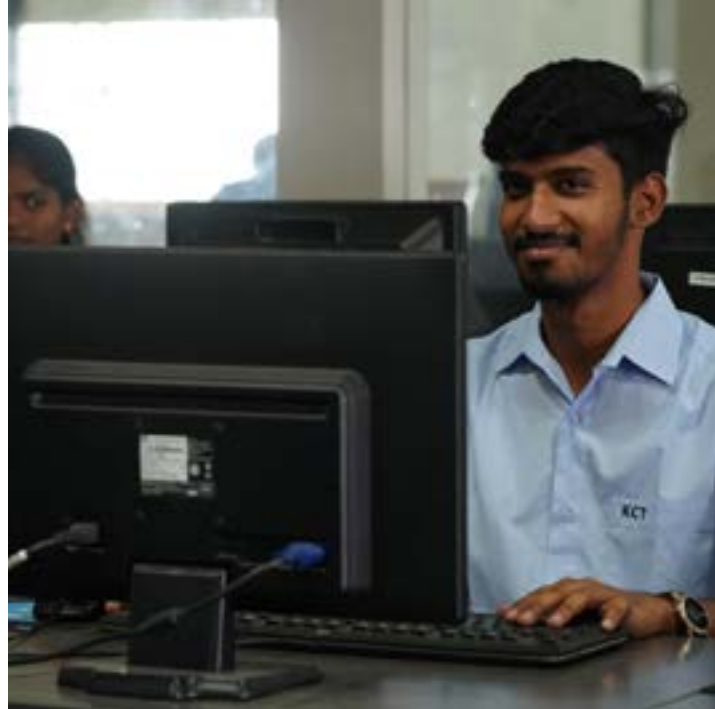
- Dr. Sudharson D was nominated for the Best Subject Expert stream under data science for the teacher's day event
- Ms. Sri Geetha M and team won a prize money of Rs.20,000 in the Manipal institute of technology hackathon in October 2022 and was shortlisted for seed grant of about Rs.25,00,000 and applied for the same under BIRAC BIG Scheme.
- Ms. Sri Geetha .M has mentored a team and the team has participated in Buoyanci innovation challenge 2022 which has been specially recognized for demonstration of their prototype solution for vertebrae detection and labeling.
- Dr. Sudharson was awarded with Engal Aasan in Teacher's Day Celebration event by Kumaraguru College of Technology, Coimbatore

Next Year Goals And Plans

- Global Partnership program
- Industry Integrated Department
- Advanced Research Centre
- Center of Excellence
- Industry Internships and research internships for students

Achieved Goals

- MoU or establishment of COE with industries - In progress
- Hands on training for faculty and students in recent trends - In Progress
- Creating social awareness in society related to AI - In Progress



Automobile Engineering

The Department of Automobile Engineering of KCT was established with an aim to create a pool of graduates who turn out to be trendsetters in the automotive field. The department's laboratories and testing centers are known for its high-end automotive equipment and research work. Students with able guidance of the faculty, and hands-on training in the labs make their way to internships and industry projects in leading companies. Major areas of current research interests are the Green Vehicle Technologies, Alternative fuel technology, Vehicle design & Performance optimization, Safety Standards in Automotive Engineering, and Advanced Automotive Systems.

Student Strength	237
Year of Establishment	2011
Faculty Strength	13

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Imperative Advancements

- The Department in association with the University of LEEDS, UK has offered a Joint course on Electric and Hybrid vehicle technology, under British Council, Going Global Program – Exploratory Grant category. The Speaker Dr. Krzysztof Kubiak, Associate Professor, UoL, UK provided the information on the course and also the facilities available in UoL and the opportunities for the students in undergoing the course. Totally around 7 faculty and 78 student participants attended this event.
- SAEINDIA - A Student Convention was organized from 15th Dec 2021 to 24th Dec 2021. The Convener for the webinar was Mr.R.Kishore, Asst. Professor, KCT. Totally around 28 events and 180 student participants attended this event.
- KALAM program was inaugurated on 29.07.2021. Totally around 120 students, 17 faculty members and 18 external members attended this event. The outcome of this program to know what is KALAM, how KALAM will build them and their responsibilities to be carried by them throughout this event.
- A workshop on "Embedded Software Quality Assurance" was conducted for students on 11.04.2022.
- "A 4 days hands-on training program ""Engineer's impression on ECU and 3D based PCB designing"" was conducted from 14.07.2021 to 17.07.2021. Totally around 32 students from second year took part in the program and made a good learning initiative.

Industry Partnerships

- Student internships and placements in Capgemini Technology Services India Ltd, Cognizant Technology Solutions, SKLR ED TECH PVT LTD, MEGH NEEL Renewable Power Systems Pvt . Ltd, BINDWEED Engineering Service Technology Pvt Ltd, TATA ELXSI, PHIL&CREW SPOTLIGHT, Robert Bosch Engineering and Business Solutions Pvt Ltd, Skill VERTEX Upskilling Edu Tech Pvt Ltd, DXC Technology, Acme grade Pvt. Ltd., LANDROTICS SOLUTIONS PVT LTD, Sree Saradhambal Automobiles Pvt Ltd., Anamallais Motors Private Limited, TEAL - Titan Engineering & Automation Limited, Ampere Vehicles Pvt. Ltd., Propel Industries Pvt. Ltd., ZED Digital, USA
- Partnership for consultancy with IMIK Technologies, Coimbatore and L. G. Balakrishnan & Brothers Ltd., Coimbatore

Research plan for the year 2021-22:

- BLDC motor development
- BTMS for two wheeler applications
- ECU development optimization
- Composite materials for automotive applications

Researches:

- HVAC, Battery Thermal Management, Metal air batteries, BLDC motor development, windshield coatings, Natural fibre for automotive applications, alternative fuels, Automotive Ergonomics
- "Total no of researches done in the year 2021 - 2022 or doing currently by the faculty and total amount of funding received for these research projects -
3 Nos and amount Rs. 40,04,000 + 15000 pounds"

Faculty researches

For funded research:

- A project grant Rs. 37.44 Lakh has been received from the DRDO, ARMREB. The project title is "Investigative Studies on Structural

and Mechanical Properties of Electroplated NiB and NiW nano crystalline thin layers on Steel Substrat for Erosion Resistance Applications" by Prof.C.Vasantharaj, Director, KCIRI and team. The project started in 2020-2021 and completed in 2022-23.

- 2. A project grant Rs.2.60 Lakh has been received from the Tamilnadu State Council for Science and Technology. The project title is "Design and development of fruit deterioration detector using IoT" by Dr.G.Thenmozhi, Asso.Professor and team. The project started in 2020-2021 and completed in 2022-2023.
- 3. A project grant 15000 Pounds shared by both the Institutions has been received from Going Global Partnerships Grant - Exploratory Grant Category by the British Council in association with the University of LEEDS, UK. The project title is "Electric and Hybrid Vehicle Technology" by Prof.S.Sivakumar, Asso.Professor and Head, Dr.G.Thenmozhi, Asso.Professor, Mr.C.Naveenkumar Asst.Professor, Dr.S.Mohankumar, Asst.Professor.

Student Researches:

For non-funded research

- A project on 'Design and Development of E-Bike' was done by the student team Saravanan P (19BAU005), Prethish Haran M (19BAU009), Rohith P (19BAU013), Jaya Hariharan M (19BAU014), Kavinessh S (19BAU031), Agatheesh Senthil Y (19BAU034), Sam Paul J (19BAU036), Rishikesh P T (19BAU045). The faculty guide of the work is Mr.R.Kishore, AP II.

Faculty publications:

- Mohan Kumar S (2021), "Implementation of K* classifier for Identifying Misfire Prediction on Spark Ignition Four-Stroke Engine through Vibration Data" Implementation of K* Classifier for Identifying Misfire Prediction on Spark Ignition Four-Stroke Engine through Vibration Data (No. 2021-28-0282). SAE Technical Paper.
- Mohan Kumar S (2022), "A technical review on composite phase change material based secondary assisted battery thermal management system for electric vehicles" A Journal of cleaner production suystems, pp 322
- Solomon Jenoris Muthiya, L. Natrayan, L. Yuvaraj, Mohankumar Subramaniam, Joshuva Arockia Dhanraj, Wubishet Degife Mammo (2022), "Development of Active CO2 Emission Control for Diesel Engine Exhaust Using Amine-Based Adsorption and Absorption Technique", Adsorption Science & Technology, e ID 8803585, <https://doi.org/10.1155/2022/8803585>

Student publications:

- Mr.T.Karthik published a chapter " An Overview of Permanent-Magnet (PM) Stepper Motors" in a book titled The Opportunities of Uncertainties: Flexibility and Adaptation Needed in Current Climate Volume II by Lulu Publication in 2021.(978-1-300-39582-9)
- Dr.G.Thenmozhi published a chapter " Design and Implementation of an Intelligent Health Monitoring System for Variable Frequency Drive in Manufacturing Industry" in a book titled Sixth International Conference on Intelligent Computing and Applications by Springer Publication in 2021.(978-981-16-1335-7)
- Mr.G.Rajkumar published a chapter " Engineering Design" in a book titled Technology Enabled Ergonomic Design by Springer Publication in 2022.(2509-5986)
- Dr.S.Mohankumar published a chapter " Increasing the Wind Energy Production by Identifying the State of Wind Turbine Blade" in a book titled Technology Enabled Ergonomic Design by Springer Publication in 2022.(978-981-16-7909-4)
- Dr.S.Mohankumar published a chapter " Experimental Assessment on Performance and Emission Characteristics of

10 faculty publication in National & International Journals
01 faculty as peer reviewers in National & International Journals

(Tamanu) Seed Oil in Direct Injection Diesel Engines" in a book titled Technology Innovation in Mechanical Engineering by Springer Publication in 2022.(978-981-16-7909-4)

- Dr.S.Mohankumar published a chapter " Development of a Regression Model Through Variational Mode Decomposition for the Remaining Useful Life Assessment of a Gear Box" in a book titled Technology Innovation in Mechanical Engineering by Springer Publication in 2022.(978-981-16-7909-5)
- Dr.S.Mohankumar published a chapter " Performance Enhancement of Jatropa Methyl Ester by Utilizing Oxygen Enrichment in Diesel Engine" in a book titled Technology Innovation in Mechanical Engineering by Springer Publication in 2022.(978-981-16-7909-6)
- Dr.S.Mohankumar published a chapter " Experimental Study on Utilization of Karanja Bio Oil in Diesel Engines and Performance Enhancement by Oxygenated Additives" in a book titled Technology Innovation in Mechanical Engineering by Springer Publication in 2022. (978-981-16-7909-7)

Patents Filed

- S.Sivakumar has filed a patent on Semi Plugin battery management system powered by dual renewable energy for Quadric 4- seater (VWC) EV on 09.07.2021.
- Dr.S.Mohankumar has filed a patent on Evacuated solar cooking vessel with hexagram fins in 2021.

Consultancy

- PCB Board Connector Vibration Test is carried out for ZED digital, USA by Mr.A.Prabhakaran, Assistant Professor on good will basis.

Milestone Events

- The Automobile Engineering Department organized a SAEINDIA - Awareness Program for Automobile Engineering Students on 15th Sep 2021 handled by Dr. R Rajendran Vice Chairman - SAEISS, the Convener for the webinar was Mr. R. Kishore, Asst. Professor, KCT. Totally around 50 student participants attended this event. The objective of this event to understand and drive them to enroll and actively participate in SAE Events and get benefited.
- The Institution of Engineers (India), Coimbatore local centre organised a technical webinar on "Product Design & Development" in association with the department of Automobile Engineering, KCT on 18th Dec 2021 handled by Mr. Imran Khan, Mechanical Design Engineer, Baker Hughes GE. The Convener for the webinar was Mr.G.Rajkumar, Asst. Professor, KCT. Totally around 95 student participants attended this event.
- "The three-day Entrepreneurship Awareness Camp (EAC) was conducted by the Department of Automobile Engineering, Kumaraguru College of Technology funded by DST-NIMAT from 29th march 2022 - to 31st March 2022. Totally around 62 students attended this event.
- The Department with Road Safety Patrol (RSP) of KCT was organized a one day Refresher Training Program on "Defensive Driving" mainly for the Bus drivers of KCT, and other college / school bus drivers on Tuesday 12th April 2022.

Achievements:

Student Achievements:

- Mr.Aswath.S, Mr.Abbas Manthri.S participated and won the fourth place in National Level PCB Design Contest "Diseno PCB Challenge 2K21" on 01st Oct to 25th Oct 2021 at Bannari Amman Institute of Technology.
- Mr.Vishal M L (20BAU039) has successfully accomplished the title of 'Winner' by innovating ideas and solutions for industry-based problem statements in the 48 hours long RiGathon-2021 conducted in association with Emerald Industries from 1 October - 3 October 2021

Faculty Achievements:

- Mr.R.Kishore has received a "Young Warrior" award organized by Ministry of Youth Affairs and Sports, CBSE, YuWaah (Generation Unlimited India) and UNICEF India
- Mr.A.Prabhakaran has received Appreciation for fostering students to strengthen the ecosystem bridging Government, Academia and Industry
- Prof.S.Sivakumar, ASP & Head and Mr.A.Prabhakaran, AP received the award for "Primary Evaluator in Toycathon-2021", organized by Team Toycathon MIC, AICTE and Ministry of Education's Innovation Cell.

Social Impact

- Three day training on " MOTOR MECHANICS" was organized for Forest Range Officer Trainees 2020-22 (VII) Batch on 01.03.2022 to 03.03.2022 and VIII Batch on 09.03.2022 to 11.03.2022.

MoU

- MoU with Kaizenat Technologies Pvt. Ltd., Bangalore signed in 15th Apr 2021.
MoU with ZEUS EV –Bizlogix, Coimbatore signed in 16th Dec 2021."

Alumni

- Mr. Mohana Surya, Master Student, Polytech Orleans, France delivered a webinar on "Higher studies opportunities for automobile student in European countries on 12th June 2021.
- Mr. Imran Khan (2013-2017 batch), Mechanical Design Engineer, Baker Hughes GE was the resource person in a technical webinar on "Product Design & Development" organized by Institution of Engineers (India), Coimbatore local centre on 18th Dec 2021.
- Mr.Sangeeth Gunalan (2012-2016), Co-Founder & Product Development Lead, Green Age Materials, Canada SAEINDIA was the resource person in an Online Lecture Meeting- "EV Global Scenario" on 18th March 2022.

Next Year Goals And Plans

- To get NBA Accreditation
- To establish PG Course in Automotive Engineering
- To establish an e-Mobility Centre
- to conduct Global Partnership program
- to become Industry Integrated Department
- to develop a Advanced Research Centre
- MoU or establishment of COE with one of the Tier I industries - In progress

Achieved Goals

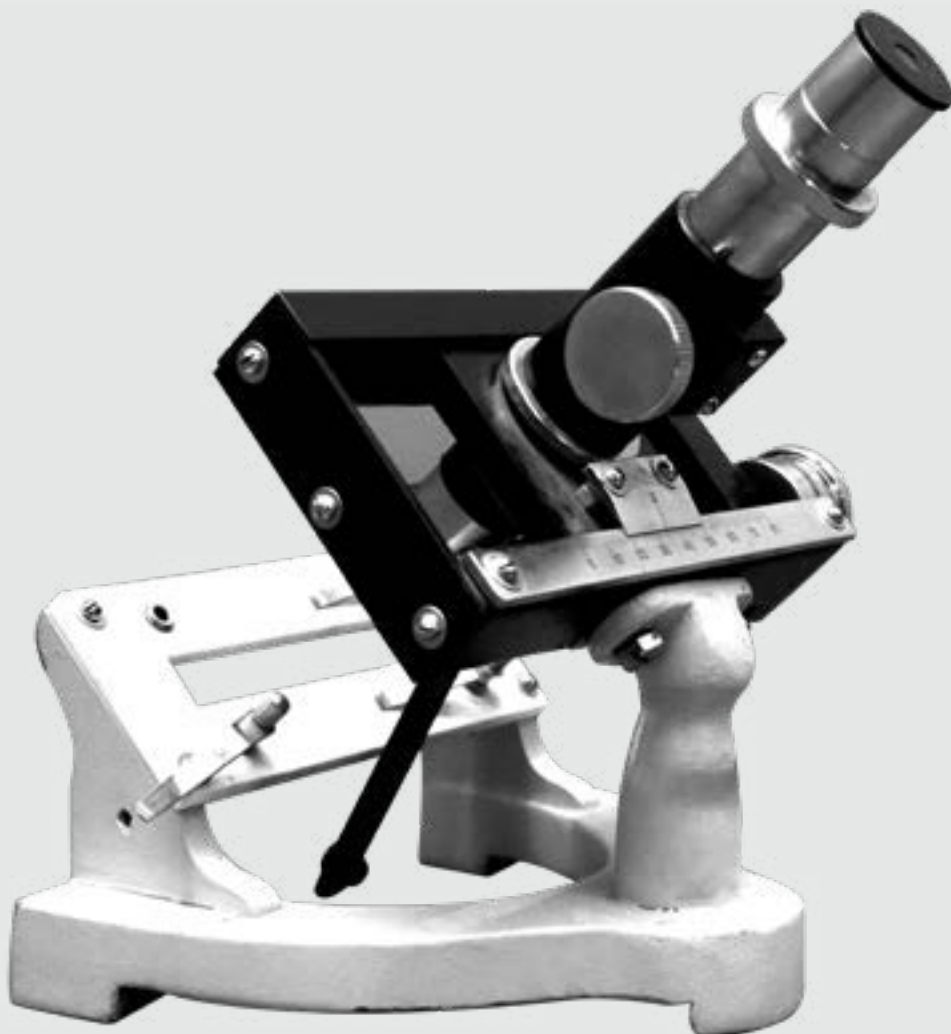
- Hands on training for faculty and students using design and software - Completed
- Establishment of E Mobility Centre - In progress
- Launching of Student mentorship program with their senior's as mentor - Completed
- Webinars in recent trends in Automobiles - Completed
- Proposed to submit two funded projects during the year 2021-2022 - Completed
- Acquiring International funding for joint research or course - Completed

Biotechnology

The Department of Biotechnology of KCT is a recognized centre for research in Biotechnology by Anna University. The research studies in the department stretch to the length and breadth of the field, from degrading carcinogenic dyes in the textile dyes to banana peel proteases in wound dressing material. The department holds an R&D budget of Rs.1.21 crores obtained through various government funding agencies like DST, DBT, AICTE.

Student Strength	211
Year of Establishment	2002
Faculty Strength	15

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Imperative Advancements

- Dr. Antony V Samrot, MAHSA University, Malaysia, delivered guest talk on " INVITRO AND INVIVO APPROCHES TO EVALUATE THE NANOTOXICITY " on 11-10-2021 which was organised by Dr. A. Thirumurugan.
- NOVEMBER 2021: WEBINAR - Mr.N.Gobalakrishnan, Indutry Consultant for sugar and Biofuel industries, delivered guest talk o"
- IIC Activities - Motivation talk on ""MY STORY"" by a successful entrepreneur Dr. S. Lakshmi Subramanian, MD & CEO, Shruti Herbal Extracts, Coimbatore, which was coordinated by Dr. T. Sathish Kumar, AP III, Dept. IIC Co-Ordinator, 27.11.2021 .
- Mr.N.Gobalakrishnan, Industry Consultant for Sugar and Biofuel industries, delivered guest talk on "Current Scenario in Sugar Processing Industries in India and Abroad" on 20.11.2021.
- Dr.S.Sivamani, Assistant Professor, Chemical Department , University of Technology and Applied Sciences, Salalah, Oman delivered guest talk on "Optimization methods in bioprocess engineering", 24.09.2021which was organised by Dr. D. R. Manimaran. "
- The Department of BT organized an Entrepreneurship Awareness Camp (EAC) 24th to 26th MARCH 2022."
- Training on "Applications and analysis of data using High Performance Thin Layer Chromatography (HPTLC)", 18.12.2021 with Practical demonstration of High Performance Liquid Chromatography (HPTLC) to supporting staff.

Industry Partnerships

- Partnership with CETP, Perundurai for Knowledge sharing, and student activities related to internship & placement.
- Partnership with Molecular Connections for Knowledge sharing, and student activities related to internship & placement.
- Partnership with Phytospecialities private limited for Knowledge sharing, and student activities related to internship.
- Partnership with Shruti Herbals private limited for Knowledge sharing, and student activities related to internship.

Research

- The broad areas of the department include Natural products screening, biomaterials, bioprocess optimization and Food technology.
- Total no of 2 research projects currently ongoing in the year 2021 - 2022 by the faculty and total amount of funding received for these research projects- Rs. 97 lakhs
- Total no of 1 research projects currently ongoing in the year 2021 - 2022 by the students and total amount of funding received- Rs.7500/-

Research plan for the year 2021-22:

- To publish around 50 research papers in reputed journals indexed by WoS and Scopus.
- Applying to govt. agencies like AICTE, DST, DRDO, CSIR etc for getting funds around Rs.50 lakhs.
- Filing of a few Patents by faculty.

31 student publication in National and International Journals

18 faculty publication in Scopus Journals

20 Faculty publication in Scopus & WoS Journals

10 faculty as peer reviewers in National and International Journals

- Organising a Research workshop for faculty and students to promote the research culture further.
- Organising workshop and Faculty Development Program.

Faculty Research

For funded Projects:

- A project on 'Development of non-absorbable soy protein nanofibre suture loaded with rubia cordifolia and Eichhprnia crassipes for surgical wound healing', was implemented by Dr. N. Saraswathy, MHRD-SPARC funded a sum of Rs.47.98 lakhs for this project.
- A project on 'Development of high precision and high throughput screening platforms to identify novel anticancer and antimicrobial compounds from plant sources', was implemented by Dr. K. Kumaravel, SERB funded a sum of Rs.33. 23 lakhs for this project.
- A project on 'Design and development of fruit deterioration detector using IoT', was implemented by Dr. S. Nithyapriya, TNSCST funded a sum of Rs. 2.6 lakhs for this project.
- A project on 'Synthesis of inexpensive and novel adsorbants from coconut coir fibers for the removal of synthetic dyes from textile dyeing effluents', was implemented by Dr. P. Ramalingam, AICTE -RPS funded a sum of Rs. 13.19 lakhs for this project.

Student Research

TNSCST Student project scheme of Rs. 7500 for project titled "Understanding the molecular mechanism of Polyphenolic entities purified from Clitoria ternae flowers as an alternate and cost effective blood thinner. Bhuvan Utaiah.M and Vinu Varshith.

Faculty publications:

- Rajkumar, A., Sivarajasekar, N., & Kandasamy, S. (2021). Bio-Synthesized Silver Nanoparticles for Effective Photocatalytic Degradation of Congo Red Dye in Aqueous Solutions: Optimization Studies Using Response Surface Methodology. Analytical Chemistry Letters, 11(6), 801-815.
- Govindarajan, D. K., & Kandaswamy, K. (2022). Virulence factors of uropathogens and their role in host pathogen interactions. The Cell Surface, 100075.
- Gururaj, D., & Veerichetty, V. (2022). Comparative study on in vitro release kinetics of Gallic acid β Cyclodextrin complex and Gallic acid Pluronic loaded films. Materials Today: Proceedings., Volume 59, Part 1, 2022, Pages 1155-1162
- George, Jenet, Devi Sri Rajendran, Swethaa Venkataraman, Abiram Karanam Rathankumar, Kongkona Saikia, Shanmugaprakash Muthusamy, Isita Singh et al,(2022). "Insolubilization of Trametes versicolor laccase as cross-linked enzyme aggregates for the remediation of trace organic contaminants from municipal wastewater." Environmental Research 209 ,112882.
- Rymbai, E., Sugumar, D., Selvaraj, J., Kothandan, R., & Selvaraj, D. (2022). Modulation of Nrf2 by activation of estrogen receptor β as a therapeutic strategy to prevent cancer development and overcome inflammationrelated drug resistance in breast cancer. Pharmaceutical Sciences.

Student publications

- Shree, V., Sathishkumar, T., Kumaresan, K., Rapheal, V., Muthukumaran, P., & Muthukumaran, V. (2021). Therapeutic effects of purified polyphenols from Coccinia grandis: correlation between hypertension and diabetes mellitus. Advances In Traditional Medicine, 21(3), 579-590
- JPRS Perumal, P Iyyadurai, V Veerichetty. (2021). In Vitro

evaluation of antidiabetic potential of *Hypnea valentiae* extract, International Journal of Green and Herbal Chemistry, 10 (3), 228. DOI: 10.24214/ijghc/hc/10/3/22839.

- 3) Veerabhuvaneshwari Veerichetty, Negha Rajendran, Ramya Ravichandran, (2021). Antiproliferative and Apoptotic activity of sulfated polysaccharide isolated from *Hypnea Valentiae* Red Seaweed in human skin malignant melanoma cells, Asian Journal of Pharmaceutical and Clinical Research 14(8):134-137; DOI: <http://dx.doi.org/10.22159/ajpcr.2021v14i8.42048>
- 4) Sathishkumar, T., Uthaiiah, M. B., Varshith, R. V., Kumaresan, K., & Rapheal, V. S. (2022). Evaluation of in vitro Cholesterol Esterase Inhibitory Activity of Few Selected Vegetables—An Indication of Cardioprotective Property. Pharmacognosy Research, 14(2).
- 5) Manimaran, D. R., Sugapriya, G., Mahima, S., Sivamani, S., Sivarajasekar, N., & Prabhu, S. V. (2021). Response surface analysis and optimization of inulin extraction from garlic. Biomass Conversion and Biorefinery, 1-7

Consultancy

- Mr. Dymphan Gonsalves, Research Scholar, Biotechnology Department under supervision of Dr. N. Saraswathy, Professor, Biotechnology provided FTIR consultancy for Rs.1000

Milestone Events

- Visit for Green farms, Kovilpalayam, Coimbatore
- International Workshop on Nanofibre Based Biomedical Healthcare Materials For Infection Control, 20TH -22ND April 2022.
- Center of excellence in Microscopy established under SERB grant.

Achievements

Faculty Achievements

- 1. Dr. N. Sivarajasekar was selected to attend National Academy Science fellowship, Mumbai 06.06.2022 to 04.08.2022
- 2. Dr. K. Kumaravel attended 31st Group Monitoring Workshop of SERB Startup Research Grant – Life Sciences (SRG-LS) on 4-5 July 2022 at Indian Institute of Technology, Indore - 453552, Madhya Pradesh

Student Achievements

- Final year student from Department of Biotechnology won 2 silver and 1 bronze in the 15th Tamil Nadu Short course swimming championship - 2021 held in Tirunelveli, Tamil Nadu.
- TNSCST Student project scheme of Rs. 7500 for project titled "Understanding the molecular mechanism of Polyphenolic entities purified from *Clitoria ternae* flowers as an alternate and cost effective blood thinner. Bhuvan Uthaiiah. M and Vinu Varshith.
- Ms. Swathi cleared National NIDHI -EIR Round 4 as budding entrepreneur
- Ms. Swathi participated in Asia Book of records for Longest Women entrepreneurship virtual showcase.

Alumni

- Dr. Balan Ramesh, Ms. P. Indumathi and Mr. A. Balakumaran of Batch 2012-2016 gave a Alumni Talk Series Talk on Research, Higher education and competitive exams – An interactive session, 09th June, 2021
- Mr. Lakshmanabharathy of Batch 2012-2016 gave a Alumni Talk series on Alumni Talk Series: II Professional endeavours, 04th September, 2021
- Ms. Deepika GuruRaj and Ms. Pooranima Batch 2017-2019 gave a Alumni Talk series From How? to can i? – An alumni interaction, 31st October, 2021

- Ms. Swathi Batch 2016-2020 Bio-coterie-3.0 – An entrepreneur talk series, 24th December, 2021
- Ms. Gouri Srinivasan Batch 2010-2014 (UG) 2014- 2016 (PG) Alumni Talk Series: IV How to choose specialization after B.Tech/M.Tech, 19th January, 2022
- Mr. Shri Krishna Batch 2020 Alumni Talk Series: V Internship and industrial skill, 11th February, 2022

Last Year Goals And Plans

- To establishing Center for Excellence
- To conducting Bio-entrepreneurship program to create awareness about opportunities in biotech sector.
- To strengthen international collaborations through students and faculty visits and internships in foreign Universities.
- To attract research grants and publishing research findings in SCI journals.

Progress

- Center for Excellence- Microscopy established
- To strengthen international collaborations through students and faculty visits and internships in foreign Universities.
- To attract research agency to receive grants and publishing research findings in SCI journals.

Next Year Goals And Plans

- To conduct Social impact programs through Department Association.
- To conduct International Conference.



Civil Engineering

The Department of Civil Engineering of KCT was established with an aim to shape up highly competent and technologically capable professionals and able academicians. The department's vigour led to the establishment of Centre for Water and Environmental Studies (CWES) and Structural Technology Centre (STC) in 2003 for research and development and to offer their expertise to various structural design and testing projects. The department specialises in Structural, Geotechnical, Environmental and Water resource, Transportation and Construction engineering.

Student Strength	479
Year of Establishment	1984
Faculty Strength	27

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Imperative Advancements

- Dr.V.Selvan & Civil Engineering Team were awarded the “Best Department Award” as part of Teacher’s Day Celebrations at Kumaraguru College of Technology.
- Dr.A.Geethakarathi & Dr.G.L.Sathyamoorthy conducted Five days Value added course on Energy and Environmental Management Systems during 21/09/2021 – 25/09/2021 for UG and PG students.
- Mr.KRP.Satheesh Kumar & Mr.P.A.Prabakaran and 11 students Visited ATAL Tunnel in Manali for 6 days (20/04/2022-26/04/2022) sponsored by AICTE under ATAL Yuvak Scheme grant of Rs2,00,000
- Dr.V.Selvan, Dr.P.Eswaramoorthi, Dr.K.Ramadevi & Dr.A.Gandhimathi conducted the four days career development series on "Civil Engineering Career Guidance Series in Association with CEBACA "during (20/10/21-23/10/21)
- Dr.V.Selvan & Dr.G.L.Sathyamoorthy conducted "Lecture Series on Applied Techniques in Civil Engineering" on 25/09/2021.
- Mr.K.R.P.Satheesh Kumar, delivered a guest lecture on "Direct Stiffness Method for Structural Analysis of 2D Trusses using MATLAB", organized by St.Joseph College of Engineering, Sriperumbudur, Chennai on 30/09/2021.
- Dr.V.Selvan & Dr.K.Ramadevi conducted a webinar on Non-destructive testing along with Er.V.M.Krishnamoorthi, chief trainer, Sr.Inspection Engineer, The EDGE Group of Companies, Coimbatore on 21/08/2021

Industry Partnerships

- Partnered with Vimata Labs, Coimbatore for student internships.
- Partnered with L&T Construction Company Ltd, Chennai for student internships.

Research

Introduction

- A ‘Research project on ‘Eco-Friendly cost effective silk dyeing technology for rural women upliftment of sirumugai weaving cluster’ by Dr. A.Geethakarathi Associate Professor and team. DST-SEED funded a sum of 19.7 lakhs for this project

Research plan for the year 2021-22:

To carry out research on areas such as

- Memristor Digital Design
- e-Vehicle Design
- Embedded System
- Electrical Drives
- Renewable Energy
- Network on Chip etc through funded and non funded research

To publish research papers in indexed journals.

Researches:

- A project on “Development of Smart Campus Power Distribution System for Energy Conservation and Protection” is being carried out by Dr. K. Malarvizhi, Professor & Head and Dr. P. Thirumoorthi, Professor. AICTE-RPS funded a sum of Rs.8.50 Lakhs for this project. Started in 2020-21 and will be completed in 2021-22.

- Received a funding of Rs.30,000/- from Anna University, Chennai for organizing FDP on “Power Electronics”. The coordinators are Dr.K.Premalatha, ASP & Dr.R.Kavitha, ASP, EEE. The event will be conducted during June 2021.

Faculty publications:

- Dr.V.Selvan, published a paper titled, “A Study on Seismic Behaviour of Different Braced Building” in an International Research journal of Modernization in Engineering Technology and Science.
- Dr.A.Geethakarathi, has contributed a chapter in the book titled “Metal Nano Composites for Energy and Environmental Applications” published by Springer Nature, Singapore.
- Dr.R.Manju, Ms.U.Sindhu Vaardini published a paper titled, “A study on the applications of concrete canvas in Civil Engineering Projects” in the International Journal of civil engineering, 2022
- Mrs.S.Rajalakshmi, published a paper titled “A time series analysis on the Impact of climate change on rice yield in Tamil Nadu”, International Research Journal of Modernization.
- Dr.A. Gandhimathi, published a paper titled, “Experimental Study on Validating performance of hair fiber reinforced concrete beam under monotonic loading” in International Journal on Energy and Environmental.

Student publications:

- T. Tharani, A. Geethakarathi and P. A. Prabakaran, "Spatial Distribution Analysis of Air Pollutants and The Impact of Meteorological Factor," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-6, doi: 10.1109/ICAECA52838.2021.9675554.
- R. A. Joshia Issac and Bharathu .A, published a paper International Journal of Advanced Research in Science, Communication and Technology (IJARST).
- G. Pooja, and Swathi published a paper, “Robotics and Automation in Construction” in International Journal of Chengdu University of Technology.
- Ruthresh Rajendran and Dr.K. Ramadevi, published a paper titled, “Investigation on Silica Fume as Partial Cement Replacement in Concrete” in International Journal of Advanced Research in Science, Communication and Technology (IJARST).

Patents Filed

- Dr.K.Vybhav, Dr.K.Ramadevi, Dr.A.Gandhimathi, et al "Smart Devices to automatically detect the strength of buildings and land during the construction of Multistorey buildings " 201727009685 A Publication on 29/04/2022

Consultancy

- Dr.P.Eswaramoorthy, Dr.V.Gayathri and Mr.V.Senthil Kumar have performed soil investigation studies at TANGEDCO switchyard, Emerald, Ooty, The Nilgiris for Rs.1,50,000
- Dr.K.Ramadevi has provided material testing for TANTRANSCO, Pollachi, and other private organizations and generated revenue of Rs40,000
- Dr.R.Manju, has performed material Testing for Southern Railways and other private organizations and generated revenue Rs 53,218
- Dr.G.L.Sathyamoorthy completed a consultancy project on "Wastewater Treatment Plant Operation and Maintenance in School of Engineering” for Avinashilingam University, Coimbatore, Bharathi Park Rd, near Forest College Campus, Saibaba Colony, Coimbatore, for Rs.14,254
- Dr.P.Eswaramoorthi has provided software consultation for MTPS Mettur In January 2022 for Rs.2,30,000

45 faculty publication in National and International Journals

40 student publication in National and International Journals

08 peer reviewers in National and International Journals

- Dr.K.Ramadevi,has provided material testing for TANTRANSCO, Pollachi & other private organizations and generated revenue
- Dr.R.Manju,has performed material Testing for Southern Railways and other private organizations and generated revenue Rs 53,218
- “Dr.G.L.Sathyamoorthy, completed a consultancy project on “Wastewater Treatment Plant Operation and Maintenance in School of Engineering” for Avinashilingam University,Coimbatore, Bharathi Park Rd, near Forest College Campus, Saibaba Colony, Coimbatore,for Rs.14,254”
- “Dr.P.Eswaramoorthi,has provided software consultation for MTPS Mettur on January 2022 for Rs.2,30,000”

Milestone Events

- Conducted the Workshop on iTwoCostX by Mr. Dhanaseker, Functional Consultant, for Infinity PMCS, Chennai. on 16.05.2022
- Dr.R.Manju &Ms.U.SindhuVaardini conducted the event "Online Techno Hunt" on 15/09/2021
- Mr.KRP.Satheeshkumar Conducted the Hands-on training on Revit Software by Mr.Udhayasankar Ramasamy, for three days(29/07/2021 - 31/07/2021)
- Dr.V.Selvan, participated in three day International-level program on “Indo-French summit 2021” from 24.11.2021 to 26.11.2021
- Dr.G.L.Sathyamoorthy & Dr.J.Premalatha Conducted the Awareness program on "Pollution Prevention" on 22/12/2021

Achievements

Faculty Achievements:

- Mr. K.R.P. Satheesh Kumar, Mr.P.A. Prabakaran, Mrs.S.Anita, Ms.U.Sindhu Vaardini and Mr. T. Anand participated in a month International level training program “Train the Trainer” organized by BIM Academy, Newcastle, United Kingdom from 10.01.2022 to 17.02.2022.
- Dr.V.Gayathri, published a book titled “Handbook of fly ash” in collaboration with VaishaliSahu, North Cap University, Gurugram, India and Anil Kumar Misra, Sikkim University, Gangtok.
- Dr.P.Eswaramoorthi was awarded the “Best Consultancy” award as part of Teacher’s Day Celebrations at Kumaraguru College of Technology.
- Mr.K.R.P.Satheesh Kumar and Mr.P.A.Prabakaran, has completed the “Lean Six Sigma - Yellow Belt” Certificate from Efforts Consulting Pvt. Ltd and The Council for Six Sigma Certification on 8.01.2022
- Dr.K.Ramadevi was awarded the “Best Faculty - Departmental Contributor” award as part of Teacher’s Day Celebrations at Kumaraguru College of Technology.
- K.Shankar from the fourth year has undergone seven days NCC annual camp “Combined annual training camp 2” organized by 4 TN battalion NCC at Karunya Institute of Science & Technology from 25.12.2021 to 31.12.2021
- J.Sanjaykumar from the Second year has participated in 3 days Volleyball tournament organized by KCT volleyball team from 28.12.201 to 30.12.2021
- G.Ezhilan from third year has done an online Internship offered by IIT INDORE on “Applications of Machine Learning in Landslide Forecasting” for one month from 14/09/2021 to 15/10/2021
- Aswin Ramesh, II year student from Civil department, KCT won a silver medal in south zone inter-university boxing competition at Coimbatore on 22.3.2022

Patents Filed

- R.Anuradha, K.Ramadevi,R. Gobinath, T. Sathanandham, M. Sasi Regha “A Novel Method to Prepare Self-Compacting Concrete using Single Alkali Activated Ash Based Concrete”202041004257 Published on (U/S 11A): 07/02/2020
- Oswalt Manoj S, Sindhu Vaardini U, R. Manju, Binu Dennis,

Rajakumar B. R. “An Intelligent Concrete Mixture System with Prediction of Mixture Strength Using Deep Learning” Patent number 202141020632 A Published on 14/05/2021

MoU

- Partnership with The Kuppakaran Waste Management for Knowledge sharing and the field level training for Students and Faculty. Conducted Webinar on Wealth to Waste and Webinar on Wealth and Wellness out of Waste for the benefit of our students
- Partnership with The Engineers EDGE Institute of NDT, Coimbatore for Knowledge sharing and student activities related to internship & placement.

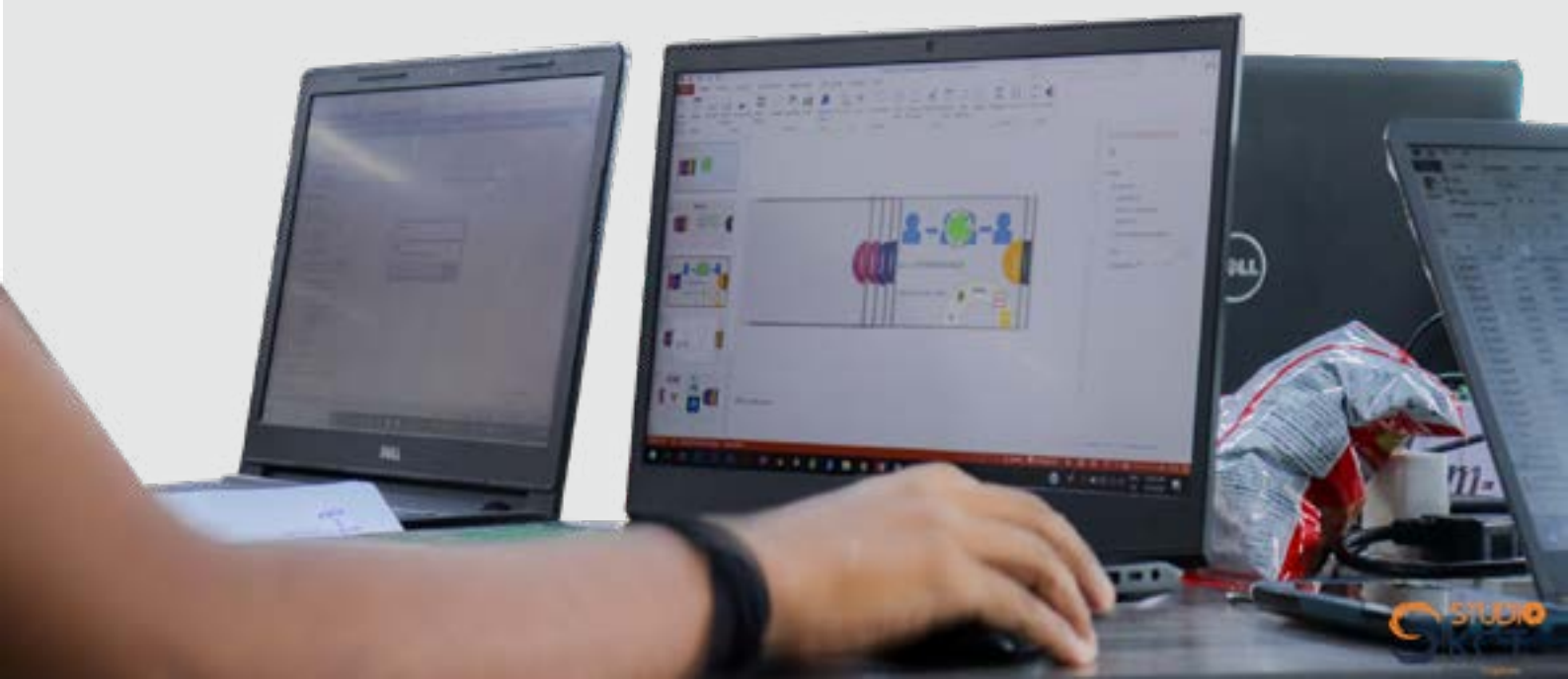


Information Science and Engineering

The Department of Information Science and Engineering (ISE) under School of Innovation is an interdisciplinary field that combines principles and techniques from computer science, information science, and engineering to study, analyze, design, and manage information systems and related technologies. It focuses on the effective utilization of information resources to solve complex problems and meet the needs of individuals, organizations, and society as a whole.

Student Strength	236
Year of Establishment	2018
Faculty Strength	08

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Imperative Advancements

- A Five-day online workshop titled "Big Data Analytics with Hadoop and Spark" was conducted by the department during 4th - 8th October 2021. Totally 60 students benefitted out of those 57 students from third year Information Science and Engineering and 3 students from Electronics and Communication Engineering department. This workshop was to provide the industry practices to perform stream analytics using pyspark.
- Ms. SUBIKSHA S , 19BIS024 won 5th prize with 10,000\$ AWS credits in the Start-a-Thon 3.0 (Launching entrepreneurs) conducted by Sardar Patel Technology Business Incubator on March 26th -27th, 2022.
- A SAMSUNG PRISM Project on Agglomerative Hierarchical clustering (Shallow Learning Algorithm) was completed by the team Mr. Thiruvaazhi U, Dr.V.Vanitha , Sheik Harris , Gokulakrishnan R , Pawankumar S and Udaya Raja and awarded with individual gift vouchers of Rs. 11100 each with appreciation note for successful completion.
- Workshop on "Art of Hacking & Security and Privacy Issues in Mobile" was organized by the ISE Department Association as part of Yugam 2022 on 18 May 2022 at the Swami Vivekananda Hall, KCT. Mr. U. Thiruvaazhi, Head Incharge, ISE, delivered the workshop to the students from across institutions. Totally 129 students participated in the workshop.
- A National level event "Data visualization using Tableau" was conducted on oct 8th and 9th 2021 with eminent international speakers.
- The departments of CSE, IT, ISE and MCA jointly organized the International Conference on Artificial Intelligence & Data Analytics, Internet of Things and Cyber Security during May 20-21, 2022.

Faculty Publications

- R. Kalaiselvi, V. Sudha and V. P. Sumathi, (2021), "Streamlining Loan Distribution Process in Agriculture Sectors," International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675552.
- T. Shanmugapriya S. Swamynathan, Thiruvaazhi Uloli. (2022), "Customized Share Level Monitoring System for Users in OSN-Third Party Applications." Computer Systems Science and Engineering 43 (3): 1327–39. <https://doi.org/10.32604/csse.2022.024440>.
- Dr.Sudharson, Ms. Darshana, Navin Rohith, Priyanka, Ashifa fathima, Mohammed Farooq Abdulla FM (2021), "Self-Reliant Dimensionality Reduction that uses improved pareto distribution PCA framework", ICECA.
- Chandrakala D, Kiruthika J, Armaan Sait (2021), "Detection and Classification of Malware" International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), pp. 1-4, doi: 10.1109/ICAECA52838.2021.9675709.
- Shobana, G., Baskaran, K.R., Yamunathangam D (2022), "Aspect Based Sentiment Analysis for Customer Reviews", 1st IEEE International Conference on Smart Technologies

and Systems for Next Generation Computing, ICSTSN,. DOI: 10.1109/ICSTSN53084.2022.9761302.

Student publications:

- Subiksha S; Sri Suvetha C S of third year ISE along with Dr. Suguna M (2022), "Automatic Traffic Sign Detection System With Voice Assistant" IEEE International Conference on Advanced Computing Technologies and Applications (ICACTA '22) IEEE No: #54488, 978-1-6654-9514-1
- Thiruvaazhi U, Deena Dhayalan S, Prasanth R, Sathish M (2022), "Crop Recommendation and Disease Prediction System for Kitchen Garden" International Journal of Innovative Research in Engineering, Volume 3, issue 3, pp 504-507.
- Tamil selvan, Harshini, Deepthikka (2022), "Purchase And Analytics For Grace Marketing" International Journal of Engineering Research in Computer Science and Engineering, Volume 9, issue 5.
- Mohammed Farooq Abdulla , Smirthi , Yoganayaki, Maanav (2022), "Canteen Food Ordering and Inventory Management System" International Research Journal of Engineering and Technology, Volume 9, issue 6.
- MAANAV R, Mohammed Farooq Abdulla , Smirthi , Yoganayaki (2022), "Canteen Food Ordering and Inventory Management System" International Research Journal of Engineering and Technology, Volume 9 issue 6, pp 1744 - 1750

Consultancy

- Ashiwarya A.R, Vishruthi M.E, Harini.P and Shobana AP has carried out a consultancy work for Ruthura moorthi Policlinic, Salem and distributed COVID Health KIT on good will basis
- M Vishnu Vardhan, V Santhanabalan , K S Vlsht Raam, S Ponvijay has developed a Portfolio Website and Admin cum User Dashboard for the Workers at Vlsvaroopl Film Corporation with a guideship from G.Shobana.
- Tamilselvan V, Harshini VS, Deepthika RS - Mr. F.M.Mohammed Farooq Abdulla has developed a Purchase and Analytics model for Grace Marketing, Erode
- Smirthi C, Yoganayaki MR, Maanav R - Faculty - Mr. F.M.Mohammed Farooq Abdulla has developed a Food Ordering System and Inventory Management for Inborn Technologies, - Chennai on Goodwill basis.

