PRINCIPAL'S REPORT FOR THE YEAR 2023-24

1.0 Introduction:

We are happy to state that 18 batches of B.Tech & 9 batches of M.Tech students have graduated successfully from Sahrdaya. With the Blessings from Heavenly Patron "**Sacred Heart of Jesus**" and with the Guidance and support of our Chairman, Trustees, Governing Body, Academic Council Members, Faculty & Staff, Parents, Well Wishers, Staff and Students, we could continue to maintain a very good reputation among the self-financing Colleges in the state.

Welcome to Sahrdaya
Rev. Fr. Anoop Kolamkanny got appointed as the hostel warden and media director.

2.0 Academic Activities:

- Based on the NBA peer team visit held during 27th to 29th October, 2023 UG program Electronics & Communication Engineering got accredited by NBA for a period of 3 years i.e upto 30/06/2023.
- Our college has submitted the application for autonomous status under UGC on 25/10/2023. Our Chairman, Bishop Mar Pauly Kannookadan submitted the application.
- Our college has been included in the list of Top 20 colleges by APJAKTU based on the academic performance index of 2019 -23 B.Tech batch.
- SCI-FEST 2023, the final year project exhibition was conducted on 24th June 2023. Mr. Jayakrishnan IAS , Assistant Collector Thrissur inaugurated the event.
- The academic year inauguration of 22nd B.Tech batch (2023-27) WAS HELD ON 15/09/2023. The function was presided over by our Chairman Bishop Mar Pauly Kannookadan and inaugurated by Dr. Ramesh Unnikrishnan (Advisor, AICTE).
- Admission for the academic year 2023-24 started during the month of May 2023. Total 378 students got admitted for B.Tech (BM - 60, BT - 41, CE -11, CS -189, EC - 53, EEE - 24) and 7 students for M.Tech branches (IBT - 3, CSE - 2 & ES - 2).
- 'HomeComing 2024'a Mega Alumni Meet 2024 was organized on 17/02/2024. Sri V R Krishna Teja IAS, Thrissur Collector inaugurated the event.

2.1-Results: The pass percentage of B.Tech 2019-23 batch in various departments under APJ Abdul Kalam Kerala Technological University are as follows:-

Batch	Semester	BM	BT	CE	CSE	ECE	EEE	Overall pass percentage
2019	VII	79.03	80	62.07	76	76	69	76
2019	VIII	93.55	84.09	89.66	94	33.33	69	79

2.2: M.Tech results are as follows:

Batch	Semester	IBT	CS	ES
2020	**III & IV**	100	100	100

3.0 Placements

- The placement statistics of 2019-2023 batch is shown below:

Branch	BME	BT	CE	CSE	ECE	EEE	M.Tech	Total
Placements	44	19	16	78	21	10	3	191
Higher Studies	2	9	3	1	0	0	0	15
Eligible Students	48	32	21	83	23	10	4	221
Percentage	**95.8**	**87.5**	**90.5**	**95.2**	**91.3**	**100**	**75**	**93.2**

4.0 Faculty and Staff: We are proud of our Faculty and staff for their dedication and Commitment. We have 100 Faculty Members on roll of which 28 are with Ph.D and we have 27 technical supporting staff.

4.1 Faculty Achievements

BM
- Mr. Jibin Jose, Assistant Professor of Biomedical Department was nominated as Project Cordinator, Research Innovation Program for Women Startups implemented by SCET and Sahrdaya TBI Hub and funded by Kerala Startup Mission.
- The proposals submitted by Ms. Jeethu Raveendran- Universal Colorimeter and Ms. Reshma Jose- Communicative and Assistive Device for Differently Abled Children was shortlisted for Kerala Startup Mission's 'Research Innovation Programme for Women Startups' partnered by Sahrdaya College of Engineering & Technology providing opportunity for Women PG students/research scholars/fellows/ scientists/faculty members and received funding of Rs. 2,50,000 and Rs, 2,00,000.
- Ms. Reshma Jose, Assistant Professor in Biomedical Department completed her Phd defense from Karunya Institute of Technology and Sciences, Coimbatore.
- Ms. Reshma Jose from the department of Biomedical Engineering was selected as mentor within the domain of Assistive Technologies as part of the Young Innovation Programme (YIP) 4.0 for providing guidance on technical and domain-specific aspects of the idea.
- Ms. Sony N S from the department of Biomedical Engineering was selected as mentor within the domain of Assistive Technologies as part of the Young Innovation Programme (YIP) 4.0 for providing guidance on technical and domain-specific aspects of the idea.
- Ms. Jayalalakshmi Completed Nptel course "Machine Learning and Deep Learning - Fundamentals and Applications" Jun-Oct 2023(12 week)