Milestone Events

- A Webinar on Tableau was conducted on the 27th January 2022 with Black Board Learning.

Achievements

Faculty Achievements

- Mohammed Farooq Abdulla FM as Resource person in Saveetha University for a hands-on workshop "Mobile Application Creation in Tamil" organized for "கணிததமிழ் ஓபரவை" on 27th and 28th of September 2021.
- Mr. U. Thiruvaazhi chaired a session on Cyber Security on 20th May 2022 at the International Conference on Artificial Intelligence & Data Analytics, Internet of Things and Cyber Security conducted jointly by the computing cluster departments of KCT.
- R.Kalaiselvi chaired a session on Artificial Intelligence on 21 May 2022 at the International Conference on Artificial Intelligence & Data Analytics, Internet of Things and Cyber Security conducted jointly by the computing cluster departments of KCT.
- Mohammed Farooq Abdulla Fmas resource person in a workshop "Android "Android Development Tools" in Adhi

18 student publication in National and International Journals

15 student publication in National and International Journals

05 faculty as peer reviewers in National and International Journals

College of Engineering and Technology, Walajabad on 6th and 7th June 2022

- Dr. Chandrakala D chaired a session for the Computational Intelligence Track on 9th October 2021.

MoU

- As part of KCT-Course 5i MoU, a Course 5i team comprising Senior Vice President, Head HR and Head Data Science had a discussion with KCT faculty Team led by Mr. Thiruvaazhi, Head Incharge ISE and facilitated by Mr. Senthamarai Kannan, Placement Officer on the next steps of common elective planned to be offered by Course 5i. There are only a few companies which focus on Analytics as their area of focus and expertise and Course5 Intelligence is one of the prominent companies amongst them. The purpose is to have a knowledge on security domain and in Information Science and Engineering department we have redesigned our programs with focus on Utility through Analytics, Security and Privacy.
- To pilot Cloud Lab Services - an innovative way of teaching-learning using emerging technology (budget approved and subject to pending indent approval)
- To pilot and show way for a digital management of information assets using local private cloud storage and backup (budget approved and subject to pending indent approval)
- To effectiely implement and address industry-academia skills gap using revamped syllabus and integrated experiential learning (Practical Assignments for every course offered by ISE - whether theory or embedded)
- To create the eco-system for students to get certified from professional / international / industrial entities
- To have more than 10% YoY increase in median salary of ISE graduands

Next Year Goals And Plans

- Establish Focus Areas
- Streamline Curriculum
- Improve Experiential Learning
- Streamline Internal Processes
- Establish necessary Professional and Industrial Connect



Computer Science and Engineering

The Department of Computer Science and Engineering has progressed with a vision and a strong commitment to develop competent professionals with excellence in Computing and Engineering Science. The department has well equipped computer laboratories and a rich repository of softwares covering a wide spectrum of applications. The focussed areas of education are programming, data structuring, computer networking, software engineering, database management system pouring into researches such as data mining, data security, cloud computing, etc.

Student Strength	518
Year of Establishment	1986
Faculty Strength	22

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Imperative Advancements

- Samsung Prism Project Phase II comprised of 11 real-time worklets for February – August 2022 was initiated. Shortlisted students from third year B.E.- CSE and M.E.-CSE worked on the assigned worklets under the guidance of faculty mentors and industry mentors from SRI-B. The end review of the following 8 worklets were successfully completed on 23rd August 2022 and 30th August 2022
- SkillKit series was launched in 2021 as a collaboration between DA CSE and DA EIE to bring to the students a unique set of skills that would help them master the technologies/tools that are important too. There have been many sessions conducted in this series that has proven to be useful to students. This academic year, the first session was on 'Power of Presentations' with Mr. Charan Pushpanathan, Product Design, Intern, HDFC Bank as the resource person.
- Department of CSE organized an institutional level Session on Exploring Cyber Security Certification and Career Opportunities on 24th November 2022 .
- Department of CSE in association with ICT Academy conducted the awareness session on employability skills and competitive exams for engineers for II Year on 22.11.22. The resource person was Mr. Agathamizh Shri Arunkumar, Founder & Director, Arun's IAS, Academy Arun's Institute of Career Planning. More than 120 students from Second year CSE has attended the session and realized the necessary skills required for employment and opportunities and scope through various competitive exams.
- CSE department initiated a discussion for skill development with Dr. Mangala Sundar, Professor, IITM and Mr. Achudaraman, CEO GradsKey on 24.11.22 along with Dr. Saravanan, Principal, KCT. The possibilities of certification courses under IITM PRAVARTAK was also discussed. GradsKey spoke about the hybrid skill upliftment which may be rolled out for KCT. An Interactive Session on Skill Development and Career Progression was organized for students at 10:45 AM.

Industry Partnerships

- Partnership with Samsung Prism for Internship and consultancy.
- Partnership with RIT for collaborative research and higher studies.
- Partnership with Infosys Limited for faculty training, Internships and Placements.

Research

- The broad areas of research handled in the department in 2021 – 2022 include Data analytics, Cloud computing, IoT, Artificial intelligence and Cyber Security.
- Total no of researches done in the year 2021 - 2022 or doing currently by the faculty and total amount of funding received for these research projects-1
- Grant in Aid for Skill and Personality Development Programme Centre (SPDC) for SC/ST students– AICTE-Rs.2.13 Lakhs.
- Total no of researches done in the year 2021 - 2022 or doing currently by the students and total amount of funding received - 6

80 student publication in National and International Journals

38 faculty publication in Scopus Journals

03 faculty publication in Scopus & WoS Journals

25 student publication in National and International Journals

20 faculty as peer reviewers in National and International Journals

- Total no of researches proposed for funding with the amount and names of the funding agency - 5
Pharmaceutical supply chain management using IOT with Blockchain – KCT seed grant scheme - Rs.2,00,00,00/-Lakhs
Rapid Spanning Tree Protocol (RSTP) - RIT – KCT Joint Project - Good Will basis
Website security analysis project - CODISSIA - Good Will basis
Mycamu bug identification – Mycamu vendor's amazon gift voucher – Rs.20000
Organic Fertilizer recommendation system - Unnat Bharat Abhiyan – Rs. 1 Lakh.(submitted)
- No of faculty registered for PhD this year- NIL

Research plan for the year 2021-22:

- To publish around 60 research papers in reputed journals indexed by WoS, SCI and Scopus.
- Applying funded proposals to govt. agencies like AICTE, DST, DRDO, CSIR etc for around Rs.30 lakhs.
- Approximately 2 patents to be filed by the faculty.
- Organizing a Research workshop for faculty and students to promote the research culture further.
- Organizing a series of workshop and Faculty Development Program in Cyber Security area.

Faculty Research

For funded Projects:

- A grant in aid 'Skill and Personality Development Programme Centre (SPDC)', was established with a fund of Rs. 7,01,000/- by Dr.Cynthia J Professor/CSE funded from AICTE in the year 2019. As a part of which 2.13 Lakh rupees has been received for equipping the SC/ST students through various training programme.

Faculty Internship :

- Dr.S.UmaMaheswari has been offered a faculty Internship at Multicoreware as Senior Research Fellow for a period of six months with a stipend around 50,000/- per month from January 2022.

Student Research

- iQube Portal was developed by Joodith Hermmina L (19BCS018) and Ragunandhan A J (19BCS108) with the direction of Mr. Nirosh Kumar H of iQube, which is a centralized system that would enable efficient tracking and management of user activities throughout their engagement. The portal incorporated a range of functionalities to ensure seamless tracking of user journeys. It included a user-friendly interface that allowed users to log their daily working hours, providing a record of their productivity. This feature facilitated effective monitoring and assessment of user contributions to their assigned tasks and projects.
- Admission Portal- A project centered around admissions for Kumarguru Institutions was done by software members of iQube - Ragunandhan (19BCS108) and Aswath (18BCS015) under the guidance of Mr. Nirosh Kumar H. The project was to create an efficient and streamlined process that would diligently monitor and oversee the entire admission process for all users. The system encompassed a wide range of functionalities, commencing right from the initial registration stage, until the successful enrollment of each applicant.
- Yugam portal - a comprehensive platform for managing the entire process of the Yugam fest, which was done by the student team of iQube - Joodith Hermmina L (19BCS018), Ragunandhan A J (19BCS108), Nandana S P (20BCS063) Dhanushkumar S G (20BCS026) following the lead of Mr.

Nirosh Kumar. This innovative portal encompasses a wide range of features that facilitate seamless experience for participants, starting from user registration and extending all the way to the distribution of certificates. It allows participants to browse through the diverse range of events offered during the Yugam fest, view event details, and register for their preferred events. The users for each event/workshop can be easily managed by the admins through the portal.

- Sprout course enrollment portal Sprout Course Enrollment portal which was undertaken by Raghunandhan (19BCS108) with the tutelage of Mr. Nirosh Kumar H of iQube, focused on developing a specialized system to track and manage user enrollment for a wide range of courses. The primary aim of the project was to create an efficient and user-friendly platform that would simplify the enrollment process for sprout sessions and provide effective management capabilities.
- Microcosm portal facilitates managing the waste inside the Kumaraguru campus effectively. The portal maintains a detailed log to track the collection of waste from each specific location and done by Ragunandhan A J (19BCS108) with the mentorship of Mr. Nirosh Kumar of iQube.
- Smart IoT Dashboard project was developed by Aswath S (17BCS015) under the supervision of Mr. Nirosh Kumar H, iQube to effectively visualize and analyze the data generated by IoT devices. The project aimed to provide a comprehensive and user-friendly interface to monitor and interpret the information collected from various IoT devices.

Faculty publications

- 1) J. Cynthia ,J. Clement Sudahar, M. Suguna, K.R. Baskaran, J. Senthil, K. Vinoth (2021)."Disaster Management Using VANET",Webology, Volume 18, Special Issue on Information Retrieval and Web Search, Vol 18.ISSN: 1735-188X DOI: 10.14704/WEB/V18SI02/WEB18292.
- 2) Jayapal, Cynthia & Priya, G. & Samuel, C. & M, Suguna & J, Senthil & Jebaraj, S.. (2021). Traffic Flow Forecasting Using Machine Learning Techniques. Webology. 18. 1512-1526. 10.14704/WEB/V18SI04/WEB18295.
- 3) L. Latha, J.Cynthia, G. Seetha Lakshmi,J. Senthil, S. Vikashini, (2021). "Human Activity Recognition Using Smartphone Sensors" Webology, Volume 18, Special Issue on Computing Technology and Information Management, pp.1499-1511 , ISSN: 1735-188X
- 4)Siddique Ibrahim S P, Dr. Sivabalakrishnan M.,(2021). "Attribute selection based subset generation on LazyLearning Associative Classification" International Journal of Grid and Distributed Computing (ESCI), Vol. 14, No.1,pp. 639-648.
- 5) S. J. Syed Ali Fathima,T. Lalitha, Faiyaz Ahmad, S. Karthick. (2022)," Design Based Location Service for Subterranean Network Using Long Range Topology", Wireless Personal Communications,Volume 124,Issue 201, pp 1815–1839. <https://doi.org/10.1007/s11277-021-09432-w>

Student publications

- 1) B. Dhanapriya, S. Kavitha K. R. Baskaran (2022), "Diverse Approach on Image Categorization Using Transfer Learning Methods", International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653, Volume 10 Issue I Jan 2022,,pp.1209-1215
- 2)Aswini D, Suganthi N(2022)." A study on integration of machine learning in block chain based IoT applications ", International Conference on Artificial Intelligence and Data Analytics, Internet of Things and Cyber Security (ICAIC-22).
- 3) Dr L .Latha , B. Raajshree , D. Nivetha," Fake Currency Detection Using Image Processing", International Conference

on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021

- 4) Devaki. P, Jayanthi M, Deepthi P, Shilpashri M,(2022)." Crop prediction using machine learning ", International Conference on Artificial Intelligence and Data Analytics, Internet of Things and Cyber Security (ICAIC-22).
- 5) C. Bharathi priya, Mohamed rifay M, Vijay V, Surya prakash M K,(2022)." Solar power forecasting using statistical and deep learning models", International Conference on Artificial Intelligence and Data Analytics, Internet of Things and Cyber Security (ICAIC-22).

Patents Filed

- "1) Thillaiarasu Nadesan, Mr.Senthil Kumar Sidharthan, Dr.R.Mohan Kumar, Dr.Logeshwari Dhavamani, Mr.G.Kanagaraj, Mr.Lav Upadhyay, Ms.Gomathi S ,Ms.T.Primya, System for Secure Payment Transaction for E-Commerce", Application Ref Number-202141035681, Filing Date-06/08/2021 -Indian Patent Office, Filed.
- 2) Mrs.C.Bharathi Priya, Ms. Richa, Dr. Dinesh, Ms.Rubika, Dr. Manoj Kumar, "Personalize education chatbot using Artificial intelligence and Machine Learning", Application Ref Number-202241028020, Filing Date-16/05/2022 -Indian Patent Office.
- 3) Dr.Naveen rathee, Dr. Yogeshver prasad sharma, V.Senthilkumar, seema, Dr. Balachandran vadivel, Dr. Vineet chouhan, aravindharamanan s, Dr. Shubham goswami, Dr. Mithun bhowmick, Dr. Anjana prusty, Dr. P.tamilselva, Dr. C. Sowmya dhanalakshmi,""machine learning based approach to predict the stress of teaching staffs in academic institutions"", application number:202211007601,date of filing:14/02/2022 ,publication date (u/s 11a):25/02/2022."

Milestone Events

- The Department of Computer Science and Engineering has organized a lecture on Data Analytics as a Career Option on 22/06/2022. More than 100 Students from third year CSE attended the lecture to gain useful insights.
- The Department of Computer Science has organised a 'Guest Lecture on "Cloud and AI-Next Generation Powering Technologies" on 27th September 2022. Dr D Surendran, Founder and CEO, SKS Skill Fasteners Private Ltd, addressed the gathering. Around 21 Students from Second year CSE attended the event and benefitted from the session.
- The Department of Computer Science has organised a 'Seminar on Cyber Crime Awareness and Cyber Forensics on 06th September 2022. Prof. Ramaguru Radhakrishnan, TIFAC-CORE in Cyber Security, Amrita Vishwa Vidyapeetham had delivered the speech. Around 20 Students from Third year and Final year CSE attended the event and received an exposure on the recent Cybercrimes and Cyber forensics methodology.
- The Department Association of Computer Science and Engineering observed the Engineers' Day on September 15,2022 by organising SWITCH AND SOLVE, an engaging event that lets you switch between systems and solve half solved questions by other teams! Around 16 students from Second year and Third year CSE have successfully participated in the competition.
- The IEEE KCT SB Computer Society had organised a Technical Blog Writing Workshop on 19th October 2022. Around 15 Students from CSE (Both Second and Third years) had participated and benefitted from session.
- CONNEXIONS is an intriguing event where participants connect the pictures of an interesting maze to find answers related to upcoming technology. The event was held on 21.11.22 at ADM 207 at 4 pm.

Achievements

Faculty Achievements

- Mr.G.Kanagaraj and Mr.V.Senthilkumar V has co-authored a book titled „ Fundamentals of DataStructures in C” , Charulatha Publications, January 2022,ISBN:978-93-5577-072-1.
- Ms.C.BharathiPriya has received Best Paper Award for the paper titled “Wind Power Prediction Interval Forecasting Using Artificial Neural Networks ” in the Research conclave held at PSG College of Technology.
- Dr. Syed Ali Fathima S J, was being awarded the Dr. A. P. J Abul Kalam, Teachers’ Excellence Award 2020, Instituted by Shikshak Kalyan Foundation (Regd. NGO). The award was felicitated by honorable Union Education Minister Sri. Dharmendra Pradhan on Sep 5th, 2021.
- Ms.D.YamunaThangam has completed a Certification Course on Microsoft Azure AI Fundamentals from 29th May 2022 to 05th June 2022.
- Mr.V.Senthil Kumar and Ms.C.Bharathi Priya has completed an Online Industry Certification on Programming with Python -Part I and II from 14th to 22nd June, 2022.
- Dr.J.Cynthia; Ms.C.Bharathi Priya; Ms.D.Aswini; and Ms.N.Jeba were resource person in the SPDP A93value added course on “IOT prototyping using simulators” from 21-10-2021 to 25-10-2021.
- STUDENT ACHIEVEMENTS
- Dharunika Namagiri B V (20BCS028) from third year CSE was awarded Third prize in combined Annual Training Camp (CULTURALS) Happened between 16th July to 25th July 2022
- Joshua. A (Third Year, CSE) has retained his spot as one of the “Top 15 Security Researchers in India” consecutively for the second quarter of 2022 by the list published by NCIPC Responsible Vulnerability Disclosure Program.
- Dharunika Namagiri B V (Third Year, CSE) from NCC Airwing was awarded First prize in Static Aeromodelling, a state level contest conducted by NCC from 29th July 2022 to 8th August 2022
- Dharunika Namagiri B V 5 Raswanth V (19BCS020) from final year and Dharunika Namagiri B V (20BCS028), Mukdha Sivani R (20BCS061) from Third year CSE-participated in the Smart India Hackathon Grand Finale (25th August to 29th August) conducted at various Nodal Centres across the country

Social Impact

- 1. A value added course was organized from the grant received from AICTE towards the SPDC centre in order to benefit the SC/ ST students by conducting English language classes and technical events such as SPDP value added course on “IOT prototyping using simulators” from 21-10-2021 to 25-10-2021.

MoU

- 1. MoU with Infosys Campus Connect for Industry Electives and Certificate courses.
- 2. MoU with Rochester Institute of Technology for collaborative research and innovation, teaching-learning.
- 3. MoU with ICT Academy for Faculty Development Program, Industry collaboration, Students skill development and Research activities.
- 4. MoU with Samsung Prism, a student program designed to engage Professors and Students on industry relevant projects in cutting edge technologies along with R&D Team Mentors at Samsung.

Alumni

- Mr.Saijai Aadithya.A and Dr.Surendran D (1999 BE-CSE alumnus) of SKS Skill Fasteners addressed the First Year students of BE/B. Tech. on “Visual Effects, Metaverse and Nft” on 24.6.22. Around 70 students of BE/B.Tech. - First Year(PBL) participated. The students got knowledge about application of Visual effects, Metaverse and Nft usage.
- Dr.Surendran D (1999 BE-CSE alumnus) who is the CEO of SKS Skill

Fasteners Pvt. Ltd. addressed the Second Year students of BE-CSE on “Cloud and AI-Next Generation Powering Technologies”. Around 30 students and faculty members of CSE Department participated in it. The participants got knowledge about IBM Watson and Cloud services. The speaker also introduced Dal-e software to them

- Ms. Mythili V.A. (2012 BE-CSE passed out) visited CSE Department of our college along with her husband, Mr.Janakiraman, on 3.11.22 to give a demonstration of a tool called T1 Editor. This software tool was developed by them at the company, x4plore, founded by them at Aruppukottai. Ten faculty members of CSE Department attended their presentation and demo. T1 Editor is a lightweight and easy-to-use tool that can be effortlessly integrated into an already existing pipeline. Faculty members had insights on how to design and create content for classroom presentations. using this editor"
- Guest Lecture on Data Visualization using Elastic Stack was conducted on 19.11.22 for Final year students. The Chief Guest, Mr. Sanjay Saatyaki, is a Senior Software Engineer at Bosch Global Software Technologies, Coimbatore. He has an M.Tech. in Data Science from Anna University and is an alumnus of KCT (BE-CSE 2018 batch & M.Tech.-DS 2020 batch). Mr.Sanjay addressed the audience in online mode.

LAST YEAR GOALS AND PLANS

- To establish a Cyber security lab for enriching knowledge and skills among students.
- To make a collaboration with foreign universities for projects and publication.
- To get funding from government bodies for research projects.
- To carry out consultancy projects for industries.

Progress

- 90% of the students have ventured into internships to gain exposure to the work environment. 95% of students are placed in reputed MNCs during their final year while the remaining have opted for higher studies or entrepreneurship.
- 2) The technical and research ideas of faculty and students are converted into 120 publications through journals and book chapters.
- 3) The department is keen on achieving its milestone of establishing centres of excellence in Cyber Security to fortify the technical skills of faculty and students.
- 4)Around 6 industry projects (Samsung Prism) related to AI and ML were developed by students team and mentored by our faculty team. 8 scopus indexed papers were published and around 7 papers were presented in International Conference.
- 5) Faculty acted as resource person in many institutions. Team members have developed 10 prototypes and submitted 2 proposals. As part of knowledge sharing our team members have delivered various online and off line sessions in FDP and workshops at kct, national, state level including schools.

Next Year Goals And Plans

- Number of journal publications of students/faculty and citation indices of faculty of the department to be enhanced.
- To set up industry collaborated Lab
- To improve the Consultancy /Research activity
- To encourage student entrepreneurship
- Students to be encouraged to participate in contests, hackathons and take up projects to solve industrial and societal problems
- Include courses that help students to generate new ideas and develop products/prototype models.

Information Technology

The Department of Information Technology depicts a ceaseless progress. Industry aligned courses such as mobile applications programming, business intelligence and its applications, building enterprise applications are offered that keep students informed of varieties in the field. Student entrepreneurs are encouraged of their start-up ideas. A unique study is offered across the board on Innovation and Entrepreneurship. The department as a whole research on Machine learning, Mobile computing, Cyber security etc.

Student Strength	258
Year of Establishment	1998
Faculty Strength	11

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Imperative Advancements

- Seven days FDP on "Quantum Computing" was organized from 31.01.2022 to 06.02.2022. The FDP focused on D-Wave Quantum, Azure Quantum, IBM Quantum/Qiskit, OpenGL, introduction to Quantum in Machine Learning with hands-on session.
- Five days FDP on "Cyber security and Cyber Forensics" was organized from 06.09.2021 to 10.09.2021. The first three days of the programme detailed about the cyber threats, cyber-attacks, end user protection, risks and prevention in the information. The next two days highlighted the cyber forensics' investigation, analysis about the information.
- Python Workshop was organized from 03.09.2021-05.09.2021 and 10.09.2021-11.09.2021. The Python workshop covered the basics of the language and application building. It was tutored by Mrs.Shiny who is a Freelance Developer worked on front end module using ReactJS and mentored students to build desktop apps. 34 students from II and III year attended the workshop. Students gained a good knowledge about python basics and worked alongside the tutor during the workshop.
- Value Added Programme on "App Development using Flutter and Firebase" was conducted on 12.08.2021 & 28.08.2021. The workshop focused on android app development using flutter and firebase. The workshop was useful for students interested in mobile app development. The event mainly focused on enhancing the app development skills among students and improve their knowledge.
- An international conference along with the departments of EEE, ECE, EIE, CSE, ISE, MCE and MCA was organized on "Advancements in Electrical Electronics Communication Computing and Automation ICAECA 2021" from 8.10.2021 to 9.10.2021. ICAECA 2021 was technically sponsored by IEEE Madras section. The conference has various plenary talks and invited paper presentation by distinguished researchers and technologists as well as contributed papers from academics and industry professionals. In ICAECA 2021, technologists, researchers, business captains and industry leaders across the globe discussed the emerging technologies in the inter disciplinary engineering domains. The conference provided a unique forum for the exchange of knowledge and information among the professionals across the globe in the thrust areas of Electrical, Electronics, Communication, Computing and Automation systems. The Conference highlighted seven tracks on following emerging areas: Power Energy systems, Embedded and Communication systems, Computational Intelligence, Big Data and Internet of Things, Innovative Engineering and Automation in Agriculture and Women in Science & Technology.
- Innovative 30 Team sprint was organized by KCT ACM Student chapter in association on 25.10.2021. The coordinators are Ms. Asifa and Mr. Deepak Kumar. The event was conducted to build the teamwork and coordination among students. The students formed 16 teams and worked on projects and presented the demonstration of the projects.

- Coding Premier League was organized on 1.3.2022, 4.3.2022, 8.3.2022, 11.3.2022, 15.3.2022, 18.3.2022, 22.3.2022, 25.3.2022. Candidates were tested with basic knowledge on Programming, DBMS, Aptitude, Operating System.
- A technical webinar on "IT Opportunities for Full Stack Developer" was conducted on 26.06.2021 in collaboration with The Institution of Engineers (India), Coimbatore Local Centre.

Consulations:

- Dr.M.Alamelu, Ms.S.Sathyavathi and Ms.G.Prema Arokia Mary generated Rs 58,000 through a ICT solution to Vihana Dental Care, Kalapatti, Coimbatore.
- Bharatraj M (20BIT005) generated Rs 6,00,000 for the development of Solar powered boat from Quench-Ador Power

Faculty publications:

- Mary, G., Arokia, P., & Suganthi, N. (2022) "Detection of Parkinson's Disease with Multiple Feature Extraction Models and Darknet CNN Classification", Computer Systems and Engineering, 43(1), 333-345.
- M. Vivek Anand, Dr. Munish Sabharwal, Dr. S Vijayalakshmi (2022), ""Alleviating data storage challenge through virtualization of block chain embedded with internet of things"" , Indian Journal of Computer Science and Engineering, 13(2), 312-323. <https://doi.org/10.21817/indjcse/2022/v13i2/2213020052>
- S. Kanagaraj, M. S. Hema and M. N. Guptha, (2021), ""Performance analysis of Classification methods for Parkinson's Disease with PPMI Dataset,"" 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 1-5, doi: 10.1109/ICAECA52838.2021.9675588.
- Dr.M.Alamelu , Naveena, Rakshitha.M, Hariprasath.M, (2021), ""Covid 19 Data Analysis using the Trend Check Data Analysis Approaches, Souvenir of the International Conference on Artificial Intelligence for Sustainable Applications"" , PP 8.
- P.Shenbagam, N.Sanjana (2021), "Corn Leaf Disease Detection: A Survey, AICTE Sponsored International Conference on Machine Intelligence and Green Computing", pp 5.

Student publications

- K. S. Mounika, S. Deyaradevi, K. Swetha and V. Vanitha, (2021), ""Music Genre Classification Using Deep Learning,"" International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), pp. 1-7, doi: 10.1109/ICAECA52838.2021.9675685.1
- M. N. Ahil, V. Vanitha and N. Rajathi (2021), ""Apple and Grape Leaf Disease Classification using MLP and CNN,"" International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-4, doi: 10.1109/ICAECA52838.2021.9675567.2"
- B. Dhanapriya, S. Kavitha, K. R. Baskaran (2021) .""Diverse Approach on Image Categorization Using Transfer Learning Methods"" , International Journal for Research in Applied Science and Engineering Technology (IJRASET) pp 1209-1215, ISSN : 2321-9653, Volume 10, Issue I.
- S R, Naren Mr.; P C, Thirumal Dr.; and D, Sudharson Dr. (2022) "An Optimized Machine Learning Framework For Extracting

18 Total no of faculty publication in National and International Journals

04 Total no of student publication in National and International Journals

Suicide Factors Using K-Means++ Clustering," International Journal of Computer Science and Informatics: Vol. 4: Iss. 3, Article 5. DOI: 10.47893/IJCSI.2022.11974

Patents Filed

- Mr. S. Kanagaraj filed a patent on " Design system of IoT Driven Eyeball and Gesture-Controlled Smart Wheelchair System for Disabled Person" on 30.03.2022.

Milestone Events

- An event ""Rapid Riddles"" was conducted on 11.06.2021 and 12.06.2021."
- A Guest lecture on Cloud Computing Services using Microsoft Azure was organized on 21.9.2021 to highlight the Cloud Computing Services with a wide range of productive experiences to build, train, and deploy machine learning models.
- An event on "Placement Roadmap" was organized on 15.11.21 which focussed a guidance talks on placements by alumni.
- A Webinar on "My Story – Motivational Session" by Successful Entrepreneur was organized on 29.11.2021.
- Live Bootcamp was conducted on "Build your own Virtual Assistant" on 07.03.2022. This online bootcamp was conducted by Ms. Pooja Agarwal, Senior Developer Advocate, Openweaver.com, focussing on Basics of machine learning, Virtual agents, and NLP, Using Open Source – understanding licensing, evaluating support, quality and more, Hands on project."

Achievements

Student achievements

- M. Bharathraj (20BIT005) has participated in Open Coding Round contest and has been awarded for outstanding performance and exemplary contribution on TechGig.com. He has got certificate of excellence.
- Harihara Roopan C T (20BIT018) has participated in Missing Code (one of the events of Technical Symposium Cryptera 2022) at Coimbatore Institute of Technology and won 1st place in competition.
- Subhash Y (20BIT058) has participated in Missing Code (one of the events of Technical Symposium Cryptera 2022) at Coimbatore Institute of Technology and won 2nd place in competition.
- Nihaarika P (20BIT036) has participated in MIME at Karpagam College of Engineering, Coimbatore and won 1st place.
- Vidul S A (20BIT061) has participated in NIGHT OWL GEN QUIZ at College of Engineering Guindy, Anna University and won 1st place.

Social Impact

- Outreach program on "Code Kids & Computer Components" for Government School students, Shajahan Nagar, Saravanampatti, on 11.04.2022, around 61 students participated.

Alumni

- Mr. Pugazharasan Chandrasekar (2014-2018 batch), Full Stack Mentor and Placement Lead, GUVI Geek Network Private Limited Chennai delivered a lecture on Introduction to IT Opportunities on 26.06.2021.
- Ms. Smruthi Vijayaraghavan (2013-2017 batch), Business Analyst, Renault Nissan, Bangalore, resource person for

"Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22

- Mr. Varun Raghu (2016-2020 batch), Software Developer, MPL, Bangalore, resource person for "Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22
- Mr. Karthikeshwar (2016-2020 batch), Sales Analyst, Siemens, Canada, resource person for "Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22
- Ms. Vaishali (2016-2020 batch), Business Analyst, Thought works, Bangalore, resource person for "Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22.
- Ms. Janani, (2017-2021 batch), technical Staff, Zoho, Chennai, resource person for "Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22.
- Ms. Amritha D, (2017-2021 batch), Software Engineer, Schulumberger, resource person for "Excalibur Proact " on 21.04.22, 23.04.22, 28.04.22 & 30.04.22.
- Mr. Chibi Ragu, (2012-2016 batch), Analyst II, Western Digital Bangalore, resource person for "Flutter & Firebase " on 12.08.21, 14.08.21, 16.08.21, 20.08.21, 23.08.21, 24.08.21, 27.08.21, 28.08.21 & 31.08.21

Next Year Goals And Plans

- Strengthening the research projects and its relevant activities "
- Collaborative and Consultancy projects to be enhanced "
- Social outreach to be strengthened "
- Enhancing the current technology-based laboratories "
- Strengthening the funded proposals



Computer Applications

The Department of Computer Applications offers a three year master degree in Computer Applications. Since its inception the department has been striding great heights with a proactive vision and a strong commitment, with uncompromising standards of excellence to develop competent programmes and to groom the students with computational skills that will match with the present and futuristic necessities of IT industry.

Student Strength	130
Year of Establishment	1993
Faculty Strength	12

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Imperative Advancements

- Webinar on "How to be Successful in an Interview" on conducted on 16/8/2021 for the MCA Students. The resource person was Mr.Ashok Narayanan (Alumni of 2000 – 2003 MCA batch) , Director, TCS, Minneapolis , USA.
- Webinar on SAP-Introduction and Opportunities was organized on 21.09.2021.About 50 Students and 4 faculty participated. Dr.B.Gopalakrishnan, Assoc. Prof (CSE), BIT was the resource person.
- Webinar titled "Explainable AI" was conducted on 13 October 2021 for our college students and staff. The resource person is Dr. Dr. Viswanathan V, Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai.
- Value Added Course On "Application Development Using Angular & Springboot" ,was organized from 11.09.2021 to 02.10.2021 to MCA Students. Dr.V.Geetha, Prof / MCA ,Mr.C.Ramachandran, AP/MCA and Ms.V.Jalaja Jayalakshmi, AP/MCA Coordinated the program. Mr.G.Dineshkumar, Manager- Training & Products FACE , Coimbatore was the resource person.
- Workshop on Android APP Development using JAVA was conducted for MCA Students on 19/03/2022.
- Workshop on Drafting a Research Article- Tools and Methods was conducted for MCA students on 24/03/2022 and 25/03/2022

Industry Partnerships

- Partnership with Accenture, Cognizant Technology Solutions, Infosys Limited for Knowledge sharing, and student activities related to internship & placement.

Research Introduction

- The Department aims to enhance the research activities in various blooming domains of computer science. The research team is active with 10 Doctorates in research domains such as Datamining, Agile Computing, Software Engineering, Networking and Image Processing.

Research plan for the year 2021-22:

- Approval for Research Centre from Anna University to be secured.
- The R&D activities of the department to be strengthened by applying research proposals, publishing papers in Scopus and SCI indexed Journals.

Faculty publications:

- DDr.M.Manikantan, Dr.N.Jayakanthan published a paper entitled Intelligent data routing model for social network using semantic web in IEEE Explorer.
- Dr.N.Jayakanthan, Dr.M.Manikantan published a paper ,An Investigation based Approach to Detect the Root cause of Crime in Modern Era in IEEE Explorer
- "Ms.Jalaja Jayalakshmi.V,AP/MCA, Dr. V. Geetha, Prof/MCA

has published a paper entitled , ""Analysis and Prediction of Stroke using Machine Learning Algorithms,"" 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675545. "

- Dr.R.K.Kavitha,AP[SRG]/MCA, Ms.S.R. Sujithra, PG Scholar-MCA has published a paper "Consumer Online Buying Behaviour - A Perspective Study Analysis using R """,IEEE Xplore,2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA),pp.1-5,DOI:10.1109/ICAECA52838.2021.9675566".4
- Dr. V. Geetha, Prof/MCA, Ms.Jalaja Jayalakshmi.V,AP/ MCA has published a paper entitled , "An Analysis of Students' Performance in Adaptive E-Assessment During Covid", IEEE Xplore, 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA),pp. 1-4, doi:10.1109/ICAECA52838.2021.9675593.
- "Dr.P.Parameswari,AP[SRG]/MCA, Dr.N.Rajathi ,Professor /IT & K.J.Harshana has published a paper,"LoRa Based Framework to Detect Whitefly Infestation in Coconut Trees",IEEE Xplore, 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA)."
- V.Jalaja Jayalakshmi, Dr. V.Geetha,Student Perception of Online learning during Covid Pandemic, International Journal of Aquatic Science, Vol 12, Issue 03, 2021, pg 2361 – 2374
- Dr.P.Parameswari,AP[SRG], Dr.N.Rajathi ,Professor /IT has published a paper Machine Learning Approaches for Crop Recommendation ,IEEE Xplore, 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA).
- Dr.P.Parameswari , published a book chapter titled "Early Stage Prediction of Plant Leaf Diseases Using Deep Learning Models " in "Computer Vision and Machine Learning in Agriculture",Volume 2, Springer Singapore.

Student publications:

- Dr.N.Jayakanthan Ms. Wiswambari(20MCA048), published a paper entitled , An Enhanced Approach to Detect Covid-19 Patients and Level of Infection using FSM in IEEE Explorer"
- Dr. V. Geetha, Prof/MCA, S.Yedhukrishnan published a paper entitled , "Glaucoma detection in fundus image using CNN", IEEE Xplore, 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA),pp. 1-4, doi:10.1109/ICAECA52838.2021.9675642.

Consultancy

- 3 Consultancy Projects have been started in the month of November. The Details of Companies follows,
- "Pusthaka Digital Media Pvt Ltd,Bangalore
- Mercury mobiles and home appliances,Madurai
- Divya Engineering Works"

Achievements

- Four Teams of six members in each team from I MCA participated in Smart India Hackathonon 14/3/2022 and 15/3/2022. One of the teams moved forward to finals.

Social Impact

- An Outreach Programme titled "Improving the Essential Computer and Life Skills of Government School Children" was conducted on 09 October 2021 for Government School students.

08 faculty publication in National and International Journals

02 student publication in National and International Journals

The resource persons were Ms.S.Vallikala, Student Counselor, KCT, Dr. K.Kavitha and Dr. Jaisingh, Assistant Professor[SRG]/MCA, KCT.

Alumni

- Guest lecture on “ AWS Serverless Services and Overview of Apache Spark” was conducted by Mr. Gowtham RameshBabu,Alumni, Senior Data Engineer,Fractal Analytics,Chennai.
- "A Career Guidance Programme on Elevate your demand for industry opportunities was conducted by Department of Computer Applications on 10/12/2021 in collaboration with ,IQAC ,IIC for the First year MCA students.The Resource Person was Mr.Meyyappan Srinivasan,Alumni,Manager,Data Analytics,Robert Bosch."
- IIC Activity on “Creating New Opportunities for the Students and Faculties to become an entrepreneur “was conducted on 02-04-2022. The resource person was Mr. Gowtham R, Alumni, CEO, Jayam Sarees, Coimbatore.

Next Year Goals And Plans

- To set a state of art cyber-security lab with industry collaboration.
- To start a separate in-house development cell for industry projects.



Electrical and Electronics Engineering

The Department of Electrical and Electronics Engineering has been an integral part of the institute from 1984 and has grown steadily over the years. The department has nurtured meaningful relationships with industry, academic and research institutions with their expertise in Renewable energy, Power Electronics and Drives, Embedded systems, Smart Grid, Energy Management, Electrical Machines. E- vehicle, Power Converter and Inverter Design are some of the current research studies in the department. With advanced laboratory and technically sound staff, the department continues to get accredited since 2000.

Student Strength	492
Year of Establishment	1984
Faculty Strength	27

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Imperative Advancements

- An International Conference on Advancements in Electrical Electronics Communication Computing and automation - ICAECA 2021 - 8,9 Oct 2021, has been successfully organized where 300 participants (both internal and external) have participated.
- Solar Energy society of student chapter was established with 50 student membership.
- Webinars/Tech-Talks have been organized with Guest Speakers invited from companies like Robert Bosch, TANGEDCO, Earthonomic Engineers Pvt to make the students aware of the sustainable development and recent industry trends.
- Career Guidance Programmes have been conducted in online mode to the students of various years regarding GATE, IELTS, GRE on 2021-2022
- Both Faculties and Students have successfully published articles in Top rated Journals (47 Nos.) and Patents (5 Nos.). 8 Students have cleared competitive examinations that includes GATE, TANCET and IELTS.
- Students have won many competitions and participated in Hackathons (individually, intra as well as interdepartmental).
- Since 2021, a 13 member multidisciplinary team of GARAGE students including II year EEE students Vikash S, Naveen V Gerontius Leo L, Anand B are involved and have contributed to the e-boat project and also have won the Communication Award of 2022 (worth of 2000€) for the international event -Monaco Energy Boat challenge, Yatch Club of Monaco, France on July 2022
- Many student oriented programs like Placement Prep Talks, Electrothon and Ideathon, Dismantle and Development for reverse engineering, LinkedIn Profile & Resume Preparation, Student's Huddle etc were organized by Department Association throughout the year.
- Our EEE students have participated in various activities such as Swadeshi Microprocessor Challenge, Youngest to Travelled Solo Bike Ride From Kashmir to Kanyakumari, RiGathon, Open Innovation Challenge - AatmaNirbhar Bharat Abhiyan.

Research Introduction

- Research Group in EEE Department is lead by subject Experts from basic and advanced areas such as Electrical Drives, Power System, Power Electronics, Renewable Energy, e-Vehicle Design, Embedded System and VLSI Design. So far, funded projects of worth Rs.20 Lakhs have been completed in the Department. Currently Three funded projects are under way of worth Rs.17.85 Lakhs, received from AICTE-RPS, IEEE and SDC-AICTE. As an Anna University recognized Research Centre, Supervisors and PhD scholars are actively carrying out the research work with good number of quality publications.

Research plan for the year 2022-23:

- To complete EV lab set up in EEE for testing of power train and analysis the performance of EV
- To carry out research on areas such as
E-Vehicle Design
Embedded System

47 faculty publication in National and International Journals

17 student publication in National and International Journals

10 peer reviewers in National and International Journals

Electrical Drives

Renewable Energy

- To publish more research papers in SCI journals.
- International conference to be conducted on 2022-2023
- To enhance the funding projects and Consultancy projects
- More outreach programme to be conducted

Researches: Faculty Researches

- A research project titled "Development of Smart Campus Power Distribution System for Energy Conservation and Protection" by Dr. K. Malarvizhi, Professor & Head and Dr. P. Thirumoorthy, Professor is under progress. This project is an AICTE sponsored RPS project funded with a sum of Rs.8.50 Lakhs. Started in 2020-21 and is under progress.
- Received a funding of Rs.4,00,000/- from Miety innovation grant, by Dr.K.Paramasivam, professor and team during the academic year 2021-22
- SEED funding of Rs.2,00,000 /- has been sponsored by KCT, for the project proposal titled, 'Smart Energy Harvest and Storage for electric vehicle onboard charging' during 2021-22. Dr.P.Thirumoorthy is the Principal investigator of the project.
- SEED funding of Rs.1,96,000 /- has been sponsored by KCT, for the project proposal titled, 'Design and Fabrication of Memristor Device for High Performance Bio inspired Image' during 2021-22. Dr.K.Paramasivam, Professor/EEE is the Principal investigator of the project.
- SEED funding of Rs.1,96,000 /- has been sponsored by KCT, for the project proposal titled, 'Design and Fabrication of Memristor Device for High Performance Bio inspired Image' during 2021-22. Dr.K.Paramasivam, Professor/EEE is the Principal investigator of the project.
- SEED funding of Rs.1,95,000 /- has been sponsored by KCT, for the project proposal titled, 'Smart energy monitoring and data analytics using LoRAWAN' during 2021-22. Dr.K.Premalatha, Associate Professor/EEE is the Principal investigator of the project.

Student Researches:

- A Project on "Technology solutions to fight against Covid19 for Government schools" was done by the student team, Mr. Aswin Kumar (17BEE098), Ms. Anusuya (17BEE079), Mr. Ram Prasad (18BEE21) and Mr. Sukeshram (18BEE096). The project was funded by the IEEE HAC, USA with a sum of USD 4999 and was mentored by the faculty, Dr. N. Vinoth Kumar.
- A Project on "Machine Vision system for quality control in Automobile components manufacturing" was done by Mr. Mohammad Ameen J and team. The project was funded by the AICTE with a sum of INR 2,59,000 and was mentored by the faculty, Dr. K. Paramasivam.
- A project on "A Novel Hybrid CMOS-Memristor Based 2-Bit Magnitude Comparator using Memristor Ratioed Logic Universal Gate for Low Power Applications" was done by Ms. N. Nithya. The project was mentored by the faculty, Dr. K. Paramasivam.

Faculty publications:

- Saravanan, R., Kaliappan, S., Jayaprakasan, V., & Maniraj, P. (2022). A hybrid strategy for mitigating unbalance and improving voltage considering higher penetration of electric vehicles and distributed generation. Sustainable Cities and Society, 76, 103489.
- Ramasamy, K., Moses, M. P., Manoharan, M., & Padmanaban, S. (2022). Balanced Standalone Clustering Unit Commitment

Solution for Smart Grid Using Probability Algorithms. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 44(2), 5246-5266.

- Kumar, K. S., & Paramasivam, K. (2022). Novel Power-Aware Optimization Methodology and Efficient Task Scheduling Algorithm. Computer Systems Science and Engineering, 41(1), 209-224.
- Rajagopal, S., & Umapathy, P. (2022). An investigation of Grid-Integrated Photovoltaic system intended for hybrid Moth Flame Optimization using ANFIS techniques. Journal of Intelligent & Fuzzy Systems, (Preprint), 1-15.
- Prakash, N., Guru, R. R., & Mathankumar, M. (2021). Computer Vision Based Autonomous Unmanned Aerial Vehicle for Human and Object Detection in Post-Disaster Zones. Journal of Environmental Protection and Ecology, 22(6), 2583-2592.

Faculty publications:

- Saravanan, R., Kaliappan, S., Jayaprakasan, V., & Maniraj, P. (2022). A hybrid strategy for mitigating unbalance and improving voltage considering higher penetration of electric vehicles and distributed generation. Sustainable Cities and Society, 76, 103489.
- Ramasamy, K., Moses, M. P., Manoharan, M., & Padmanaban, S. (2022). Balanced Standalone Clustering Unit Commitment Solution for Smart Grid Using Probability Algorithms. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 44(2), 5246-5266.
- Kumar, K. S., & Paramasivam, K. (2022). Novel Power-Aware Optimization Methodology and Efficient Task Scheduling Algorithm. Computer Systems Science and Engineering, 41(1), 209-224.
- Rajagopal, S., & Umapathy, P. (2022). An investigation of Grid-Integrated Photovoltaic system intended for hybrid Moth Flame Optimization using ANFIS techniques. Journal of Intelligent & Fuzzy Systems, (Preprint), 1-15.
- Prakash, N., Guru, R. R., & Mathankumar, M. (2021). Computer Vision Based Autonomous Unmanned Aerial Vehicle for Human and Object Detection in Post-Disaster Zones. Journal of Environmental Protection and Ecology, 22(6), 2583-2592.

Student Publications:

- P. Maithili, R. Kavitha, R. Nithishkumar, T. Ganeshbharathi, S. Vinod Kannan and R. Mohit Kumar, "Intelligent Battery Management System," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-5, doi: 10.1109/ICAECA52838.2021.9675596.
- D. Rakesh, K. V. R. Keerthivaasan, A. Mohan, P. Samvasan, P. Ganesan and R. Raffik, "Automated Public Screening and Health Vitals Monitoring Station," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-6, doi: 10.1109/ICAECA52838.2021.9675550.
- P. Ganesan, S. Gunasekaran, A. Ashwin Balaji, S. Jini Fathima and S. Suryaprakash, "Comparative Analysis on Industrial IoT Communication Protocols and its Future Directives," 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), 2021, pp. 1-6, doi: 10.1109/ICAECA52838.2021.9675583.
- U. Rajkanna, M. Mathankumar and P. Ganesan, "Investigation on the Efficiency of a Smart Trolley System for Supermarkets," 2021 Innovations in Power and Advanced Computing Technologies (i-PACT), 2021, pp. 1-04, doi: 10.1109/i-PACT52855.2021.9696591.
- V. K. Viswambaran, A. Ghani and E. Zhou, "Modelling and simulation of maximum power point tracking algorithms &

review of MPPT techniques for PV applications," 2016 5th International Conference on Electronic Devices, Systems and Applications (ICEDSA), 2016, pp. 1-4, doi: 10.1109/ICEDSA.2016.7818506.

Patents Filed

- Dr. M. Nirmala, Assistant Professor in EEE dept has filed a patent "An efficient methodology to manage the bio-medical wastes collected from hospitals and diagnostic centers" on 30/12/2021 and Published on 07/01/2022.
- Mr. M. Mathankumar Mr. P. Anush, Assistant Professor in EEE dept has filed "Ultrafast Super capacitor charging technique for Electric Vehicle" on 21/02/2022 and Published on 11/03/2022.
- Dr. M. Mohanraj, Associate Professor in EEE dept has filed a patent "An innovative method for introducing multiple data relationships into the SVM optimization process" on 08/10/2021 and Published on 05/11/2021
- Dr. S. Kaliappan, Assistant Professor in EEE dept has filed a patent "GSM based intelligent energy meter for electricity consumption measurement and bill payment system" on 01/09/2021 and Published on 24/09/2021
- Dr. S. Kaliappan, Assistant Professor in EEE dept has filed a patent "LORAWAN integrated IOT system to maximize the agricultural productivity" on 02/08/2021 and Published on 06/08/2021
- Dr. K. Paramasivam, Professor in EEE dept has filed "Funnel" on 05/07/2021 and Published on 10/08/2021
- Mr. M. Mathankumar, Assistant Professor in EEE dept has filed "Design And Development of Smart Drone for Agricultural Sprayer" on 05/04/2022 and Published on 15/04/2022

Milestone Events

- AHackathon on "Project Competition on Internet of Things" was organized during 10-11-2021 by involving academic and industry experts as resource persons. Around 100 participants were benefited.
- A Value added course on "Circuit Simulation using Proteus software" was delivered by KCT faculty team to the interested group of 30 participants during 09-03-2022 to 12-03-2022.
- A Guest Lecture on "Recent trends in use of green energy in green buildings and its impact on environment" was conducted on 23rd May 2022. Mr. Girish viswanathan, Earthnomic Engineers Pvt, LTD, Chennai delivered a lecture on research challenges and opportunities in Green Buildings.
- IE sponsored Value Added Course on "Hardware Design Analysis for Embedded systems and IOT Applications" was conducted on 11th september to 10th OCTOBER 2022. 150 Students underwent this course.
- A Value Added Course on "Deep Learning Framework" was conducted on 18th to 22nd April 2022. Session was handled by Ms. R. Sandhiya Devi, Dr. T. Viswanathan. 30 Students underwent this course.

Student Achievements

- Harini .J.V of Third year EEE won the prize in 'Rigathon 2021' for innovative ideas and solutions for industry based problem statements in association with Emerald industries from 1st October to 3rd October 2021.
- Ameer .M of Second year EEE qualified in Prelims round in Satellites category of space challenge 2021.
- Naveen shankar sundar of second year EEE has participated in The Guinness world record Event Most users to take an online computer programming lesson in 24 hours organized by Guvi in association with A.I.C.T.E.

- Janardhanan.V of Second year EEE won 2nd place in Ideathon 22 conducted by Yi Yuva KPR Institute of Engineering and Technology.
- Vignesh.V of third year EEE won the prize in 'Rigathon 2021' for innovative ideas and solutions for industry based problem statements in association with Emerald industries from 1st October to 3rd October 2021.

Faculty Achievements

- Dr.T.Shanthi, Assistant Professor III, has received Certificate Recognition awards from IEEE in the year of 2021.
- S.Suryaprakash, Assistant Professor II has received ATAL mentor of changing given by NITI Aayog
- S.Suryaprakash, Assistant Professor II has received Certificate Prestigious member Confederation of Elite Academicians of TEXAS Instruments DST,AICTE IIM

MoU

- The process of signing MoU with TVS industry training and services has been initiated.
- MoU signed with Earthonomic Engineers Pvt.Ltd., Chennai-600025, Specific purpose is (i) To improve the skill set of engineering students and faculty members in GREEN BUILDING DESIGN ON ENERGY FOCUSED TOOLS and Services.

Alumni

- Ms. Vanitha Maheswari S G(1998 Batch EEE Alumnus), Architecture Manager ,State Farm USA, has delivered, Alumni Talk series Edition 3, on PATH TO SUCCESS on 2022

Next Year Goals And Plans

- To gear up for 100% placements
- To provide open-source software platform in laboratories for students to get trained in simulating networks
- To initiate plans in developing the students to face Personality Tests and Interviews through career guidance programs
- To organize project competitions.
- To introduce industry-based courses and activity-based learning in the curriculum of forth coming regulation.
- To incorporate modern teaching techniques for advanced learning
- To organize various skill development programs and community development programs.
- To further upgrade the Quality of Guest lectures on current Topics and Emerging Trends, so as to Prepare our Students as Entrepreneurs and Professionals for the Global Market.
- To make the Department vibrant and a Hub for innovations and start-ups through centre of excellence.
- To establish collaborative programs with foreign universities.

Achieved Goals

- Goal: To establish a Centre of Excellence on ""e-Vehicle"" in association with Industries
Status : Budget for the equipments has been approved and purchase is under progress."
- Goal: To establish a Centre of Excellence on ""Solar Energy"" in association with Industries.
Status: Solar Energy society of student chapter was established with 50 student membership. The process of establishing a centre of Excellence in association with Cares Renewables is under progress"
- Goal: To establish Special Electrical Machines Laboratory to facilitate curriculum as well as research requirements.
Status: Budget for the equipments has been approved and purchase is under progress."
- Goal: To achieve the publications and patent target, set by the Institution.

Status : The department has around 47 publications and 5 patents filed in the last academic year"

- Goal: To receive fundings from Government Organizations by successful submission of Project Proposals and completion of ongoing projects
Status : We have successfully received around 10 lakhs worth projects from Government Organizations and the project works are in progress."
- Goal: To complete the furnishing of Industrial Labs set at the department and bring in consultancy projects.
Status : The industry labs, 'Salzer Innovation Centre' and 'Thick India Innovation centre' have been already established. Embedded courses are proposed to be included in R23 curriculum in the areas of power system protection and applications of embedded systems to utilize the labs and provide industrial solutions.



Electronics and Communication Engineering

The Department of Electronics & Communication Engineering equips young minds with technical knowledge and professional skills needed to address the challenges in the rapidly growing field of Electronics and Communication Engineering. An eye for detail and innovations are instilled in the students to connect engineering and society. The department is also a Research Centre recognised by Anna University.

Student Strength	770
Year of Establishment	1986
Faculty Strength	33

Head of the Department
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Imperative Advancements

- The Department of ECE in association with Robert Bosch conducted a training program "Train the Trainer program" for the ECE faculty on the course Human Machine Interface. This activity is carried out to develop expertise among the faculty to handle two new Professional Elective Courses introduced in 6th & 7th Semester of R2018 Curriculum in association with Bosch Global Software Technologies.
 - U18ECE0057 - Introduction to HMI
 - U18ECE0058 - Advanced HMI.
- In continuation to this program, the faculty trained 33 students from various departments ECE, MCE, E&I and these courses support further for their placements. A funding of Rs. 1,00,000 has been obtained from Robert Bosch for the conduction of the programme.
- An elective course entitled " U18ECE0056 - Multicore Architecture and Programming for Embedded Systems" was rolled out to students of ECE department, KCT, Coimbatore in association with ROBERT BOSCH. In Continuation of this, the Department of ECE organized a Guest lecture on "Multicore Architecture and Programming for Embedded Systems" on 30.11.2021 & 02.12.2021 for students as an activity of KCT Centre of Excellence on Artificial Intelligence and Robotics (KC AIR) Lab. The Experts from Robert Bosch Engineering and Business Solutions Private Limited (RBEI), Coimbatore handled the lecture sessions. Totally 29 students have attended this program which provides them a channel for placement in Robert Bosch.

Industry Partnerships

- Partnership with Emerald Jewel Industry India Pvt Ltd was created for Knowledge sharing, and student activities related to Projects, internship & placement.

Research

- The broad areas of research handled by the faculty and students in the department include Robotics, IoT, Communication, Machine Learning.
- Total no of research done in the year 2021 - 2022 or doing currently by the faculty and total amount of funding received for these research projects – 1.
- Total no of researches done in the year 2021 - 2022 or doing currently by the students and total amount of funding received -2.
- Total number of faculty registered for PhD this year: 5 (In ECE Research Centre)

Faculty Researches:

- Amsaveni, A., & Bharathi, M. Use of firefly optimization algorithm for fractional fourier transform based reversible data hiding. Journal of Intelligent & Fuzzy Systems, 40 (2021) 415–425.
- Umamaheswari, S. (2021). Hybrid optimization model for energy efficient cloud assisted wireless sensor network. Wireless Personal Communications, 118(1), 873-885.
- Paul, D., Kalaiselvi, M. T., & Nagarathinam, M. (2020). Experimental analysis of women safety management system by using iot enabled machine learning strategies. Turkish Journal of Physiotherapy and Rehabilitation, 32, 2.

- Kalaiselvi, A., Nagarathinam, S., Paul, T. D., & Alagumeenaakshi, M. (2021). Detection Of Autism Spectrum Disorder Using Transfer Learning. Turkish Journal of Physiotherapy and Rehabilitation, 32(2), 926-933.
- Karthika, K., & Kavitha, K. (2021). Reconfigurable Antennas for Advanced Wireless Communications: A Review. Wireless Personal Communications. Published. <https://doi.org/10.1007/s11277-021-08555-4>.
- Umamaheswari, S. & Antony, W. & Joe D, Allin. (2021). Detection and Correction of Node Failures in Wireless Sensor Networks. 1479-1483. 10.1109/ICACSS51430.2021.9441846.
- Gopinath, B., & Santhi, R. (2021). Development and Evaluation of Fishbone-Based Advanced Computational Thinking (FACT) Pedagogy: A Teacher-Student Collaborative Learning Environment in Engineering and Science Education. Higher Education for the Future, 8(1), 108–122. <https://doi.org/10.1177/2347631120970177>.
- K Maheswari, SN Shivapriya, Dissipativity analysis of Markovian Switched Neural Networks using Extended Reciprocally Convex Matrix Inequality, Journal of Physics: Conference Series 1850 (1), 012078.
- Krishnan, S., Jaiganesh, P. S., Karunakaran, A., Kumarasamy, K., & Lin, M.-C. (2021). The effect of pH on the photocatalytic degradation of cationic and anionic dyes using polyazomethine/ZnO and polyazomethine/TiO2 nanocomposites. International Journal of Applied Science and Engineering, 18(5), 1–8. [https://doi.org/10.6703/IJASE.202109_18\(5\).008](https://doi.org/10.6703/IJASE.202109_18(5).008).
- SN Shivapriya, M Priyadarsini, A Stateczny, C Puttamadappa, Cascade object detection and remote sensing object detection method based on trainable activation function, Remote Sensing 13 (2), 200.
- Karthi S P, Kavitha K, Dinesh Kumar J R, A Novel Method for Detecting Parametric Faults in Analog Circuits using Fuzzy Logic. (2020). International Journal of Innovative Technology and Exploring Engineering (IJITEE), Jan 2020, Issue, 9(3), 3404–3407. doi: 10.35940/ijitee.c8883.019320.
- Valiyavalappil Haridas, A., Marimuthu, R., Sivakumar, V.G. et al. Emotion recognition of speech signal using Taylor series and deep belief network based classification. Evol. Intel. (2020). <https://doi.org/10.1007/s12065-019-00333-3>.
- Dr.S.Umaheswari, Performance analysis of wireless sensor networks assisted by on-demand-based cloud infrastructure, International journal of communication systems, <https://doi.org/10.1002/dac.4272>.
- David.S, Vanathi.P, (2020) "Empirical Analysis of Vehicular Network Design Strategies and Routing Efficiency with AODV Protocol", Test Engineering and Management.
- S. Arun Kumar, S. Sasikala, (2020) "Effective Aquatic Waste Removal through Lake Cleaning Robot for Smart City Environment" International Journal of Innovative Technology and Exploring Engineering (IJITEE), Jan 2020 ISSN: 2278-3075, Volume-9, Issue-4, January 2020, DOI: 10.35940/ijitee.C8905.029420.
- Jasmine.K, Dr.K.Kavitha, Dhivya Praba.R, (2020), Performance Analysis of Diversity Techniques for Wireless Communication, IJAREEIE, Volume 9, Issue 5, May 2020.
- David, S., Ajay, V. P., & Kirubanandasathay, N. (2020). VANET based self-governed vehicle strategy in association with multi-object recognition and key mapping features. Materials Today: Proceedings, 33, 3838-3845.
- Ajay, V. P., & Nesarudha, M. (2020). Efficient energy harvesting scheme with power optimization strategies over cognitive radio networks. Materials Today: Proceedings, 33, 3889-3895.

30 faculty publication in National and International Journals

21 student publication in National and International Journals

07 peer reviewers in National and International Journals

- S. Umamaheswari and K. Harikumar, (2020) "Analyzing Product Usage Based on Twitter Users Based on Datamining Process," 2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM), Dubai, United Arab Emirates, 2020, pp. 426-430, doi: 10.1109/ ICCAKM 46823.2020.9051488.
- Timothy D Paul and Dr Vimalathithan Rathinasabapathy, (2020), Avoiding Data Bottle Neck in Water Quality Monitoring in tanks and lakes Using ZigBee, Test Engineering and Management, vol (83), issue March- April 2020, 24995-25001.
- Ms.V.Umamaheshwari(2020), Design and Development of Kenaf Hemp Fiber Extractor, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume 9, Issue 6, June 2020.
- Sasikala, S., Ezhilarasi, M., & Kumar, S. A. (2020). Detection of breast cancer using fusion of MLO and CC view features through a hybrid technique based on binary firefly algorithm and optimum-path forest classifier. In *Applied Nature-Inspired Computing: Algorithms and Case Studies* (pp. 23-40). Springer, Singapore.
- Shanmugam, S., Shanmugam, A. K., Mayilswamy, B., & Muthusamy, E. (2020). Analyses of statistical feature fusion techniques in breast cancer detection. *International Journal of Applied Science and Engineering*, 17(3), 311-317.
- Shivappriya S. N., Karthikeyan S, Prabu S., R. Pérez de Pérez de Prado, Parameshachari. B. D. 2020 A Modified ABC-SQP-Based Combined Approach for the Optimization of a Parallel Hybrid Electric Vehicle, *Energies*, 13,4529 pp.1-22.
- Dr S.N.Shivappriya, Mr T Gowrishankar & Dr.R.Harikumar, Identification of Cardiac Arrhythmia Using ECG Signal Based ANFIS Classifier, *Tierärztliche Praxis*, Vol 40, 2020.
- B.Gopinath and R.Santhi, (2020), "Deep Learning-based Image Analysis Model for Diagnosing Thyroid Carcinoma in Fine Needle Aspiration Cytology (FNAC) Images", *Bioscience Biotechnology Research Communications*, Vol. 13, No. 11, pp. 61-65. DOI: <http://dx.doi.org/10.21786/bbrc/13.11/14>.
- Karthikeyan. R, Karthik.S., (2020). UWB Planar Monopole Antenna with Multi-Band Notching for High Data Rate Applications. *International Journal of Advanced Science and Technology*, 29(8s), 3640 - 3649. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/17522>.
- Karthi, S. P., Gugesanesh, S., Kavitha, K. K., Kumar, J. D., & Selvakumar, D. (2020, December). Innovative and Smart Methodology towards Kidney Disease Detection in Earlier Stage. In *IOP Conference Series: Materials Science and Engineering* (Vol. 994, No. 1, p. 012025). IOP Publishing.
- Karthi S. P., Kavitha K., Dinesh Kumar J. R.(2020), "A Novel Method for Detecting Parametric Faults in Analog Circuits using Fuzzy Logic", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, ISSN: 2278-3075 (Online), Volume-9 Issue-3, January 2020, Page 3404-3407.
- Jasmine.K,Dr.K.Kavitha, Dhivya Praba.R, (2020), Performance Analysis of Diversity Techniques for Wireless Communication, *IJAREEIE*, Volume 9, Issue 5, May 2020.
- Advanced Wireless Communications: A Review. *Wireless Personal Communications*. Published. <https://doi.org/10.1007/s11277-021-08555-4>
- Umamaheswari, S. (2021). Hybrid Optimization Model for Energy Efficient Cloud Assisted Wireless Sensor Network. *Wireless Personal Communications*, 118(1), 873-885.
- Dr S.N.Shivappriya, Mr T Gowrishankar ,Dr.R.Harikumar(2020), Identification of Cardiac Arrhythmia Using ECG Signal Based ANFIS Classifier, *Tierärztliche Praxis*, Vol 40,

Student Publications

- Karthi, S. P., Kavitha, K., Babu, G., Kumar, J. D., Visvesvaran, C., & Girinath, N. (2021, March). Ultra-Low Power Memory Circuit Unit for Space Application. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1084, No. 1, p. 012059). IOP Publishing.
- Gautham G, Deepika Venkatesh, A Kalaiselvi, Low-Cost Smart Heads-Up Display Assist System for Automobiles. *Journal of VLSI Design and Signal Processing*, 7, 2, 2021, pp. 27 – 45
- Madhunisha, Ms & Priyaa, Vishnu & Kaushik, Mr & Jasmine, Mrs & KJ, Jasmine. (2021). E -Grow with us : An E -Commerce application. *Journal of Engineering and Technology Management*. 8. 10.17148/IARJSET.2021.8455.
- Sonu V Abraham, Ms S nagarathinam, Yogeswaran A Data Transmission using Visible Light Communication (Li-fi), *International Research Journal of Engineering and Technology IJRET* Volume 8, Issue 6, Pages 55-59,
- R Marimuthu, G Kesav Krishna, SSN Sathyanarayanan, R Valarmathi, (2020) "Ease impact of age on stress related complications in pregnancy" *International Journal of Applied Science and Engineering* 18 (2), 1-9.
- Dr.R.Hemalatha,, K.Geethanjali, M.S.Aruna Priya, S.Preetha,(2020)"Analysis of smart technologies for smart gardening", *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)* ,Volume 9, Issue 4, April 2020
- Kowsalya, Sukirtha,Krithika,(2020) ,"Securing the Communication Network of Internet of Things in Smart Cities through Quantum Deployment", *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)* ,Volume 9, Issue 4, April 2020.
- P.Ramya, R.K.Kavin, R.Rathish, M.Satheesh Kumar, R.Karthi Kumar, (2020)"Accident Avoidance and Prevention System" *International Journal of Engineering science and computing (IJESC)*, Volume 10, Issue No.5, May 2020
- E. M. Aswin, C. Jithesh kumar, A. R. Bharath, N. Pradeep raj, Dr. M. Shanthi,(2020) "Sewage Workers Smart Monitoring System" *International Journal for Research in Applied Science & Engineering Technology (IJRASET)* Volume 8, Issue 5, Pg 2371-2375
- Logesh M, Karthika K,(2020)"Mean Stack Web Development", *International Research Journal of Engineering and Technology (IRJET)*, Volume 7, Issue No.5, May 2020.
- M.Abi Priya, S.Hema, R.Dhivya Praba,(2020),Fake product review monitoring and removal for genuine online product review using IP address monitoring, *IJAREEIE*, Volume 9, Issue 6, May 2020
- Yukesh M, Roshini Devi V.J, Harish Raj S, Priya R, Anusha K,(2020) "COMPOST MANAGER", *International Journal of Creative Research Thoughts (IJCRT)*, ISSN:2320-2882, Volume.8, Issue 7, pp.4971-4973, July 2020, Available at :<http://www.ijcrt.org/papers/IJCRT2007542.pdf>
- S, Boopathy & Gokul, Anand & Rajalakshmi, N. (2020). Smart Irrigation System for Mint Cultivation through Hydroponics Using IOT. *Test Engineering and Management*. 83. 13706-13714.

Faculty publications:

- Shivappriya, S. N., Priyadarsini, M. J. P., Stateczny, A., Puttamadappa, C., & Parameshachari, B. D. (2021). Cascade Object Detection and Remote Sensing Object Detection Method Based on Trainable Activation Function. *Remote Sensing*, 13(2), 200. MDPI AG. <http://dx.doi.org/10.3390/rs13020200>
- Shivappriya S. N., Karthikeyan S, Prabu S., R. Pérez de Pérez de Prado, Parameshachari. B. D. (2020) A Modified ABC-SQP-Based Combined Approach for the Optimization of a Parallel Hybrid Electric Vehicle, *Energies*, 13,4529 pp.1-22
- Karthika, K.,Kavitha, K. (2021). Reconfigurable Antennas for

- Anoop Srivatsan Balaji, Lokitha T, Suvetha P, Vishnu Prabhakar R, R. Karthi Kumar, "AUTOMATIC FISH FEEDING AND MONITORING SYSTEM FOR AQUARIUM USING 555 TIMERS ", International Journal of Technical Research & Science. ISSN:2454- 2024 online) <https://doi.org/10.30780/IJTRS.V05.I06.005>
- S.Poornima 1 , M.Nagachindhu 2 , R. Dhivya Praba 3, published a paper on, "A Novel Patient Assessment and Pharmacy Management using Web Technology", in Journal of International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Volume 9, Issue 6, June 2020.
- R. Indhu and K.Thilagavathi, "Plant Disease Detection System for Smart Agriculture", Bioscience Biotechnology Research Communications, Special Issue vol 13 No 11 (2020) pp-88-93.
- Arul, H., Shobhana, E., & Karthika, K. (2020, November). Influence of proton implantation on optical properties of 1, 4 oxazinium dihydrogenphosphate single crystal. In AIP Conference Proceedings (Vol. 2270, No. 1, p. 100001). AIP Publishing LLC. <https://doi.org/10.1063/5.0019891>.
- S.Chidhambaram, R.S.Mukilan, R.Shivabalaji, K.Vigneshwaran, R.Dhivya Praba, Assistant Professor published a paper on, "Smart Traffic Light Controller Using Image Processing", in Journal of International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Volume 9, Issue 8, June 2020.
- M.Shasmitha , G.Muthu Santhiya, K.Jasmine . (2020)" Information Management System for Smart City Using Java" International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Volume 9, Issue 6, June 2020.
- S.Manoj , S.Jaya Aravind , R.Rahul , K.Jasmine. (2020)" Smart Charging Shoes Using Piezoelectric Transducer " Information Management System for Smart City Using Java" International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Volume 9, Issue 8, August 2020
- K.Thilagavathi, K.Kavitha, R.Dhivya Praba, S.V.Arockia Joseph Arina and R.C.Sahana, "Detection of Diseases in Sugarcane Using Image Processing Techniques", Bioscience Biotechnology Research Communications, Special Issue vol 13 No 11 (2020) pp-109-115

Milestone Events

- New Professional Elective Courses were introduced in 6th & 7th Semester of R2018 Curriculum in association with Bosch Global Software Technologies. •U18ECE0057 - Introduction to HMI •U18ECE0058 - Advanced HMI. 33 students from ECE, MCT and E&I have been selected by Bosch Global Software Technologies for the course. A funding of Rs1,00,000 has been received from Robert Bosch for the successful conduction of the course for the students.
- Successful completion of the Autonomous Tractor for Multipurpose Agricultural applications was designed and developed with the funding support from MEITY. Project Completion Report submitted during December 2021.
- The Experts from Robert Bosch Engineering and Business Solutions Private Limited (RBEI), Coimbatore handled the lecture sessions for the elective course "Multicore Architecture and Programming for Embedded Systems". Totally 29 students have attended this program and have created a special channel for placement in Robert Bosch.
- 6 Days AICTE-ISTE Refresher Programme on "Intelligent Decision Support Systems Using Machine Learning Techniques" was conducted by ECE Department from 02.02.2022 to 08.02.2022 with funding from AICTE. A total of 100 participants from across India registered for this program.

Social Impact

- Awareness Webinar on UPSC exams - Steer to success for Civil Service Aspirants by Ms.N.Sindhuja, Deputy Collector, Erode
- Webinar on Mediclaims- An Alternative to kill Fear During Pandemic Situations by Mr. Sathish Kumar, Senior Sales Manager, Star Health Insurance, Coimbatore
- Webinar on Higher Education in India: Challenges and Opportunities by Dr.UmaRaghunathan, Director-Internal Audit Cell, AICTE, New Delhi.
- Junior Einstein Preliminary Round Project Competition on 25.09.2020 by Prashant Nair, Associate Prof/CSE, Amrita University, Eniyan S, Associate consultant, Atossyntel, Pune.
- Webinar on How to get through civil services exam (IAS and IPS exam) on 04.04.2021 delivered by Mr.P.Kanagaraj, HOD/Political Science, Govt Arts College, Coimbatore.
- Webinar on National Education Policy Flexible Curriculum Structure on 24.04.2021 delivered by Dr.M.Ramalingam, Professor and Director (Retd), Institute of Remote Sensing (IRS), Anna University, Chennai and Director of Jerusalem College of Engineering, Chennai, Tamil Nadu
- Panel Discussion on an Entrepreneur's Journey - Lessons from along the way on 08.05.2021 by Ms.Nivetha - Founder & Director of Bliss pads, Mr.Siva Surya – Co-founder of Zeekers, Mr.Kausik – Co-founder of TestedOK Technologies, Mr.Gokul – Co-founder, TestedOK Technologies, Mr.Jayseelan - Founder & CEO of Young ones.
- Inauguration of EDC on 09.05.2021 by Mr.Sabeer Rashid, Alumni of ECE, Senior Director of Engineering, Lifesignals.

Achievements

- Sri Suvetha C S, Harine M S, Nivetha K K , secured one of the Top 10 projects in the competition -Young Entrepreneur Conclave -Tamilnadu's Largest Pitching Competition held on 19.07.2021.
- Sri Suvetha C S, Subiksha S, Saravanamani C S secured First place in Covackathon organized by IIT Palakkad on 31.07.2021.
- Pragadesh N R won Silver Medal in India Skills Competition (Regional Level) for Renewable Energy Skill trade conducted from 01.12.2021 to 04.12.2021.
- Pragadesh N R received Bronze Medal in India Skills Competition (National Level) for Renewable Energy Skill trade conducted from 06.01.2022 to 10.01.2022.
- Pragadesh N R received Recognition award in the Felicitation ceremony -student Felicitated by Tamil Nadu C M Thiru. M K Stalin for winning Bronze medal in Renewable energy at National Level India Skills Competition 2021 held on 14.03.2022.
- Sri Suvetha C S, Subiksha S, Saravanamani C S secured 5th place in Start-A-Thorn 3.0 (Launching Entrepreneurs) held in March 2022.
- H. Moni Sree, N. Dharshana received Third Prize in IEEE Student Project Funding Competition held on 23.04.2022.
- Ratiga S, Vekash S participated in the international MONACO ENERGY BOAT CHALLENGE 2022, Team Sea Sakthi, 4th – 9th July 2022 at Monaco.

Social Impact

- Webinar Series was conducted on Research Avenues in Microwave Technologies with eminent speakers from Academia and Industry, around 153 (Faculty, Research Scholars, and Students) participated in this program from 28.06.21 to 30.06.21.
- IEEE SPS Seasonal School training programme was conducted on Image, Audio, and Video Processing for Pattern Recognition with eminent speakers from reputed Academic Institutions, around 112 (Faculty, Research Scholars, and Students) participated in this program (out of which 102 are external faculty and research scholars from various institutions) from 23.06.22 to 28.06.22.

- IEI monthly meet was conducted with an expert talk on Industry 4.0 and its applications in Manufacturing Industry with eminent speakers from Industry in association with IEI professional body, around 29 (Faculty and Students) participated in this program on 24.06.2021.
- Webinar was conducted on "How to prepare yourself for the Industry" in association with IEEE Computer Society, around 77 (Faculty, and Students) participated in this program on 26.06.2021.
- Interactive session was conducted on "How to become Entrepreneur" with alumni association, around 103 (Faculty, and Students) participated in this program on 15.06.2021.

MoU

- MoU was signed with Robert Bosch for the "Bosch Centre for Automotive Electronics".

Alumni

- Mr. A. Chandramouli, Research Scientist, EMC division, SAMEER-Centre for Electromagnetics, (2016-2018 Batch /M.E- CS) and Mr. P. Nithyanandham, Technical Specialist, Infosys, Bangalore (2003-2007 Batch / ECE), participated as Industrial Alumni member for the UG BOS Committee Meeting held 5th June and 13th December 2021 in online mode.
- Mr.Arjunraj (2003-2007 batch / ECE), Architect, Bosch Global Software Technologies, Coimbatore and Mr.Tamilvanan (1993-1997 batch / ECE), Project Director, DigiTran Technology, Coimbatore participated as Industrial Alumni member for the DAB Meeting held on 1st June 2021.
- Ms.A.P.Aparna, (2016 – 2018 (PG)) Research Scholar, BITS Pilani, Goa supported in sharing her knowledge in RF Filter & Antenna design & promoted Keysight COE of ECE Dept in three days workshop on RF system Design using ADS from 28 to 30 of July 2021.
- Ms.Jayadharashini Vijay, (2013-2017 Batch) Senior Hardware Engineer, L&T, Chennai delivered a Alumni talk on "Future Trends in Automotive Industry" on 13th November, 2021 and shared his knowledge in recent trends in Automotive Industry and Electric Vehicles.
- 5. Mr. Praveen Raj U S, (2016-2020 Batch) CEO TriZ AI Private Limited (A Privacy Focussed Smart-Home System Development Startup Company incubated under AIC - Anna University Incubation Foundation) delivered a Workshop lecture on "Entrepreneurship and Innovation as Career Opportunity" on 17th Feb 2022 and shared his knowledge to develop skill set required to become an entrepreneur and how to convert simple idea into an innovation.
- The program concentrated on the outcomes: To encompass and inculcate an enterprising spirit among young people, to equip the participants with relevant knowledge and skills and to promote entrepreneurship among young people.
- Mr. PRASANTH JEYAKUMAR, Founder of Prasanth Ventures & MD of Blue strategy (2016-2020 Batch) delivered a lecture on "Design Thinking, Critical Thinking and Innovative Design" on 18th Feb 2022 and shared his knowledge to develop skill set required to become an Entrepreneur and how to convert simple idea into an innovation. The speaker lectured on marketing, business, strategic management, organization behaviour & management, business planning, marketing plan, marketing strategy, startup development & strategic plan, and more. He motivated in helping businesses to grow and turning students into entrepreneurs.
- Mr. Jai Suriya M i Co-founder Zeekers Employment Pvt Ltd, Chennai (2016-2020 Batch) delivered a lecture on "Entrepreneurship Skill, Attitude and Behaviour Development" on 21st Feb 2022 and shared his knowledge to develop skill set required to become an entrepreneur and how to convert simple idea into an innovation.
- Mr. Kaushik Siddharth C, Co-founder, TestedOK Technologies, Coimbatore (2016-2020 Batch) delivered a lecture on "Entrepreneurship Skill, Attitude and Behaviour Development" on 21st Feb 2022 and shared his knowledge to develop skill set required to become an entrepreneur and how to convert simple idea into an innovation.
- Mr.S.Ganapathy, (2001 - 2005 Batch) Founder & CEO of Ceiyone Tech Works Private Limited, Coimbatore. Batch: 2001 - 2005, Dr.G.Vinoth, (1996-2000 Batch) Founder and Chief Startup Designer, Pongu Ventures Private limited, Tirunelveli, Mr.Vijayan, (1988-1992 Batch) Founder, Eco Kraft, Bangalore delivered a three day Alumni Series on "Entrepreneurship and Innovations" from 24th to 26th February 2022 and shared their expertise.
- Ms.T.Jeevaranjani, System Architect, Bosch Global Software Technologies, Coimbatore, Tamil Nādu, India. (Batch:2004-2008), Mr.Shabeer Rasheed Vice President-Engineering Life Signals, Bengaluru, Karnataka (1998-2002 Batch), Mr.K.Dhandapani, Senior Design Engineer, Cisco Systems India Pvt Ltd, Bengaluru, Karnataka (2010-2014 Batch) delivered a three day Alumni Series II on Career Opportunities in Core Industries from 3rd to 5th March 2022 and shared their expertise.
- Mr.Arvind Muthukrishnan, Head of Product- UX, AWS Wickr ,Amazon Web Services, Bellevue, USA (Batch:2002-2006), Ms.Akila Murali, Product Engineer, JEM America Corp, California, USA (2012-2016 Batch), Mr.Sunil Kumar, Senior Business Analyst, Sagitec Solutions, Denver, USA, (Batch:2006-2010) delivered a three day Alumni Series III on "Higher Education and Opportunities in Abroad" from 10th to 12th March 2022 and shared their expertise.
- Mr. M. Karthikeyan, Senior AI Scientist-AI Labs, Course5 Intelligence Pvt. Ltd, Bengaluru (Batch:2013-2015-PG), Dr. D. Surendran, Founder and CEO, SKS SKILLFASTENERS Private Limited, Coimbatore (1995-1999 Batch) delivered a two day special lecture on "Machine Learning: Trends, Perspectives and Prospects" on 31st May and 1st June 2022 and shared their expertise to develop optimized learning models.
- As a part of Industry-Alumni participation in academic activities, Mr. Joshua Vivek Lawrence. C (2012-2016 batch / ECE), Ms. Kavya Rajagopal (2012-2016 batch / ECE), Ms. Keerthiga Subramani (2017-2021 batch / ECE) and Mr. J. Srinath (2013-2017 batch / ECE) Bosch Global Software Technologies, Coimbatore along with Ms. Gem Rose, (2008-2012 batch / ECE), Asst. Manager, L&T, Coimbatore supported in reviewing the students projects in Project Review Phase I on 4th Sep 2021.

Next Year Goals And Plans

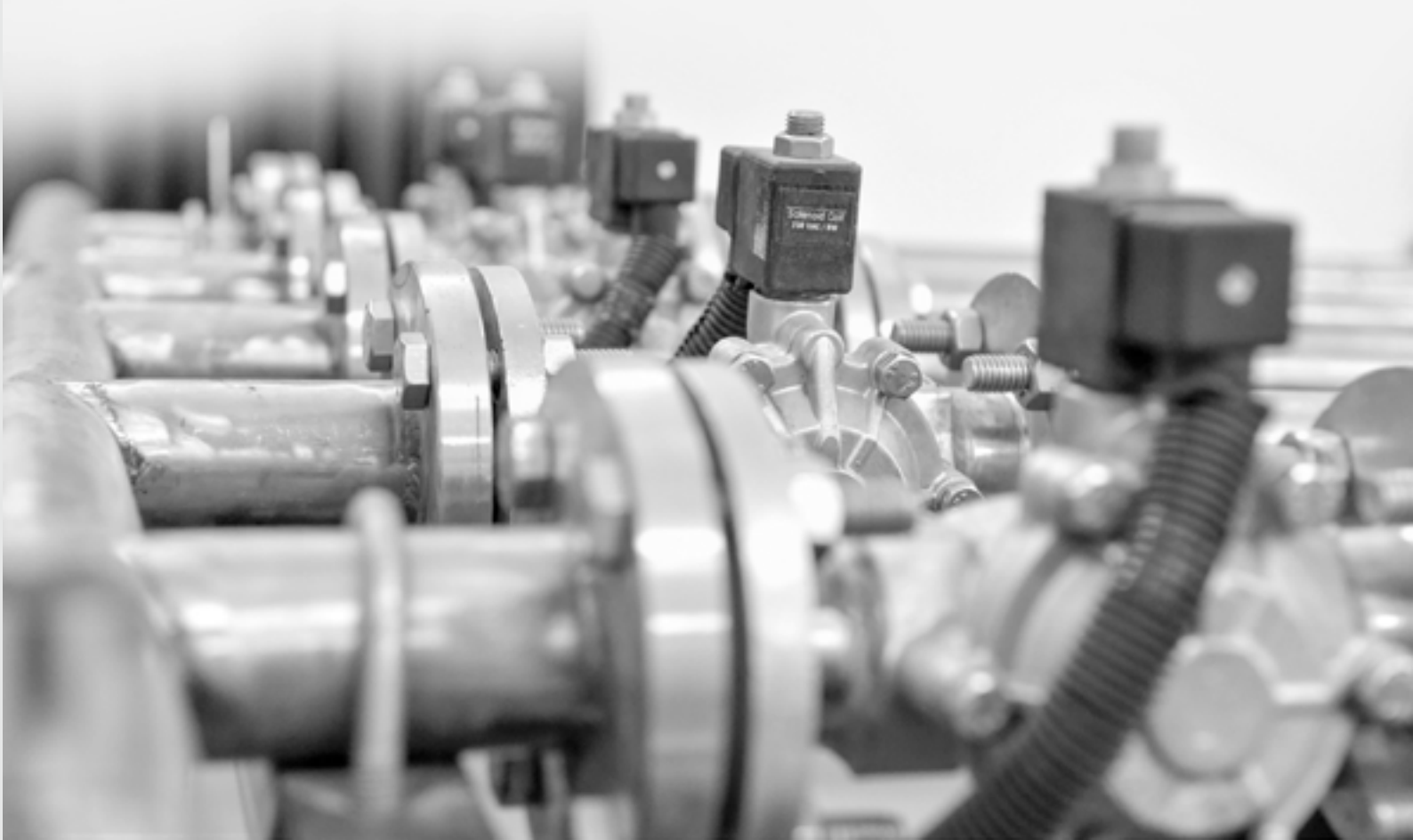
- To maintain the Faculty Student Ratio (FSR) at least @ 1:20.
- To Upgrade Communication Engineering Domain with state-of-the-art technologies so as to support both Teaching - Learning and Research process.
- To send proposals for project grants and receive funding from agencies such as DST, SERB, AICTE, IEEE, IEI and CDAC etc.
- To improve the number of internships and industry projects among students for improving the learning process.
- To strengthen research publications, proposals, and consultancy activities to improve the citation score and h index.
- To organize several National level seminars and training programs with grants and support from professional societies & Industry.
- To achieve 100% placement for eligible candidates with an average salary package of 7LPA.

Electronics and Instrumentation Engineering

The Department of Electronics and Instrumentation Engineering, specialized in Electronics, Measurements and Automation aims in producing talented Electronics, Instrumentation and Automation specialists who cater to the needs of the modern society. Students experience an industrial milieu and enhance their knowledge and skills in the state-of-the-art instrumentation technologies and automation. With faculty who are experts in medical instrumentation, sensor designing process, analytical instrumentation, advanced process control, process automation systems: SCADA, PLC & DCS, the department ensures that students learn from the best. With a strong industry connect and best infrastructure built for maximum efficiency, excellent opportunities for all the students is ensured. The department is recognized as a nodal centre for Virtual Labs, an initiative of Ministry of Human Resource Development (MHRD) under the national mission on education through Information and Communication Technology (ICT). Memberships in internationally acclaimed bodies like Instrumentation Society Of India (ISOI) and International Society of Automation (ISA) help in augmenting student's knowledge.

Student Strength	240
Year of Establishment	2006
Faculty Strength	13

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Imperative Advancements

- Organized National Symposium on Instrumentation (NSI 42) in association with Instrument Society of India (ISOI), IISc and Instruments Research & Development Establishment, DRDO, Dehradun from 28th to 29th December 2021. About 300 participants have attended this national level event.
- Co-organized International Conference IEEE Sponsored International Conference on Advancements in Electrical Electronics Communication Computing and Automation, ICAECA 2021, total No. of participants were 150 students.
- Conducted International Webinar on "Leveraging collaboration in higher education with West Texas A&M University „USA" with a total No. of 120 student participants
- Conducted National level, ISAB Virtual Education Series for Engineering students, with a total No. of 149 student participants.
- "More than twenty programs were conducted during the academic year 2021-22:
A total of 13 Webinar and online training programs, 2 Industrial Visit, 2 Value Added Program, 1 Guest lectures and 7 Workshops were organised."

Industry Partnership

- Partnership with Yokogawa India Ltd for offering Training, Students' Internship, Placement, Projects, Research and consultancy through Yokogawa Centre of Excellence in DCS.
- Partnership with Fluke Technologies, Bangalore for Industry Calibration consultancy services and student projects; the Calibration centre has obtained the NABL accreditation.
- Partnership with Siemens Ltd towards the establishment of PLC Automation Lab for offering intense training in Industrial Automation. It supports in Training, Industry consultancy projects and Students' capstone projects.
- Intense training in Embedded and microcontrollers for Faculty and students by Steps knowledge Pvt. Ltd. - Authorised training partner for Texas Instruments.
- With the support of Scientec Technologies a friction sensor was built for DST project on "Design and Fabrication of Computerized Dynamic Knittability Tester for Hosiery Yarns".
- Industry experts from Synetics Automation, Coimbatore, Pranav 3V Technologies, Bangalore, Central Manufacturing Technology Institute (CMTI), Bangalore, Harman Connected services, Hyderabad are members of the Department Advisory Board and Board of Studies.

Research

- Submitted one DST project proposal in the area of Yoga and meditation in SATYAM.
- 15 research project proposals were submitted for external funding in TNSCST and one student project proposal was Granted with an amount of Rs. 7,500/-
- 8 patents were filed in the year 2021-22 .
- One faculty member has registered for Ph.D this year under Anna University, Chennai.

Research plan for the year 2020-21:

- Research plan for the year 2022-23 is to secure research grants for an amount of Rs.50 lakhs by external agencies and to publish more than 17 publications in WebEx and Scopus indexed journals.
- Planned to generate a revenue of about Rs. 5 lakhs towards consultancy and training programs during 2022 - 2023.

Faculty researches:

- Submitted a project titled on Codifying Enigma Pertaining to the Impact of Heartfulness Yogic Transmission in De-stressing Gen-Z Professional Students through Electro-Physiological Analyses by Dr. M. Ezhilarasi, Professor and Head and team. Science and Technology of Yoga and Meditation (SATYAM) for a budget of Rs. 1 Crore.
- Dr. P. S. Mayurappriyan, Prof. EIE and his team of the following eight members has applied for the Patent titled on "A Method of Air Polluting Monitoring System using Internet of Things", application no. 202141037389 and filed on 18th August 2021. The inventors are Dr.S. Suma Crystal Mary, Mr.S. Suresh Kumar, Dr. J.B. Veeramalini, Dr.P.S. Mayurappriyan, Dr.C. Ramakrishnan, Dr. Hitesh Panchal, Mr.N.S.S. Ramakrishna, Dr. K. Punitha and Mr. Neel Shrimali.
- Dr. M. Ezhilarasi, Professor, EIE, External scholar Ms. K. Geetha's Viva-voce has been conducted and Ph.D awarded on 6th August 2021 by Anna University, Chennai.

For funded research:

- Mr. M. Saravanabalaji, AP I, Mr. S. Ranganathan and Mr. E. Muthuramalinagam, applied for a project titled AI based water pipeline leak detection by analysing the signature analysis of Flow induced acoustic , Rs. 1,00,000 grant, by UBA, New Delhi
- The research project titled "Onboard Charger" by Dr. P. Thirumoorathi / EEE and Dr.P.S.Mayurappriyan/EIE , has been selected for KCT Seed Grant, with an amount of Rs. 1 Lakh.
- Mr. V. Athappan, AP II and the IV year E&I students S.R. Sivanikesh, S. Sounder Raj, P. Perinpan, received Rs. 7,500 grant for the project , Centralized monitoring and control of process plant using DCS from TNSCST during March 2022.

Student researches:

- S.R. Sivanikesh, S.Sounder Raj, P. Perinpan, Centralized monitoring and control of process plant using DCS by Mr. V. Athappan, AP II , TNSCST and received Rs. 7,500 grant for the above project in March 2022.

Faculty publications:

- Mr. M. V. Umesh, Associate Professor – EIE, paper has been published in the month of August 2021. Balamurugan, R, Suganthi, K, Umesh. M. V. (2021). Synthesis and surface effects due to laser impairment of 4-methyl-N-methyl pyridiniumtosylate single crystal, AIP Conference Proceedings 2352, 020023, <https://doi.org/10.1063/5.0052470>
- Jeya Daisy, I, Vinoth Kumar, B, Krishamoorthy, M, Harini, C, (2021). Amperometric Detection of Glucose and Fructose Level in Beverages using IOMT, International Journal of Current Engineering and Scientific Research (IJCESR), Volume 8, Issue-4. ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697.
- Dinesh Kumar, V, Tamilselvan, V, Siva Subramanian, S, Sivaramakrishnan, M, Hosanna Princye, P, (2021). Enhancement of power quality in distribution scheme by reactive power compensation, International journal of Turkish Journal of Physiotherapy and Rehabilitation, Volume 32, Issue 2, pp. 2707-2714.

20 faculty publication in National and International Journals

02 publication in National and International Journals

02 as peer reviewers in National and International Journals

- Siva Subramanian, S, Tamilselvan, V, Dinesh Kumar, V, Bagyalakshmi, N, (2021). Series Controller Based on Cascaded Transformers Coupled through Three stage bridge converters, International Journal of Turkish Journal of Physiotherapy and Rehabilitation, Volume 32, Issue 2, pp.2715-2720.
- Balamurugan, R, Suganthi, K, Umesh, M V, (2021). Synthesis and surface effects due to laser impairment of 4-methyl-N-methyl pyridiniumtosylate single crystal, AIP Conference Proceedings 2352, 020023, <https://doi.org/10.1063/5.0052470>
- Usha S, Palanisamy R, Thamizh T, Karthikeyan B, Manjunathan A, Suresh M, Hitesh Panchal, Mayurappriyan P S, Kishor Kumar S, (2021). A simplified methodology for mitigating the harmonics and common-mode voltage using multi-level inverters for renewable energy applications, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis, <https://doi.org/10.1080/15567036.2021.1980157>.
- Anna Devi, E, Athappan V, Rahul R Rajendran, E.Ahila Devi, G.Emayavaramban, S.Sriragavi, M.Sivaramkrishnan, (2022). "A Diagnostic Study on Prediction of Covid-19 by Symptoms Using Machine Learning / International Conference on Electronics and Renewable Systems", IEEE (ICEARS2022, pp. 1416-1421, doi: 10.1109/ICEARS53579. 2022.9752301
- Mayurappriyan, P S, Ganesh C, Shanmugasundaram R, Jagadeesh Kumar S J K, Adhi Sakthi P K. (2022). Formulating Course Outcomes and Mapping with Program Outcomes, International Journal of Special Education, Vol. 37, No. 3, 2022, ISSN: 0827-3383, pp. 7316-7324.
- Mayurappriyan, P S. (2021). Evolution of Outcome Based Engineering Education in India – A Case Study, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Mayurappriyan, P S, Saravanakumar S, Srinivasan K S, Manimekalai V. (2021). Design and Implementation of a Novel Low Cost Self-Powered Weather Monitoring Station, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Mayurappriyan, P S. (2021). Delay Minimization and Evaluation in Logic Paths of RC Interconnects by Unified Logical Effort, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Dinesh Kumar V. (2021). Implementation of Home Automation Using Smart Mirror, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Dinesh Kumar V. (2021). PMBLDC Drive with Z source inverter, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Ranganathan S, Saravanabalaji M, Athappan V. (2021). Customised Gantry Pick and Place System, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Anil Kumar K K, Saravanabalaji M, Ranganathan S, Umesh M V, Athappan V. (2021). Characteristics and Performance analysis of Globe Valve using NI-OPC Server, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Saravanabalaji M, Ranganathan S, Athappan V. (2021). An apporoch to leak identification of pipelines in water distribution network , 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Athappan V, Saravanabalaji M, Ranganathan S. (2021). Real Time Temperature Process Plant Automation Using Yokogawa DCS Centum VP, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Jeya Daisy I. (2021). Review on Current Trends of Stress Monitoring

Using Wearable Electronics, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.