BT
- Dr. Ambili Mechoor has been appointed as a subject expert o f the Board of Studies in the Department of Biotechnology, St. Joseph's College, Irinjalakuda.
- Ms Ranimol submitted her thesis titled " Immobilization studies of laccase enzyme and its industrial and environmental applications".
- Dr.Amitha Joy received CERD Faculty Research Incentive of Rs.10000 for being the corresponding author of an SCIE indexed journal article entitled In silico identification of potential small molecules targeting six proteins in Nipah virus using

molecular docking, pharmacophore, and molecular dynamics simulation published in Letters in Drug design and discovery, Volume 20, issue 5, 2022.
- Dr. Uma Krishnakumar had become the Associate Member of Institution of Engineers (India) from 23/08/2023.

CS
- Dr. Manishankar S got shortlisted for presentation for "KTU RSM (Research seed Money) scheme 2023-24. He has been appointed as the new HOD for CSE department.
- Dr. R Sunder was the resource person for a one-day machine learning workshop at Sri Kailash woman's College Salem, Tamil Nadu. He acted as the University External Auditor and Audited Mets School of Engineering, Mala. Also he is an Editorial Board Member of the International Journal of Medical Imaging (ESCI Indexed)

EC
- Ms. Ambily Francis, Assistant Professor in Electronics and Communication Department completed her Phd defense from Karunya Institute of Technology and Sciences, Coimbatore on 15/11/2023. She has been appointed as the new HOD for the department of Electronics & Communication Engineering.
- Dr G R Gnana King acted as the University External Auditor and Audited Royal College of Engineering. He is an Editorial Board Member of International Journal of Medical Imaging (ESCI Indexed). Also he is an Advisory/Technical Program Committee member of 5th International Conference on Smart Electronics and Communication [ICOSEC 2024] will be organized by Kongunadu College of Engineering and Technology on 18-20, September 2024.
- Dr. Silpa PA got patent granted on "Graphene Optical data storage using nanoholes with patent number 449260". She incubated her company Nanograf Private Limited on Sahrdaya TBI and offered internships for our 4 students with stipend of Rs.5000.The students completed internships successfully. She acted as University External auditor on TOC H Engineering college. Also she is one of the approved research supervisors under KTU. Dr. Silpa also filed two student innovations as she is the registered patent agent. Using this student can file patents without any service charges.
- A team led by Dr. Arun A V, tapped out a pseudo random number generator chip.

EEE
- Ms. Drisya K Sasi successfully completed NPTEL course on "Advanced Power Electronics and Control" with Elite certification.

ASH
- Dr. Sukhila Krishnan has been approved as the research supervisor by KTU.

4.2 Workshop and FDPs attended/ organised
BM
- Ms. Reshma Jose participated in the 7 Day National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers, organized by The Internal Quality Assurance Cell (IQAC) and The Department of Computer Science, St. Albert's College (Autonomous), Ernakulam, in association with The

Kerala State Higher Education Council (KSHEC) from 02 November 2023 to 09 November 2023.

- Ms. Sony NS (BM dept.) attended a webinar on 'Elevate Mathematics Teaching with MATLAB Via Experiential Learning' held on 8th Sep 2023 organized by CoreEL Technologies. She also attended Webinar on Generative AI, IEEE Sahrdaya SB on 5th Nov.2023

- Ms Arathy M, Ms Lavina Joseph & Ms Supriya Mary Sunil attended a five days online FDP on Emerging Trends in Data Analytics and machine learning ,conducted by Karunya Deemed university from 18th Sep to 22nd Sep 2023.