- Jeya Daisy I. (2021). Early-Stage Depression Detector using IOMT, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- Mayurappriyan, P S. (2021). Advanced Plant Disease Detection Bot, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.

Mention top 5 student publication

- Dinesh Kumar V, Karthik P, Keerthiv Sanjay U G, Abhiram S. (2021). Implementation of Home Automation Using Smart Mirror, 7th International Conference on Advanced Computing & Communication Systems (ICACCS 2021), IEEE.
- S Hemamalini (18BEI040), S Kousalya (18BEI021), P.Poovendran (18BEI016): The students Poster presentation in NSI 42 organized by E&I, KCT paper published in the Journal of the Instrument society of India, ISSN 9070-9983 Vol.50 No 1-4. Scopus Indexed journal.

Patents Filed

- Patent titled on "A System for Intransit Charging of Drones" by Dr.M.lavanya, M.Arivalagan, G.B.Santhi, Dr. K Malathi, Dr. P Hosanna Princye, Dr. S.Siva Subramanian, Dr. V Vijaya Kumari, Dr. V Dinesh Kumar (KCT), Dr. N Bagyalakshmi, Dr. R A Priya, Dr.S.Lakshmi, Applied on 7th June 2021 through the no. 202141025349, and got published on 25th June 2021
- Patent titled on IoT based Smart Hygiene Management System for Hospitals has been filed by Mr. V. Athappan and his team on 25.04.2022 (Reg. No. 202241023759).
- Patent titled on Smart Health Monitoring System has been filed by Dr. P. S. Mayurappriyan and his team on 24.03.2022 (Reg. No. 202241016610A). It is published on 15.04.2022.
- Patent titled on AI Based Virtual Assistant for mentally Retarded People with Voice Enabled Intelligence has been filed by the following inventors Dr. T. V. Ramana, Dr. S.K. Saravanan, Ms. R. Kalpana, Mr. V. Athappan (KCT), Dr. N. Manikandan, Dr. R. Thiagarajan, Mr.I. Mohan Girish, G. Patil, on 25th January 2022, Reg. No. 202241004116.
- Patent titled on Deep Learning Techniques for detecting emotions in children with spectrum disorders in their activities has been registered by the following inventors Mr. M. P. Rajakumar, Dr. L. Nalinijoseph, Dr. R. Anand, Dr. R. Thiagarajan, Dr.V. Mahesh, Mr. V. Athappan (KCT), Mr. I. Mohan, Dr. D. Beulah David, on 25th January 2022, Reg. No. 202241004118.
- Patent titled on Cell Capacity Evaluation Using 5th Generation has been registered by the following inventors Anush Prabhakaran V R, Balaji R, Saravanan P, Selvabharathi and Umesh M V (KCT), on 12th February 2022, Reg. No. 202241007533.
- Patent titled on Over Voltage & Under Voltage Protection Using IOT and ML has been filed by the following inventors Umesh M V (KCT), Anush Prabhakaran V R, Balaji K, Murugan R, Saravanan, Dr. B. Sabitha, Dr. K Akhila, P Selvabharathi, on 12th February 2022, Reg. No. 202241007532.
- Patent titled on Energy Consumption Prediction and Alert Generation using Deep Learning has been filed by the following inventors, Dr. R. Thiagarajan, Dr. Vaishali Wadhe, Mr. Manish Mahale, Mr. M. Saravanabalaji (KCT), Mr. I Mohan, Mr. Golla Naresh Kumar, Ms. M. Krishna Priya and Mr. S. Pandikumar, on 11th February 2022, Reg. No. 202241007336.

Consultancy

- The onsite consultancy work Siemens S7-1200 with V90 servo Motor and Drive Programming has been rendered to Factrans Private Limited, Anna Nagar Housing Unit, Veerakaram, Coimbatore. By Mr. S.Ranganathan, API, E.Muthuramalingam, AP I and Mr. M.Saravanabalaji, AP I, Rs. 11,800 revenue has been generated through the consultancy in the month of February 2022.
- Pressure Station, Flow Station (Turbine, Magnetic Flow), Control Valve Characteristics, Control Panel with Delta PLC and IVRT HMI consultancy work rendered to AC Muthaiah Private ITI, Thoothukudi, by Mr. S.Ranganathan, API, Mr. E.Muthuramalingam, AP I and Mr. M.Saravanabalaji, AP I, Rs. 14,500 revenue has been generated in the month of February 2022.
- The onsite consultancy work rendered to Durotech Engineering & AP Tec, Coimbatore, Delta PLC and IVRT Communication Problem in Oil Filling Machine by E&I faculty members Mr. S.Ranganathan, API, Mr. E.Muthuramalingam, AP I and Mr. M.Saravanabalaji, AP I in February 2022.
- The consultancy work has been rendered to M/s. Premier Lab Solution, Coimbatore in Delta PLC and Panel wiring, Commissioning work – EM Flow, Turbine Flow, Pressure, Orifice etc., by Mr. S. Ranganathan, AP I, E&I in March 2022 and generated the revenue of Rs. 18,880 through the consultancy.
- Consultancy work has been rendered to Sakthi Polytechnic, Appakoodal, Erode, for the Calibration of Electrical and Electronic Instruments, in EIE department, KCT - Fluke COE in Calibration - Electro Technical Test Bench by the EIE staff members, Dr.P.S.Mayurappriyan, Ms. V. Manimekalai, Ms. Sumathra and Ms. Umamaheswari. Revenue generated is Rs. 12,000 in the month of December 2021.
- The consultancy work was rendered to M/s. Premier Eveolvics Pvt. Ltd., Coimbatore for PLC programming & Panel wiring by the EIE faculty members, Mr.S.Ranganathan, Mr.E.Muthuramalingam, Mr. M.Saravanabalaji in Siemens PLC Automation centre. The estimated revenue is Rs. 30,000.
- The consultancy work was rendered to M/s. Marshall Automation & Robotics, Coimbatore for PLC programming for strip cutting automation, by the EIE faculty members, Mr.S.Ranganathan, Mr.E.Muthuramalingam, Mr. M.Saravanabalaji in Siemens PLC Automation centre. The estimated revenue is Rs. 30,000.
- Mr. S. Ranganathan, AP I, offered 3 days Core Training program on Industrial Automation (Batch I) for the External college students during 11 to 13 April 2022. Rs. 18750

Milestone Events

- AICTE Sponsored Online One Week STTP conducted through online on Digitization in Industrial Automation during November 2020. Various industry persons were handled the sessions. Rs. 3.81 lakhs grant received from AICTE for conducting the STTP.
- National level conference of National Symposium on Instrumentation (NSI 42) was conducted during the month on December 2020 in association with Instrument Society of India (ISOI), IISc and IRDE, DRDO, Dehradun. 320 participants were attended the program.
- Organized a National level, IE(I) sponsored Technical Webinar on "Importance of Calibration" on 5th May 2021 by the Resource person from Fluke Technologies Pvt Ltd, 110 participants were attended the webinar.
- International conference of IEEE – 2021, ICAECA by KCT

Achievements

- Dr. K. K. Anil Kumar, HoD / EIE got the Award for the workshop on "Embedded Systems-An application-driven approach, conducted

by AICTE and STMicroelectronics from 25th to 27th of August 2021 for designing the best project.

- Dr. P. S. Mayurappriyan, Professor, EIE have secured the Elite + Silver category in the NPTEL Online certification program on NBA Accreditation and Teaching-Learning in Engineering (NATE)
- Dr. P. S. Mayurappriyan, Professor, EIE got the award of Award of Merit – Institutional Development given by Kumaraguru College of Technology, Coimbatore in the Teachers Day Award for the year 2020-2021 on 5th September 2021.
- Dr. V. Dinesh Kumar, Asso. Professor, EIE got the award of Award of Merit – Engal Aasan given by Kumaraguru College of Technology, Coimbatore in the Teachers Day Award for the year 2020-2021 on 5th September 2021.
- Mr. S. Ranganathan, Asst. Professor, EIE got the award of Award of Merit – Student Development given by Kumaraguru College of Technology, Coimbatore in the Teachers Day Award for the year 2020-2021 on 5th September 2021.
- Mr. V. Athappan, AP II, Mr. E. Muthuramalingam, AP I and Mrs. V. Manimekalai, AP I have received the Employee Service Recognition Award by KCT for their ten years' service in KCT during the Founders day award function conducted on 26th March 2022.

Alumni

- EIE Alumnus Mr. Kaushikaa Siddharthan (16BEI002), Co-founder of Tested OK Technologies, delivered a guest lecture on My Story: Motivational Session by Successful Startup Founder to the Students of E&I on 25th February 2022.
- EIE Alumnus Mr. Karthikeyan Sabari, Team Leader, Robert Bosch, Germany and the batchmates (2009 Batch) have sponsored a Sum of Rs. 25000 to the III-year Student Ms. A. Yuvasri (19BEI215) for supporting her studies during April 2022. All the E&I faculty members interacted with Alumni student regarding his sponsorship.
- EIE Alumnus Dr.Anitha Subburaj, Professor, West A&M University, USA, was delivered a Speech for Students gain the knowledge about higher studies opportunities in international university, to the Students of E&I on 23.06.2021.

Achieved Goals

- A Core placement has been increased by 8% with a total of 100% placement.
- Provisional Diploma program (3 months) in Industrial Automation System Design is under process and Certificate programme in automation has been provided for interested students. 5 such programme have been successfully conducted.
- Enhance consultancy in the area of Calibration and Automation System Design

Next Year Goals And Plans

- To launch a PG program Jointly with Robert Bosch in Automation Engineering.
- To offer Diploma Certificate Program in Automation System Design.
- To enhance consultancy in the area of Calibration, Automation System Design, Embedded and Energy Conservation, MEMS and Smart Sensors.
- To keep the MoU's active with Yokogawa India Limited, Siemens India Limited by continuous engagement of the partners with various training activities to the students and faculty members.
- To organize International conference once in two years.

Fashion Technology

The Department of Fashion Technology has been accredited by the National Board of Accreditation (NBA), New Delhi on Tier I Scheme of the Washington Accord for five years from the year 2014 which facilitates transnational recognition of degrees and mobility of graduates and professionals. Some significant areas of study in the department are fashion designing and portfolio, apparel manufacturing technology, apparel management, retail management and functional clothing. The department is also involved in research projects that are funded by Government of India and other agencies.

Student Strength	201
Year of Establishment	2002
Faculty Strength	13

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Imperative Advancements

- 4 MoUs signed in the academic year 2021-22 and several student programmes have been conducted successfully.
- Rs. 12.5 lakhs received from Ministry of Culture - Government of India, for the establishment of Atmanirbhar Bharat Centre for Design (ABCD) at Indira Gandhi National Centre for Arts (IGNCA), New Delhi. Faculty co-ordinators are Dr Ramakrishnan, Prof. & Head, Fashion Technology, KCT & Dr Poongodi B, Asst. Prof. KCT Business School.
- Societal Outreach:
 - i. Training on The Center for Weavers - TNSDC - RPL, Training of weavers under PMKVY-RPL scheme and certifying after assessment from 3.2.22 to 12.2.22.
Name of the Faculty Coordinator/ Convenor: Dr. G.Ramakrishnan
Details of resource person: Mr. Deivasigamani
No of external participants – 283
 - ii. Outreach program on Sewing and Embroidery for School Students on 17.3.22.
Name of the Faculty Coordinator/ Convenor: Dr S Kavitha/Dr Ramakrishnan
Details of resource person: Dr S Kavitha/ Ms. Christina Mary
Sponsored by KCT – Rs. 4500/-
 - iii. Outreach program on Founder's Day Outreach Program on 17.3.22.
Faculty Coordinator/ Convenor: Dr S Kavitha,
Details of resource person: Govt school children as participants.
- Research grants:
 - TNSCST – Student Project Scheme granted Rs.7500/- for the student project entitled "Biodegradable mask using soyabean fabric". Project Supervisor: Dr. Kavitha, Asst. Prof., Fashion Technology.
 - KCT SEED GRANT of Rs. 1,00,000 was granted to Dr G Rajkumar for his research proposal entitled "Development of protective gear for fireworks industry employees from waste electrical cable wires".

Industry Partnerships

- Partnership with JUKI E-LEARNING, MR PRADEEP, JUKI INDIA PVT LTD Nature of linkage E-LEARNING from: 1.12.21 to 31.12.21 for FT Students."
- Launching new PG Diploma Program, Srilankan Institute of Textile and Apparel, Advanced Clothing Concept, Jay Jay Mills.
- Student Project with AYURVASTRA NATURAL DYEING, ERODE

Research

The broad areas of research undertaken in the department during 2021 – 2022 are:

- Eco-friendly processing of fabrics and apparels.
- Medical Textiles
- Sustainable Textiles

Thrust Areas In Students Research Projects 2021-22

- Sustainable Textile products and apparels
- Technical Textiles and Apparels
- Value Added Product Development"

Research plan for the year 2020-21:

To carry out research on areas such as

- Memristor Digital Design
- E-Vehicle Design

- Embedded System
- Electrical Drives
- Renewable Energy
- Network on Chip etc through funded and non funded research

To publish research papers in indexed journals.

THRUST AREAS IN STUDENTS RESEARCH PROJECTS 2020-21

- Protective/Hygiene Textiles,
- Sustainable Textile products and apparels,
- Technical Textiles and Apparels,
- Value Added Product Development.

Research Plan For The Year 2021 – 20.

A The Department of Fashion Technology is focused on research which includes technological innovations and socially sustainable projects. The focus of research for the forthcoming year will be Sustainable Technical Apparels

Handloom – Soft and Hard interventions

New Product Development

Waste Recycling and Utility Management

Medical Textiles

Faculty Research

Research grant of Rs. 13,19,000 from AICTE – Research Promotion Scheme (RPS) for the project entitled "Inexpensive and novel adsorbents from coconut coir fibers for the removal of synthetic dyes from textile dyeing effluents". Principal Investigator: Dr.P.Ramalingam, Prof./BT and Co-Principal Investigator: Dr G Ramakrishnan, HoD/FT. Research grant of Rs. 11,58,800 from SPARC towards Development of non-absorbable soy protein nanofibre suture loaded with Rubiacordifolia and Eichhorniascrassipes for surgical site infection was sanctioned to the project team. Indian PI-Dr. BhaarithiDhurai ; International PI: Prof. SreeramRamakrishna, National University of Singapore, Indian Co-PI: Dr. Saaraswathi N., HOD-BIO Tech, KCT; Dr. Sheeja Rajiv (Anna University); International CO- PI: Prof. Lakshminarayanan, Singapore Eye Research Institute(SERI).

Student Research

A project on 'Development of fabric wrap - an alternative for plastic packaging in e-commerce' was done by the student team SHARMITHA B (17BFT004), KUSHAL SINGH S (17BFT020) and NISHALI D (17BFT050). The project was self-funded by the team and mentored by Dr. S Kavitha (AP/FT).

A project on 'Design and development of period clothing for differently abled women during menstruation' was done by the student team DIKSHIKA MALENI T (17BFT045) and SAHANA N K (17BFT015). The project was self-funded and mentored by Prof. Dr. G. Ramakrishnan (HoD/FT)

A project on 'Design development of ecofriendly non -woven disposable sweat pads' was done by the student team SAMYUKTHA G (17BFT011), SRINITHI NAGADURGAI M (17BFT022) and CHIBINANDAN R (17BFT038). The project was self-funded and mentored by Dr. V Krishnaveni (ASP/FT).

Faculty publications:

- Krishnaraj Prabu, Jaganathan Srinivasan & Chidamabaram Prakash (2021). Study of mechanical properties of optimised ceramic/glass fibre needle-punched nonwoven fabrics Part II: Stitch Bonding Technique. Journal of The Textile Institute, DOI: 10.1080/00405000.2021.1969157
- A.Thambidurai, A.Arunraj, V.Ramesh Babu, S.Sundaresan, An Outlook on Sports Textiles, Asian Technical Textiles, 16(1), Jan-Mar 2022, 49-54
- Krishnaveni, Effect Of Antimicrobial Coating On Silk Cotton Fabric For Protective Wear, Asian Dyer, Jan 2022, 52-54.

20 faculty publication in National and International Journals

02 publication in National and International Journals

02 as peer reviewers in National and International Journals

- V Krishnaveni, A study on Comfort related Properties of Adaptive Clothing, International Research Journal of Engineering and Technology, 2022, 09(1)
- V.Krishnaveni, Analyzing the effect of antimicrobial and wound healing activity on bamboo fabric for skin care application, Colourage, Mar 2022.

Student publications

- Mothilal, B., Kubera Sampath Kumar, S., Prakash, C., Ramakrishnan G & Sivamani, S. (2021) Effect of Musa Acumianta SAP on Thermal Comfort Properties of Cotton Finished Fabrics. Journal of Natural Fibers. Dol: 10.1080/15440478.2021.1958438
- Poongodi, B., Ramakrishnan, G., Monisaa, Tharani, S.K. (2021). Entrepreneurial Pursuits of Weavers in Low Resource Handloom Industry. Turkish Online Journal of Qualitative Inquiry. 12(6): 1166-1181.
- Priya Dharshini K, Shridhula AR, Pradakshina M, Ramakrishnan G, Design and Development of Sustainable Jamakalam using organic cotton blended with unconventional natural fibre and regenerated fibre, International Research Journal of Engineering and Technology, 9(1), 1066-1072
- Thambidurai A, Arunraj. A, Keerthimathi V, Shankar N, Kamaleshwari N, Developments of composites from coir, corn husk and groundnut materials, Colourage, Feb 2022, 59-63.
- Thilakavathi, T. & Ramakrishnan, G.(2021). Development of a Sustainable Intimate Apparel with Unconventional Natural Fibre And Blends With Regenerated Fibre -Review Part I. International Research Journal of Engineering and Technology. 8(12): 1381-1385 5

Patents Filed

- Modified Jacquard for Handlooms by Dr. G. Ramakrishnan, HoD/FT, Dr. B Poongodi, AP/KCTBS, Dr. C Velmurugan, HoD/Mech, Dr. G Mohamed Zakriya, Ms. AR Mahalakshmi (Kannan Jacquard) Filed on 01.03.2019 & FER received on 09.06.2021 and replied.
- Multi-purpose Thermal Resistant Oven Mitt by Dr. G. Rajkumar, ASP/FT, Dr. J. Srinivasan Filed on 07.12.2017 & FER received on 27.05.2021"

Consultancy

- KCT TIFAC-CORE generated an amount of Rs. 83148 through technical consultancy in the development and testing of new products.

Milestone Events

- "Kumaraguru College of Technology, Coimbatore has won First Place w.r.t Other Engineering Colleges Category at the CII Industrial Innovation Award 2021.Out of the 4 Innovative products submitted, 2 are from Department of Fashion Technology:
 - Eco-friendly sanitary napkins from natural Fibre- Dr. G. Ramakrishnan- HoD/FT and Team members.
 - Low Weight Modified Jacquard for Handloom Weavers- Dr. G. Ramakrishnan - HoD/FT and Team members."

Achievements

Faculty Achievements

- Dr. G. Ramakrishnan, Dr.B. Poongodi, Dr.C. Velmurugan and Dr. Mohamed Zakriya were awarded the NRDC National Societal Innovation Award of the Year 2019, for innovation / invention "Low Weight Modified Jacquard for Handloom Weavers" with award Rs. 3.00 Lakh (Rupees Three Lakh) under the category, NRDC National Research Development Corporation, NRDC, New Delhi.
- AICTE Lilavati Award-2nd runner-up for the category "Technology for Women" was awarded to Dr. G. Ramakrishnan and Dr. Poongodi B on 08.03.2022.

Student Achievements

- Harinipriya K S & Kaavya L have won IInd Prize on paper presentation held at sona college of technology, Salem
- Geetha T & Sakthimaheswari A have won Ist prize on poster presentation held at sona college of technology, Salem
- Trisha A have won Ist prize on technical quiz held at sona college of technology, Salem.

MoU

- Apparel, Made-Ups & Home Furnishing Sector Skill Council (AMHSSC)
- Ayurvastra Textiles Pvt. Ltd, Thiruvananthapuram
- Gemini CAD
- Indira Gandhi Centre of Arts (IGNCA), New Delhi

Alumni

- Nivetha P delivered a lecture on Student Huddle: "My Experiences working in a core company"
- Malavika S delivered a lecture on Student Huddle: "Balanced College Life & Preparation for Placements"
- Devishree S delivered a lecture on Student Huddle: "Higher studies" & "Improve Illustration Skills"

Next Year Goals And Plans

- Launch of PG Diploma programme with Sri Lankan Institute of Textile and Apparels (SLITA).
- MoUs will be kept active by continuous engagement of the partners in different collaborative research activities and student support. (internships, industrial training, project assistance, etc.).
- Launch of twinning under-graduate programmes, and projects & internships for UG & PG Students in collaboration with Manchester Metropolitan University, UK.
- Launch of Honors degree in Undergraduate Programme (2023-25).



Mechanical Engineering

The Department of Mechanical Engineering of KCT is one of the oldest departments, functioning since the inception of the institution. This research driven department specialises in Engineering design, Thermal engineering, Manufacturing engineering, Industrial engineering and Fluid mechanics and machinery. The department is a recognized research centre by Anna University that signifies its extensive research interest.

Student Strength	683
Year of Establishment	1984
Faculty Strength	40

Head of the Department
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Imperative Advancements

- Established a Centre of Excellence (CoE) for Product Lifecycle Management (PLM) in collaboration with Capgemini Engineering India on 14-03-2022.
- Got Accreditation by National Board of Accreditation upto 2025 and Recognized as Research centre upto 2024 by Anna University ,Chennai.
- Received grant from AICTE-Scheme for Promoting Interests, Creativity and Ethics among Students (SPICES).
- Organized a Short Term Training Programme (STTP) on “PLM and 3D Experience Platform” from 14-03-2022 to 23-03-2022 in association with capgemini Engineering.
- Organized a Short Term Training Programme (STTP) on 3D Experience Platform from 23-03-2022 to 03-04-2022 in association with Coimbatore CAD Solutions.
- Published 45 research papers by the faculty members in various reputed international journals.
- Signed Mou with 4 Medium Scale industries for enhancing students placements and internships.
- Carried out industrial consultancy work for Emerald jewellery, Reshmi Industries and SKF boilers and driers.

Industry Partnership

MoU has been made with Capgemini, LUB, Ammarun Foundries, Spin Draft, KSB pumps, Connect wind etc to initiate students internships and industrial collaborations

Industrial internships are completed by our students in TVS, KSB, Ashok Leyland, Titan, TNSTC, SAIL, Robert Bosch etc

Industrial projects are done by our students in KSB Valves Limited and Southern Heat Exchangers

Delivered a Special Lecture on Subsea Systems in oil and gas industry for SEA, Cameron -Schlumberger, Coimbatore on 18-09-2021, 19-09-2021 and 25-09-2021 by Dr.R.Manivel, Professor, Mechanical Engineering
Delivered a Guest Lecture to PGDDE students of Cameron Schlumberger on the topics of well Head, Jumper, Connector and Connector Design on 3-11-2021, 05-11-2021, 11-11-2021 & 12-11-2021 by Dr.R.Manivel, Professor, Mechanical Engineering

Dr. N. Sangeetha, Sr. Associate Professor discussed with Mr. Krishnamoorthy, Head CAE, Royal Enfield, Chennai and Mr. Niranjana Parameswaran, SME, Senthil Towers, Coimbatore for industry tieup and arranging internships to the students.

Dr. B. N. Sreeharan, Assistant Professor - II visited M/s. G R Engineering Works for facilitating students' project work on 14-02-2022.

Research Introduction

- Dr.C.Velmurugan submitted a project proposal titled “Development commercialization of low-cost alternate material for Nickel Aluminum Bronze suitable for valves meeting the process industries application”, to DST Technology Development Programme on 14-01-2022 of total cost Rs.44,80,000
- Dr.Sivakumar submitted a project proposal titled “A critical investigation on the effect of disposal of solar panels to the environment at Coimbatore” to ICSSR on 10-09-2021 of total cost Rs.500000

Research plan for the year 2021-22:

- Establishment of Centre of Excellence in Advanced Manufacturing in collaboration with Jothi CNC Machines.
- Submission of project proposal to various funding agencies in collaboration with industry persons.
- Collaboration with foreign University and industry professionals for research publications.
- Engagement of students with faculty doing research work for joint proposal submission and paper publications.
- Organizing international conference for more research paper publications.

Student researches:

For non-funded research:

- V.M. Brathikan, N. Sangeetha, B. Sangeethkumar, Kavi Sidarth, Influence of various blank diameter in deep drawing, Materials Today: Proceedings, 2022, ISSN 2214-7853,
- Sangeetha N, Brathikan V M, Nitheeshwar R K & Jayabalu S (2022). Experimental investigation in the selection of blank material during deep drawing process using finite element analysis. Journal of Ceramic Processing Research, 23(4), 529-534.

Faculty Researches:

For funded research:

- A project on ‘Development of Autonomous Multipurpose Agricultural Robotic Platform was done by Dr. M. Ramesh Kumar, Assistant Professor and team. Ministry of Communications and Information Technology, Govt. of India funded a sum of 89.67 lakhs for this project.
- To support the student club/chapter/society fund received by Dr. N. Sangeetha, Sr. Associate Professor. AICTE - Scheme for Promoting Interests, Creativity and Ethics among Students. (SPICES) funded a sum of 1 lakh for this project.

Faculty publications:

- Velmurugan, C Prediction of Dry Sliding Wear Response of AlMg1SiCu/Silicon Carbide/Molybdenum Disulphide Hybrid Composites Using Adaptive Neuro-Fuzzy Inference System (ANFIS) and Response Surface Methodology (RSM), Arabian journal for science and engineering
- Sathyabalan, P Experimental investigations on jet impingement solar air collectors using pin-fin absorber, Proceedings of the institution of mechanical engineers part e-journal of process mechanical engineering
- Muthukumar, V Therapeutic effects of purified polyphenols from Coccinia grandis: correlation between hypertension and diabetes mellitus, Advances in traditional medicine
- Ramanathan, S; Arun, AP Numerical investigation of backflow in natural draft chimneys Materials today-proceedings
- Senthilkumar, KM, Multi-objective optimization on output responses for micro ECM of Al6063 alloy, silicon carbide and boron glass powder metal matrix composites Materials today-proceedings

Student publications

Muthuvisakan M, Mahesh Kumar U, Sivadhasan V.K, 18BME15 published a paper titled “Review on Braking systems in Railways” in the International Research Journal of Engineering and Technology, Vol. 8, Issue 7, July 2021, pp. 2333-2339

- Kavinprabhu P, Kanish M G, Ananth V L, published a paper titled “A Review on Biodiesel Production”, International Journal of Engineering Science and Computing (IJESC), Volume 11, 56

40 Total no of faculty publication in National and International Journals

25 Total no of student publication in National and International Journals

32 No of faculty as peer reviewers in National and International Journals

Issue 8, Pg. No. 28664-28669.

- Sameer Ahamed Khan M A, Ibrahim Basha B, published a paper titled, "Supply Chain Management in Automotive Industry – A Review", Transactions on Innovations in Science and Technology, Vol. 5, Issue No. 2.
- Naveenkumar M, Prasanna Venkatesh M, Saravanan R, Sharan D R, published a paper on "Review on Braking systems in Automobiles" in the international journal of scientific and engineering research, Vol. 12, Issue 7, July 2021, pp. 434-449.
- Pravin K, Venkatesh J, Thirudhakshin T, published a paper titled "Windmill Blade Design-A Review", International Research Journal of Engineering and Technology (IRJET), Volume: 08 Issue: 08 | Aug 2021.
- Avinash Roshan V R V, Deepan Issac T, Shreeram A, published a paper entitled "M Review on Influence of Residual Stress in Metal Additive Manufacturing Process", Journal of Emerging Technologies and Innovative Research (JETIR), Volume 8, Issue 8, Pg. No. c100-c107, (ISSN-2349-5162), August 2021
- Arun, M; Muthukumaran, M; Balasubramanian, S, "Tribological characterization of friction stir welded dissimilar aluminum alloy AA6061-AA5083 reinforced with CeO₂ and La₂O₃ nanoparticles", Int.J. INDUSTRIAL LUBRICATION AND TRIBOLOGY, AUG 2021, Vol.73,(5), 783-788. doi:10.1108/ILT-01-2021-0009
- Balamurugan R, Jeeva B and Aravindh B, "Measurement of displacement in spatial correlation velocimetry by pixel shifting method", AIP Conference Proceedings AUG 2021, 2352, 030022; <https://doi.org/10.1063/5.0052366>
- Kishore J, Arjun D and Sakthi Balaji K, Conceptual design and development of 360-degree drilling machine, International Journal of Advance and Innovative Research, Volume 8, Issue 2 (IX), June 2021, 41-46.
- Mohamed Hakkim Harris P, Navin V and Suryah P V, Conceptual development and analysis of a conveyor belt material and its supporting parts for performance improvement, International Journal of Advance and Innovative Research, Volume 8, Issue 2 (IX), June 2021, 47-52.

Patents Filed

- Dr.C.Velmurugan - Low Weight Jacquard Hooks for Handloom- Granted Patent No: 371367
- Dr.S.Balasubramanian -An apparatus for disinfecting biometric system and a method thereof, Filed-202141029332
- Dr.A.P.Arun - Design and development of agriculture based fertilizer spraying and water weed removal device, Filed-202141055878 A
- Dr.K.K.Arun - A system for server driven data synchronization in IOT connectivity and method thereof, Filed-202141034610 A
- Dr.V.Muthukumaran - Design and development of compact centrifugal edible oil filter, Filed-202141048365
- Dr.K.M.Senthilkumar - Automatic Unmanned Railway Level Crossing Gate, Filed-202141047926 A
- Dr.K.M.Senthilkumar - Automatic Indoor cleaning Robot, Filed-202241027912
- Dr.V.R.Muruganantham, Mr.P.D.Devan - Bathroom Jali with detachable Cover, Filed-202241028007
- Mr.Jeeva B - Compression Ignition Internal Combustion Engine Operating on diesel or gasoline, Granted-3787/MUM/2014,24/11/2014
- Mr.M.A.Vinayagamoorathi, Dr.V.Muthukumaran and Mr.T.V.Abinesh published a patent titled "An apparatus for holding and dispensing water from a water can"

Consultancy Services

- Dr.N.Sangeetha carried out the consultancy work for KCIRI in FE

Analysis of Paddy Soaking Tank, M/s SKF Boilers and Driers Pvt Ltd, Mangalore and generated a revenue of Rs.37,800 in April 2022.

- Dr. M. Rameshkumar, completed an Industrial Consultancy titled "Deep learning based one shot image classification model development" for M/s. Emerald Jewel Industry India Ltd and generated a revenue of Rs.3,89,400 in October 2021.
- Dr. B. N. Sreeharan, Assistant Professor – II, carried out consultancy worth Rs. 2000/- to M/s. Reshmi Industries India P. Ltd., Coimbatore in the EEE Lab for Measuring flux density with the help of faculty members Mr. S. Arunkumar, AP/EEE and Mr. Mohana Sundaram, AP/EEE.

Milestone Events

- A technical talk on "Recent advancements on Productivity Improvement" was organized by the department in association with Coimbatore Productivity Council (CPC) on 25.11.2021. Mr. Ravikumar R, General Manager - Operations, Roots Multi-clean Ltd., Coimbatore was the resource person.
- A Regional Level Technical Talk on "New Product Design and Development" was organized by the department on 29-12-2021 in the Conference Hall. Mr. M. A. Vinayagamoorathi, Assistant Professor – II, Mr. R. S. Mohan Kumar, Assistant Professor and Dr. S. Thirumurugaveerakumar Associate Professor delivered the technical talks.
- Organized an FDP on "Smart Manufacturing and Innovations" during 21.02.2022 and 22.02.2022. Mr. R. Ravikumar, COO, Roots Multiclean Limited and Treasurer, Coimbatore Productivity Council, Mr. Arul Ram, Lead Manufacturing and Green Initiatives Godrej Limited, Delhi, Mr. M. Vijayakumar, Head - Facility Development and Automation, Roots Industries India Limited, Coimbatore and Mr. M. Raja, General Manager, KSB Pump Limited, Coimbatore were the resource persons. Dr. S. Balasubramanian, Associate Professor and Mr. M. A. Vinayagamoorathi, Assistant Professor - II coordinated the FDP.
- Organized an National Workshop on "Welding Technologies" on 16-05-2022 in collaboration with the Indian Welding Society. Dr. Sudharsanam, R & D Head, Welding Research Institute, was the resource person.
- A Value Added Course on Application of Mechanical Engineering in Oil and Gas Industries was organized from 01.09.2021 to 21.09.2021. The course was handled by Mr. Chidambaram Subramanian, Senior Scientist, CSIR, Durgapur, West Bengal.
- Value added programme on "Product design and Development" is being conducted by Mr. R. S. Mohan Kumar, Assistant Professor and Dr. A. P. Arun, Assistant Professor – II from 24.11.2021 to 10.12.2021 for Third year students.
- A workshop titled "Design Now, using Autodesk Fusion 360", in association with ICT Academy was conducted on 28-08-2021 was organized by the department on 28-08-2021. Mr. P. Kranthi Kumar, Senior Trainer, ICT Academy and Mr. R. S. Mohankumar, Assistant Professor coordinated the department.
- Organized a Webinar titled "Role of Mechanical Engineers in Industry Perspective & Career Opportunities" in association with Mechanical Engineering Association on 23-01-2022. Mr. M. Gautham Siddharth, Senior Engineer, Titan Engineering Automation Limited, Bengaluru addressed the gathering. Dr. T. Karuppusamy, Assistant Professor – II and Dr. B. N. Sreeharan, Assistant Professor – II coordinated the event.
- 9. Webinar on "Embrace Global Education on your fingertips" was organized by the department on 29-01-2022. Mr. Ranjith Khumar Shanmugasundaram - Research Associate at Wikki GmbH was the resource person. Dr. V. R. Muruganantham, Associate Professor and Mr. M. A. Vinayagamoorathi, Assistant Professor coordinated the event

Achievements

Faculty Achievements

- Mr. S. Subbiah, Assistant Professor received Merit of Award for Student Development and Merit of Award- Engal Asan- Teachers Day celebration Sep 15th, 2021.
- Dr. V. Manivelmuralidaran, Assistant Professor - II and Dr. M. Balaji, Associate Professor published a Book chapter titled Design of Workplace in Assembly Unit Using Ergonomic Principles in Recent Advances in Manufacturing, Automation, Design and Energy Technologies with an ISBN number 978-981-16-4221-0, published by Springer, Singapore.
- Dr. M. Rameshkumar, Assistant Professor was considered as visiting faculty for CDAC, Kolkatta for their PG Diploma from 01-11-2021 and 13-11-2021.
- Dr. V. Muthukumaran, Professor was the DAB Expert member for Dr. NGP Institute of Technology Coimbatore on 13-08-2021
- Mr. B. Jeeva, Assistant Professor received two awards, "Award of Merit- Teaching" and "Award of Merit- Institutional Development" from Kumraguru College of Technology, Coimbatore" on 15.09.2021
- Dr. K. M. Senthil Kumar, Associate Professor was appointed as Anna University Nominee in the Board of Studies Meeting held at M. Kumarasamy College of Engineering on 02.06.2021.
- Dr. S. Bhaskar, Associate Professor was the resource person for 13 online sessions - (each session of 02 hours duration on the topic "Building systems for Outcome Based Accreditation" for Sakthi Polytechnic College – 638315
- Mr. R. S. Mohan Kumar, Assistant Professor and Mr. A. P. Arun, Assistant Professor - II published a book chapter "Critical Studies on Design and Analysis of Honeycomb Reinforced Epoxy Glass Fibre Bumper" in a book titled Current Approaches in Science and Technology Research, Vol. 8
- Dr. S. Bhaskar, Associate Professor was the resource for a Training programme on "Outcome Based Education" for the 6th and 7th Online Faculty Induction Programme UGC - Human Resource Development Centre (UGC-HRDC) Sardar Patel University Mota Bazar, Opp. SICART, Vallabh Vidyanagar-388 120, Gujarat on 10.09.2021 and 11.09.2021 respectively.

Students Achievements

- Thirty five students of Second Year Mechanical Engineering of 2020 Batch have received IWS student membership for three years through Indian Welding Society Students Forum.
- Sixty one students of Second Year Mechanical Engineering students and thirteen of three years received CPC student membership, through KCT-CPC students forum
- Praveen B - 18BME092, Kavinprabhu P – 18BME008, Rakshit Stephen T – 18BME132, has been selected as the Associate Technical Consultants in VURAM Technologies.
- Kaaviyan - 18BME061, has been selected as the DevOps Engineer at MITSOGO.
- K. T. Imayan – (20BME045) of Second year Mechanical Engineering B section attended an Event named as "NGITBI HACKATHON" organized by NGI-TBI on 04-10-2021. His team's project "Influencing the trend of Industry 4.0 using OFC technology" got selected to the next round and got approved for 'mentorship and incubation support' for one month.
- M. Subramanian (20BME111), U. Venkatesan (20BME121), S. Surendher (20BME115), S. Sabarivasan (20BME097), S L Vaseekaran (20BME120), A. Balamurugan (20BME018), Mr. R. Kumarasamy (20BME065), S. Rakul (20BME092) and M. Nandeesh (20BME076) are attended and selected for Internship project as the next phase of that Event named as RiGathan 21 which was conducted by our College Technical Clubs with Emerald Industries.

MOU

- MoU has been signed with Capgemini India Pvt Ltd on 29.11.2021.
- MoU has been renewed with Ammarun Foundries on 08.10.2021.
- MoU has been renewed with Bull Agro Implements on 15.09.2021.
- MoU has been renewed with Sakthi Gear Products on 24.10.2021.
- MoU has been renewed with Spin Draft on 12.11.2021.
- MoU has been renewed with KSB Pumps Limited on 29.11.2021.
- MoU has been renewed with M/s Connect Wind Power India Spares & Services on 06.01.2022

Alumni

- 1. Dr. S. Bhaskar, Associate Professor, took initiative to connect alumni Mr Prasanna 94ME batch working at Bosch - Bangalore to look at avenues for Kumaraguru College of technology and Bosch to work jointly on 25.03.2022
- 2. Mr.R.Sanjay , Product Design Engineer, Bus Chassis and Frames, Vehicle Design Department, Daimler Trucks Innovation Centre India, Bangalore, 2019 Passed out Alumni attended BOS Meeting

Next Year Goals And Plans (2022-2023)

- To establish centre of Excellence in New Product Development with Capgemini Engineering
- To carry out CNC job order consultancy work with Sakthi Gear Products and Medium Scale Industries
- To organize International Conference and Seminars for connecting international partnerships and improving publications
- To submit research proposals for getting grants from various government agencies
- To convert student projects into scopus journals papers

Achieved Goals

- Establishment of Centre of Excellence in New Product Development in association with Capgemini Engineering India Private Limited- On going (COE in PLM Completed)
- Signing MoU with Large Scale Industries for enhancement of Students placement and training- Completed
- Establishment of Materials Processing and Testing Laboratory- Completed
- Introducing a new program on Mechanical and Automation Engineering - Proposal submitted and Ongoing
- Introduction of 3D Experience platform applications in the curriculum- Completed

Mechatronics Engineering

The Department of Mechatronics Engineering - Significant areas of Mechatronic studies that the department engages in, are Industrial Automation, Industrial Robotics, Mobile Robotics, Machine Vision Systems Sensors and Instrumentation. The academicians here research extensively on the automation processes for artificial intelligence. The department has well developed laboratory infrastructure that bridges the gap between industry and academia. It also provides consultancy services to industries. Industrial automation, Robotics, Automotive Electronics, Mechanical Design, Noise and Vibration are the thrust areas of research. On a regular basis experts from industry are invited for interaction on the field scenarios.

Student Strength	250
Year of Establishment	1999
Faculty Strength	11

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Imperative Advancements

- Train the Trainer program was conducted for the faculty by Bosch and KCT on the HMI program and in continuation to this program, the industry personnel trained 10 faculty from various departments.
- Organized national level webinar on IPR - Practical Aspects & IP Strategies on 21.01.2022, about 168 participants were attended this event
- Organized national level webinar on AI & Robotics on 07.08.2021, about 189 students and 2 faculty participated in this event
- Organised one day Faculty Empowerment Programme on "Winning Research Proposals" on 03.01.2022 and 75 faculty members from various departments participated.
- Organised webinar on "Supply Chain Management" on 20.02.2022, 135 students participated in this event.
- Conducted workshop on Mobile Robot from 29.11.2021 to 12.01.2022 and 60 students participated in this event.
- "Twenty three programs were conducted during the academic year 2021-22:
8 Webinar, 2 training programs, 3 Competitions, 1 Value Added Program, 5 Guest lectures, 2 Workshops, 2 FDPs"

Industry Partnership

- Partnership with SHLOKLABS, Coimbatore, for Training and R & D work in the field of IOT
- Industrial Projects with ADNA Automation, Schmalz and Kannan Tools & Dies

Faculty Researches:

For funded research:

- Dr. M. Saravana Mohan and Mr. R. Raffik, 2021, Reconfigurable End-Effectors for Industrial Robots, 2,00,000, KCT, Dr. M. Saravana Mohan, Ongoing Project
- Dr. M. Saravana Mohan and Mr. R. Raffik, Mentored a batch of students and they got fund of Rs.10,00,000 from IIIT Hyderabad under NIDHI Prayas Scheme. Project Completed.

For non-funded research:

- Mr. Darshan Kumar, Assistant Professor and team are currently in the research of design and development of agricultural drones. The research started in 2019 and they were able to build a successful drone which caters the purpose in agriculture.
- Mr. Vijayanandh, Assistant Professor currently working on Mutorotor design for the defence purposes, the research focusses on agile multicopter designs for future industrial needs.
- Mr. Senthilkumar S, Assistant Professor currently working on fuzzy logic based controllers for gimbal control.

Faculty publications:

- Kumar, K. S., Akila, K., Arun, K. K., Prabhu, S., & Selvakumar, C. (2022). Implementation of 5S practices in a small scale manufacturing industries. Materials Today: Proceedings.

- An, Z., Wang, C., Raj, B., Eswaran, S., Raffik, R., Debnath, S., & Rahin, S. A. (2022). Application of New Technology of Intelligent Robot Plant Protection in Ecological Agriculture. Journal of Food Quality, 2022.
- Saravanamohan, M., Aswini, D., & Thanish, G. S. (2021, October). Role of IOT in the development of Industry 4.0 and Robot technology-A State of the Art. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-6). IEEE.
- Balamurugan, R. J., Al-bonsrulah, H. A., Raja, V., Kumar, L., Kannan, S. D., Madasamy, S. K., Raffik, R., & Al-Bahrani, M. (2022). Design and multiperspectivity-based performance investigations of H-Darrieus vertical axis wind turbine through computational fluid dynamics adopted with moving reference frame approaches. International Journal of Low-Carbon Technologies, 17, 784-806.
- Raffik, R., Jones, M. M., Murugajothi, T., & Kannadasan, B. (2021). Intelligent Accident Detection and Smart Alert System for Vehicles. International Journal of Mechanical Engineering, 6(3), 2391-2396.

Student publications:

- Ezhil, V. S., Sriram, B. R., Vijay, R. C., Yeshwant, S., Sabareesh, R. K., Dakshesh, G., & Raffik, R. (2022). Investigation on PID controller usage on Unmanned Aerial Vehicle for stability control. Materials Today: Proceedings, 66, 1313-1318.
- Raffik, R., Mayukha, S., Hemchander, J., Abishek, D., Tharun, R., & Kumar, S. D. (2021, October). Autonomous Weeding Robot for Organic Farming Fields. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-4). IEEE.
- Raffik, R., Rakesh, D., Venkatesh, M., & Samvasan, P. (2021, October). Supply Chain Control and Inventory Tracking System using Industrial Automation Tools and IIoT. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-5). IEEE.
- Ramkumar, A., Kangotra, M., Mehta, M., & Kumar, S. S. (2021, October). Developing a Smartphone App for Arecanut Farmers and Integrating it with an IoT Enabled Smart Weighing Scale. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-14). IEEE.
- Vishal, P. S., & Mohan, M. S. (2021, October). Simulation and Analysis of Articulated Robot. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-5). IEEE.

Patent:

- Patent titled on "Magnesium Based Redundant Articulated Robot" by Dr. M. Saravana Mohan, Sikkandhar Thanish G., Rakesh D., Soundarya N K., through the no.202241000325 and got published
- Patent titled on "Robot Location Tracking and Navigation Method for High Dimensional Configurations" by Mr. R. Raffik, Patent Registration no. 202221017079, and got published.
- Patent titled on "Sustainable IOT (Internet of Things) based Bio Fortification in Precision farming for Indian Agriculture" by Dr. B. Sabitha, Mr. R. Saravanan, Mr. P. Anush, Mr. K. Murugesan, Mr. K. Akila, Mr. A. Ramkumar, Patent Registration no. 202241010374, and got published.
- Patent titled on "Over voltage and under voltage Protection

22 faculty publication in National & International Journals

25 student publication in National & International Journals

32 faculty as peer reviewers in National & International Journals

using IOT and ML ” by Mr.cP.Anush, Mr.cK.Murugesan, Dr. B. Sabitha, Mr. R.Saravanan, Patent Registration no. 202241007532, and got published on 25th June 2021

- "Fifteen patents are filed and published during the academic year 2021-22: 10 published and 5 filed "

Milestone Events

- Conducted "NPTEL Awareness Workshop" in Association with NPTEL, IIT-Madras

Achievements

- Highest Number of Patent Publication and Filing (From Inception till date) : 15
- Highest Number of Scopus Indexed Publications by students in a year(From Inception till date) : 22

Next Year Goals And Plans

- To offer Diploma Certificate Program in 3D printing.
- To enhance consultancy in the area of Industrial Automation and robotics.
- Centre of Excellence in "Robotics and Industrial Automation"
-
- Improved Core placement.
- Improved publications and research related activities

Achieved Goals

- Improved Core placement.
- Improved publications and research related activities



Textile Technology

The Department of Textile Technology has been accredited by National Board of Accreditation (NBA), New Delhi under Tier II Scheme for five years. The department is involved in continuous updation in the domains of modern yarn production technology, fabric manufacturing technology, textile chemical processing and apparel manufacturing. They also research on technical, industrial and medical textiles. Technology Information, Forecasting and Assessment Council (TIFAC), Department of Science and Technology (DST) and Government of India has established a Centre of Relevance & Excellence (CORE) in Textile technology and Machinery in KCT. KCT- TIFAC CORE is the first centre dedicated to the textile sector in India. Under this programme, laboratories have been set-up to meet the requirements of textile training, testing and research.

Student Strength

228

Year of Establishment

1995

Faculty Strength

12

Head of the Department

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Imperative Advancements

- Rieter Industry sponsored Open End spinning machine worth of Rs.34 lakhs commissioned in spinning lab
- Installed and commissioned Konika Minolta Computer Colour Matching system worth Rs 8.77 lakhs
- Organized International Conference ICSMMIT 2022 jointly with Civil, BioTechnology and Fashion technology
- 34 FDPs attended by the faculty members for their knowledge updation organized by UGC,AICTE ATAL,ISTE etc.,
- Organized 14 Lectures /technical talk by Industry experts jointly with Institute of Engineers - Coimbatore local centre and TAI,Coimbatore.

Industry Partnerships

- Partnership with Ms.Kadri Wovens., for projects and placements
- Collaboration with Vesrad Industries, Kalpakkam for product development, industrial visit, training and placement
- Partnership with M/s. Cosmo Fibres, Coimbatore. for execution of student project and new product development
- Partnership for projects monitoring (Local Advisory Committee) with Jeyavishnu Texprocessors Limited
- Partnership for placement and projects with Zen Linen International Private Limited. Chittor, Andhra Pradesh

Research

Introduction

- Broad areas of research handled in the department covers Medical Textile, Textile Instrumentation, Textile Composites, Sustainable textiles, Wastewater treatment
- Total no of 5 research projects currently ongoing in the year 2021 - 2022 by the faculty and total amount of funding received for these 5 projects worth Rs 24.01 lakhs
- No of faculty registered for PhD this year: 01

Research plan for the year 2021-22:

- Minimum 6 proposals are planned for submission to various funding agencies.
- Faculty are encouraged to submit inter-disciplinary projects.
- Thrust area is grouped as Medical Textiles, Textile Instrumentation, Textile Composites, Nano Textiles and sustainable textiles.

Faculty Researches

For Funded Research

- Development of pith cake using sugarcane and energycane bagasse for a funding of Rs.1.90 lakhs was sponsored by KCT SEED to Dr.S.Ariharasudhan, Assistant Professor, and Dr.S.Sundaresan, Associate Professor- Ongoing Project
- A project on 'Development of filter fabric and device compartment for diesel engine exhaust vent', is awarded to Mr. M. Saravanan by KCT-SEED for a sum of Rs. 2.0 lakhs – On going.
- Development of a friction apparatus to assess the frictional performance of surgical sutures for a funding of Rs.1.75 lakhs from KCT-SEED awarded to Mr.S.Natarajanm Assisant Professor and Dr.V.Ramesh Babu, HoD Textiles. Ongoing

- A project titled Photocatalytic treatment of textile dye effluent and fresh water recovery by using solar stills for Rs 2.0 Lakhs awarded by KCT-SEED to Mrs.R.Sukanya Devi, Assistant Professor, Dr.Bhaarathi Dhurai, Prof. FT and Dr.A.Geethakarathi, ASP - Civil Engineering - Ongoing

Student Research

- H.Nirosh M.Tech (MTM) funded by Veltech Prayas Limited titled i-pract-ace intelligent assist. Funding amount Rs.16.37 lakhs

Faculty publications:

- Gopalakrishnan, M., Prema, R., & Saravanan, D. (2022). Nanoencapsulation Methods for Herbal-Based Antimicrobial Agents—A Sustainable Approach. In Sustainable Approaches in Textiles and Fashion (pp. 93-117). Springer, Singapore.
- Saravanan D, (2022). Plasma Technology, In: Emerging Technologies for Textile Coloration, CRC Press (Taylor and Francis Group New York, USA),217 – 231, ISBN 978-036-76-9111-0.
- Thangamani K., Sundaresan S., (2022). Fabric Manufacturing Technology Weaving and Knitting, CRC Press, USA, .ISBN:978-0-367-42583-8.
- Saikia, M., Gogoi, N., Bhuyan, S., Ramesh Babu, V., Ariharasudhan, S. (2021). Evaluation of Physical and Mechanical Properties of Bhindi Jute- Blended Fabric and Development of Eco-friendly Products Journal of Natural Fibers. DOI: 10.1080/15440478.2021.1961338.
- Bajpai, P., Jana, U., & Ratnapandian, S. (2022). Assessment of Changes in Corn Husk Fibres after Acid Treatment. Tekstilec, 65(2).

Student publications:

- Nivetha A, Hemharish, Sofiya and Sundaresan,(2021). "Study Of Polyester High Loft Textiles for the Acoustic and Thermal/IJARIIE Vol7 ,Issue 3 , 702-715.
- Tharani T, Kavin A.R, Abhijit Raj AR.B and Sundaresan, (2021). Study on high twisted yarnand its Woven fabric properties" - IJARIIE, 7(3).
- Preethi S, Uma maheswari P, Yogaraj M.N and Sukanya Devi, (2021). Extraction, characterization and immobilization of sericin protein from silk filament International Journal of Advance research (IJAR), Vol 9, Issue 5.
- A. Raghul, M. Pruthvi, K S Suryaprakasavel, KirishanGopal and Chandrasekharsan, (2021).Development Of Sustainable Processing and Washing Techniques in YARN Processing/ IJARIIE/Vol.NO-7/Issue-6/pp-513-517.
- Dhyanes S, Nithishkumar B, Indhiraprasath S and Saravanan, (2021).An attempt to Design and Develop ANTISKID SOCKS/ IJARIIE/7/6/1173-76/ISSN(O)-2395-4396.

Consultancy

- Engineering Colleges, Composite making and testing services, Dr.V.Ramesh Babu & Dr.M.Saravanan, Revenue generated Rs 1.01 lakhs

Milestone Events

- Commissioning of Rieter Sponsored Industry Lab of Open End Spinning Machine.
- National-level School students' contest "K-Tex Next Genius Contest 2022"
- National-level Technical Project Display Contest K-Tex Tech Challenge-2022
- Signed MOU with BGMEA Bangladesh, ITAMMA Mumbai and ICAR Sugarcane institute Coimbatore.

11 faculty publication in National and International Journals

18 student publication in National and International Journals

52 peer reviewers in National and International Journals

- Membership in Textile Association of India (TAI) and Indian Technical Textile Association (ITTA)

Achievements

Faculty Achievements

- Dr. V. Ramesh Babu, Associate Professor, Department of Textile Technology was recognized for 10 years of service on 26.03.2022 by KCT, Coimbatore.
- Dr. P.Sivakumar, Assistant professor III, Department of Textile Technology was recognized for 10 years of service on 26.03.2022 by KCT, Coimbatore.
- Dr. S. Ariharasudhan, Assistant professor III, Department of Textile Technology was recognized for 10 years of service on 26.03.2022 by KCT, Coimbatore.
- Mr. S. Natarajan, Assistant Professor, Department of Textile Technology was recognized for 10 years of service on 26.03.2022 by KCT, Coimbatore.
- Dr.M.Dhinakaran, Associate Professor, Department of Textile Technology received Engal Asan Teacher's day on Sep 2021.
- Mr P. Thangeswaran, Assistant Professor, Department of Textile Technology was recognized for 10 years of service on 26.03.2022 by KCT, Coimbatore.

Student Awards

- Roopeesha, S. Umamaheswari, secured consolation prize in Technovation - Innovation contest conducted by Dr.B.R.Ambedkar National Institute of Technology, Jalandhar.
- Kavikumar won runner up in quiz organized by SSM Engineering college 27.9.2022.
- Kaviruthi K won 2nd place in Quiz at KSRCT 2.10.22.
- Arun Srinivasan, Thanagur participated in Smart India Hackathon, New Delhi.

Social Impact

- A program on Sustainability in Fashion and Textiles for Academic faculty members, teachers and students was organised by Dr.R Saminathan, and around 260 members participated in this program at KCT on 05.04.22.
- National-level School students' contest "K-Tex Next Genius Contest 2022" was conducted for the students from various schools organised by Dr. P. Sivakumar and Dr. M. Saravanan, and around 50 students participated in this program at KCT on 04.06.22 and 05.06.22.
- National-level Technical Project Display Contest K-Tex Tech Challenge-2022 for Academic faculty members, teachers and students organised by Dr. P. Chandrasekaran and Mr. S. Natarajan, around 75 members participated in this program at KCT on 29.04.22.

MOU

- MoU with ITAMMA Mumbai for, Industrial visits, Internships, awards, Research and consultancy,
- MoU with ICAR-Sugarcane Breeding Institute, Coimbatore for collaborative research.
- MoU with BGMEA University of Fashion and Technology, Bangladesh for Joint Project, Consultancy, Events

Alumni

- Mr. S. Yuvaraj (2010 - 2014 Batch), Managing Director, Kalaimagal Textiles, Avinashi, for Alumni talks on Career progress and life travel after KCT on 09.06.2021
- Mr. P. Kaleeswaran (2010 - 2014 Batch), Business Excellence, Zen Linen International Pvt Ltd Andhrapradesh for Webinar

on "Technical textiles - Competitive exam preparedness" on 01.08.2020

- Dr Praburaj Venkatraman, PhD, MSc CText FTISenior Lecturer in Textile Technology and Research Degrees Coordinator Manchester Fashion Institute, Manchester Metropolitan University, Manchester, UK for webinar titled The effect of the textiles and fashion industry-impact on society and environment on 27.10.2021
- Mr.Naveen V S, Executive, Product Development, Saint Gobain was the resource person for workshop on Textile Composites and its Structural Evaluation on 15.05.2022
- Dr Aravin Prince Periyasamy, Ph.D, Postdoctoral Researcher, Department of Bioproducts and Biosystems, Aalto University, Finland.gave a seminar on Smart Textiles for sensing application on 23.07.2021

Next Year Goals And Plans

- To organize International Seminar on technical textiles
- To submit proposals for DST,AICTE,MoT for external funding.
- To sign MoU with two or more international universities for enhancing the teaching-learning process.
- To start student chapter of TAPPI,USA
- To create forum for students TexNest for product development,start-ups and entrepreneurial activities.

Goals Achieved

- Three MoU were signed in the year 2021-2022.
- Applied to DST and AICTE for one project each.
- Initiation of GATE training.
- Rieter machine and colour matching system were commissioned.



School of Foundational Sciences

School of Foundational Sciences (SFS) envisages to embrace a spectrum of diversified disciplines and offers courses which seek to expand the thinking horizons and imagination capabilities of the engineering students and become the gateway to transdisciplinary collaborations to contribute to the culture of future. SFS is diligently committed in laying a strong footing for engineering education by providing Problem Based Learning Approach into various disciplines such as Chemistry, Physics, Mathematics and Languages in addition to Project Based Learning Approach. Department of Mathematics, Physics and Chemistry are Anna University approved research centres offering doctoral programs.

Student Strength	1145
Year of Establishment	1984
Faculty Strength	55

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Imperative Advancements

The Department of School of Foundational Sciences conducted 'UHV FRESHERS PROGRAM' for the respective Brigades of the first year students in the Bootcamp called Ignite 2021, a training program organised by Kumaraguru college of Technology for the First year students batch 2021-22 from 10.11.21 to 18.11.21

Department of Mathematics

- Department of Mathematics for the first time offered a Minor specialisation course on "Data Science" for all non computing branches of Engineering. This minor specialisation is for 15 credit course spread across in all five semesters.
- National Mathematics Day "MathMania" was celebrated to commemorate the great Indian Mathematician Shri Srinivasa Ramanujan on 22nd of December 2021.
- National Statistics Day-"Culturally Relevant Mathematics-Action, Interaction and Reflection" lecture was delivered by Dr.Nirmala Naresh from University of Texas, US.
- Seven Day National Level Online FDP on "Computational Tools For Applied Mathematics And Engineering" was conducted for all faculty members.
- A special Track on Women in Science and Technology was organised by the Department of Mathematics in the "IEEE-International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation 2021 Around 15 reserach papers were published as IEEE conference papers and the rest of the 5 papers were published in Scopus indexed journals.
- 21 Day workshop was arranged on ""Sales Analytics using Python"" for the students in KCT Business School
- 14 day Online Course on "Computational Tools For Applied Mathematics And Engineering" was organized for all Arts and Science College Students.
- 7-Day National Online FDP/SDP and Hands on Training on "LaTeX" in colloboration with Spoken Tutorial - IIT Bombay was organized for research scholars and faculty members.
- 2-Day National Online Workshop on "Vedic Mathematics" was conducted for 185 participants.
- Three 1 credit courses were offered for I year B.E/ B.Tech students.

Department of Physics

- Extension activites of Research facilities in Centre for Acousto-Optics for effective interferogram measurement of various surfaces.
- Dr. E. Shobhana and Dr. S. Nithya have successfully completed their PhD
- Faculty have adapted problem based learning pedagogy for one module of Engineering Physics.

Department of Chemistry

- The Department of Chemistry organised A guest lecture on "Art Of Stress Management & Hybrid Engagement Skills" was conducted on 05-07-2021 for PBL students. Dr.S.Gayatri Devi , Professor & Head, Department of Psychology, Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore hoisted the session. for Women, Coimbatore hoisted the session

- The Department of Chemistry organised ,A webinar on "Role of Chemistry in Nuclear energy" was organised and conducted by Mr. R. Mayildurai and Mr. K. Karthik on 21/08/2021. Perumal Pandaram, Head, TLD Lab, Kudankulam Nuclear Power Project, Kudankulam hoisted the session.
- The Department of Chemistry organised an International Webinar on "Patent Opportunities in Scientific Research" .Dr. KR Aranganayagam; Dr. Shoba US cordinated the session.
- The Department of Chemistry organisedan International Webinar on "Cu composites for Aerospace Electronics Packaging" organised by Department of Chemistry on 06.10.2021.Dr. R. Ashokkumar/AP-I and Dr. K. Sampath/AP-Iorganisedthe event .
- The Department of Chemistry organised a national Webinar on "Copolymer Based Metal Catalyst Application for Environmental Protection" during 12 October 2021 @ 3 pm by Dr. S. Jyothivenkatachalam, Professor in the Department of Chemistry, Bharathidasan Institute of Technology (UCE - BIT Campus), Anna University, Tiruchirappalli.Dr. D. Jalajaa, AP and Dr. S. Jyothi,AP
- The DAB meeting was conducted on 20.12.2021_online MS teams with Academic experts, Industry experts, Member – Professional body and department faculty members.
- The Department of Chemistry organised Intra College Competition "Neer -2022" for students on connection with world water day. The event was jointly organised with JCI Coimbatore. E- poster and slogan writing competitions were conducted by Dr. D. Jalajaa and Dr. S. Jyothi
- The Department of Chemistry organised International Conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022" was jointly organised by the departments of chemistry and physics on 26th and 27th of May 2022. The convenors of the conference were Dr. R. Ashokkumar, Department of chemistry & Dr. H. Arul, department of physics.
- The Department of Chemistry organised an Industry Expert Talk on Laser for Biomedical and Thin film Applications, Internship & Job Opportunities on 18th and 19th May, 2022.Dr. R. Ashokkumar, Mr. K. Karthik organised the event.
- The Department of Chemistry organised Intra College Competition " IDBD -2022" for students on connection with International day for biodiversity. To create awareness among the students, conducted E- poster and slogan writing competitions.Ms. K. Rathidevi and Dr. K. Kalapriya organised the event.

Department of Languages and Communication

- The Department of Languages and Communication/SFS organized an International Virtual Conference on Interdisciplinary Approaches to Education Research and Language Teaching (ICERLT 2021) on 25th & 26th August 2021, in collaboration with the Department of English, Prince Sattam Bin Abdulaziz University, Kingdom of Saudi Arabia. The event was coordinated by Dr.B. Arokia Lawrence Vijay/Head ,Dr.Mohanraj AP-I/SFS and Dr.Sreejana/AP-I/SFS
- The Department of Languages and Communication/SFS coordinated an International Event on Essay Competition on "Story on kindness" organised by Heartfulness Education Trust Shri Ram Chandra Mission, The Heartfulness Research Centre (HRC), Sahaj Marg Spirituality Foundation, Mysuru conducted till 30-1-2021.There were nearly 614 participants from the First year students batch 2021-22.
- The Department of Languages and Communication organised a Guest lecture -Scholastic Talk Series - Campus to Corporate Transition, by Mr. Bhuvana Sundar Soorappaiah, the Program Manager, Automotive Division, Robert Bosch, Coimbatore on 12.11.2021, for all B.E. B.Tech / II year students.Dr.S.G. Mohanraj coordinated the event

100 Total no of faculty publication in National and International Journals

03 Total no of faculty publication in National and International Journals

25 Total no of student publication in National and International Journals

- The Department of Languages and Communication organised Guest lecture workshop session on “Strategies to Enhance Classroom Engagement”, by Dr. Shrivasthi on 22/07/2021 in association with KLDA/KCT. The programme was organised by Dr. V. Abirami /AP-I and D.J. Srikala-AP-II. Chakravarty/Assistant Professor at Amity University in Tashkent
 - The Department of Languages and Communication organised a training program “Virtual Training for Techniques of Language Enhancement Techniques” for the first-year students. Dr.J.Srikala /AP-II/ Department of Languages and Communication and Dr.A.S Mythili /AP-I/ Department were the organizers of the event on 19nd March 2022
 - The Department of Languages and Communication organized a program ‘MY SHARE TO SHAPE THE WORLD’ on INTERNATIONAL HUMAN SOLIDARITY DAY on December 20th for the students of KCT. Dr. V .Abirami,AP I, Dept. of English, KCT organised the program.
 - The Department of Languages and Communication organized a One day Workshop program ‘Road to Placement Series: Industry Interaction’ on 15.12.21 for students at KCT.Dr.S.G.Mohanraj AP I, Dept. of English, KCT organised the event .
 - The Department of Languages and Communications organized the student forum ‘Spectrum SFS’ on 13-05-2022.The Program was organised by Dr.R.Hema/Assistant Professor -I. and Dr. A.S Mythili/ Assistant Professor -II.
 - .The Department of Languages and Communications organised a Session - Training on Employability Skills for Gen Z Learners in the Post Covid Period. The session was organised by Dr.R. Hema/Assistant Professor -I. Prof.of. E. Justin Ruben was the Resource person of the day currently serving as Assistant Professor (Senior Grade)–English at Coimbatore Institute of Technology, Coimbatore
 - Road to Placement Series - Industry Interaction
 - The DAB meeting was conducted on 20.2.2022_online MS teams with Academic experts, Industry experts, Member – Professional body and department faculty members.
 - The Department of Languages and Communications organised Unacademy Webinar on Awareness on How Semester Preparation Helps in Campus Placement and Government Jobs. The Resource person was Mr.Sathya Moorthy.
 - The Department of Languages and Communications organized the Mentor Meeting-2022 on 15/7/2022. The session was organized Dr.J. Srikala, / Assistant Professor -III / in the Online mode and all mentors participated and provide their suggestions.
 - The Department of Languages and Communications organized the Parents Meeting -2022 on 16/7/2022. The session was organized by J. Srikala, / Assistant Professor -III /and a team of members. There were nearly 300 –400 Parents present for the program.
 - The Department of Languages and Communications organized the student forum ‘Spectrum SFS’ on 20-07-2022.The Program was organized by Dr.R. Hema/Assistant Professor -II. and Dr. A.S Mythili/ Assistant Professor -II.
 - The Department of Languages and Communication organised a Talk series - Road to Placement Series Industry Expert Interaction. The Resource person , Mr. Subash U Shankar, Former Process Manager, Digital Nirvana Information Systems Pvt. Ltd. The interactive session was arranged by Dr.Mohanraj /AP-I/English the organiser of the event on 02nd February 2022 (Wednesday) at 12:00 p.m.
- can support our institution in the field of Data Science, Cyber security and in several other business problems
- Maheswari K attended a 2 day online Business Summit sponsored by Confederation of Indian Industry-Business Summit on 11.05.2022 and 12.05.2022. This online conference enabled us to connect with top business people in various Industries. It is very useful in understanding the great technologies that were involved in building up the Unicorn.
 - A research collaborations was arranged with Mr. Ganesh Devaraj, CEO of Soliton Technologies with faculty members to bridge the gap between industry and academia.
 - Maheswari K visited few universities in United Kindom such as University of Bristol, University of Bath, University of Oxford and University of Western England, UK . The visit emphasized the discussion about various educational methodologies and PG programmes such as M.Sc Data Science and M.Sc Cybersecurity. It also catered the collaborations of research articles, internships and exchange programmes with the universities.
 - Maheswari K was the receipient of the “Global Iconic Education Award- Best Professional award “ conferred by ESN Publications.
 - Maheswari K have been appointed as “Mentor of Change” under ATAL innovation mission which inspires innovations in schools and in tinkering labs - to promote innovations sprit among students, Activate the TAL activities in schools by giving them a head start , to create a national high light event.
 - Vijeta Iyer, Santha A were the resource persons in a 6 Day international Online Workshop on “Innovative Techniques for Statistical Data Analysis using R Programming” organized by the Department of Mathematics, CSE and IT of K.S.Rangasamy College of Technology, Tiruchengode and gave a wide insight on data analytics.
 - Maheswari K was invited as the resource person in a AICTE sponsored 5 Day national Online Faculty Development Programme on “Applications of Machine Learning” organised by the Dept of CSE, Sri Vishnu Engineering College, Andhra Pradesh
 - Maheswari K was the resource person in a Rajiv Gandhi Funded Workshop titled “Python and its applications” organised by Cauvery College for women in collaboration of Rajiv Gandhi Youth Empowerment Scheme, Sriperumpudur. Maheswari K chaired an AICTE sponsorted International Conference on “Role of Artificial Intelligence and Sustainable Engineering in Driving Smart Cities” organised by Shree Vishnu Engineering College for Women, Bhimavaram, Andhra Pradesh.
 - “9) Santha A., Vijeta Iyer were invited as resource persons in a Four day online workshop on “Financial Analytics with R Applications” Organised by Department of Commerce(FMA), K.S.R. College of Arts and Science,Tiruchengode”

Industry Partnerships: Department of Mathematics

- Industrial visit to CODISSIA, Coimbatore was arranged on 28.10.2022 an Heads of Mathematics, MBA and CSE Departments met Mr. Ramesh Babu, President-CODISSIA, Mr. Karthikeyan, Secretary- CODISSIA to get the collaborations with the industrial bodies and to discuss about various opportunities which they

Department of Physics

- Partnership with RT Vision optics, Noida, Uttar Pradesh for working with Interferometric analysis of surface defects on Railway lines.
- Partnership with Emerald Industries, Coimbatore for effective surface coating on Silver ornaments

Department of Chemistry

- 1. Dr. K.R. Aranganayagam, delivered a talk on “Interpretation of SEM and TEM” in one day online seminar on Synthesis and Characterization of Advanced NanoMaterials organised by department of physics, Sri Ramakrishna engineering college, Coimbatore on 09.07.2021.
- 2. Mr. R. Mayildurai, delivered a lecture on “Pollution Impact on Environment” in a webinar organised by department of chemistry, Paavai Engineering College, Namakkal on 06.07.2021.
- 3. Dr. K.R. Aranganayagam, chaired as a resource person and delivered a talk on “Magnetic levitation in chemistry, materials science and biochemistry” in AICTE Training and Learning (ATAL) Academy Sponsored Five Days Online Faculty Development Programme (FDP) on “MAGNETIC LEVITATION” organised by department of physics, Hindustan Institute of Technology, Coimbatore on 23.09.2021.
- 4. Dr. K.R. Aranganayagam, delivered a guest lecture on “The role of IPR in innovative Economy” at Department of Commerce, Karpagam Academy of higher education on 5.2.2022.
- 5. Dr. K.R. Aranganayagam, delivered a special address and acted as a chief guest on “Science day celebrations” at Department of Chemistry, Hindustan Institute of Technology on 07.03.2022.
- 6. Dr. K.R. Aranganayagam, represented in Board of Studies meeting at Department of Chemistry, Kongunadu Arts and Science College, Coimbatore on 19.03.2022.
- 7. Mr. K. Karthik, acted as a resource person and delivered a lecture in “One day workshop on “Water Analysis Techniques” at Department of biotechnology, Kumarguru College of Technology, on 11.04.2022.
- 8. On connection with Prayas day, Dr. S. Jyothi, acted as a resource person and delivered an awareness talk on “Menstrual Hygiene” to the tribal girls and women at Palamalai tribal villages on 28th May 2022, organised by Junior Chamber International, Coimbatore Indcity LOM.
- 9. Dr. R. Ashok kumar involved in the knowledge sharing process with Dr. S. Periyaraja, Associate Research Scientist Sai Life Sciences Pvt. Ltd IKP Knowledge Park Turkapally, Hyderabad. They faced the difficulty on separating the sulphur based impurities from their products. Given a detailed procedure to separate the sulfur containing impurities and purification of the compounds.
- 10. Dr. S. Jyothi initiated the discussions with F-MAXX Systems India PVT LTD, manufacturer of blast freezers, cold storages, puff panels and puff boards etc. They came with the problem on the quality and the length of PU form during the synthesis. We prescribed a possible solution for the problem associated with the synthesis

Department of Languages and Communication

- Dr. C. Tissa Tony delivered a Guest lecture on “Emotional Intelligence- A skill for Life” at Koshy’s Institute of Management, Bangalore on 15-09-2021
- Dr.S. Sreejana provided an event - “Education in the UK” by, Ms. Winya Sujana from the British Council for first year Students of KCT, on 26-11-2021
- Dr. S. Sreejana served as Resource Person for the Orientation Programme organized for the 1st year (UG & PG) students at Chikkanna Government Arts College, Tirupur on 11.10.2021
- Dr. S. Sreejana served as Resource Person for the program on English for Professional Communication at Michael Job College of Arts and Science for Women, Coimbatore on 22.10.2021
- Dr.V.Abirami has been the Resource Person at A Two Day National Workshop on ELT, Department of English, Sri GVG Visalakshi College for Women, Udumalpet

- Dr. Abirami V served as Resource Person for the Reflections on the portrayal of Marginalized gender in Popular Media, at Chikkanna Government Arts College, Tirupur on 18.10.2021
- Dr.J.Srikala served as Resource Person and delivered a one hour session on ‘EXISTENTIAL FACETS IN HUMANISM’ at the National Platform – WELLTTA INTERNATIONAL - World English Language Learners Teachers and Trainers Association held on 16.12.21.
- Dr.Tissatony served as moderator for a paper presentation session and the chair for International Conference at Shasun Jain College, Chennai Conference.
- Dr.Tissatony served as Resource Person and delivered a one hour session on ‘EMOTIONAL INTELLIGENCE’ at the National Platform - WELLTTA INTERNATIONAL - World English Language Learners Teachers and Trainers Association held on 15.12.21.
- Dr.S.G.Mohanraj served as Resource Person and delivered a one hour session on ‘ECOCRITISM TO ECOLOGICAL ACTIVISM’ at the National Platform - WELLTTA INTERNATIONAL - World English Language Learners Teachers and Trainers Association held on 16.12.21
- Dr.J. Srikala, / Assistant Professor -II.Resource Person and delivered the details regarding Interactions with Academic institutions and Industry on 27/5/2022 in the 105th Weekly Forum.
- Dr.J. Srikala, / Assistant Professor -II served as an Event Judge for the program ‘LEXICAL HUNT’- Yugam 22’conducted the Land of Lexicons Club.
- Dr.S. Sreejana, / Assistant Professor -I served as an Event Judge for the program ‘LEXICAL HUNT’- Yugam 22’conducted the Land of Lexicons Club.
- Dr.R. Hema/Assistant Professor -I. served as an Event judge for the program ‘War of Wits - Yugam 22’ conducted by KCT Qubate Club
- Dr.B. Arokia lawrence Vijay / Head, has served as a resource person in an Interactive knowledge update on Career guidance and higher education options for Adolescents Date: 19th May 2022
- The Department of Languages and Communication, KCT, and Robert Bosch Engineering and Business Solutions had a meet up on 06 July 2022 in the Research Centre of the Department of Languages and Communication, KCT Campus. EMC Corporation, Bengaluru
- Dr.J. Srikala, / Assistant Professor -III Department of Languages and Communications has served as a Jury Member for the KCT Leadership Council - KCT-LC TEAM Immersion selection on 8/7/2022
- Dr. S. Sreejana, Dr. B. Arokia Lawrence Vijay, Dr. S.G. Mohanraj attended a six-day faculty development programme on Research Methodology for English Literature and Language jointly organized by the Department of English and Foreign Languages, Bharathiar University, Coimbatore and the Department of English, Sree Saraswathi Thyagaraja College, Pollachi from 11th July 2022 to 16th July 2022.
- Dr. S. Sreejana and Dr. S.G. Mohanraj attended International Annual Coordinators Conference on Assessing the Four Language Skills organized by Cambridge Assessment English on 16th July 2022.

Research

Department of Mathematics

- Saratha S R has been appointed as the Anna University Research Supervisor in the field of Fractional non linear

differential equations, Mathematical modelling, Algebraic Topology, Digital Topology.

- Arivuoli D has completed Ph.D degree in “Topology” under Bharathiar University, Coimbatore and the thesis entitled “New Type of Generalised Closed sets in terms of Ideal Minimal Structure Spaces and Nano Ideal Topological Spaces and Applications”
- MeenaPriyadarshini S submitted her Ph.D thesis entitled “Characterisation of Mildly Alpha Generalised closed sets in Topological Spaces and Binary Topological Spaces” in Bharathiar University, Coimbatore
- A special Track on Women in Science and Technology was organised by the Department of Mathematics in the “IEEE-International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation 2021 Around 15 research papers were published as IEEE conference papers and the rest of the 5 papers were published in Scopus indexed journals.
- 1) A grant of 41,500 INR has been received from SCIENCE ACADEMIA Educational Program and a Two day National workshop on “Mathematical Biology” was conducted by Marudhachalam R and Selvanayagi S.
- A grant of around 35000 INR has been received from Women in Engineering- IEEE(WIE) and the International Conference on “IEEE-ICAECA 2021-Track- Women in Science and Technology” was conducted by Maheswari K and Alagumeenakshi of ECE.
- International Conference on “IEEE-ICAECA 2021-Track- Women in Science and Technology” was organized in collaboration with Women in Engineering- IEEE(WIE) and received a grant of 35000/- with a Panel Discussion on Women Empowerment with IEEE Programme Chair and Aishwarya Bandla from National University of Singapore. Dr. Thittaporn Ganokratanaa, King Mongkut’s University of Technology, Thonburi, Thailand was the keynote speaker and Dr. Sriparna Saha, IIT Patna, Mr. Sundaram Ramaswamy, Microsoft Systems, Hyderabad were the session chairs.
- Five day AICTE Training and Learning Academy Faculty Development Programme on “Mathematics for Data Science” was organised by Selvanayagi S and Marudhachalam R

Department of Physics

- SEED Grant proposal on Acousto-Optic model fluid flow for lithotripsy application approved to Dr. R. Balamurugan and Dr. K. Rathina for an amount of Rs. 1.72 Lakhs
- SEED Grant proposal on LASER speckle investigations on nanostructured solar cells to Dr. R. Prakasam and Dr. R. Balamurugan for an amount of Rs. 1.9 Lakhs
- SEED Grant proposal on Synthesis, Opto-mechanical and physical characterization of DAST crystal for THz photonic applications to Dr. K. Sugandhi and Dr. R. Balamurugan for an amount of Rs. 1.36 Lakhs
- SEED Grant proposal on Influence of co-dopants on the Nanostructured spinel ferrites and a details physio-chemical study of enhanced sensing behaviour of air pollutants in the atmosphere approved to Dr. H. Arul for 1.58 Lakhs
- Total no of researches done in the year 2021 - 2022 or doing currently by the students and total amount of funding received
- A project entitled “Investigation on structural and mechanical properties of CoW and CoWP coated on Mild Steel for high power mechanical applications” was done by the following students Mr. S. Gotham Srinivasan, Mr. M. S. Sooraj and Mr. S.Sivasakthisurya under the mentorship of Dr. R. Kannan and Mrs. M. Selvambikai
- A project entitled “Analysis of Physio-Chemical Properties of Solution Grown Third Order Nonlinear Optical Single Crystal: 1,4

Oxazinium nitrate for Photonic applications” was done by

Ms. B.S. Rachaga Prabha under the mentorship of Dr. H. Arul

- A project entitled “Influencing the trend of Industry 4.0 using Optical fiber Technology” was done by Mr. Swaminathan C under the mentorship of Dr. K. Rathina
- A project entitled “Review on Plasma Technology in PCB fabrication” was done by Mr. Kishorekumar, Mr. Aswath and Mr. Nishanth under the mentorship of Dr. S. Inbakumar
- A project entitled “Crystal growth, Quantum Chemical and Hirshfeld Surface Investigations of an Organic Nonlinear Optical Single Crystal: Imidazolium 4-Hydroxybenzoate” was done by Ms. V. Swetha shree under the mentorship of Dr. E. Shobhana
- “Deposition of iron oxide thin film by magnetron sputtering for the application of self-chargeable hearing aid by jaw movement” was proposed by Dr. R.Kannan, Mrs. M. Selvambikai and Dr.M. Ezhilarasi to UGC-DAE-CSR for the cost of Rs. 11.78 Lakhs
- “Optimizing cement mortar mix design for biofilm control in lined water supply pipes through experimental and quantum analysis” was proposed by Dr. K. Rathina to Water Use, Wastewater Resources and Sanitation Futures (WUWRSF), Kwazulu Natal University Durban (Collaborative Project).
- “Development of Cost Effective Tarnish Resistant Coating For Silver jewelry” was proposed by Dr. R. Kannan, Mrs. M. Selvambikai to Glue grant scheme at a cost of Rs. 85.51 lakhs (Collaborative project with Kalinga Institute, PSG institute of Advanced Studies and Emerald Industries)
- “Development of Photoelectrochemical cell for Solar water splitting towards clean water applications using Graphene passivated BiVO₄ nanoparticles” was proposed by Dr. H. Arul and Dr. K. Sampath to UGC-DAE-CSR for the cost of Rs. 10.72 Lakhs
- “Auto repair garage Acute occupational exposure and Assessment of PM behavior in the respiratory tract” was proposed by Dr.H. Arul as Co-PI to DST-SERB (CRG) for the cost of Rs. 59.49 Lakhs (Collaborative project PI: Dr. N. Ramasundaram, Department of Civil Engineering).

Research plan for the year 2021 - 2022

- To develop a good collaboration in the emerging fields of research such as Advanced Materials for Hydrogen generation, Super capacitors, Water treatment, Optical interferometry and Enhanced surface coatings
- To improve the enrollment of full time Research Scholars in our Research Centre.
- To increase the quality and quantity of Publications in Sci indexed journals
- To establish good industry connect for solving problems related to Materials and LASER interferometry research

For non-funded research:

- A project on “ Interferometric assessments on DAST derivative Crystals for assessment of surface transitions for THz generation by Dr. K. Sugandhi and Dr. R. Balamurugan
- A Project on “Photocatalytic activity of TiO₂ and its derivatives using LASER interferometry analysis by Capt. A.R. Arul and Dr. R. Balamurugan
- A Project on “Optimization of electrodeposition parameters for enhanced surface coating for High Entropy Alloy applications by Dr. R. Kannan, Ms. Dhivya and Dr. R. Sengodan

Department of Chemistry

Seed grant:

- Dr. S. Jyothi , Dr. D.Jalajaa and Dr. U.S. Shobha have been sanctioned a Seed Grant of Rs 1,60,000 for the year 2022 and are proposed to work on the topic “Synthesis characterization of Biodegradable cellulose- based hydrogel and evaluation on biomedical and environmental applications”
- Dr.R. Mahalakshmi has been sanctioned a Seed Grant amount of Rs 1,20,000 for the year 2022 and are proposed to work on the topic “environmental sustainability”

Proposal Submission

- 1. Dr. S. Jyothi submitted a proposal to DST in the scheme for Young Scientists and Technologists worth 42.75 Lakhs, in the month of November, 2021 and the proposed work on the topic Formulation of Cosmeceuticals from Bio-degradable Waste - A Close Economic Approach Towards Environmental Sustainability.

ENGLISH-The Department of Languages and Communication

SEED GRANT:

- Dr. Arokia Lawrence Vijay Assistant Professor -I & Dr. S.G. Mohanraj Assistant Professor -I have been sanctioned a Seed Grant of Rs 1,06,000 for the year 2022 and are proposed to work on the topic “Enhancing Employability requirements in First year Engineering Students: A comprehensive Framework”
- Dr.TissaTony.C Assistant Professor -I &Dr. Arokia Lawrence Vijay Assistant Professor SRG have been sanctioned a Seed Grant amount of Rs 1,00,000 for the year 2022 and are proposed to work on the topic “Project on training students to Enhance the Emotional Intelligence of First year Engineering students of Kumaraguru College of Technology”
- Dr.Hema.R Assistant Professor -I & Dr. S.G. Mohanraj Assistant Professor -I have been sanctioned a Seed Grant amount of Rs 1,00,000 for the year 2022 and are proposed to work on the topic “A Project to Augment the Skills and Attitudes of a Focused Learners’ Group through Problem Based Language Learning (PBLL) Framework”
- The Department of Languages and Communication as a part of linkages with Institutions/Industries visited ROBERT BOSCH ENGINEERING and BUSINESS SolutionsPvt.Ltd to enhance on Language Electives Course as building blocks FOR Engineering . A team of 6 members planned for an outreach program.The team visited ROBERT BOSCH ENGINEERING and BUSINESS SolutionsPvt. Ltd at Koramangala, Bangalore.A Meeting with Language trainers Ms. Jeyanthi Srinivasan, Deputy General Manager ,BINOCULUS ,HR TRAINING and Development , REBI.

SEED GRANT -FORMAT-ENGLISH-The Department of Languages and Communication

Title of the research:“Enhancing Employability requirements in First year Engineering Students: A comprehensive Framework”

Year in which the research was started:2022

Amount funded:Rs 1,06,000

Funding agency:Seed Grant

Status of the research: currently doing and when it is expected to finish : 2023

Name of Researchers:Dr. Arokia Lawrence Vijay Assistant Professor -I & Dr. S.G. Mohanraj Assistant Professor -I

Title of the research:““Project on training students to Enhance the Emotional Intelligence of First year Engineering students of Kumaraguru College of Technology””

Year in which the research was started:2022

Amount funded:Rs 1,00,000

Funding agency:Seed Grant

- Status of the research: currently doing and when it is expected to finish : 2023
- Name of Researchers:Dr.TissaTony.C Assistant Professor -I &Dr. Arokia Lawrence Vijay Assistant Professor SRG
- Title of the research:“ A Project to Augment the Skills and Attitudes of a Focused Learners’ Group through Problem Based Language Learning (PBLL) Framework”
- Year in which the research was started:2022
- Amount funded:Rs
- Funding agency:Seed Grant
- Status of the research: currently doing and when it is expected to finish : 2023
- Name of Researchers:Dr. Arokia Lawrence Vijay Assistant Professor -I & Dr. S.G. Mohanraj Assistant Professor -I
- Name of Researchers: Dr.Hema.R Assistant Professor -I & Dr. Dr. S.G. Mohanraj Assistant Professor -I

Faculty publications

- Maheswari K , Vijeta Iyer, Shivapriya S N, Vijilesh Vijayan published a research paper entitled “ Wellness in COVID’19 Analysis Amidst Student Community in the Pandemic Time” in the Web of Science indexed proceedings IEEE Xplore, (2021)1/1-5 / 10.1109/ICAECA52838.2021.9675644
- K.P.Thilagavathy, D. Narmatha, D. Indhumathy published a paper entitled “ Semigraphs and it’s a- Domination” in the SCOPUS indexed Journal, Journal of Physics: Conference Series/ 10.1088/1742-6596/2070/1/012080, (2021)Volume 2070 (012080), pages 1-6 3)
- S.R.Saratha, G.Sai Sundara Krishnan has published a research paper entitled “ Solving lorenz system of equation by Laplace homotopy analysis method” in the SCOPUS indexed proceedings IEEE Xplore, DOI 10.4108/eai.(2021).2314509,1-14.
- J.Dhivya, K.Meena, published a research paper entitled “A New Technique for solving Picture Fuzzy Differential Equation”, in the SCOPUS indexed journalJournal of Physics: Conference Series/ doi:10.1088/1742-6596/2070/1/012021/ (2021),Volume 2070 (012080))
- Santha A, Vijeta Iyer, published a paper entitled” A Zone-wise Analysis of Covid-19 Related Data in India”, in the scopus indexed proceedings IEEE Xplore, (2021) 1-5/10.1109/ICAECA52838.2021.9675655
- R.Rajkumar published a research paper entitled “ Comparative Estimations Of Hydrodynamic Analysis On Unmanned Aquatic Vehicle’s Propeller By Using An Advanced [Cfd-Mrf] Approach” in Scopus indexed journal American Institute of Aeronautics and Astronautics , DOI: 10.2514/6.2021-3732/ page 1-1-19
- Ezhilarasi A , R.Anbhuvizhi published a paper entitled “An Analysis Of Solution Of Ordinary Differential Equations By New Form Of Numerical Methods”, in ICAECA , Page 1-4 (2021)
- D.Arivuoli, Dr.M.Parimala, published a research paper entitled “ A Note on Urysohn’s Lemma under $m\log$ -Normal Spaces and $m\log$ -Regular Spaces in Ideal Minimal Spaces” in the Scopus Journal Journal of New Theory/ 35(2021)/ 11-19

Student publications

- Maheswari K, Chandrakala D, Kiruthika J published a research paper entitled “ Awareness of Students’ wellness in COVID’19 lockdown “ in the scopus indexed proceedings IEEE Xplore, 162/1-5/DOI: 10.1109/ICAECA52838.2021.9675738,
- Maheswari K , Dhivya J, Kiruthika J published a research paper entitled “ Knowledge Gain in Student’s Digital

learning: COVID'19 lockdown " in the scopus indexed proceedings IEEE Xplore, 163/1/1-5/<https://doi.org/10.1109/ICAECA52838.2021.9675584> .

- Maheswari K, J.Kiruthika, Nithyashree J K , Ashwath Narayanan published a research paper entitled "Emotionally Assistive Quadcopter Drone" in the scopus indexed proceedings IEEE Xplore, 164/1/1-5/10.1109/ICAECA52838.2021.9675556

Book Publications:

- Maheswari K, Vijeta Iyer, Santha A published a book entitled "Rethinking Mathematics: Technological Perspective" in the year 2021 with 115 pages published by BONFIRING. ISBN: 978-81-953813-5-7

Book Chapter Contributions

- Maheswari K contributed a book chapter "Impact of Artificial Intelligence in designing of 5G" in the book "Smart and Sustainable Approaches for Optimizing Performance of Wireless Networks" published by Wiley publications .
- "II)The book chapters contributed in the book""Rethinking Mathematics: Technological Perspective"" in 2021 published by BONFIRING.
- Maheswari K- Artificial Intelligence and Mathematical Modelling
2)Rajasingh J -BLOCK CHAIN
3)Vijeta Iyer, Santha A- Application of Mathematics in Economics, Application of Statistics in Economics and Psychology
4) Anbhuvizhi R, Arunadevi S- Applications of Mathematics to Cyber Security
5)Krishnamoorthy R, Meena Priyadarshini S- Design and Development of Two-Wheeled Self-Balancing Robot
6) Ezhilarasi A, Kalpana N -Mathematics for Aero Modelling "
- "III)The book chapters contributed in the ""Proceedings of International Conference On Research Trends In Mathematics "" in 2021, published by Vellore Institute of Technology, Chennai.
- Santha A, Thilagavathy K P - The Achromatic Colouring of the Central Graphs of Some Cycle-Based Graphs
2) Thilagavathy K P, Santha A- The Achromatic Number of Central graph of Some Snake graphs
3) Vijeta Iyer- Self Function Chainability in Bitopological Spaces
4) Marudhachalam R- A Study of Academic Progress of Students in Various Colleges through Markovian Chain Approach
5) Ezhilarasi A- A Markovian Approach to Analyze the Academic Performance of Students in Arts and Science Colleges
- IV) Anitha N contributed a book chapter "Optimal Inventory System in a Urea Bagging Industry" in the book "Handbook of Intelligent Computing and Optimization for Sustainable Development" published by Scrivener Publishing , Wiley

PATENTS FILED

Department of Mathematics

- Maheswari K filed a patent on "Battery Swaping Technology for Future Electric Vehicle" (Appli. No. E-12/4037/2022/CHE), 202241030742, Controller General of Patents, Designs and Trade Marks, Chennai.

Department of Physics

- R. Balamurugan (2022) Laser speckle image velocimetry by Fast Fourier Transform technique, Laser Physics, 22, 0555201(1-5)
- A. Kalaivani, B. Mohanbabu, R. Kannan, G. Senguttuvan, V. Sivakumar, D. Nithiyaprakash, Donghui Guo (2022) Preparation of bath temperature controlled NiFeP films for MEMS applications, Solid State Communications, 347, 114715
- E. Shobhana, R. Kesavasamay, B. Babu, R. Karunathan (2022) Synthesis, crystal structure, spectral, thermal dielectric, Z-Scan

analysis and computational studies of 8-hydroxyquinolinium trichloroacetate, Digest journal of Nanomaterials and Biostructures, 17, 369-382

- S. Balachandar, K. Sugandhi, R. Balamurugan, M. Jose and S. Balasubramanian (2022) Terbium doped ortho titanate nanocomposite for optical application - A complementary theoretical calculations, Materials Today: Proceedings, 62, 5625-5632
- S. Muthusaravanan, K. Balasubramani, Rahul Suresh, R. Sankar Ganesh, N. Sivarajasekar, H. Arul, K. Rambabu, G. Bharath, V.E. Sathishkumar, A.P. Murthy and Fawzi Banat (2021) Adsorptive removal of noxious atrazine using graphene oxide nanosheets: Insights to process optimization, equilibrium, kinetics, and density functional theory calculations, 200, 111428.
- Dr. R. Mahalakshmi, published a research paper entitled "Polymeric Substitution of Triazole Moieties in Cellulosic Schiff Base for Heavy Metal Complexation Studies" in Journal of Polymers and the Environment, June - 2021, indexed in SCI, DOI:10.1007/s10924-021-02201-7 (Published Online).
- Ms. K. Rathidevi, published a research paper entitled "Synthesis, Structural, Morphological, Optical and Electrical Conductivity Properties of Aluminium doped ZnO/poly (o-Tolidine) (Al-ZnO-POT) nanocomposites" in Journal of Ovonic Research, Vol. 17, No. 3, p. 313 – 322, June- 2021, indexed in SCI- E.
- Ms. K. Rathidevi, published a research paper entitled "Synthesis, Characterization and Optical Properties of ZnO Nanoparticles Using Sol-Gel Method in Alkaline Medium" in Journal of Xidian University , Vol. 5, No. 6, 2021, DOI: 10.37896/jxu15.6/024
- Mr. R. Mayildurai, published a research paper entitled "GC–MS investigations of VOCs in South Indian honey samples as environmental biomarkers" in Environmental Monitoring and Assessment, vol:193(8), page number: 1-11, August - 2021, indexed in SCI.
- Dr. K. Sampath, published a research paper entitled "Experimental investigations on adsorption of reactive toxic dyes using hedyotis umbellate activated carbon" Adsorption Science & Technology, Vol.2021, indexed in SCI. doi : 10.1155/2021/5035539
- Dr. K. Sampath, published a research paper entitled "The effect of pH on the photocatalytic degradation of cationic and anionic dyes using polyazomethine/ZnO and polyazomethine/TiO2 nanocomposites", International Journal of Applied Science and Engineering, Vol. 18, Issue No. 5, 2021
- Dr. K. Sampath, published a research paper entitled "Bromobenzal thiosemicarbazones of ruthenium (II) complexes: Synthesis and bio applications, International Journal of Applied Science and Engineering, Vol. 18, Issue No. 5, 2021
- Dr. S. Jyothi, published a research paper entitled "Inhibitory action of aqueous Ruellia Tuberosa L leaves extract on the corrosion of copper in HCl solution" Journal of Indian Chemical Society, Vol. 28. Issue 11, Indexed in Scopus, WoS and SCI
- Dr. K. Kalapriya, published a research paper entitled "Structural, transport, morphological, and thermal studies of nano barium titanate–incorporated magnesium ion conducting solid polymer electrolytes", Polymers and polymer composites, doi 10.1177/096739112111047325, indexed in SCOPUS and SCI.
- Dr. S. Jyothi, published a research article entitled "Corrosion Inhibition of Aluminium in HCl Solution by Ethanol Extract of Ruellia Tuberosa L" in Journal of environmental treatment

techniques, indexed in Scopus.

- Mr. K. Karthik, published a research article entitled “Crystal structure, DFT and Hirshfeld surface analysis of N-acetyl-t-3-methyl-r-2,c-6-diphenylpiperidine,” in *acta crystallographica*, indexed in Scopus.
- Ms. K. Rathidevi, published a paper entitled “Synthesis, characterization with optical property of Zn-O NPs using sol-gel route in alkaline medium” published in *Journal of optoelectronics and biomedical applications*, volume 14, issue 2. (non scopus)

Paper Presentation

- Dr. Shoba U.S, presented a paper titled “Solid State Reactions of Oxohalates in Presence of Chromium (III) Carbide and a Comparative Study on the Effect of Cr, Cr₂O₃ and Chromium (III) Carbide on the Thermal Decomposition of Oxohalates “ at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- R. MAYILDURAI, presented a paper titled “Growth and studies of (E)-N’-(5-bromo-2-hydroxybenzylidene) nicotine hydrazide monohydrate (ENBHNHM) crystals” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- R. MAYILDURAI, presented a paper titled “Synthesize, Characterization and Biological Applications of Arucaria Heterophylla Gum – Hydroxyapatite – Sulfur - A Novel Ternary Bionanocomposites” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.R.Mahalakshmi, presented a paper titled “Response surface modeling and Optimization of malachite green dye removal using novel herbal biosorbent as an efficient biomatrix source” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- K Karthik, presented a paper titled “Growth, thermal and optical properties of r-2,c-6-bis (4-methylphenyl)- c-3,t-3 dimethylpiperidin-4-one – A new class of organic NLO material” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.D.Jalajaa, presented a paper titled “Evaluation of the Corrosion Protection on Mild Steel by Moringa oleifera gum exudate in Acid Pickling Environment” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.D.Jalajaa, presented a paper titled “Study of Corrosion Inhibition Efficiencies by Binary inhibitor Systems in Hydrochloric acid” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- K.Rathidevi, presented a paper titled “The Study on Structural, Vibrational and Morphological Analysis of L-Tryptophan-Fumaric acid Nanofibers” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- K.Rathidevi, presented a paper titled “A Study of Oxidation Kinetics Mechanism of Maleic Mono p-Methyl Aniline (MMA) by N-Chloro-3- Methyl -2, 6 Diphenyl Piperidine-4-one (NCP) in the Presence of Ethanol Medium” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.K.Kalapriya, presented a paper titled “Corrosion behaviour of mild steel in waste cooking oil as biofuel” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.K.Kalapriya, presented a paper titled “Electrochemical method of dyeing cotton fabric using direct dyes” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. K. Sampath, presented a paper titled “Ethoxy Salal - Phenyl Thiosemicazone Complexes of Ruthenium (II): Synthesis and Characterization” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. K. Sampath, presented a paper titled “Ethoxy Salal - Phenyl Thiosemicazone Complexes of Ruthenium (III): Synthesis and Characterization” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. S. Jyothi, presented a paper titled “ Corrosion Inhibition of Low Carbon Steel by Leaves Extracts of Coleus Aromaticus Benth in Sulphuric Acid” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. S. Jyothi, presented a paper titled “Inhibitive Effect of the Extract of Maranta arundinacea on the Corrosion of Mild Steel in Sulphuric Acid” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. R. Ashokkumar, presented a paper titled “Chelating Agent Assisted Barium Titanate (BaTiO₃) Nanoparticles by Hydrothermal Process” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. R. Ashokkumar, presented a paper titled “Enactment by computational-structural and by the experimental studies of 2-hydroxyimino-2-(pyridin-2-yl)-N’- [1-(pyridin-2-yl) ethylidene] acetohydrazide – HIPYPYEAH crystalline specimen” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr. R. Ashokkumar, presented a paper titled “Growth, Structural, Elemental, Fluorescence and Optical analysis of Inosine (IE) Organic Crystals” at the International Conference on Materials Research in Science and Engineering, organised by KCT on 23.07.2021- 25.07.2021.
- Dr.K.Kalapriya, presented a paper titled “ Multimedia Learning Environment” at the International Conference on Interdisciplinary Approaches to Education Research and Language Teaching, organised by The Department of Languages and Communication, KCT, and The Department of English, College of Arts and Science, PSAU on 25/08/2021- 26/08/2021.
- Mr. K. Karthik, presented a paper entitled “Growth, thermal and optical properties of cis r-2,c-6-bis (p-tolyl)- c-3,t-3-dimethylpiperidin-4-one – A new class of organic NLO material” in an international conference on Emerging Trends in Material Science and Technology-(ICETMT-22) organised by Dept. of Physics,CMR Institute of Technology in association with Materials Research Society of India, Bengaluru on 10.2.2022 & 11.2.2022.
- Dr. D. Jalajaa, presented a paper entitled “Study of synergism between gum exudate and substituted piperidine- 4 one on corrosion inhibition of mild steel in acidic medium.” in an international conference on “Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. D. Jalajaa, presented a paper entitled “Comparative

Study of corrosion inhibition of mild steel in hydrochloric acid and sulphuric acid medium by gum exudate" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.

- Dr. S. Jyothi, presented a paper entitled "Computational Studies and Hirshfeld Surface Analysis on the Crystal Structure of Bis-dimethylammonium 4-nitrobenzoate" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. S. Jyothi, presented a paper entitled "Studies on the Removal of Acid Violet 19 dye from Aqueous Solution using Low Cost Adsorbent Solanum Torvum" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. S. Jyothi, presented a paper entitled "Corrosion Inhibition Performance of Mild Steel Using Mussaenda frondosa Leaves Extract in Acidic Medium" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. R. Ashokkumar, presented a paper entitled "Biogenic way of synthesis and studies of ZnO Nanoparticles from Calotropis procera (ZnONPCP) plant extracts for biomedical applications" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. R. Ashokkumar, presented a paper entitled "Generation of carbon nanotubes of (10, 10) profile with their characterisations by software" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. R. Ashokkumar, presented a paper entitled "Evaluation of structural, mechanical and corrosion behaviour of rotary friction welded of dissimilar alloys joints" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. R. Mahalakshmi, presented a paper entitled "Response surface modeling and Optimization of malachite green dye removal using novel herbal biosorbent as an efficient biomatrix source" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. R. Mahalakshmi, presented a paper entitled "Automated Water quality monitoring system" in an international conference on "Physics and Chemistry of Materials for Novel Engineering Applications- PCMNEA-2022 organised by department of chemistry and physics, KCT on 26.05.2022 & 27.05.2022.
- Dr. K. Kalapriya, reviewed the manuscript entitled "Development of Embroidered Measurement Pads for Electrical Resistance Measurement of Embroidered Conductive Paths" in Journal of Industrial Textiles, indexed in Scopus & SCI.
- Dr. K. Sampath, reviewed the manuscript entitled "Removal of hazardous industrial dye effluent by porous adsorbents: A Review in the Separation & Purification Reviews" indexed in Scopus, WoS & SCI.
- Mr. K. KARTHIK, reviewed the manuscript entitled "The Hydrogeological Conditions in Islamabad in the Context of Groundwater Footprint Ewa Krogulec" in Asian Journal of Geological Research.
- Dr. K. R. Aranganayagam, reviewed the manuscript entitled "Implementation of Mature Tea Leaves Extract in Bioinspired Synthesis of Iron Oxide Nanoparticles: Preparation, Process Optimization, Characterization and Assessment of Therapeutic Potential" in Springer Chemical Papers indexed in SCI.
- Dr. K. Sampath, reviewed the manuscript entitled "Synthesis, Characterization and Computational Study of Copper Pyridine Complex to Explore its Functional Properties" in ACS Omega, indexed in Scopus, WoS & SCI.
- Dr. K. R. Aranganayagam, reviewed the manuscript entitled "Catalytic use towards Redox Reaction of Toxic Industrial Wastes in Innocuous Aqueous medium and Antimicrobial Activity of Novel CuAgxZn1-2xO Nanocomposite" in ACS Omega, indexed in SCI.
- Dr. K. R. Aranganayagam, reviewed the manuscript entitled "Immobilization of cellulase on magnetized multiwall carbon nanotubes (m-MWCNTs) synthesized via eco-friendly (water based) method" in Springer, Chemical Papers indexed in SCI.
- Dr. K. Sampath, reviewed the manuscript entitled "New sulfonyl hydrazones and their Pd (II) complexes – synthesis and cytotoxic activities in the Mda-mb-231 cell line" in ACS Omega, indexed in Scopus, WoS & SCI.
- Dr. K. Sampath, reviewed the manuscript entitled "New Thiosemicarbazone-Based Zinc(II) Complexes. In vitro Cytotoxicity Competing with Cisplatin on Malignant Melanoma A375 Cells and Its Relation to Neuraminidase Inhibition" in Chemico-Biological Interactions, indexed in Scopus, WoS & SCI.
- Dr. K. Kalapriya, reviewed the manuscript entitled "Polypyrrole-coated recycled polyphenylene sulfite nonwoven fabric with high electrical conductivity for heat generation" in Journal of Industrial Textiles, indexed in Scopus & SCI.
- Dr. K. Kalapriya, reviewed the manuscript entitled "Design & analysis of flexible antenna for the early detection of breast cancer" in Journal of Industrial Textiles, indexed in Scopus & SCI.
- Dr. S. Jyothi, reviewed the research conference article entitled "Microwave Assisted Synthesis of Tetrazole Derivative", in ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.
- Dr. S. Jyothi, reviewed the research conference article entitled "Amoxicillin as Corrosion Inhibitor for Al 2014 alloy in 1M Hydrochloric Acid Solution", in ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.
- Dr. K. Sampath, reviewed the research conference article entitled "Synthesis, Characterisation and Structural Determination of Pyridyl Based Ni(II) Complex for Microbial Study and Biosensing of DNA", in ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.
- Dr. K. Sampath, reviewed the research conference article entitled "Adsorption/Photodegradation of Reactive Blue (C.I. No. 21) from Aqueous Media by Hydrothermally Synthesized Titanate Nanotube (TNT)", in ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.
- Dr. K. R. Aranganayagam, reviewed the research conference article entitled "Synthesis and Characterization of Biochar from Dehradun Rice Straw and Its Application for Adsorption of Methylene Blue Dye", in ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.
- Dr. K. R. Aranganayagam, reviewed the research conference article entitled "Removal efficiency of sugarcane bagasse biochar modified magnetic nanoparticles as novel bio-sorbent materials for uptake of Cr (VI) from aqueous solution.", in

ESMAC-organized by Kalinga Institute of Industrial Technology, Publisher AIP.

- 18. Dr. S. Jyothi, reviewed a research article entitled “Physico-Chemical, Ultrasonic and Structural Studies on Dextrin with Amylase in Aqueous Media at 298.15 K” from the journal Letters in Applied NanoBioScience, Indexed in Scopus/ WoS.

Department of Languages and Communication

- Dr. B. Arokia Lawrence Vijay, S. G. Mohanraj, S. Sreejana presented a paper in the International Conference-ICERLT -RP288 “ELT Post Pandemic: New perspectives and approaches”
- B. Arokia Lawrence Vijay presented a paper in the International Conference-ICERLT-RP290” Impact of English Language in Academic Learning During the Pandemic”
- Dr. J. Srikala presented a paper in the International Conference-ICERLT-RP202 -An Existential Outlook of Online Teaching Sessions – Advantages and Disadvantages
- Dr.C.Tissaa Tony C presented a paper in the International Conference- ICERLT-RP172 Self -Actualization Theory from the perspective of Nayantra Sahgal’s women characters
- Dr. V. Abirami presented a paper in the International Conference-ICERLT-RP283 -Challenges to opportunities: Ideal approaches in Learning Physics for vernacular students
- Dr.S. G. Mohanraj presented a paper in the International Conference- ICERLT-RP291 “E-Learning: Challenges & Opportunities”
- S. G. Mohanraj, S. Sreejana, R. Marudhachalam presented a paper in the International Conference- ICERLT-RP289 “Effectiveness of E-Learning during the Initial Stages of Pandemic”
- Dr. R. Hema presented a paper in the International Conference-ICERLT-RP285 “An Investigation on Students’ Experience and Prospects about Asynchronous Language Learning Sessions during Pandemic”
- Dr.A.S. Mythili presented a paper in the International Conference- “From Flawed Body and Fractured Psyche to Discovering One’s Liberated Self in Margaret Atwood’s Bodily Harm”
- Dr. A. S. Mythili, R. Hema presented a paper in the International Conference- ICERLT-RP287 “Impact of Breakfast Consumption on the Academic Performance and Social Behaviour of College Students in Tamil Nadu”
- Dr.S. Sreejana,Vallikala.S presented a paper in the International Conference- ICERLT-RP122 “Time structuring - a powerful tool for self – analysis”
- Dr.S. Sreejana,R..Latha Devi, presented a paper in the International Conference- ICERLT-RP124 “Effective ELT experiences and exchanges through CLT approach”
- Dr. Sreejana S published a paper titled ‘Mastering the Art of English Communication Via Listening’ in August 2021 in the international journal Bioscience Biotechnology Research Communications (Special Issue), Vol 14, Issue 8, 2021 published by Society For Science and Nature Bhopal, India and Indexed by Thomson Reuters, Now Clarivate Analytics USA. (Web of Science & UGC) Page – 52 to 56.
- Dr. S.G.Mohanraj published a paper titled ‘Man Vs Nature - Ernest Hemingway’s Irony in the Old Man and the Sea’ in August 2021 in the international journal Bioscience Biotechnology Research Communications (Special Issue), Vol 14, Issue 8, 2021 published by Society For Science and Nature Bhopal, India and Indexed by Thomson Reuters, Now Clarivate Analytics USA. (Web of Science & UGC)
- Dr. Arokia Lawrence Vijay published a research paper titled Humanism In Amitav Ghosh’ The Glass Palace: An Antipodal Approach to Peace and Sufferings. Published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. Page 73 to 78.
- Dr.J.Srikala published a research paper titled An Existential Outlook of Online Teaching Sessions –Advantages and Disadvantages published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. P. 52-56.
- Dr.C.Tissa Tony published a research paper titled INSIGHTS INTO THE POWER OF POSITIVE LIVING Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. P. 69-72.
- Dr. S.G. Mohanraj and Dr. S. Sreejana published a research paper titled The Language of Experience: Words Versus Silence Published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. Page 57 to 60.
- Dr. Sreejana S and Dr. S.G Mohanraj published a research paper titled An Analysis of Speaking Activities Performed by the First-Year Engineering Students towards the Enhancement of English Language and Communication Skills Published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. Page 61 to 68.
- Dr.Hema.R Published a research paper titled ATTENUATION OF MANIPULATED EMOTIONS: AN ANALYSIS OF MAHESH DATTANI’S DANCE LIKE A MAN Published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. P.48-51.
- Dr.A.S.Mythili and Dr.Hema.R published a research paper titled IMPACT OF BREAKFAST CONSUMPTION ON THE ACADEMIC PERFORMANCE AND SOCIAL BEHAVIOUR OF COLLEGE STUDENTS IN TAMILNADU Published in Shodhsamhita : Journal of Fundamental & Comparative Research Vol. VIII, No. 1(IV) : 2022 ISSN: 2277-7067 UGC Care Approved, Peer Reviewed and Referred Journal, Kavikulaguru Kalidas Sanskrit University, Ramtek in January 2022. Page 73 to 78.
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Book Chapter Contributions

- 1.Dr.S. Sreejana & Dr.S.G. Mohanraj collaboratively published a Chapter "A study of the Speaking skill of the First year student in On line mode." in the International book English Language Teaching Today: Contexts and Issues, edited by Vipin Sharma and published by ABS Book Publishers and Exporter, China
- 2.Dr.S.G. Mohanraj & Dr.S. Sreejana collaboratively published a Chapter "The unspoken Language:A Poet's perception about Environmental concerns and Human Behaviour" in the International book English Language Teaching Today: Contexts and Issues, edited by Vipin Sharma and published by ABS Book Publishers and Exporter, China
- 3.Dr.B. Arokia lawrence Vijay / Head,has published a chapter "Strategies for Effective Conversation – Communicative Functions as " in the Journal Interdisciplinary Approaches to Teaching ELT and Literature" by Bon fringe,Coimbatore.
- 4.Dr. J. Srikala / Assistant Professor -II has published a chapter "Subaltern Quandary confrontations by the child prodigy, in Harry Potter and the Soccer's stone " in the Journal Interdisciplinary Approaches to Teaching ELT and literature" by Bon fringe ,Coimbatore.
- 5.Dr.C. Tissa tony / Assistant Professor -II has published a chapter "Self -Actualization Theory from the perspective of Nayantra " in the Journal Interdisciplinary Approaches to Teaching ELT and Literature" by Bon fringe ,Coimbatore.
- 6.Dr. Abirami. V / Assistant Professor -II has published a chapter "An Investigation on Students' Experience and Prospects about Asynchronous Language Learning Sessions during Pandemic " in the Journal Interdisciplinary Approaches to Teaching ELT and

Literature"by Bonfringe, Coimbatore.

- Dr. Sreejana.S/ Assistant Professor -I has published a chapter "A Study On The Importance Of Listening Skill Among The First Year Engineering Students To Improve English 7.Language Communication "" in the Journal Interdisciplinary Approaches to Teaching ELT and Literature" by Bon fringe ,Coimbatore.
- 8.Dr. Sreejana.S/ Assistant Professor -I has published a chapter " Illusion of Technological Advancement & Cultural Development in the poems of W.S.Merwin in the Journal Interdisciplinary Approaches to Teaching ELT and Literature" by Bon fringe ,Coimbatore.
- 9.Dr. Mohanraj.S.G/ Assistant Professor -I has published a chapter " A Study On The Importance Of Listening Skill Among The First Year Engineering Students To Improve English Language Communication "" in the Journal Interdisciplinary Approaches to Teaching ELT and literature "by Bon fringe ,Coimbatore.
- 10.Dr. Mohanraj.S.G / Assistant Professor -I has published a chapter " " Illusion of Technological Advancement & Cultural Development in the poems of W.S.Merwin "" in the Journal Interdisciplinary Approaches to Teaching ELT and literature "by Bon fringe ,Coimbatore.
- 11.Dr.R.Hema / Assistant Professor -I has published a chapter " An Investigation on Students' Experience and Prospects about Asynchronous Language Learning Sessions during Pandemic "" in the Journal Interdisciplinary Approaches to Teaching ELT and literature" by Bon fringe ,Coimbatore.
- 12..Dr. A.S.Mythili / Assistant Professor -I has published a chapter " From Flawed Body and Fractured Psyche to Discovering One's Liberated Self in Margaret Atwood's Bodily Harm "" in the Journal Interdisciplinary Approaches to Teaching ELT and literature" by Bon fringe ,Coimbatore.

Milestone Events Department of Mathematics

- National Mathematics Day " MathMania" was celebrated to commemorate the great Indian Mathematician Shri Srinivasa Ramanujan on 22.12.2021 for 180 students
- National Statistics Day-"Culturally Relevant Mathematics- Action, Interaction and Reflection" lecture was delivered by Dr.Nirmala Naresh from University of Texas, US.
- A funded Two day SCIENCE ACADEMIA Educational Program Sponsored workshop on "Mathematical Biology" was conducted (41,500/ INR)
- International Conference on "IEEE-ICAECA 2021-Track- Women in Science and Technology" was organized in collaboration with Women in Engineering- IEEE(WIE) and received a grant of 35000/- with a Panel Discussion on Women Empowerment with IEEE Programme Chair and Aishwarya Bandla from National University of Singapore. Dr. Thittaporn Ganokratanaa , King Mongkut's University of Technology, Thonburi, Thailand was the keynote speaker and Dr. Sriparna Saha, IIT Patna, Mr. Sundaram Ramaswamy, Microsoft Systems, Hyderabad were the session chairs.
- Five day AICTE Training and Learning Academy Faculty Development Programme on "Mathematics for Data Science".
- Department of Mathematics offers various courses and hands on training on Computational tools like LATEX, R Programming, MATLAB in collaboration with IIT Spoken Tutorial-Bombay.

Achievements

- Maheswari K in May 22" has presented a research paper entitled Image Deblurring based on Weiner Deconvolution Method using Markov Basis" in a Three day International

conference on Advance Physics and Mathematics, Science Society, London, UK and the same article was also published in a Scopus indexed journal “ Mathematical Statistician and Engineering Applications”

- Maheswari K visited few universities in United Kindom such as University of Bristol, University of Bath, University of Oxford and University of Western England, UK . The visit emphasized the discussion about various educational methodologies and PG programmes such as M.Sc Data Science and M.Sc Cybersecurity. It also catered the collaborations of research articles, internships and exchange programmes with the universities.
- Maheswari K was the receipient of the “Global Iconic Education Award- Best Professional award “ conferred by ESN Publications.
- Maheswari K have been appointed as “Mentor of Change” under ATAL innovation mission which inspires innovations in schools and in tinkering labs - to promote innovations sprit among students, Activate the TAL activities in schools by giving them a head start , to create a national high light event.
- Vijeta Iyer, Santha A were the resource persons in a 6 Day international Online Workshop on “Innovative Techniques for Statistical Data Analysis using R Programming” organized by the Department of Mathematics, CSE and IT of K.S.Rangasamy College of Technology, Tiruchengode and gave a wide insight on data analytics.
- Maheswari K was invited as the resource person in a AICTE sponsored 5 Day national Online Faculty Development Programme on “Applications of Machine Learning” organised by the Dept of CSE, Sri Vishnu Engineering College, Andhra Pradesh
- Maheswari K was the resource person in a Rajiv Gandhi Funded Workshop titled “ Python and its applications” organised by Cauvery College for women in collaboration of Rajiv Gandhi Youth Empowerment Scheme, Sriperumpudur.
- Maheswari K chaired an AICTE sponsorted International Conference on “Role of Artificial Intelligence and Sustainable Engineering in Driving Smart Cities” organised by Shree Vishnu Engineering College for Women, Bhimavaram, Andhra Pradesh.
- Santha A., Vijeta Iyer were invited as resource persons in a Four day online workshop on “Financial Analytics with R Applications”
- Organised by Department of Commerce(FMA), K.S.R. College of Arts and Science,Tiruchengode.

Department of Physics

- 1.Two days National workshop on Crystal Engineering of Functional Materials and its importance in Device Fabrication during July 2021
- 2.Three days National FDP on Applied optics and photonics during August 2021
- 3.World space week celebration during October 2021
- 4.Guest lecture on Quantum Aspects of Natuire was organized during August 2021
- 5.Organized National Science Day Fermion’22 in association with IIC and DST-Vigyan Prasar during Februrary 2022
- 6.International Day of Light 2022 during May 2022.

Achievements

- Lt. A.R. Arul has been promoted to the rank of Captian in 4 TN BTN NCC, Coimbatore
- Dr. R. Sengodan has been appointed as Flying officer in NCC Air wing.

Department of Languages and Communication

- Dr. J. Srikala, attended a two-Week Online Faculty Development Programme on Continuing Professional Development: Practising, Researching and Publishing/NATIONAL INSTITUTE OF

TECHNOLOGY, TIRUCHIRAPPALLI

- Dr. J. Srikala, attended a one week Faculty Development Programme on “Personal Effectiveness” from 12th July to 16 th July sponsored by ATAL Academy and conducted by Govt. Engineering College ,Thrissur.
- Dr. Hema.R, attended a two-Week Online Faculty Development Programme on Continuing Professional Development: Practising, Researching and Publishing/NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI
- Dr.A.S. Mythili, attended a two-Week Online Faculty Development Programme on Continuing Professional Development: Practising, Researching and Publishing/ NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI
- Dr. J. Srikala completed an Online Course – “Motivating Gen Z Learners: What Parents and Teachers Need to Know in Coursera on 07.07.2021.
- Dr. J. Srikala attended a three-day webinar on Envisioning the reforms in Higher Education in the context of National Education Policy 2020 conducted by AICTE HQ from 8.07.21- 10.07.21.
- Dr.R. Hema attended a three-day webinar on Envisioning the reforms in Higher Education in the context of National Education Policy 2020 conducted by AICTE HQ from 8.07.21- 10.07.21.
- Dr.A.S. Mythili attended a three-day webinar on Envisioning the reforms in Higher Education in the context of National Education Policy 2020 conducted by AICTE HQ from 8.07.21- 10.07.21.
- Dr. J. Srikala attended a Webinar on “Live by Choice Not by Chance” Vedanta Cultural Foundation that was conducted on 18 th july2021 at 6.30.p.m
- Dr.R. Hema attended a Webinar on “Live by Choice Not by Chance” Vedanta Cultural Foundation that was conducted on 18 th july2021 at 6.30.p.m
- A.S. Mythili attended a Webinar on “Live by Choice Not by Chance” Vedanta Cultural Foundation that was conducted on 18 th july2021 at 6.30.p.m
- Dr.B. AROKIA LAWERENCE VIJAY attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka.
- Dr. J. Srikala attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka.
- Dr. C. TISSA TONY attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka.
- V.ABIRAMI attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka..
- Dr.S.G. MOHANRAJ attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka..
- Dr.S. Sreejana attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka.
- Dr.R. Hema attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council,

Bengaluru, Karnataka.

- Dr.A.S. Mythili attended a webinar on Project Based Learning Framework -a discussion with Prof Gopalkrishna Joshi, Executive Director, Karnataka State Higher Education Council, Bengaluru, Karnataka.
- Dr. R. Hema attended a A Two Day Virtual Workshop on Reconstructing Emotional Well-Being of Teaching Fraternity for New normal on 10.12.21. and 11.12.21 conducted by the Department of Languages and Sciences , School of Foundational Sciences, KCT
- Dr. A.S. Mythili attended a A Two Day Virtual Workshop on Reconstructing Emotional Well-Being of Teaching Fraternity for New normal on 10.12.21. and 11.12.21 conducted by the Department of Languages and Sciences , School of Foundational Sciences, KCT
- Dr.S.G.Mohanraj completed a course named UNIVERSITY TEACHING' from Coursera on December 2021
- Dr.J. Srikala participated in a seminar session on Grammarly conducted by M/s Bridge People Technology Solutions Pvt. Ltd ,as an Online session on 5.5.2022. explaining on the details and implementation of Grammarly tool, which is a proprietary software product delivered on Cloud as a software services.
- Dr.Sreejana participated in the INTERNATIONAL FDP ON "Ecocriticism to Ecological
- Activism by Dr.S.G. Mohanraj & The Philosophy of Objectivism in Ayn Rand's Novel 'The Fountainhead' by Dr. M. Nanthini", organised by WELLTA INTERNATIONAL - World English Language Learners Teachers and Trainers Association held on 14-12-2021.
- Dr.B. Arokia Lawrence Vijay/ Head Department of Languages and Communications & Dr.S.G. Mohanraj/Assistant professor -II Department of Languages & Communication organized the Industry Interface with Robert Bosch, Bangalore & Coimbatore on 26.07.2022
- Dr. S. Sreejana, Dr. B. Arokia Lawrence Vijay, Dr. S.G. Mohanraj attended Occupational English Test Refresher programme on 08th July 2022 at CAG Pride organized by People English.
- Dr.J. Srikala/ Assistant Professor -III attended TRAINING PROGRAM on Translation –"Text and Context "Conducted by NIT TRICHY from 18th JULY-23rd JULY.
- Dr.J. Srikala/ Assistant Professor -III attended a National level Webinar on Sponsored Virtual Impact Lecture Series – I" on 1.7.2022 by AICTE - MIC – IIC.
- Dr.C. Tissa Tony/ Assistant Professor -III attended Webinar on Excellence in Teaching, Training, and Research conducted on 23-07-2022 by BIET
- Dr.S.G. Mohanraj / Assistant Professor -II & Dr.S. Sreejana / Assistant Professor -II attended the Annual Coordinator's International" Conference on Assessing the Four Language Skills 16.07.2022 by Cambridge Assessment English.

Social Impact

Department of Mathematics

- Maheswari K, HOD, Dept. of Mathematics, Rajasingh J, AP III, Dept. of Mathematics, KCT organized the event "Math Mania" on 22.12.2022 to celebrate the great Mathematician Shree Srinivasa Ramanujan . There was an overwhelming response from all the secondary grade students from the Govt. School, Veliyangadu, Karamadai and they actively participated and won prizes in various competitions like Quiz competition , Essay Competition, Drawing and Sketching. Around 130 students were enthusiastically participated and enhanced their skill sets.
- Maheswari K, Rajasingh J, Meena priyadarshini S, Krishnamoorthy R organised a Two week online course on "COMPUTATIONAL TOOLS FOR APPLIED MATHEMATICS AND ENGINEERING " for

school students, Arts and Science colleges, research scholars and Faculty members

- Maheswari K have been appointed as "Mentor of Change" under ATAL innovation Mission which inspires innovations in schools and in tinkering labs - to promote innovations spirit among students, Activate the ATAL activities in schools by giving them a head start , to create a national high light event.
- Saratha S R delivered a talk on "National Mathematics Day celebration and Math Expo" organised by Sri Chaitanya School Techno Curriculum.

Collaborations Initiated

- Maheswari K initiated a collaboration with Yang Cao, School of Cyber Science and Engineering, Southeast University, Nanjing 211189, China which was funded by National Natural Science Foundation of China under Grant No. 62103103 and the Natural Science Foundation of Jiangsu Province of China under Grant No. BK20210223 for the journal article on " Improved Summation Inequality Based State Estimation for Stochastic Semi-Markovian Jumping Discrete-Time Neural Networks with Mixed Delays and Quantization"
- Maheswari K initiated a collaboration with Yang Cao, School of Cyber Science and Engineering, Southeast University, Nanjing 211189, China which was funded by National Natural Science Foundation of China under Grant No.62103103 and the Natural Science Foundation of Jiangsu Province of China under Grant No.BK20210223 for the journal article on "New Event Based H ∞ State Estimation for Discrete-Time Recurrent Delayed Semi-Markov Jump Neural Networks Via a Novel Summation Inequality"

Department of Physics

- Online webinar on Awareness on Humans Rights for Faculty and Students was organized in commemoration with Human Rights Day celebration organized by Dr. R. Balamurugan during December 2021. Faculty from Government Law College, Coimbatore moderated the session.
- Online webinar on Functional Materials for Heterogeneous Catalysts for Biomass conversion towards effective solid waste management organized by Dr. H. Arul and Dr. R. Praksam during August 2021. Dr. Venkatakrishnan, IIT Mandi moderated the session.
- Organized online webinar on "Importance of Constitution" in commemoration with National law day during November 2021. Dr. Makkalanban, Dept. of Political science, KCLAS moderated the session.

Department of Chemistry

- Dr. S. Jyothi, received an outstanding performance award in 2 days training ladder on "Effective Public Speaking" organised by Junior Chamber of International, JCI Coimbatore indcity from 05.03.2022 to 6.03.2022.

Department of Languages and Communication

- The Department of Languages and Communication has helped students to participate in the "Oratorical Competition "conducted by Coimbatore Book Festival-CODISSIA on 28-07-2022. Dr.C. Tissa Tony / Assistant Professor -III has coordinated the event.
- The Department of Languages and Communication has guided 4 students in paper presentations titled PROJECT BASED LEARNING: A SOCIAL CROWDFUNDING WEBSITE FOR ORGANISATIONS AND INDIVIDUALS in International Virtual Conference on Interdisciplinary Approaches to Education

Research and Language Teaching-ICERLT-2021 conducted on 25 - 26 Aug 2021 . Dr. V. Abirami AP-Iguded the students.

Next Year Goals And Plans

Department of Mathematics

- To establish Center of Excellence on Mathematical Modelling and Data Analytics
- To improve the interdisciplinary research and industry collaborations.
- Interactions through academic/ research forums and Panel discussions with eminent personalities to update on the current trends in learning and research methodologies
- Publishing more research papers in reputed journals through collaborations and focus on fund generation.
- Planning to organise a collaborative International Conference on Mathematical Sciences and Modelling
- To introduce and explore on new mathematical tools for
- To offer FCLF courses for the first year students
- To introduce new minor specialisation course on AI and ML Techniques
- To work on Data Analysis projects in the institutional level.
- To work on research areas funded by the SEED fund of KCT
- To conduct Seasonal school / Winter School in the current trends of Mathematics.
- To work closely with students in their projects through industrial visits in the areas of Medical and Agriculture fields

Department of Physics

- Promotion of Research Funding to various agencies under diverse areas of interest based on UN Sustainable developmental goals
- To offer interdisciplinary courses on Solar Photovoltaics, Hydrogen energy generation, Carbon capture sequestration and storage
- To offer minor specialization on Advanced Materials Science and Characterization for diverse applications
- To establish thin film growth facility using thermal evaporation technique for diverse applications
- To connect with established industry for collaborative projects on Laser vision devices, Electro-optic modulators, Photoelectrochemical cells for hydrogen energy generation

Mention what of the goals and plans for the year 2022-2023 mentioned in the 2021-2022 annual review were achieved or mention its progress

- Established DST-FIST Centre for Materials Characterization as a central instrumentation facility for research and consultancy activities
- Consultancy activity on Enhanced Surface Coating for academia and industry partners
- Improvement in qualitative publications in SCI indexed journals
- Research facilities has been extended at Centre for Acousto-Optics for studying interferometric analysis of liquid samples.

Department of Chemistry

- To initiate the Consultancy activities with available facility.
- To bridge the gap between industry and academia and thereby establishing the research center.
- To Provide Minor specialization course to enable student internship and promote students' projects.
- To develop online MOOC Courses.
- To educate the women in SHG's through workshops

Department of Languages and Communication

- 1)To organize an Industry Interface with Robert Bosch, Coimbatore

- 2)To offer Two credit courses for the first year students
- 3)To Improve the interdisciplinary research and industry collaborations.
- 4)To Publish more research papers in reputed journals through collaborations and focus on fund generation.



Garage

Garage is a student involved Product Development – Research Centre of the automotive sector. Students here design and construct vehicles that include terrain vehicle, supra vehicle, quad bike, dirt bike, go – kart and solar karts. Garage is specifically a workshop, where students design, analyze and fabricate different types of vehicles or parts of a vehicle and compete in various motor sporting events around the globe.

It aims to provide a platform for students to innovate and fabricate their projects as solutions to various automotive problems. It foresees to contribute to the leading automotive industries by providing systematic solutions through research.



Imperative Advancements

- Development of boat and associated systems for participation in Monaco Energy Boat Challenge.
Development of sustainable vehicle fleet"
- Train the Trainer program conducted for the faculty by EMC and ICTACT. In continuation to this program, the faculty trained 150 students from various departments and the faculty have obtained EMC Data Science Associate International Certificate.
- KCT.BS organized 8 Management Developmental/ Capacity Building Programs for the Industry and 5 Consultancy projects and generated a revenue of Rs 2938808 (Twenty nine lakhs thirty eight thousand eight hundred and eight). The programs were either customized for specific organizations or open programs with a diverse participant pool.

Industry Partnerships

- Partnership for funding and research with Quench
- Partnership for funding with Legrand
- Partnership for funding with SBM Offshore
- Partnership for technology support with Rim Drive Technology
- Partnership for networking and management support from Indo-France Chamber of Commerce

Research

Introduction

- After a pandemic lull, the student teams were back at their projects attending two national level events. Two other teams had been revitalized & have since managed to take part in National level events post the date scope of this report. Garage also had the opportunity to host team Sea Sakthi, the first Indian team at the internationally renown Monaco Energy Boat Challenge. As a part of Garage the team recieved external corporate funding of up to 30 lakhs. Garage recieved funding under the AFCCI SPICES program to the tune of 2 lakhs.

Research plan for the year 2021- 2022:

- Developing fleet of electrically powered sustainable vehicles
- Study in the field of additive manufacturing

Student Researches:

- A project on 'Intra-Campus Mobility vehicle' or "RiG" on sustainable mobility and electric vehicle was implimented by Ravi Rahul (19BME016), Lalith H N (19BME008), Anandh B (20BEE009), Vikash S (20BEE097), Rohan G. (20BAU027), and Varshan (20BAU037). The project recieved funding from AICTE SPICES program and was guided by Proff. Kiranlal S.

Consultancy

Names of the students/faculty who provided consultation: Students: Vishnu V and Praveen M, Faculty: Kiranlal.S

For students mention the department and year of study: Automobile and Mechatronics

For faculty mention their designation: Asst Prof

Revenue generated: 90000

Milestone Events

- Participation in Monaco Energy Boat Challenge 2022 by Team Sea Sakthi
- Participation in FMAE Online Electric Bike Design Contest
- 7 day workshop titled "Bild Your Own EV" for 61 First and Second year students imparting technical knowledge on two wheeler design, EV systems and practical training on tool handling and manufacturing methods.
- Paper presentation in Second International Conference on Future Technologies (ICOFT 2021) in Manufacturing, Automation, Design and Energy.

Achievements

- "Winning the communication prize and over all 6th among 16 participating nationas of the class at the Monaco Energy Boat Challenge.
Winning FMAE Online Electric Bike Design Contest."
- Sample
- Mr. E. Antony Peter of III year secured I Prize in 4 Stroke stock 165cc category in Race 1 and Runner-up in 4 Stroke stock 165cc category in Race 2 at MMSC FMSCI Indian National Motorcycle Racing Championship 2016 at Kari motors Speed way, Coimbatore.

MOU

MoU with Robert Bosch for the "Bosch Centre for Automotive Electronics".

Next Year Goals And Plans

- Further study on the concept of sustainable transportation and renewable energy and to produce PoCs and Prototypes for the same.
- To research, design and develop projects in the field of smart vehicles.
- To design and develop electric marine propulsion systems.
- To create a universal basic skill and knowledge level for all Garage members.
-
- To introduce MATLAB curriculum for all the B.E/B.Tech branches in the first year.
- To establish a MATLAB laboratory dedicated only to the Department of Mathematics.
- To establish English language centre catering to KCT and KCLAS.
- To establish a centre for materials processing.
- To connect with well-known universities within and away from India in the field of Civil Engineering for improving the learning process.



Research cell

Ré aims to cultivate and promote research and explorative culture among the student community at KCT and through this inspire students around the world. KCT's Platform for Research and Exploration (Ré) is a start-up initiated and run by the students with the aim of instigating a research culture among the student community. Ré offers technical expertise and financial support to many student projects every year. Ré as a team strives to provide engineering solutions to world problems by mentoring, guiding and incubating students' research projects targeted to solutions. Students gain continued guidance through combined efforts of other research forums of KCT such as iQube, Garage, CEAD, and Forge.



Imperative Advancements

- The Ré Tech Marathon Series in collaboration with IEEE was organized, which included four sessions throughout the month of June.

Industry Partnerships

- Partnership with Kinowave for research
- Partnership with Feromite for research
- Partnership with Tervaski for research

Researches

Introduction

- The research team was actively involved in lot of events throughout the pandemic period. After the pandemic, the teams were engaged in many projects out of which 6 projects was funded by KCT. Similarly the teams worked on paper and patent publications. Some of the prominent projects were RiG Bike console and 3D printer.

Student Researches:

- The projects "Elastic potential energy-based storage system" and "Feasibility study of elastic potential energy" has been undertaken by a student team consisting Janarthanan V, 21MIE005, Sudalaimuthu Suresh, 20BME112, Ansu Susan Deepak, 20BEC011, Aparna V, 20BEC012, Abiya Primency, 20BEI002 and Sivakeerthana S, 20BEI044
- A project on Design and Development of 5-axis robot was done by Murugashri V. 20BME075 and Vikash S. 20BEE097 and was guided by Brathikan V M. The project was funded by KCT for 0.07 lakhs.
- A project on " RiG Bike Console" was developed by Prabhu S - 19BEE076 , Vijai Shree S - 19BEC069, Asfaq Moideen - 20BEC015, Saravanan, Sanjaikabilan S - 20BMC036 guided by Veera Manikandan C.
- A project on "3D printer" was implemented by Venkatesh B : 18BEC211, Sangeethkumar B : 19BME234, Nitheeshwar R K : 19BME067, Arunvasan S D : 20BME015, Muruga Shri V : 20BME075, and Shree Brammagiri N : 20BEE225. The project was funded by KCT for an amount of 1.34 lakhs.

Student Publications :

- Reena Dharshini, in 2021 published a paper titled "A Study Of Innovative Ideas And Methods In Teaching Learning Process" at International Conference on Interdisciplinary Approaches to Education Research and Language Teaching- ICERLT
- Silsilah, in 2022 published a paper titled "Sustainable energy and water development" in 3rd International Conference on New Horizons in Green Civil Engineering.
- Silsilah U P and Dr. A Gandhimathi published a paper titled "Environmental Impact Assessment and Prediction methods" in ICSDI2022

Milestone Events

- A three-day Ideathon was conducted for the students of Exploré where solutions were pitched in teams for different problem statements.
- A session on 'Managing Finance', by Mr. Arul Murugan, Executive, Office of Student affairs, KCT, was held on 18.03.2022.
- Bio-science team collaborated with Association of Biotechnology and conducted an Ideathon on 25th March.

Achievements

- Sadhana, student from the Bio Science team, has got an internship at IISC Bangalore, for project phase 2
- Teams sent for the finals of SIH 2022

Next Year Goals And Plans

- Work on low-cost EV Trike Research
- To establish energy storage system based projects
- Work to launch Trike 2π



iQube

iQube was founded in order to bridge the gap between the students workforce and industry demands. It builds technical expertise among the students to equip them to build practical solutions for real-time problems, along with an industry or by themselves. An innovation centre for tech enthusiasts, iQube aims to bring out the explorer and maker within. It further helps tech enthusiasts to convert their innovative ideas into commercially viable and technically challenging prototypes. It also provides guidance and mentorship in finding a path to achieve what one always dream of.



Imperative Advancements

- Train the Trainer program conducted for the faculty by EMC and ICTACT. In continuation to this program, the faculty trained 150 students from various departments and the faculty have obtained EMC Data Science Associate International Certificate.
- KCT.BS organized 8 Management Developmental/ Capacity Building Programs for the Industry and 5 Consultancy projects and generated a revenue of Rs 2938808 (Twenty nine lakhs thirty eight thousand eight hundred and eight). The programs were either customized for specific organizations or open programs with a diverse participant pool.

Industry Partnerships

- Partnership with Emerald Jewellery industry for Precision engineering development projects
- Partnership with Prithvi Innerware Company for machine automation development
- Partnership with Clix innerware company for machine automation development
- Partnership with Knowinmy healthcare company for Building end to end AI system
- Partnership with Clayton Chettinadu Resturent for Resturent Automation
- Partnership with Karpagam Finance for Loan tracking system building

Milestone Events

- One Day “International Workshop on Motorsports Engineering” and “International Seminar on Advanced Fluid Research and Testing” in association with ARA Institute of Canterbury New Zealand.
- International Conference on “Waste Water Management (ICWW 2017)” in association with Tel Aviv University, Israel and Tech Univ of Liberec, Czech Republic was conducted from 17.08.2017 to 19.08.2017.
- Career Guidance Program for the students on Automotive Engineering in association with Motor Vikatan.
- Conducted KCT Mini Dirt Bike 2017 – 100 Participants. Around 30 teams from engineering colleges from all over Tamil Nadu participated in this full day event from consisting of technical inspection for evaluating the design, fabrication, rigidity, innovation features, cost report & marketing presentation of the bikes and qualifying them for static and dynamic events.

Consultancy

- Knowinmy - Coimbatore
 - Service Provided: Built a website on end to end AI system
1. Ragunathan A J
 2. Nithish P S
 3. Pradeep

MoU

- Emerald Industries
- Precision Engineering Programing

Alumni

Name of the Alumni: Rajasudhan

Designation:Lead Engineer at Samsang Technologies

Name of the company/institution: Samsang Technologies

Batch: 2011-2015

What event did they come for: Competitive Programing Course

When: January, 2022

Name of the Alumni: Suffian

Designation: IOT sollution architech

Name of the company/institution: IOT and ASW

Batch: 2011-2015

What event did they come for: IOT courses

When: November, 2021

Name of the Alumni: Keerthivasan

Designation:Software Developer

Name of the company/institution: Paypal

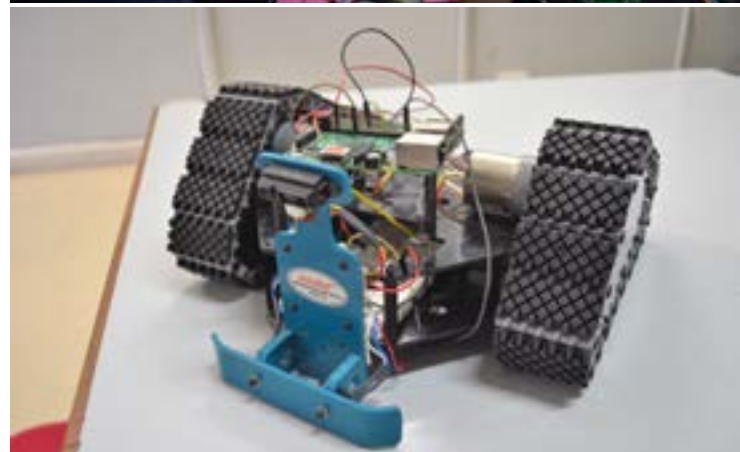
Batch: 2015-2019

What event did they come for: Competitive Programing Course

When: January, 2022

Next Year Goals And Plans

- Settingup Center of Excellence latest tech
- Bringing up 5 new industries for project and development
- Creating seprate team for education and learning program
- To establish Knowledgepark (KPark)
- To do workshop and event for other colleges
- Onboarding other college students for iQube intakes



Department of Human Excellence

The Department of Human Excellence at KCT was established with a clear mission: to impart knowledge about Indian culture, ethics, values, and spiritual principles to today's youth in a modern and rational manner. This department aims to help young individuals unlock their hidden potential and attain excellence in all aspects of life. However, it emphasizes that this success should not come at the expense of losing inner poise and the intrinsic joy of life. Through a scientific and rational approach, the department provides guidance and education that integrates traditional Indian wisdom with contemporary knowledge.



Activities for Academic Year 2021 – 2022

Swami Vivekananda's birthday is being celebrated as National Youthday on January 12th every year. The department of Human Excellence, KCT organized a guest lecture "Karma Yoga - The Path towards Perfection" on account of Swami Vivekananda's 159th Jayanthi at Kumaraguru Institutions virtually on 12.01.2022.

Agaval Parayanam About the event:

- Arutchelvar Dr.N.Mahalingam (March 21, 1923 - October 2, 2014) had been the Chairman of Sakthi Group of companies, educationalist, notable philanthropist and a prominent, influential person of Tamil Nadu. He was the founder Chairman of the Kumaraguru College of Technology and 30+ educational institutions. He was an ardent follower of Ramalinga Swamikal known as Vallalar and followed the philosophy of Vallalar in letter and spirit throughout his life time till his last breath. To pay reverence to the Arutchelvar, Kumaraguru institutions has been commemorating his birth day as Founders day celebrations every year with many programs and one among them is the recitation of Thiruvirutpa hymns "Agaval Parayanam" by sanmargies. To portray his legacy and devotion towards Vallalar, Agaval Parayanam event was organized on 21st March 2022 in Kumaraguru campus by the Human Excellence department as part of the centenary year celebrations.
- Event started with the welcome address by Dr.Ezhilarasi.M, Associate dean and Head - Human Excellence followed by lighting up of kuthu vilakku and Arutperunjyothi. After that, Thiru. I.K. Subramaniyan Tamil Scholar and writer shared the greatness of Arutchelvar ayya with a lot of incidents in his memory. In his felicitation address, he emphasised how Arutchelvar worked so hard from his childhood and acquired great knowledge which helped him to build an empire. He explained the philosophies of Thiri Arutprakasa Vallalar and Mahathma Gandhi and their relevance.
- Reciting the Arutperum Jyothi Agaval was the key activity during the event and it was well started by the sanmargies participated from Tiruppur, Samathur, Palladam and Kalapatti Sanmarga sangam. Totally 140 sanmargies participated in the event. All the participants were given the agaval book and they followed the recitation along with the sanmargies.
- After the recitation of Agaval Parayanam, Shri Shankar Vanavarayar, Joint correspondent Kumaraguru College of Technology launched the book titled "தூய் மொழி துவம்" which is a compilation of Arutchelvar Dr.N.Mahalingam Ayya's articles published on Om Sakthi monthly magazine.
- This book was published by Samarasa Suddha sanmarka sathiya sangam, Tiruppur. By 12.30pm, the event concluded with Jyothi Valibadu. All the sanmargies were honored by Shankar Vanavarayar, Joint correspondent KCT with the memento.

International Day of Yoga

- Yoga is a 5,000-year-old physical, mental and spiritual practice having its origin in India, which aims to transform both body and mind. The word 'yoga' derives from Sanskrit and means to join or to unite, symbolizing the union of body and consciousness.
- The draft resolution establishing the International Day of Yoga was proposed by India and endorsed by a record 175 member states. The proposal was first introduced by the Honorable

Prime Minister Shri. Narendra Modi in his address during the opening of the 69th session of the General Assembly, in which he said: "Yoga is an invaluable gift from our ancient tradition.

- Yoga embodies unity of mind and body, thought and action ... a holistic approach [that] is valuable to our health and our well-being. Yoga is not just about exercise; it is a way to discover the sense of oneness with yourself, the world, and the nature.
- "Recognizing its universal appeal, on 11 December 2014, the United Nations proclaimed 21 June as the International Day of Yoga by resolution 69/131.
- Followed by this UN resolution the first International Day of Yoga was celebrated on 21st June 2015. Today it is practiced in various forms around the world and continues to grow in popularity. The International Day of Yoga aims to raise awareness worldwide of the many benefits of practicing yoga.
- This year, Department of Human Excellence with Agam forum of Kumaraguru institutions organised the Yoga sangamam session. The event was scheduled during 6.45am to 7.45am in front of Dr.Mahalingam Vingyan Bhavan on 21.06.2022. More than 50 students participated in the Yoga session. This year, the theme for 8th International Day of Yoga is "Yoga for Humanity". This was observed throughout all the communications before and during the celebration of 8th international day of Yoga.
- Ayush Ministry's common Yoga protocol was followed during the practice. This was filled with loosening exercises, Yoga Asanas and breathing techniques. After the Yoga session, a simple meditation session by Heartfulness Institute was introduced to the participants.



Microcosm

Microcosm is a comprehensive multi-year program at Kumaraguru that focuses on environmental sustainability and aims to create a vibrant eco-future. The initiative is committed to building a sustainable ecosystem by 2024, coinciding with the 40th year of Kumaraguru Institutions. The program seeks to establish a culture of sustainability that encompasses Increasing Green Cover, Efficient Water Management, effective waste management practices, optimizing energy consumption and reduction noise pollution, to name a few.



Milestone Events

- Resource Recovery Park recovered and responsibly disposed 56.77 Tons of waste that generated a revenue of 908804 INR
- Microcosm joined hands with Arulagam NGO partner to raise & plant 53212 native tree seedlings across the state.
- Extracted 10 litres of honey from the 13 bee hives fixed across the green cover inside the campus.

Internal Outreach Programmes:

- Microcosm conducted 16 Internal Outreach Events that impacted 3000+ participants
- Kumaraguru Microcosm engaged the KCLAS Faculties through refresher program. 40+ professors visited the Campus Sustainability Initiatives of Ahimsa Vanam, In House Nursery & Resource Recovery Park.
- Bird Watching and Butterfly watching was organised inside the campus and at Singanallur lake area.
- Bommalattam Show was organised in the campus to create awareness on sustainability.

External Outreach Programmes:

- 90+ Forest Range Officers from across the nation who are undergoing their 18-month training at Tamil Nadu Forest Academy underwent three-day intensive training on Motor Mechanics at Kumaraguru Campus.
- Nurture Nature Camp at Siruthuli with primary focus on nature education topics such as water management, waste management, environmental conservation, and afforestation, among others and impacted 120+ School Students.
- 10 members from Kumaraguru Institutions & 3 members from State planning commission overviewed Microcosm initiatives focusing on Educational Development, Innovation Learning systems, Social Impact Initiatives and Centre of Excellence, etc.
- 30+ External Nature enthusiast along with Forest Department Officers and Bird Watchers shared their perspectives to enrich the Nanjarayan Tank - DPR works.
- 30+ TIPS Students toured our campus to explore the Sustainability Initiatives.
- Europe based cosmetic company organized a Agro Ecology Workshop for the Jasmine farmers to understand the opportunities to work in the space of Agro ecology and environment.
- Aspen Leadership Members engaged at Nature Exploration with Kovai Kulangal Pathukappau Amaipu. 20+ young minds visited the biodiversity of Vellalore Lake at Singanallur.
- 30 Alam School Students along with The Vanavarayar Foundation engaged the Heritage Walk at Samathur.
- Yugam Socio Constant launch and Volunteer support has been rendered by 150+ Students for Chinnavedampatti Lake Restoration.

Community Tree Planting:

- Greenathon'22 was organized at Government Middle School, Kasthurinaickenpalayam and 30+ trees were planted by Rotaract Club of Kumaraguru College of Technology along with Microcosm
- 25+ students planted 40+ seedlings in the reserved site of a residential area in Coimbatore. This was done in collaboration with the residential association which has assured continuous maintenance, protection, and monitoring of the planted trees. as part of World Environment Day celebrations.
- Youth Red Cross Team planted 30+ trees at Tholampalayam village and Farm Talk:

- 30+ participants attended Farm Talk session on "Soil Biology" conducted by Dr. Arun Kumar, Expert Agricultural Microbiology, Mr. Kali Prakash, Farmer - Panmayam and Mr. Sivaramakrishnan, Founder - Greenzy.
- 30+ participants attended Farm Talk session on "Irrigation Automation" conducted by Mr. Benjamin Raja, Founder & CEO Farmagain, Mr. Dhanasekaran, General Manager - Mobitech and Er. Ramya.
- 30+ participants attended Farm Talk session on "Scientific Dairy / Livestock Management" conducted by Dr. Thanammal, Dairy Economist, Dr. Palani, Livestock Consultant and Mr. Shiva and Mr. Dhinesh, Farmers.
- 30+ participants attended Farm Talk session on "Bee Keeping" conducted by Mr. Vishnu, Dheeran Live World and Mr. Sreeramsethupathi, Founder - Mellifer
- Campus SDG Conversation Series
- SDG Series - 1 on On World Environment Day Towards achieving the 17 sustainable developmental goals to meet the 2030 global agenda for sustainable development. A mindful conversation with Mr Bharathidhasan, Arulagam, Mr Siva Raja, Chinnavedampatti Lake Restoration and Mr Vijay Babu, Kaligarayan Kulam Restoration.
- SDG Series 2 on Nature Conservation Day - Towards achieving 17 sustainable developmental goals to meet the 2030 global agenda for sustainable development. A mindful conversation with Mr Kaliprakash, Founder, Panmayam Regenerative Farm and Ms Usha Devi, Founder, Krishi Janani.
- SDG Series 3 on Waste Management - Ms Renuka from IKU interacted with our students and shared her experience about waste management. Some technology related projects has been discussed with her.

K-Farmer's Market

- 16.87 Kgs Mushroom, 9000 eggs, 220 papayas and 300 Kg rice were sold which generated an income of INR 1, 37,474



MoU Signed:

- Chinnavedampati Lake - Kousika Neerkarangal MoU was signed to restore the lake.

Neerum Naamum - Uzhavan Foundation, Kumaraguru Institute of Agriculture & Young Indians to protect and create awareness on water bodies.

Course Framework:

- Kumaraguru Microcosm and School of Foundational Sciences (Department of Chemistry) are jointly reframing the Environmental Science course for second year engineering students. As part of the curriculum, Field visits, Expert conversations and Volunteering activities nearby water bodies are included.
- Kumaraguru Institute of Agriculture & Microcosm offers 2 credit courses for KCT freshers namely Environmental Stewardship Program and Introduction to Agricultural Sciences

Weather Station Instalment:

- As part of Climate Literacy initiative, to monitor climate in our neighbourhoods and to educate people to observe the changes, Weather Station has been installed in the campus.
- Awards and Recognition:
- Bhumi Campus Award 2022 is Asia's first-ever unique awards to recognize socially responsible colleges. Awards are given under seven categories: Most Socially Responsible Campus, Best Volunteer Engagement, Most Eco-Friendly Campus, Best Waste Management in Campus, Most Socially Responsible Staff, People Choice Winner and Most Unique Social Initiative. Kumaraguru Institutions recognized the four categories as follows, Most Eco-Friendly Campus, Best Campus Waste Management, Most Unique Social Initiative and The Social Exemplar Award.
- Most Eco-Friendly Campus Award - Kumaraguru College of Liberal Arts and Science for Ahimsa Vanam Project
- Best Waste Management on Campus Award - Kumaraguru College of Technology for Resource Recovery Park
- Most Unique Social Initiative - Kumaraguru College of Technology for KARE
- The Social Exemplar Award - Kumaraguru College of Technology

Achievements

- Won ZEE Edufuture Excellence Awards - Delhi



Office of International Relations

The Office of International Relations of Kumaraguru Institutions has a mission to foster, integrate, and enhance international initiatives in teaching, research, and service through global partnerships, ultimately creating value for society. The strategic goal of the office is to cultivate a global outlook, practice, and reach across all five institutions within Kumaraguru. The International Office is dedicated to supporting students of Kumaraguru Institutions in their aspirations for international education and research. It provides guidance and assistance for various international experiences and mobility opportunities.



Milestone Events

Discussion with Griffith University, Australia

- Semester Abroad – Industry Internship Program (IIP) for UG Students to the School of Mechanical Sciences, Computing and Electrical Sciences – 3.5 + 0.5 model, 3.5 + 0.5 + 1 (not accredited) and 3.5 + 0.5 + 2 (accredited).
- September/October Orientation to Students, November to February Phase I work remotely and from March 2022 to June 2022 work in Griffith University.
- Griffith to share the proposal and MoU.
- Master of Environmental Engineering – KCT is keen to explore semester abroad/ offshore program offered by Griffith.
- Research Collaboration – KCT is keen to set a joint Wastewater/ Water treatment centre in collaboration with Griffith University.
- Skill Development School – KCT plans to establish an Employability SDS and is open for Griffith's collaboration.
- School of Built Environment and Building Sciences – Focused on Masters, Research and PhD program – Post Graduate Certification Program. KCT is keen to explore possible associations in research and graduate programs.

Participants of the meeting :

Griffith University, Australia

Dr Erwin Oh, Director (International), Griffith University

Dr Prasad Kaparaju, Associate Professor School of Engineering Built Environment – Civil and Environmental engineering, Griffith University

Ms Ashini Malhotra, Regional Marketing Director (South Asia and Middle East), Griffith University

Kumaraguru Institutions, India

Dr Joseph Thanikal, Director, Kumaraguru College of Technology

Dr Saravanan, Principal, Kumaraguru College of Technology

Dr Vijila Kennedy, Head International Office, Kumaraguru Institutions

Mr Naveen Kumar, Executive, International Office, Kumaraguru Institutions

Discussion with Embassy of France Delegates

- Meeting with delegates from French embassy held on 11 June 2021, 2.30 PM to 3.30 PM where certain aspects mentioned are discussed. Skill and Competency Development center can be established in KCT, Research Collaboration, KCT is concentrating to develop a Sustainable and Eco-friendly technology in rural areas. The immediate collaboration is possible in academic and research point of view. There is an interest in Silk in south India, Ms. Ambika will introduce us to the person in charge to take the discussion to next level.

Discussion with Embassy of France Delegates on Projects related to Silk

- Follow up discussion was held on 17 June 2021, 12.30 PM to 1.30 PM where Ms. Sanjana Sarkar, Director, French Institute in India/Institut Francais en Inde, Jaipur, Rajasthan annex, Embassy of France in India joined the discussion and Textile and Fashion department shared our expertise and projects related to silk and the future possibilities of collaboration, followed by which a One-page document mentioning the details of the Projects on Silk and the possible collaboration opportunities also shared, Ms Sanjana will introduce us to Ms. Isabelle Moulin, the artistic director specialised in silk from Lyon to take this discussion further.

Meeting with Unilasalle, France

- A contact identified by Embassy of France based on our expression of interest Unilasalle, France and a meeting was organized on 8 July 2021 from 1.30 PM to 2.30 PM, Mr. Sebastian RIEDER, Director, International Relations was the meeting participant and also, we had our delegates from the embassy in the meeting. Student exchange from Unilasalle to KIA, faculty exchange are the key points of discussion. Mr. Sebastian will discuss with his team and will send us a one page note on this.

Participants of the Meeting :

Unilasalle – Pole d' enseignement superieur

Mr Sebastian RIEDER, Director, International Relations
Embassy of France :

Dr Francois Xavier, Science Attache, Embassy of France in India, Bangalore

Dr Anupama Ambika Anilkumar, Deputy Science Attache, Embassy of France in India, Bangalore

Ms Rhea Cheryl Shivan, Campus France Manager, Bangalore
Kumaraguru Institutions :

Dr Saravanan, Principal, Kumaraguru College of Technology

Dr Vijila Kennedy, Head International Office, Kumaraguru Institutions

Mr Naveen Kumar, Executive, International Office, Kumaraguru Institutions

Semester Abroad Program - Swinburne University of Technology, Malaysia – Presentation to HOD's

- Swinburne University of Technology, Malaysia is offering a Semester abroad program, it is an opportunity for KCT students to do their 8th semester at SUTM, a presentation regarding this is made to the HoD's of all the departments. It is an individual project supervised by the professors of SUTM, 25 credit points are offered which can be transferred to KCT, the queries have been answered and requested the Heads to circulate the information to the students.

International Conference on Materials Research in Science and Engineering - KMRSE'21

- International Conference on Materials Research in Science and Engineering KMRSE'21) is organized during 23 - 25 July 2021. The inauguration of the conference was on 23.07.2021 at 9.30 am. All the events like keynote sessions and paper presentations have been conducted via virtual mode, for the keynote sessions the speakers were from top institutes like NUS Singapore, University of Teknologi, Malaysia, Aalto University, Finland, NTU Singapore, Texas Tech University, USA, University of California USA, IIT Guwahati, CSIR National Aerospace laboratories, bangalore, DRDO, IIST, Kerala and also from companies like Airbus, UK, DigiPasar Pte Ltd, Singapore etc.

Semester Abroad Program - Swinburne University of Technology, Malaysia – Addressing Queries

- Totally 40 Students have registered for the program and the students have mentioned some queries in their registration, the queries have been addressed by the delegates from SUTM on 30 July 2021, 12.00 PM to 1.00 PM, Dr. James Ho Kok Chai, Director, Business Development, Ms. Norazreen Binti Sapiee, Assistant Manager, Business Development and Ms. Priya Jawahar, Swinburne Research India Office, addressed the students and clarified their doubts.
- Meeting with Illinois Institute of Technology, Chicago, USA Mr

Sri Kumar, Director India Operations and Mr. Krushnakumar, Location Head Chennai for Illinois Institute of Technology were the participants of the meeting held on 20.8.2021, Mr. Sri Kumar shared the details on Blockchain Technology, it is 6 weeks start from Jan 10 to Feb 28, 2022, either in online or offline mode. Also, a Certification Program (9 Credits) on Blockchain, Artificial Intelligence & Internet of things (3 credits each) during Summer starting June to July (Dates to be announced later) it is on campus mode.

- Illinois Tech will propose a Psychology program after consulting the Dean of the school, either customized or programs exclusive to KCLAS Psychology students. Progression in to one of the master's programs is also an option to consider. Tech Talks by Illinois Tech's professors on the latest technologies etc. Project Opportunities were also put on the table. Visiting Students from ILLINOIS Tech to our incubation center, participate in research, cultural and other events.

Participants of the Meeting :

Unilasalle – Pole d' enseignement superieur

Mr Sebastian RIEDER, Director, International Relations

Embassy of France :

Dr Francois Xavier, Science Attache, Embassy of France in India, Bangalore

Dr Anupama Ambika Anilkumar, Deputy Science Attache, Embassy of France in India, Bangalore

Ms Rhea Cheryl Shivan, Campus France Manager, Bangalore

Kumaraguru Institutions :

Dr Saravanan, Principal, Kumaraguru College of Technology

Dr Vijila Kennedy, Head International Office, Kumaraguru Institutions

Mr Naveen Kumar, Executive, International Office, Kumaraguru Institutions

Discussion with Embassy of France Delegates

- Dr. Sanjana and Dr. Ambika, Attache from the embassy of France and Ms. Isabella Moulin, Director Silk me back, Lyon, France participated in the discussion on 7th September 2021, 1.30 PM to 2.30 PM and the following collaborative action plans were outlined.
- KIG team will have a discussion with KOTA Weavers online to understand their projects and expectations – Ms. Sanjana will organize it in September 2021.
- Ms. Isabella Moulin will have an interaction with students of KCT in the second week of October. KCT to identify students and share the students' profiles, the meeting date and the student's profile should be shared 3 weeks before the meeting.
- Delegated from KOTA Team, Silk me back team Rajasthan and Sanjana proposes to visit KCT in the end of November 2021. KCT to propose a plan and Schedule for the 2 days visit which can include weavers' location.
- An executive Committee to be formed in KCT for the project and Isabelle Moulin to be part of the committee and have a discussion in October 2021.
- Visit to Lyon by our Faculty joined by the Weavers, will be confirmed soon.
- Ms. Isabella will visit India and KIG for discussions with working group of the project.
- Discussion with KOTA Weavers and Embassy of France Delegates
- Meeting with Ms. Jyothi Gupta working with the KOTA weavers in Rajasthan and Ms. Sanjana from the embassy exploring ways to connect through some common platforms as KOTA is also handloom, KOTA needs upliftment and different ways to do that, and an immediate proposal will be submitted by KCT Team on the below 4 topics.

1. Design
2. Sustainability and dyeing
3. Fragrant fabric
4. Socio Economic development

International Seminar on INNOVATIONS AND ADVANCEMENTS IN TECHNICAL TEXTILES (IATT-2021)

- The Seminar was intended to disseminate about recent research outcomes, innovations, and advancements in technical textiles. Guest speakers from eminent universities, institutes, and research organizations have presented on various topics related to technical textiles. The seminar also provided a platform for lively discussions among academicians, industry experts, research scholars, and students.

US Universities Virtual Education Fair 2021

- An Online education fair was organized on 29 September 2021, 7.00 PM to 8.30 PM, 5 US Universities presented about their University CENTRAL MICHIGAN UNIVERSITY, Framingham State University, Massbay Community College, Mt. San Antonio College, University of California Business School. Dr. Vijila Kennedy and Mr. Naveen Kumar C Participated and all the 5 universities are open to collaboration with Indian colleges directly and also the recruitment agencies to increase their partnerships.

Discussion with Unilasalle

- Dr. Laurent BAROUX, Associate Professor PhD in Physics, Head of International Relations Office (Amiens), UniLaSalle campus, on 8.10.2021 12.30 PM to 01.30 PM discussion regarding their students visiting Coimbatore for an Internship and they are expecting a paid internship in the company. A plan will be circulated soon and based on it the companies can be selected.

Meeting with University of Wollongong (UoW), Australia

- It is a follow-up discussion on 18.10.2021, 9.30 AM to 10.30 AM on the models proposed by UoW, and in this meeting suitable departments for the particular model is decided, and the curriculum is shared with UoW for further processing. They will update us on the mapping.

Meeting with Manchester Metropolitan University, UK.

- An Online meeting with MMU on 27.10.2021 from 12.30 PM to 01.30 PM to discuss regarding the collaboration possibilities in the field of Fashion Technology, Dr. Patsy Perry, Head Fashion Technology, MMU, UK and Mr. Sam Burney, Manager International and few of the dignitaries joined the meeting a mutual agreement on the various models and short term courses and summer schools is discussed, and also proposed that their students can come to Coimbatore for an exchange program since we are the hub for textile we can propose a detailed plan for them.

Meeting with Audencia Business School, France

- Initial Collaboration discussion with Dr. GARCIA RUIZ Karina, Head International, Audencia Business School, France for BBA and MBA on 28.10.2021 from 01.30 PM to 2.30 PM it was proposed that our bachelor's in management studies students have the opportunity to study 1 year at Audencia and get a degree from them, the students will get a post study visa for 1 year. Also, if the students are interested, they can continue master's or they can come back or work there. They have agreed to give our students

a 20% scholarship. One more exciting area is they are offering a master's in food & Agriculture which will be best suited for KIA students.

Meeting with University of Huddersfield, UK

- Initial collaboration discussion with University of Huddersfield, UK, on 24.11.2021 from 3.30 PM to 4.30 PM, Dr. Till – Associate Dean, International Office, Dr. Parikshit Goswami, Professor of Technical Textiles joined the discussion, various models of collaboration for Department of Textile Technology is suggested and a formal MoU will be shared by them to process.

Masters Studies in Germany in Association with DAAD

- An Awareness session on the master's program offered in Germany, Admission requirements, Application process, Visa processing and scholarship opportunities is covered in the session. The session was conducted on 26.11.2021 from 5.00 PM to 6.30 PM a total of 157 participants attended the session.

Going Global Programme Grant – Exploratory Grant

- Department of Automobile Engineering have applied for Going Global Programme Grant under Exploratory Grant category in association with University of Leeds, UK on 25th October 2021 for a joint course on “Electric and hybrid Vehicle Technology”. If selected the grant amount will be 15000 pounds.
- Meeting with Japanese Consulate General Mr. Taga Masayuki, Consul General of Japan visited Kumaraguru Institutions on 09.12.2021 from 4.30 PM to 6.00 PM to explore the collaborative opportunities between India and Japan in the areas like Culture, Education and Research. On understanding the efforts made by the Kumaraguru institutions in teaching Japanese language to the students, the Consul General confidently expressed, such efforts can go further high with the help of AOT-DOSAKI and interactions with the native Japanese staying in Tamil Nadu. He was happy to understand the collaboration that the institution has established with M/s Yokogawa, Japan since 2015, to train the students in the state-of-the-art facilities sponsored by the company and suggested to strengthen tie-up with companies those who JV with Japanese companies.
- Shri Shankar Vanavarayar, the President of Kumaraguru Institutions expressed that these initiatives should benefit larger audience including students, Industry, Public and the people returned from Japan. He assured his support and the involvement of Kumaraguru in celebrating Japanese Weekend in the coming year jointly with the Consulate. He also emphasized on the need for initiating the Youth Exchange Program (YEP) between Japan and India to strengthen the relationships between the countries.
- During the discussion the Consul General highlighted the possible collaborations through JETRO to reach the industries of Japan and initiate research activities and suggested facilitations could be made through the Consulate for the Japanese Scientists working in the fields of human science, social science and political science, besides technology domains to visit the campus for interacting with the students of Kumaraguru Institutions and local industries.

Going Global Programme Grant – Exploratory Grant

- Department of Automobile Engineering have applied for Going Global Programme Grant under Exploratory Grant category in association with University of Leeds, UK on 25th October 2021

for a joint course on “Electric and hybrid Vehicle Technology”. The course has been selected for the grant.

Meeting with Embassy of France Delegates

- Discussion with Embassy of France Delegates on 21 January 2022 from 11.00 AM to 12.00 PM, the discussion was about joint organization of French Institution fair at Kumaraguru, the roles and responsibilities were suggested, and the tentative date is 19 March 2022. The Participants of the meeting are Dr. François Xavier, Science Attaché, Bangalore, Dr. Anupama Ambika Anilkumar, Deputy Science Attaché, Bangalore, Ms. Lise Talbot, Consul General Pondicherry and Chennai, Ms. Rhea Cheryl Shivan, Campus France Manager, Chennai.

Meeting with Embassy of France Delegates

- Discussion with Embassy of France Delegates on 9th February 2022 from 2.30 PM to 3.30 PM, the discussion was about Choose France Tour (CFT) a French Institutions fair and also 5 companies have agreed to participate in the fair, the fair is hosted by Kumaraguru institutions, and the date for the fair is finalized on 19 March 2022. The Participants of the meeting are Dr. François Xavier, Science Attaché, Bangalore, Dr. Anupama Ambika Anilkumar, Deputy Science Attaché, Bangalore, Ms. Shruthi, Campus France Manager, Chennai. The following points were discussed in the meeting
- Venue: Booths in the foyer tentatively [Images/Video to be shared by Kumaraguru] + a separate room for presentations/plenary sessions.
- No. of booths approximately: 10 French institutions + 5 French Companies + 1 Alliance Française + 1 Campus France + 1 Registration desk.
- Possibility of B2B meetings between the Indian & French institutions - dinner on 18th March / 9 - 10 am on 19th March / any other possible option?
- Companies confirmed till date: Suez, Alstom, MBDA & TNP Consultants.
- FI to send invitations to the French institutions. Google form to include the level of program proposed by the institutions (Bachelors/Masters), facilities required and interest in doing presentations/sessions. The list of participating French institutions will be shared once registration is completed.
- Students/participants to register using IFI's registration page. A QR code could also be generated so students can register on site as well.
- Kumaraguru's band will perform from 4.00 PM -4.30 PM. Location is yet to be decided.
- target audience for the fair: KCT, KCLAS, other colleges in Coimbatore, Principals/Parents of schools.
- Thematic presentations by Campus France & French institutions through the day at different time slots.
- Promotions at a local level will be taken care of by Galaxy and Kumaraguru.
- Digital content/graphics for promotions will be shared by IFI which will include the logos of Kumaraguru and Galaxy.
- US Virtual Educational Fair conducted by U.S. Commercial Service
- This VEF showcased six U.S. undergraduate and graduate schools. The schools presented about the various programs offered by the schools, scholarships, jobs on campus. It was organized on 24 February 2022 from 8 PM to 10.00 PM. The program was attended by Dr. Vijila Kennedy, Head International Office, Kumaraguru Institutions and Mr. C. Naveen Kumar, Executive International Office, Kumaraguru Institutions. Below is the list of U.S. schools presenting at the India Virtual Education Fair (VEF):

1. Drury University

2. Edmonds College
3. Full Sail University
4. St. Martin's University
5. Santiago Canyon College
6. Virginia Commonwealth University

Orientation Session on “Electric and Hybrid Vehicle Technology”

- A joint course is offered by University of LEEDS in association with Department of Automobile Engineering, KCT for the 3rd year students from Automobile, Mechanical, EEE, Mechatronics, ECE, EI. The session was offering information on the course, outcomes, modules covered and most part of the course is delivered by the experts from UoL, UK. Dr. Krzysztof Kubiak, Associate Professor, UoL, UK handled the session on 28th February 2022 from 3.00 PM to 4.30 PM.

Meeting with Northern Illinois University, USA

- Kumaraguru college of Technology is applying for Ignition Grant under Technology based Energy Solutions: Innovations for Net Zero, in this regard a joint proposal has been developed and NIU has agreed to partner, a meeting was scheduled on 17.2.2022, 7.00 PM to 8.00 PM to discuss and finalize the work from each side.
- RWTH International Summer Programs are open for application Mr. Pranesh from Mechanical Engineering have submitted the application.
- Ms. Lithika Student from BBA have got admissions in University College London and Visa Processing is underway.
- Choose France Tour (CFT) - French Institutions Fair
- An international educational fair with 14 French Universities and 3 French Companies was hosted at Kumaraguru Campus on 19th March 2022. The session was addressed by Monsieur Bruno Nguyen - Deputy Consul General, Francois-Xavier MORTREUIL - Attaché for Sciences and Higher Education, Institut Français India along with Shri Shankar Vanavarayar - President Kumaraguru Institutions, Dr. Joseph V Thanikal - Director Kumaraguru College of Technology, Dr. Saravanan D - Principal, Kumaraguru College of Technology and Dr. Vijila Edwin Kennedy - Principal, Kumaraguru College of Liberal Arts and Science.

Participants :

1. De Vinci Higher Education
2. Excelia
3. EM Normandie Business School
4. KEDGE Business School
5. ESIGELEC Graduate School of Engineering
6. Burgundy School of Business - BSB
7. Université Catholique de l'Ouest
8. EDHEC BUSINESS SCHOOL
9. Audencia Business School
10. NEOMA Business School
11. Rennes School of Business

3 French Companies

MBDA

Suez

TNP Consultants

- Alliance France, Campus France are participating in the fair. 500 students including student from KCT, KCLAS, KPR, Easwari Engineering college have visited the stalls and interacted with the institution representatives on Admission requirements, visa, application procedure and scholarships etc.,

- KCLAS French Language Center has been launched in collaboration Alliance Française Madras and it aims to develop reading, writing, listening and speaking skills and strategies, as well as critical thinking and cultural awareness.
- International Office have had a lot of discussions post pandemic with institutions from France, US, UK, USA, Australia on various opportunities like Semester Abroad, Immersion, credit transfer, short term courses etc to focus on the future in this new normal. Mr. Taga Masayuki, Consul General of Japan, Chennai visited the campus, and in association with French embassy conducted Choose France Tour (French Institutions fair) in the campus in which Mr. Bruno Nguyen, Deputy consul General France, Chennai was part of the whole event, awareness session for students. The office supported Department of Automobile Engineering, KCT to apply for Going Global Programme grant and received a joint funding of 15000 pounds in association with University of LEEDS, the joint course on Electric and Hybrid Vehicle Technology is successfully completed.

Tel Aviv University, Israel - Delegates Visit

- Dr. Gary Sussman, Vice President for Public Affairs, Dr. Milette Shamir, Vice President, International Office, Ms. Emma Afterman, Director of Asia Management visited Kumaraguru Institutions on 6th April 2022. Meeting with TAU threw up a lot of opportunities for collaboration to deliberate. At the end of the discussion, it was suggested that respective stakeholders submit halfpage or full-page write-ups which can be used by us and shared with them to take the conversations to an actionable plan. A few broad topics based on discussions are listed below, Centre for Water.
- Conference on Water – Semi Academic / Project Based / Industry perspective Kumaraguru Institutions, having a long-term association with Tel Aviv University on various initiatives in the past is exploring opportunities to strengthen the relationship with research projects and collaborative education programs in various domains.
- We see great collaborative opportunity in working with small holding farmers to identify the challenges and solve the problems through new innovations and customisation of existing Israeli innovations in the domain of Agriculture and Animal Husbandry.

Kettering University, USA - Delegate Visit

- Dr. Raghu Echempati, Professor of Mechanical Engineering, visited KCT on 29th April 2022, from 10.00 AM to 12.30 PM based on the discussion the following can be concentrated, Technology Management Course is one area where MBA department can explore collaboration possibilities, Certification course offered by KCT to Kettering students jointly with SEA, KCT, Dr. Raghu agreed to be part of the international conference conducted by KCT and will deliver a keynote address on FEA, the Professor has also showed interest in handling module of one course in this semester or next semester, Dr. Raghu will write back to us after discussing with the relevant people at Kettering on Students coming to KCT, Joint student projects, Formula Student knowledge and support for international SAE competition and agreed to sign a generic MoU between the institutions.
- Discussion with Giles Brooker Group on New Zealand Immersion Program Giles Brooker, Chairman and Ms. Prabha Govindasamy, Managing Director visited Kumaraguru Institutions on 27th April 2022 from 11 AM to 12 PM, the discussion was about the New Zealand Immersion Program, it is an opportunity to run a 6-week-long for Horticulture & Agriculture, Fashion Technology

& Textile Technology, and Social Entrepreneurship & Community Development program for 15 - 20 students from New Zealand. This program is supported by New Zealand Prime Minister's Scholarships for Asia Programme. All three programs will have their project outlines and outcomes defined focusing on traditional/cultural methods and future technology.

- Horticulture & Agriculture program to be handled by Kumaraguru Institute of Agriculture (KIA)
- Fashion technology and Textile technology will be carried by Kumaraguru College of Technology
- Social entrepreneurship and community development to be managed by the MSW department of Kumaraguru College of Liberal Arts and Science (KCLAS). Dr.Saravanan. D, Principal-KCT, and Dr.Vijila Kennedy, Principal-KCLAS will be nominating representatives from respective departments, who can help in coordinating this program from start to end. The Department representative will work with Giles Brooker Group, New Zealand to prepare a detailed proposal regarding the program.
- In the first phase of the plan, we need to sign an MOU at the earliest, Giles Brooker Group has to apply for the New Zealand Prime Minister's Scholarships for Asia Programme by the second week of May, MOU signing can be completed before 6th May 2022 and the proposal outline by 10th May 2022.

Brainstorming session on Internationalization – KCLAS

- Date – 09/05/2022 Time – 2.00 pm – 4.00 pm Venue – KCLAS Lecture Hall 1
- It was a brainstorming session to get the ideas to improve IR's activities benefiting KCLAS students and faculties. It started with Dr. Satish, giving a brief on IR's vision and setting the guidelines for mind-mapping activity. A total of 28 faculties participated and they were divided as per the departments they represent. Mind-mapping exercise was divided into two sessions with the first one lasting for 45 minutes and a discussion for 15 minutes. The second one went on for 30 minutes of activity and 30 minutes of discussion. Faculty's enthusiasm during the event has thrown out various ideas which will be worked alongside them to achieve new heights for Internationalization.

Brainstorming session on Internationalization – KCTBS

- Date – 13/05/2022, Time – 11.30 am – 1.00 pm Venue – KCTBS Training Hall
- Dr. Satish kicked things off by giving a quick overview of IR's vision and laying down the groundwork for the mind-mapping session. The idea of the Brainstorming session is to come up with new ways to improve IR's activities for the benefit of KCTBS students and faculty. A total of 16 faculties took part in the session and they were made into groups on random basis. The mindmapping exercise was split into two sessions, the first of which lasted 30 minutes and was followed by a 15-minute discussion. The second session lasted 45 minutes, with 30 minutes of action and 15 minutes of discussion. The passion of the faculty throughout the event resulted in a slew of fresh ideas that would be implemented alongside them in order to push Internationalization to new heights.

Meeting with Mancomp Overseas Education

- Discussion with Mr. Sampath Dorairajan on 17 May 2022 from 10.00 AM to 11.00 AM on the collaboration possibilities which can help students by providing complete and relevant country-specific requirements for studying in the country of the student's choice. They have requested to meet the students to explain their process and services. We may look at the session during the month of July 2022.

Meeting with v

- Discussion with Mr. Nithi Sivaguru on 26 May 2022 from 2.00 PM to 3.00 PM on the collaboration possibilities, Scotsgrad will look out for Scottish institutions based on areas of interest shared by International office. The shared departments are ;
 - Textile and Fashion Technology
 - Artificial Intelligence and Data Science
 - Business (UG & PG)
 - Psychology
 - Biotechnology
- International Office Introductory meeting with all the HoD's and IO Coordinators
- International Office Team met with all the Heads of the Department and also the International Office coordinators on 27 May 2022 from 2 PM to 3 PM, Dr. Satish presented the aim and objectives of international office and also after that had a discussion on how to achieve it. After the meeting all the MoU's soft copies have been shared with the team and there will be a meeting soon with the faculty members on this to understand the requirements from their side and formulate a suitable strategy to take this forward.



KC.IRI

Kumaraguru Centre for Industrial Research and Innovation (KC.IRI) is a focused Research & Innovation Ecosystem at KCT in symbiotic collaboration with industries for the promotion of industry-specific applied research, innovative product development, advanced learning, and skill development programs. It bridges across industry and the student, to provide support to enter industries and to improve projects which are evaluated by the industry experts. KC.IRI strives to create a pool of skilled students in Design and Manufacturing through industry-specific certification programs in skill development under Skill-India / Make-in-India schemes by establishing Manufacturing Hubs by leading industries



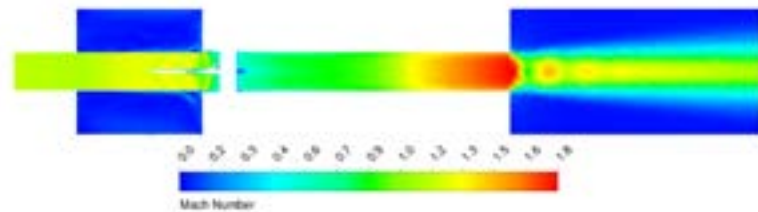
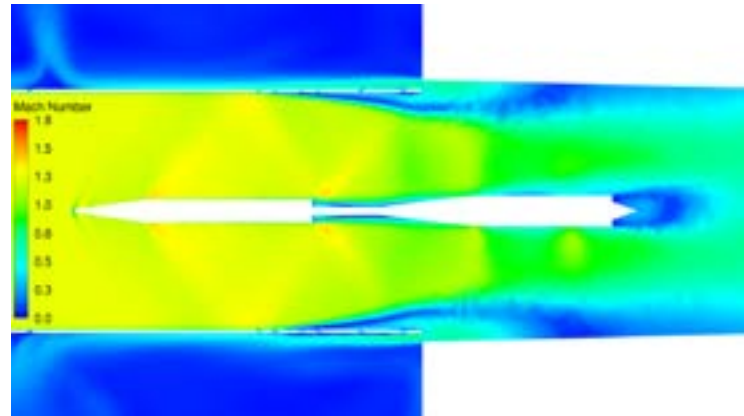
KC.IRI has received the projects from DRDO & Industries for a total value of about Rs. 22,77,181/- in the financial year 2021-22

About:

The CFD simulations for the on-going project 'Design of Transonic Test Section for Tri-Sonic Wind Tunnel' from DRDL, Hyderabad is carried out in this financial year. The main objective is to perform the CFD simulations to determine the correct flap opening to achieve Mach 0.8, 0.9, 1.1 & 1.2 at the inlet of the test section with minimized shock wave reflection. The final DRDL review meeting has been completed and they appreciated the work carried out by the KC.IRI team. The first-year report submission and fund settlement are completed for the ARMREB, DRDO funded project ('Investigative Studies on Structural and Mechanical Properties of Electroplated NiB and NiW nano crystalline thin layers on Steel Substrate for Erosion Resistance Applications') sanctioned in the year 2020 - 21 in co-ordination with the Physics department. The second-year fund of Rs.6,32,381/- received and working on sample preparation & characterization on NiW & NiP is in progress.

A project for the 'Design and Analysis of a Passenger Access Ladder' is received and executed for 'Leads Solutions, Bangalore'. The design & analysis document, bill of material, manufacturing drawings are submitted. Structural and Modal analysis has been carried out for the project 'Design and development of Unmanned Ground Vehicle' received from Premier Astra, Coimbatore and the project is in progress. We have received a project for 'Study on Engine Installation and Cooling Flow Study on MALE UAV' from ADE, Bangalore.

A Development of Autonomous All Terrain Electric Vehicle and All Wheel Drive & Steering UGV are in progress with dedicated team members from KC.IRI, faculty & student interns from various departments of KCT with guidance from industry experts.



Office of Student Affairs

The Office of Student Affairs at Kumaraguru Institutions is a dedicated forum aimed at providing comprehensive support, guidance, and empowerment to the students. It focuses on various aspects of student life to ensure their overall success and well-being. Some of the key areas of focus for the Office of Student Affairs include Academic and Research Mentorship helping them develop essential skills for professional socialization, overseeing a diverse range of clubs and forums, providing students with platforms to explore their passions and interests and providing counseling services through a non-judgmental attitude to address personal concerns and overall well-being.



Milestone Events

- YUGAM '22 - South India's largest Techno cultural sports fest was conducted with the theme 'Reincarnate' that marks a brand-new reawakening, a renaissance, to carry forth the legacy of Kumaraguru between 14th May to 27th May 2022. 50+ Workshops; 90+ Events; 03 Proshows and Swagatham; 09+ Sports; 6000+ Footfalls.
- 1300 students from Kumaraguru learning fraternity received the annual Mahatma Gandhi Merit Scholarship and Achievers awards worth 1.3 crores on 27 March 2022 their outstanding performance in academics, sports, research and innovation.
- Farewell was conducted for the graduating batch 2022 from 22nd to 24th June 2022 in which around 1200 students participated.
- 74th Independence day was conducted on 15th August 2021 in which 800 members participated and 73rd Republic day was conducted on 26th January 2022 in which 750 members participated.

RESEARCH - Funded Projects

- A product, 'Hexair - The Agricultural Spraying Hexacopter Drone' was developed by the student team of Aeromodeling Club and Department of Aeronautical Engineering. Rahul Pradeep (17BAE049), Venkat Prasad (17BAE031), Krishna kumar K M (17BAE056), Kiran P (18BAE025), Sreenivasan K(18BAE030), Sumanth Eswar K S (18BAE022), Aswin kumar (18BAE038), Sivaguru (18BAE001), Rahul N(19BAE015), Mahima Swetha(20BMC025), Varshini S N(20BAE047), Ansu susan deepak (20BEC011). The project was funded by Department of Aeronautical Engineering with a sum of INR 44,700 was mentored by the faculty Mr. J. Darshan Kumar.
- Small category payload dropping drone' was a product developed and done by the student team of Aeromodeling Club. Kiran P (18BAE025), Kirubanidhi V (20BAE015), Bharanidharan M (19BAE202), Aravindha Vasan S (19BAE201), Dinesh P (20BAE008), Sheik Imran M (20BAE039), Abinash Nataraj S (19BAE044). The project was funded by Aeromodeling Club of KCT with a sum of INR 18,000 and was mentored by the faculty Mr. J. Darshan Kumar.
- "Micro Quadcopter for Surveillance and Photography" was a product developed and done by the student team of Aeromodeling Club Kiran P (18BAE025), Jeeva K M(19BAE011), Rahul N (19BAE015), Varshini S N (20BAE047), Mahima Swetha M (20BMC025), Hemanth Nithish G (20BAE010), Naveen V (20BEE058), The project was funded by Aeromodeling Club of KCT with a sum of INR 40,000 and was mentored by the faculty Mr. J. Darshan Kumar."

Student Achievements:

- Mr. Ranjith V and Mr. Sivaprasath S C of the III year ECE department won second place in "RF Signal and Antenna Design" Hackathon organised by the IEEE Student branch and HAM club of Kumaraguru on June 24 and 25, 2022.
- Flight Cadet Tarun R S (2nd Year Department of Mechanical Engineering) represented the TN, Pondicherry & Andaman and Nicobar contingent in the Prime Ministers Rally on 28 January 2022 happened in Cariappa Parade Ground, New Delhi.

Social Impact

- The VBC Club of KCT organized a blood cancer awareness event CARCINO on 25 September 2021. The speaker Dr. Belinda J, M.B.B.S,MD, consultant physician, Marthandam mission hospital presented about the risks, symptoms, transplants, functions and treatments of blood Cancer in which 50 students benefitted.

- Youth Red Cross conducted an event "Step-up" to spread awareness on electrical safety and educate the students by a workshop on 8th December 2022 in which 80 students benefitted.
- Rotaract Club and Books and beyond of Kumaraguru conducted an event for the International day of sign language on 27th September with deaf children. Main aim is to spend some fun quality time with them and learn about their way communication in which 50 students participated.
- The ABLE club KCT in association with KURAL club of KCT conducted a webinar on "ASPIRE - Career Opportunities in Government Sectors" on 28 Aug 2021. The Chief Guest was Swathika A Sekar, Founder of Shiksha IAS Academy presented about the path to be followed to crack the Civil Service Exams which benefitted 100+ students.

MoU

- MoU with Yourdost for Online counselling services for the academic year 2021-22

Next Year Goals And Plans

- To launch 5 more student clubs in 2022-23.



Office of Alumni Relations

The KCT Alumni Relations Office serves as a crucial bridge between Kumaraguru College of Technology (KCT) and its extensive alumni network, which consists of over 30,000 individuals. The office is responsible for facilitating communication, engagement, and collaboration between KCT and its alumni. Some key aspects of the office's functions include organising Alumni Reunions and Events, establishment of Alumni Association and Chapters, Knowledge Sharing and Mentoring and financial support to deserving students pursue their education at KCT, making it more accessible and inclusive.



Office of Alumni Relations

- For the last three decades KCT is heralding a decisive impact on the society. This is achieved through technical cum value-based education that is imparted to over 28000+ dynamic engineers over the years. KCT Alumni Relations is a vital arm of KCT. The office serves as an interface between KCT and the alumni. It organises notable alumni reunions that include Global Alumni meet, Silver Jubilee meet and annual alumni anniversary events to ensure their interaction with the college.

KCT Alumni Association

- The office has formed the KCT Alumni Association with alumni chapters in important cities in India to connect the Alumni with their alma mater. Alumni who are now field experts take interest in the development of the college through knowledge sharing, guiding and showing pathway of opportunities to fellow alumni and current students. They engage in technical sessions, guest lectures and student mentoring. They also financially aid the education of deserving students. With the support of Alumni Relations Office, the alumni who work in foreign countries guide the students for global internships and projects. They are instrumental in establishing the Centres of Excellence in KCT.

Events

- The next stop for the KCT Alumni Merge was at the Rockfort city on the 11th of June. The virtual session was filled with the recollection of your joyous memories with KCT.
- Mr. Shriyash S, Mechanical Engineering KCT alumnus Of Batch 2014 was felicitated at Kumaraguru campus for successfully cracking the UPSC Examination 2021.
- It is most fitting for the group of 15 alumni from CSE - Batch 1999, who contentedly visited our campus on 18-Dec-2021, Saturday. The alumni were more than happy to reminisce the past and also look at the transfiguration of the campus in and around. They experienced the life on grounds and the beautiful surroundings of KCT
- KCT Hockey Alumni Meet was a most needed catch up between the students and the alumni on March 12-13 at Kumaraguru campus. There were more than 35+ alumni who were more than happy to have had an exciting match against our students. It was a session that was filled with exhilarating stamina and guidance for the students
- After many a plays, and as many stages an act of years four hath come to an end. To mark this special occasion, a meeting was duly convened. The past kindled and memories frothed out. After some good laughs, a more pertinent question; the path ahead. This path too was thought and etched. Milestones marked and obstacles outlined. With all said and done, thankyou uttered to end the scene.



03-Jun-21	Civil Alumni Tale - The Engineering and Economics of delivering a sustainable and user-centric railways	Dr.Manu Sasidharan, Scientist, Civil Engineer at University of Cambridge & University of Birmingham (CE, 2013)	MS Teams
05-Jun-21	Profile Buliding Masterclass - Research Paper Attributes	Ms. Kabila, Project Assistant, Molecular Biophysics at IISER, Bhopal (BT, 2020)	MS Teams
19-Jun-21	Webinar on Industrial Automation & IIOT	Mr. Sandeep S, Automation Engineer at Aggressor Automation, Canada (2015, MCE)	MS Teams
02-Jul-21	Knowledge Series - 2021: Applied Research & Publications	Ms. Krishna Rubigha, CEO at Ampere Voltage Consulting Pvt Ltd (MBA, Batch – 2018)	Online
17-Jul-21	Webinar on "Data Visualization using ELK Stack"	Mr. Sanjay Saatyaki, Associate Software Engineer, Bosch Engineering and Business Solutions	Online
29-Jul-21	KALAM – KCT Auto Lead Alumni Mentorship		MS Teams
31-Jul-21	Webinar on "Opportunities in Big Data Analytics"	Mr.Gautam Malaiappan. CEO, Hirehappi	Online
05-Aug-21	Industry Interaction for Consultancy & Product Development Initiative	Mr.V.Arjun (TXT, 2021)	MS Teams
12-Aug-21	App Development using Flutter and Firebase		Online
14-Aug-21	Intrigues on cracking GATE	Mr.R.Pradeep & Mr.S.Sakthi Venkatesh (CE, 2021)	MS Teams
14-Aug-21	Student Immersion Program	Ms. Priyanka, Associate Software Developer, Robert Bosch Engineering and Business Solutions	MS Teams
16-Aug-21	How to be successful in an interview	Mr.Ashok Narayanan, Director at TCS, USA (MCA, 2003)	MS Teams
21-Aug-21	Web Design	Mr.Subash Arumugam, Pavishna Technologies	MS Teams
21-Aug-21	Webinar on " Project Management "	N. Premsanth, Sr. Executive Engineer, Wendt India Ltd, Murugappa Group	MS Teams
27-Aug-21	Alumni Talk Series	Ms.Indhupriya Elangovan, Software Engineer at THIS, Bangalore (CSE, 2018)	MS Teams
28-Aug-21	Refreshing Training Session for M/s Colorjet Company Drive	Mr. B. Mohanraj, Lead-Bleaching Division, M/s Jay Jay Mills, Perundurai.	MS Teams
28-Aug-21	Alumni Talk Series 01: Session 01 - Corrosion Science in Oil and Gas Industry	Mr.T.Babin, Mechanical Design Engineer at Cameron (Mech, 2018)	MS Teams
04-Sep-21	Alumni Talk Series	Mr.Lakshmanabharathy Muthaiah, TMF Specialist at Icon Clinical Research, Chennai (BT, 2016)	MS Teams
04-Sep-21	Alumni Talk Series 01: Session 02 - IOT - Tech Trends and Opportunities	Mr.A.Praveen, Quality Engineer II at Comcast (Mech, 2016)	MS Teams

12-Sep-21	Beginner to Pro	Mr.Lakshmanabharathy Muthaiah, TMF Specialist at Icon Clinical Research, Chennai (BT, 2016)	MS Teams
18-Sep-21	Alumni Talk Series 01: Session 03 - The Story Triangle - How to Master the Art of Marketing with Just 3 Stories	Mr.Gopal Krishnan, Founder & CEO Strategic Digital Market Expert at Visual Marketer (CSE, 2006)	MS Teams
18-Sep-2021 & 20-Sep-2021	Gate Awareness Program - Benefits & Career Opportunities		MS Teams
25-Sep-21	Webinar on Career Opportunities & Awareness on Higher Studies	Mr.Abishek Chandrasekhar, Doctoral Student at Robert Bosch Centre for Cyber-Physical Systems @ IISc (MCE, 2014)	MS Teams
27-Sep-21	Alumni Talk Series 01: Session 03 - Evolution of Wi-Fi	Mr.Ashok Viswanathan, Network Engineer at Amazon (EEE, 2014)	MS Teams
02-Oct-21	ME-eLite's Alumni Talk Series on Placement – Total Productive Maintenance	Mr.R.Vetrivel, Engineer – Production Engineering Department at NS Instruments India Pvt Ltd (ME, 2019)	MS Teams
09-Oct-21	Introduction to Developing a Web App	Mr.G.Aishwarya, Application Developer at ThoughtWorks (CSE, 2021)	MS Teams
23-Oct-21	Alumni Talk Series 01: Session 01 – Recent Industry Trends & Opportunities	Mr.Rahul Mishra, Software Engineer at Juniper Networks (EEE, 2011)	MS Teams
26-Oct-21	Refreshing Training Session for M/s Advanced Clothing Concepts Company Drive	Ms.C.Meena Lochana, Project Executive at Advanced Clothing Concepts (FT, 2020)	MS Teams
29-Oct-21	Profile Building Masterclass – SOP Writing	Mr.S.Pranesh, MEng in Construction Engineering and Management at University of Alberta, Canada (CE, 2020)	MS Teams
29-Oct-21	Alumni Talk Series 02: Session 02 – Introduction to Industry 4.0	Mr.Vignesh Krishnamurthy, Operational Excellence Manager at Eaton, USA (Mech, 2004)	MS Teams
30-Oct-21	Profile Building Masterclass – LinkedIn	Ms.Deniela Grene, Associate in Business Development at Zycus (AE, 2020)	MS Teams
31-Oct-21	Alumni Talk Series - 3	Ms.Deepika Gururaj, Medical Biotechnologist at Multiplex Genomics Inc, Canada (BT, 2019)& Ms.Poornima Sundararajan, MS in Medical Biotechnology at University of Windsor, Canada (BT, 2020)	MS Teams
31-Oct-21	Alumni Meet - Music		Instagram Live
13-Nov-21	Future trends in Automotive Industry	Ms.Jayadharshini Vijay, Senior Hardware Engineer at L&T (ECE, 2017)	MS Teams
15-Nov-21	Guest Lecture on Animation and VFX		Online
16-Nov-21	Data Analytics	Dr V P Sumathi, Associate Professor	MS Teams

16-Nov-2021 & 18-Nov-2021	Fresher's Learning Immersion Program	1.Abirami Murthy,Senior Audit Associate at KPMG, 2.Gowtham Kalyan, Deputy Manager at JIO 3.Srinivasan Lakshmanan, Founder &Chief Marketing Officer at Knowledge Vibes Academy, 4.Mr.Sivakumar, Branch Business Manager, Cholamandalam Investment and Finance Company LTD	MS Teams
27-Nov-21	Department Advisory Board Meeting	Mr.S.Pavel ,Senior Associate , Cognizant Technology solutions, Chennai, Mr. J.Sitrarasu, Solution Architect, Mobileum Technologies, Bangalore	MS Teams
30-Nov-21	Technical webinar on Sportswear product development: The ADIDAS Perspective	Mr.A.D.Sathish Kumar, Managing Director at Innotex Materials Private Limited (TXT, 2005)	MS Teams
04-Dec-21	Department Advisory Board Meeting - Aero		
11-Dec-21	Board of Studies - Auto		
13-Dec-21	Mendeley Research Management Software - Workshop	Ms. Krishna Rubhiga, Founder CEO, AmpereVoltage Consulting Company Pvt. Ltd	MS Teams
13-Dec-21	19th BoS Meeting - ECE	Mr. A. Chandramouli, Alumni Member & Research Scientist, EMC division, SAMEER-Centre for Electromagnetics,	
18-Dec-21	19th Board of Studies (BOS) Meeting - Aero		
20-Dec-21	18th Board of studies - MCE	Mr.N. Indrajith, Alumni	
07-Jan-21	Skillkit Workshop Series	Mr. Praveen Raj acted as Resource Person	MS Teams
13-Jan-22	Y-Payir	Mr.R.M.Valliappan, Data Scientist at MuSigma (ME, 2019)	Zoom
23-Jan-22	ME-Elite's Alumni Talk Series on Placement	Ms. M.Gautham Siddarth, Senior Engineer at Titan Engineering & Automation Limited (ME, 2019)	MS Teams
25-Jan-22	Protective textiles	SHANMUGAM B,Working as Junior Works Manager in Ordnance Clothing Factory, Avadi (Ministry of Defence)	MS Teams
29-Jan-22	Embrace global education on your fingertips	Mr. S.Ranjith Kumar, Research Associate – CFD at WIKKI GmbH (2016, ME)	MS Teams
11-Feb-22	Alumni Talk series	Mr.Srhiri Krishna (16BBT041)	MS Teams
25-Feb-22	Alumni Speech - My Story: Motivational Session by Successful Startup Founder	Mr. Kaushikaa Siddharthan (16BEI002)	Online
03-Mar-22	Career opportunities in Embedded Automotive Electronics	Ms.T.Jeevaranjani, System Architect at Robert Bosch (ECE, 2008)	MS Teams

04-Mar-22	Career Opportunities in ASIC design and development	Mr.Shabeer Rasheed, Vice President - Engineering at LifeSignals (ECE, 2002)	MS Teams
05-Mar-22	Career Opportunities in VLSI Board Design	Mr.K.Dhandapani, Senior Design Engineer at Cisco Systems India Private Limited (ECE, 2014)	MS Teams
10-Mar-22	What next after Engineering?	Mr.M.Arvind , Head of Product and Design at Amazon Web Services (ECE, 2006)	MS Teams
11-Mar-22	Is Higher Education for you?	Ms.M.Akila, Product Engineer at JEM America Corp. (ECE, 2016)	MS Teams
12-Mar-22	Femme's Space	Ms.R.Niveda, Founder & Director of Bliss Natural Pads	MS Teams
12-Mar-22	Career / Higher Education Opportunities in USA	Mr.Sunil Kumar, Senior Business Analyst at Sagitec Solutions (ECE, 2010)	MS Teams
17-Mar-22	Alumni Talk on "Startup ideas and entrepreneurship"	Mr. Sabarish Dhanarajan spoke to students of BE-CSE (III year)	CSE Dept
19-Mar-22	Android App Development using JAVA	Mr.G.Senthil Kumar, Member Leadership Staff at Zoho (MCA, 2013)	KCT - MCA Lab
25-Mar-22	Pursing Higher Studies	Mr.Arun Natarajan, Graduate Research Assistant at Indiana University (EEE, 2020)	MS Teams
04-Apr-22 to 08-Apr-22	Data Analysis	Ms.V.Priyanka, MBA student at SRM University & Former Employee at Bosch (Batch 2018, CSE)	MS Teams
09-Apr-22	Alumni Talk Series 01: Session 01 – Introduction to Offshore Structure	Mr.C.Yuvaraj, Structural Engineer at McDermott International Inc. (Batch 2006, Civil)	MS Teams
19-Apr-22 to 21-Apr-22	Backend Development	Mr.R.Yeswanth, Former employee at Skit (Batch 2021, IT)	MS Teams
21-Apr-22	Interview Preparation	Ms.V.Smruthi, Business Analyst at Renault Nissan (Batch 2017, IT)	MS Teams
23-Apr-22	Alumni Talk Series 01: Session 02 – Path to Success	Ms.A.G.Vanitha, Architecture Manager at State Farm, United States (Batch 1998, EEE)	MS Teams
28-Apr-22	Resume Building	Mr.S.Karthikeswar, Sales Analyst at Siemens (Batch 2016, IT)	MS Teams

Controller of Examinations



Details of the Activity

- 2018, 2019 Batch all BE / BTech programme and 2019 Batch MCA programme time tables released for June /July 2021 End Semester Examinations.
- End semester Project Viva Voce examinations for 2017 Batch UG, 2018 Batch MCA and 2019 Batch ME/MTech programme conducted in online mode for June / July 2021 examinations.
- End Semester Practical Examinations conducted for 2018, 2019 batch all UG programmes and 2019 Batch MCA programme in online mode for June /July 2021 examinations.
- UG / PG / MCA - 2020 batch 2nd Semester and UG- 2014/2015/2016 batches Arrear Examination Timetable prepared
- 2017, 2018 and 2019 Batch BE/BTech, 2019 Batch ME/MTech/ MBA, 2018 and 2019 Batch MCA programmes End Semester Examinations results (June / July 2021) are published during July 2021.
- 2015 batch UG All Arrears (1st to 8th semester), PG/MCA/MBA (2018/2017/2015 Regulation) 1st, 2nd, 3rd and 4th semester Arrears, 2014 batch/2009 to 2013 Batch Special Arrears Timetable released.
- Conduct of malpractice inquiry committee meeting for the EVEN semester.
- 61st Result Passing board meeting was conducted.
- Preparation of End Semester Theory exam Time table for DEC 2021 - R2018 – 3rd sem / 5th sem /7th sem UG and PG(MCA/ MBA)
- Online Examinations are conducted for Bridge Course Assessment of UG First year – ODD Semester –AY 2021-22
- 2015, 2016, 2017, 2018 Batches arrears timetables are prepared and published
- PG 2018 batch - M.E/M.TECH/MCA/MBA&MBA (IEV) Semester 1 to 4 Arrears Timetables are prepared and published.
- Conduct of Model Examinations for 2018 & 2019 Batches – from 27.12.2021 to 31.12.2021
- CoE Module Training Programme conducted from 13th Dec to 24th Dec 2021 with the support of KLDA, HR, CAMU team and CoE.
- ODD ssem -Bridge course result process completed for 2021 batch UG students (sem1)
- Conduct of End Semester Practical Exam for Nov / Dec' 2021 (From 03.01.2022 to 05.01.2022)
- Relative grade concept regarding mail received from Anna University - details prepared as per the requirement and report submitted.
- Conduct of End Semester Practical Exam for Nov / Dec' 2021 (From 14.02.2022 to 28.02.2022) for all UG and PG programme 3rd , 5th and 7th Semester regular and arrears course (includes Engineering Clinics)
- 2015, 2016, 2017, 2018 & 2019 Batch MCA Arrears Semester - 1 to 6, 2017, 2018 , 2019 & 2020 Batch M.E / M.Tech Arrears - Semester - 1 & 2 Exams Conducted from 22.02.2022 to 03.03.2022. MBA Regular Semester - 1 Exams are started from 28.02.2022
- 2021 Batch M.E / M.Tech Bridge Course Assessment Exam Conducted from 28.02.2022 to 02.03.2022
- UG / PG / PhD Regular Results published for Sem 3,5, and 7 courses and Arrears results published for PG and MCA passed out batch
- MBA 3rd Semester regular Exam conducted from 03.03.2022 to 10.03.2022
- MBA – IEV 1st Semester Regular Exam conducted from 24.03.2022 to 01.04.2022
- Result Passing Board Meeting meeting Conducted on 10.03.2022
- 1st Year B. E / B.TECH / MCA Programme Central Valuation Conducted from 20.04.2022 to 27.04.2022
- 2014, 2015 & 2016 Batch arrear result published for Nov / Dec 2021 Exam
- 1st Year B.E / B.TECH / MCA programmes End Theory Examinations are Conducted from 19.04.2022 to 26.04.2022
- 1st Year B.E / B.TECH/ MCA programmes Practical Exams conducted from 26.04.2022 to 07.05.2022
- End Semester Theory Examinations May / June 2022 timetable prepared and released.
- 1st and 2nd Year MBA programmes End Semester Theory Examinations are Conducted from 23rd May 2022 onwards.
- Conducted Training program on "CoE office Functions & Process and CoE module" for selected PA's of HoDs on 29th April 2022.

Department of Physical Education

Academics achievements and sporting excellence are synchronous in KCT. In the sprawling ground of 23 acres various sports activities such as, Football, Hockey, Cricket, Basketball, Volley Ball, Ball badminton, Kabaddi, Tennis, Handball, Kho-Kho, Throw ball and outdoor Gymnasium find their enthusiastic players. Further the Indoor space in the F Block serves as a dedicated area for students to participate in shuttle and badminton. The sports ground goes through regular maintenance to support and encourage the sports enthusiasts of the college.



Achievements

International Participation

- K.Priyanka of II year AIDS (20BAD030) participated in the Asian Junior U-20 Girls Chess Championship held at Waskaduwa, Srilanka from 16.12.2021 to 24.12.2021 and she won the Silver Medal in Classical Event and Bronze Medal in Blitz (Rapid Event).

National Participation

- A1. Ashwin Ramesh of II Year Civil (20BCE008) participated in the 5th Elite Men's National Boxing Championship 2021 organized by Boxing Federation of India at Bellary, Karanataka from 15.09.2021 to 21.09.2021.
- 2. K.Priyanka of II year AIDS (20BAD030) participated Chess Super League online Competition form 11.10.2021 to 17.10.2021 and she got Awarded Best player of the League.
- 3. 30th Senior National Wushu Championship held at Bhopal, Madhya Pradesh from 04.12.2021 to 10.12.2021.
- 1. B.Ahalya – IV CSE – Silver Medal in Duilian and Bronze Medal in Individual Single Weapon Routine.
- 2. B.Naveena – I EIE – Participated
- 4. Priyanka Kalidass of II AIDS participated in the MPL 41st National Team Chess Championship 2022 held at Jalgaon, Maharashtra from 08.04.2022 to 13.04.2022 and won the champions in Team and Gold Medal in Individual.

Khelo India University Participation

- A.Rohithkumar of IV TXT participated in Khelo India University Games 2021 held at Bangalore from 30.04.2022 to 02.05.2022 and won the Fourth Place.

Anna University Representation

- A.Lingeswaran of IV year Civil got selected to represent Anna University Volleyball team to participated in the South Zone Inter University Volley Ball Tournament held at SRM University from 18.12.2021 to 22.12.2021.
- A.Asmitha of II year CSE got selected to represent Anna University Foot Ball Women Team to participated in the South Zone Inter University Foot Ball Tournament held at Christ University from 21.12.2021 to 24.12.2021.
- Aswin Ramesh of II year Civil got selected to represent Anna University Boxing Men team to participated in the All India Inter University Boxing Tournament held at Lovely Professional University, Punjab from 25.12.2021 to 03.01.2022.
- G.Kishore Kumar of I year AIDS got selected to represent Anna University Yoga Team to participated in the All India Inter University Yoga Competition held at Kalinga Institute of Industrial Technology, Bhubaneswar, Odissa from 25.12.2021 to 28.12.2021.
- N.Mirudhula of I Year MBA got selected to represent Anna University Basket Ball Women team to participated in the South Zone Inter University Basket Ball Tournament held at Mahathma Gandhi University, Kottayam, Kerala from 27.12.2021 to 31.12.2021.
- A.Rohith Kumar of IV TXT got selected to represent Anna University Athletic Men team to participate in the All India Inter University Athletic Meet held at Mangalore University, Mangalore, Kerala from 04.01.2022 to 07.01.2022 and he secured Fourth Place in Triple Jump.
- V.K.Sivadasan of IV Mech got selected to represent Anna University Athletic Men team to participate in the All India Inter University Athletic Meet held at Mangalore University, Mangalore, Kerala from 04.01.2022 to 07.01.2022.
- G.Diyaneswaran of II EIE got selected to represent Anna University Archery Men team to participate in the All India Inter University Archery Championship held at Chandigarh University, Mohali from 24.02.2022 to 28.02.2022.
- S.T.Puminitha of III ECE got selected to represent Anna University Soft Tennis Women team to participate in the All India Inter

University Soft Tennis Tournament held at Chandigarh University, Mohali from 01.03.2022 to 05.03.2022 and won the Gold Medal

- P.Karthikeyan of III ECE got selected to represent Anna University Soft Tennis Men team to participate in the All India Inter University Soft Tennis Tournament held at Chandigarh University, Mohali from 01.03.2022 to 05.03.2022 and won the Bronze Medal
- P.Perinpan of IV EIE got selected to represent Anna University Hand Ball Team to participate South Zone Inter University Hand Ball Tournament held at University of Calicut, Kerala from 18.03.2022 to 22.03.2022.
- R.Sriram Venkatesh of I MBA got selected to represent Anna University Hand Ball Team to participate South Zone Inter University Hand Ball Tournament held at University of Calicut, Kerala from 18.03.2022 to 22.03.2022.
- B.Ahalya of IV CSE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022. and won the Gold Medal in Optional Taichijian and Silver Medal in Group Event.
- R.Nandhitha of III MCE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022 and she won the Silver Medal in Baguazhang.
- L.Aswath Easvar of I MCE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022 and he won the Silver Medal in Nanquan and Silver Medal Group Event.
- A.Selva Kannan of III MCE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022.
- V.Shanjai Sethupathy of IV ECE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022.
- B.Naveena of I EIE got selected to represent Anna University Wushu Team to participate All India Inter University Wushu Championship held at Punjabi University, Patiyala from 28.03.2022 to 31.03.2022.
- G.P.Sachin of III Mech got selected to represent Anna University Cricket Men team to participate South Zone Inter University Tournament held at Hindustan University, Chennai from 06.06.2022 to 15.06.2022.
- G.Guruvenkatesh of IV EIE got selected to represent Anna University Cricket Men team to participate South Zone Inter University Tournament held at Hindustan University, Chennai from 06.06.2022 to 15.06.2022.

South India Level Tournament

Our College Basketball Men team participated Dr.N.Mahalingam Trophy South India Level Basketball Tournament (Yugam Sports 2022) held at our college from 22.05.2022 to 25.05.2022 and won the Third Place.

Our College Kabaddi Men team participated Dr.N.Mahalingam Trophy South India Level Kabaddi Tournament (Yugam Sports 2022) held at our college from 24.05.2022 to 26.05.2022.

Our College Handball Men team participated Dr.N.Mahalingam Trophy South India Level Handball Tournament (Yugam Sports 2022) held at our college from 27.05.2022 to 29.05.2022

State Participation

- Tamilnadu State Wushu Championship for Men & Women held at Thoothukudi on 29.09.2021 & 30.09.2021.
- 1. B.Ahalya – 18BCS204 – Gold Medal
- 2. A.Selva Kannan – 19BMC009 – Participated
- A.Rohith Kumar of III year TXT (18BTT001) participated in the Senior State Athletic meet held at Chennai from 15.10.2021 to 17.10.2021 and got Fourth place in Triple Jump.
- G.Diyaneswaran of II EIE participated Tamilnadu State Archery Championship at Dr.MGR Janaki Arts & Science Women's College, Chennai from 25.10..21 to 31.10.21 and won the Gold Medal in Team Event.
- Prasanna Raj of II ISC participated in the Tamilnadu State Open Boxing Championship held at Krishnagiri from 18.11.21 to 20.11.21 and won the Silver Medal.
- Our college Basketball men team participated in the L.S. Basketball State Trophy held at Theni from 13.04.2022 to 16.04.2022.
- Our College Cricket Men team participated in the SMK Fomra T20 Cricket Tournament held at SMK Fomra Institute of Technology, Chennai on 20.04.2022 & 21.04.2022.
- Our College Cricket Men team participated in Dr.N.Mahalingam Trophy State Level Cricket Men Tournament (Yugam Sports 2022) held at our college from 16.05.2022 to 19.05.2022 and won Third Place.
- Our College Volleyball Men team participated in Dr.N.Mahalingam Trophy State Level Volleyball Men Tournament (Yugam Sports 2022) held at our college from 23.05.2022 to 25.05.2022 and won Fourth Place.
- Our College Volleyball Women team participated in .N.Mahalingam Trophy State Level Volleyball Women Tournament (Yugam Sports 2022) held at our college from 26.05.2022 to 28.05.2022.
- Our College Football Men team participated in Dr.N.Mahalingam Trophy State Level Football Men Tournament (Yugam Sports 222) held at our college from 26.05.2022 to 28.05.2022 and won Champions.
- Our College Kho-Kho Men team participated in Dr.N.Mahalingam Trophy State Level Kho-Kho Men Tournament (Yugam Sports 2022) held at our college from 16.05.2022 to 19.05.2022.

District Participation

- Coimbatore District Wushu Championship for Men & Women held at YMCA, Coimbatore on 19.09.2021.
- B.Ahalya – 18BCS204 – Gold Medal
- A.Selva Kannan – 19BMC009 – Gold Medal
- Aswin Ramesh of II year Civil participated in the Coimbatore South Zone Divisional level Boxing Tournament on 24.10.2021 at Hindustan College of Arts and Science and won the Gold Medal.
- Coimbatore District Athletic Meet held Nehru Stadium on 26.11.2021 & 27.11.2021.
- Sunil Austin – 20BCE079 – Bronze Medal in 100mts
- Amrith – 20BEC010- Bronze Medal in High Jump.
- Our college Football men team participated in SNS Trophy 5's Football tournament held at SNS College of Technology on 29.03.2022 & 30.03.2022.
- Our College Basket Ball Men team participated in the CIT Alumni Trophy on 22.04.2022 & 23.04.2022 held at Coimbatore Institute of Technology.
- Our College Basketball women team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022 and Won the Champions.
- Our College Throw ball women team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022 and won the Third place.
- Our College Hockey team participated in the CIT Alumni Trophy

held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022 and won the Third Place.

- Our College Handball Men team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022 and won the Fourth Place.
- Our College Volleyball women team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022.
- Our College Volleyball Men team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022.
- Our College Football Men team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022.
- Our College Kho-Kho Men team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022.
- Our College Kabaddi Men team participated in the CIT Alumni Trophy held at Coimbatore Institute of Technology on 23.04.2022 & 24.04.2022.
- Jayaprakash of III EEE (19BEE101) participated in Coimbatore District Open Chess Tournament held on 01.05.2022 and won the First place in open Category.
- Our College Volleyball Men team participated in KGISL Volleyball Trophy held at KGISL Institute of Technology on 13.05.2022 & 14.05.2022.
- Our College Kabaddi Men team participated in KGISL Kabaddi Trophy held at KGISL Institute of Technology on 13.05.2022 & 14.05.2022.

Event Organized

- The Department of Physical Education and KRAFT Jointly organised the Virtual Cross Fit Event for Boys and Girls held from 12th to 14th August 2021. Nearly 40 students registered in the events. In Boys Category 13 Members and Girls Category 8 members participated in the competition.
- Organized Intra College Cricket Tournament from 24.11.2021 to 04.12.2021. Totally 28 teams participated.
- Organized Intra College 5's Foot Ball Men Tournament from 21.12.2021 to 23.12.2021. Totally 18 teams participated.
- Organized Intra College Volley Ball Men Tournament from 28.12.2021 to 30.12.2021.
- Organized Intra College Basket Ball Men Tournament on 17.03.2021 to 18.03.2021.
- Organized Tamilnadu State Under 18 Open & Girls FIDE Rated Championship 2022 from 17.0.2022 to 20.03.2022
- Organized South India Level Dr.N.Mahalingam Trophy Basketball Men Tournament held from 22.05.2022 to 25.05.2022.
- Organized South India Level Dr.N.Mahalingam Trophy Kabaddi Men Tournament held from 24.05.2022 to 26.05.2022.
- Organized South India Level Dr.N.Mahalingam Trophy Handball Men Tournament held from 27.05.2022 to 29.05.2022.
- Organized State Level Dr.N.Mahalingam Trophy Cricket Men Tournament held from 16.05.2022 to 19.05.2022.
- Organized State Level Dr.N.Mahalingam Trophy Throwball Women Tournament held from 23.05.2022 to 25.05.2022.
- 12. Organized State Level Dr.N.Mahalingam Trophy Volleyball Men Tournament held from 23.05.2022 to 25.05.2022.
- 13. Organized State Level Dr.N.Mahalingam Trophy Volleyball Women Tournament held from 26.05.2022 to 28.05.2022.
- 14. Organized State Level Dr.N.Mahalingam Trophy Football Men Tournament held from 26.05.2022 to 28.05.2022.
- 15. Organized State Level Dr.N.Mahalingam Trophy Kho-Kho Men Tournament held from 27.05.2022 to 29.05.2022.



Placement Cell

The Placement Cell of Kumaraguru plays a crucial role in ensuring a successful transition from college to the professional world. Acting as a bridge between students and potential employers, the Placement Cell provides guidance, training, and industry connections, it empowers students to secure suitable job placements, kick-start their careers, and contribute effectively to the workforce. Also they undertakes various activities and initiatives to support students in their career development.

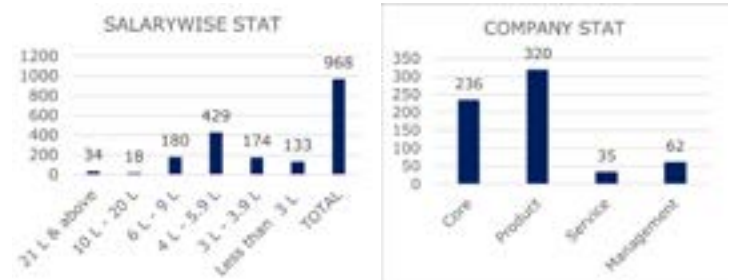
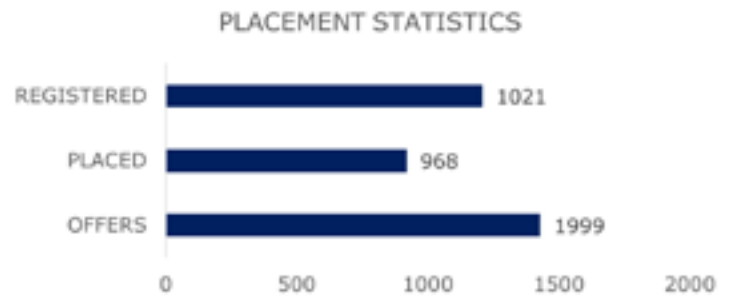


At a Glance

- The Placement Cell of KCT plays a vital role by being a platform for Corporate and Young graduates to interact for mutual benefit. Services are provided throughout the year to prepare students and help those secure placements. The number of students placed through campus placement programs is on the rise every year.

Imperative Advancements

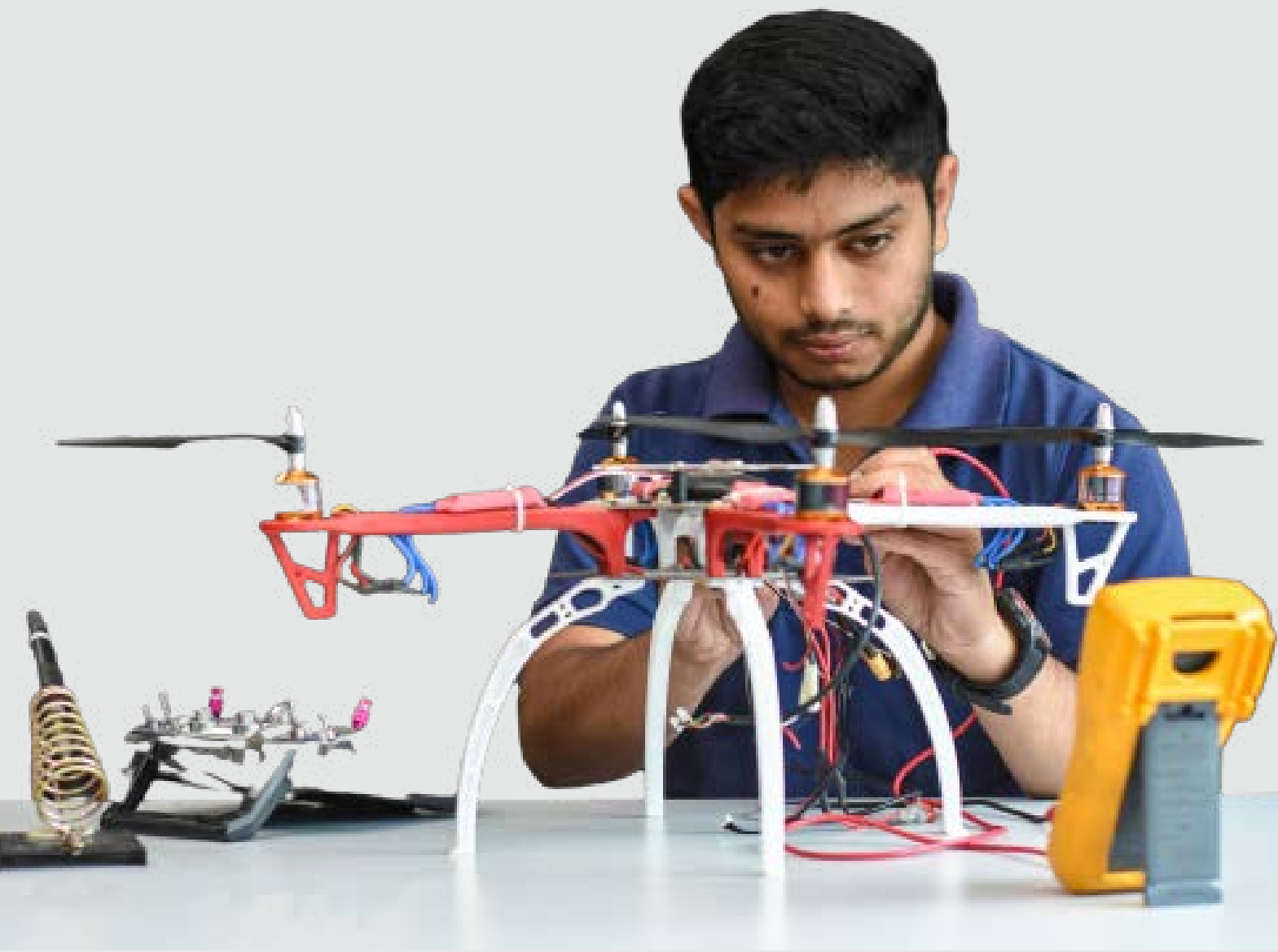
- 1021 of final year students of B. E, B. Tech and MCA registered for placements in 2022 out of which 968 students were placed.
- 653 companies visited KCT for student recruitment out of which 36% were core companies, 49% were software- product development companies, 5% was IT service companies and 9% was management companies.
- The total number of offers received from 653 companies was 1449.
- This year the highest paying recruiters are Silicon Labs, Musigma, Amazon, Schneider Electric.
- 103 students placed in salary package of 8-21 Lakhs. 35 students have placed with Annual Salary package of 21 LPA with Silicon Labs & Musigma.
- 686 students from Final Year B.E, B. Tech and MCA registered for placements in 2021 out of which 615 students were placed.
- 515 companies visited KCT for student recruitment: 40% core companies, 41% software-product development companies, 12% IT service companies and 9% management companies.
- Total number of offers received from 515 companies were 955.
- This year Musigma, Schlumberger, Paypal, LTI, Lemnisk are the recruiters with the highest salary package.
- 5 students were placed in Musigma with an annual salary package of Rs. 21 Lakhs while 30 students got placed in the salary package of Rs.8-21 Lakhs.



Forge

Forge is the incubation enterprise launched by the Coimbatore Innovation & Business Incubator (CIBI), founded with the vision to create & catalyse innovation powered enterprises that harness the power at the intersection of hardware, software, and computing technologies to solve real-world problems, creating economic gains and delivering social impact.

As a partner incubator, Forge empowers Government, Industry, and Academia to exploit strategic opportunities through Innovation powered by deep-technologies such as artificial intelligence, data science, robotics, power electronics, augmented reality/virtual reality, and IoT. Forge as a catalyst for Entrepreneurship, helps innovators and founders acquire and develop the resources and capacity to transform their innovative ideas into high-growth enterprises.



Imperative Advancements

- SPRAYAS Scheme-2 Startups (Goenvi Technologies and Volar Alta) have been sanctioned with Innovation Grant through the PRAYAS scheme to design and develop their innovation.
- Innovation Mentor Program: 37 educators were trained in the tools and techniques necessary for building product innovation through rapid prototyping & system thinking concepts.
- "Startup India Seed Fund Scheme (SISFS): 5 startups (Roadmetrics, Riversys, Menmitsu, Rangeaero, Goenvi) have been finalized out of 8 that pitched to the Forge investment council for the Startup India Seed Fund Scheme (SISFS) shall be supported with a Seed Fund of Rs. 40L each.
- Engineering Sprint: 1088 students of Engineering Sprints have transformed the way they think about engineering. The course aimed to enable curiosity in engineering and drove the students to understand the innovations and to identify & solve real-world problems. 34 Faculty members were trained to be mentors to guide the students.
- Innovation Sprint: 1079 students with 35 innovation mentors were put through a rigorous process of fundamentals of innovation, ideation, prototyping & storytelling.
- Design Sprint 1315 students & 37 innovation mentors were put through a rigorous process to build product innovations using rapid prototyping & system thinking concepts. 25+ teams of Design Sprint applied for SIH22.
- Ideation Sprint : 1310 students of KCT with 219 teams hacked to develop PoC in 72 hours. During the non-stop ideation, hacking, designing the MUP [Minimum Usable Prototype] and preparing Grant Proposals, students were provided mentorship by Innovation Mentors.
- 1 Startup(XYMA Analytics) has been sanctioned for investment through the NIDHI SSS Scheme for scaling up their product.

Industry Partnerships:

- Program Partnership with Govt. of Tamil Nadu : Forge was empowered to be Programme Management Partner (PMP) for TANSEED, Accelerators & Ecosystem Partners (EP) for Tamil Nadu Startup And Innovation Mission (TANSIM). Forge will establish the TANSIM Innovation Labs at Government Engineering colleges at Salem, Tirunelveli & Trichy to implement the Innovation Practicum.
- As part of Spark, Forge as a Strategic Partner to Vedanta, is managing a \$10M corporate venture capital investment for startups engaged through Spark 1.0. Neewee - an Industrial Analytics/AI Technology startup has been offered an investment of \$0.25M. 4 startups are in pipeline & are expected to receive a cumulative investment of \$4M by end of April 2022.

Consultancy:

- The CiX Accelerator Program, proposed by Forge, under the NIDHI Accelerator Scheme, NSTEDB, Department of Science & Technology, Gov. of India has been approved. This program is aimed at scaling up technologies and ventures in the smart cities sector. Forge has received a program operating fund of Rs. 35L from DST and 15L from NEC to execute the program for about 6-9 months.
- The Smartprocure Procurement Policy, pioneered by Smart cities Mission, Gov. of India and co-authored by Forge, was approved by the Ministry of Housing Affairs (MoHUA), Gov. of India. The policy enables the smart cities to engage in pilot implementations and procure innovations and non-standardised solutions from startups as early as the Proof-of-Concept stage. Forge as a partner to MoHUA, and as a program management unit for CiX, is supporting in the outreach of two challenges

launched by the Ministry—Indian Clean Air Challenge and Urban Geospatial Data Stories Challenge

Milestone Events

- Product Development Bootcamp : 13 participants comprising startups founders, Educators & Working professionals attended 6-Week Product Development Bootcamp - An immersive hands-on skill development program for early-stage Startups, Working Professionals, Student Innovators and Researchers.
- I2M Program: Idea 2 Market was a capacity-building initiative that enabled 25 early-stage startups, educators and young innovators to address the challenges and transform their innovative ideas into market-ready products. Forge collaborated with Wipro 3D to design, develop and deliver the program. I2M was from 6th Sep - 11th Sep 2021.

Social Impact

- United Nation Global Goals Week : Forge organized a series of activities exhibiting innovations in achieving UN Global Goals from 20th September to 2nd October 2021. A webinar with 54 innovation engineers of ProtoSem, a Digital Awareness Campaign, a Video highlighting the Forge Innovations on SDG and a series of Innovation Articles was organized.

MoU

- MoU with TANSIM for the "Implementation for Innovation Programs in 3 Govt. Engineering colleges ".

Next Year Goals And Plans

- To introduce and execute Innovation Practicum in 3 Government institutions -To be started
- To conduct Innovation Mentor training program in 4 districts transforming 150+ educators into innovation mentors- In Progress
- To have 12+ startup MSME onboarded for startup engagement for ProtoSem- In Progress
- To establish innovation Labs in 3 external institutions - In Progress
- To enable the launch of 15+ innovations- In Progress



KCT Learning and Development Academy

KCT Learning and Development Academy (KLDA) is aimed at enhancing the competencies of the faculty and leaders for comprehensive development. KLDA has been specifically designed to enhance the technical skillsets and overall competencies of the teaching fraternity. This academy serves as a platform for organizing workshops, Faculty Development Programs (FDPs), and seminars where renowned resource persons with expertise in their respective domains provide training and guidance. Fostering a culture of continuous learning, such orientation reflects in innovative teaching methodologies, incorporation of the latest educational technologies, and improved subject knowledge.



At A Glance

- Kilda Organized 8 Programmes During The Academic Year 2021-22 Which Included Technical Training, Online And Offline Workshops And Faculty Empowerment Programmes That Aimed To Hone The Technical Skillsets, Teaching Strategies, Curriculum Design, Classroom Management And Research Outcomes.

Imperative Advancements Programmes Organised

- Technical Training On Programming Skills
- Two Days Online Workshop On “Design And Implementation Of Outcome Based Curriculum Design And Development”
- One-Day Workshop On “The Role Of English Language In Effective Teaching And Classroom Management For Academic Success”
- One-Day Workshop On Workshop On “Effective Research Paper Drafting For Publication”
- Workshop On Implementation Of Revised Bloom’s Taxonomy (Rbt) & Question Bank Preparation And Open Book Test – An Obe Approach
- Inhouse Training On “Coe Module”
- Faculty Empowerment Programme On “Research – Publications”
- Faculty Empowerment Programme On “Winning Research Proposals”

Programme 1

Title Of The Programme: Technical Training On Programming Skills

Date Of The Programme: May June 21 40 Hrs

Objectives Of The Programme The Program Is Organized In Association With School Of Foundational Sciences To Upskill Educators On Programming Skills.

Resource Person:

Mr.kannan, Assistant Professor In The Domain Of Computer Science And Has A Vast Knowledge And Experience In The Field Of Computer Science

Programme 2

Title Of The Programme: Two Days Online Workshop On “Design And Implementation Of Outcome Based Curriculum Design And Development”

Date Of The Programme: September 17 -18, 2021 16 Hrs

Objectives Of The Programme. To Create An Awareness About The Design Of Outcome Based Education (Obe) Based Curriculum

Resource Person:

Dr. Ajit R. Thete, Director At Centre For Development Of Leadership In Education Pvt. Ltd. (India).

Programme 3

Title Of The Programme: One-Day Workshop On “The Role Of English Language In Effective Teaching And Classroom Management For Academic Success”

Date Of The Programme: September 18, 2021 8 Hrs

Objectives Of The Programme. The Workshop Enabled The Teachers To Update And Enhance Their Knowledge Of English Language, Utilise It For Effective Teaching Of The Same, Exercise Effective Management Of The Classroom And Motivate Students To Perform And Achieve Better Academically

Resource Persons:

Dr. Poonam Sahay, An Associate Professor Of English At Ranchi University

Programme 4

Title Of The Programme: One-Day Workshop On Workshop On “Effective Research Paper Drafting For Publication”

Date Of The Programme: September 18, 2021 8 Hrs

Objectives Of The Programme. The Faculty Were Given All The Nuances Of The Research Paper Writing. With This Experience The Faculty Would Be Able To Select The Right Topic, Right Area Of Research And Publish In The Reputed Journals. He Clearly Explained All The Pitfalls One Might Face In The Journey Of Research And Publications

Resource Persons:

Dr. Shitanshu Mishra Is An Edtech And Learning Science Researcher Presently Working As An Information Technology Officer, Mgiep, Unesco After Completing His Postdoctoral Research Tenure At The Computer Science Department At Vanderbilt University, He Joined Edtech Iit Bombay As A Research Scientist. Specifically, His Interests Lie In Understanding Students' Learning And Problem-Solving Processes Using Blends Of Exploratory Qualitative Research Methodology With Learning Analytics.

Programme 5

Title Of The Programme: “Implementation Of Revised Bloom’s Taxonomy (Rbt) & Question Bank Preparation And Open Book Test – An Obe Approach”

Date Of The Programme: October 29 – 30, 2021 4 Hrs

Resource Persons:

Dr .Job Kuruvilla Has 22 Years Of Experience In Industry And 3 Years In Consultancy. He Has Also Served As The Principal And Director Of Toc H Engineering College, Kochi. He Has Conducted Several Training Programmes For Teachers And Students In Revised Bloom’s Taxonomy, Pedagogy And Creativity & Innovation And Has Published Several Books.

Programme 6

Title Of The Programme: Inhouse Training On “Coe Module”

Date Of The Programme: December 13 – 24, 2021

Objectives Of The Programme. The Training Provides Adequate Knowledge And Hands On Experience For The Faculty Members To Execute Academic Examinations Relevant Activities Using The Software (Camu Platform).

Resource Persons:

Dr. A. Vasuki, Coe, Dr. J. Vijay Prakash, Dy Coe & Mr. Arivazhagan, Camu.

Programme 7

Title Of The Programme: Faculty Empowerment Programme On “Research – Publications”

Date Of The Programme: February 17, 2022

Objectives Of The Programme. To Understand The Various Processes Involved In The Journal Article Publication

No. Of Participants Attended: 60

Resource Persons:

Dr. B. Chitti Babu, Department Of Electronics & Communication Engineering, Iitdm, Kancheepuram, Tamil Nadu.

Programme 8

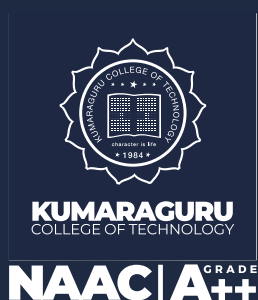
Title Of The Programme: Faculty Empowerment Programme On “Winning Research Proposals”

Date Of The Programme: March 01, 2022

Objectives Of The Programme. To Understand The Various Strategies Of Writing A Winning Research Proposal

Resource Persons:

Dr. B. Chitti Babu, Department Of Electronics & Communication Engineering, Iitdm, Kancheepuram, Tamil Nadu.



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