- Ms Lavina Joseph, Ms Supriya Mary Sunil & Minu C Davis attended Webinar on Generative AI, IEEE Sahrdaya SB 5th Nov.2023

- Ms Minu C Davis

  a. attended a five days online FDP on Artificial Intelligence & Machine learning for Medical image analysis using Python, CMR institute of Technology Bengaluru from 21st Aug to 25th Aug 2023.

  b. She also attended a two day workshop on "Python for beginners" conducted by IIIT Kottayam from 30th Sep to Oct 1st 2023.

  c. She attended a five days online FDP on Emerging Trends in Data Analytics and machine learning ,conducted by Karunya Deemed university from 18th Sep to 22nd Sep 2023.

  d. She attended a webinar on 'Elevate Mathematics Teaching with MATLAB Via Experiential Learning' held on 8th Sep 2023 organized by CoreEL Technologies

- Ms Jayalakshmi

  a. Attended a five days online FDP on Artificial Intelligence & Machine learning for Medical image analysis using Python, CMR institute of Technology Bengaluru from 21st Aug to 25th Aug 2023.

  b. Attended a two day workshop on "Python for beginners" conducted by IIIT Kottayam from 30th Sep to Oct 1st 2023.

  c. Attended Eleven days workshop on Cyber security conducted by Department of Data Science, Dwaraka Doss Goverdhan Doss Vaishnav College from 07/08/2023 to 18/08/2023.

  d. Attended a five days online FDP on Emerging Trends in Data Analytics and machine learning , conducted by Karunya Deemed university from 18th Sep to 22nd Sep 2023.

BT

- Dr. Amitha Joy has participated in the workshop on Computational Quantum Chemistry held on 13th and 14th October 2023 at Sacred Heart college, Thevara. She had successfully completed 12 weeks NPTEL FDP on the course 'Next generation sequencing technologies'.

- Dr. Amitha Joy received CERD Faculty Research Incentive of Rs.10000 for being the corresponding author of an SCIE indexed journal article entitled In silico identification of potential small molecules targeting six proteins in Nipah virus using molecular docking, pharmacophore, and molecular dynamics simulation published in Letters in Drug design and discovery, Volume 20, issue 5, 2022.

- Dr. Amitha Joy, Ms. Smeera Thomas, Dr.P. Praveena and Ms. Ranimol. G underwent a training at Arjuna Natural Pvt Ltd , R&D Lab, Keezhmadu from 18th to 22nd July 2023.

CE
- Ms Sujana successfully completed a 4 week NPTEL FDP course on Geotechnical Engineering Laboratory organized by IIT Bombay. She also attended a 4 week NPTEL FDP course on Perspectives on Neurolinguistic Programming organized by IIT Madras
- Ms. Mini M attended a 12 week NPTEL FDP course on Basic Environmental Engineering and Pollution Abatement organized by IIT Roorkee
- Ms Ragi C Ravindran attended a 4 week NPTEL course on Global Navigation Satellite Systems and Applications organized by IIT Madras and has secured an Elite-Silver certificate.

CSE

- Dr. R. Satheesh Kumar attended a Six Days Faculty Development Programme on " Cyber Security" by SRMIST Kattankulathur Chennai from 21st to 26th August 2023. He filed and granted UK design registration on Soil Sampling Stick Using Machine Learning 2023 in January 2024.
- Ms.Elsa Raju.A Successfully completed 12 Week NPTEL FDP on the Course " Data structures and Algorithms Using Java"
- Ms Anusree K & Ms Geethu Wilson successfully completed 12 weeks NPTEL FDP course on Programming in Java by IIT Bombay
- Ms Roshni R Menon successfully completed 8 week course on NPTEL FDP Introduction to Machine Learning by IIT Kharagpur and 12 weeks NPTEL FDP course on Programming in Java by IIT Bombay
- Ms.Rehna Baby Joseph attended a Five Days Faculty Development Programme on "AI Trends and Industry Use Cases- Contemporary and Future" by FISAT in association with TCS from 25th to 30th September 2023. She also successfully completed 12 Week NPTEL FDP on the Course " Joy of python Programming" by IIT Kanpur
- Dr. Manishankar S attended
  1. Six Days Faculty Development Programme on " Cyber Security" by SRMIST Kattankulathur Chennai 21st to 26th August 2023.
  2. Research Symposium on Synergistic Innovations , organized by RNSIT and IEEE SPS Society Bengaluru on 17th November, 2023.
  3. NPTEL FDP and online Certification-"Cloud Computing" - Top 2% (82%).

ECE
Ambily Francis successfully completed 8 weeks NPTEL FDP on the course "Accreditation and outcome based learning".

EEE
- Ms. Drisya K Sasi attended NPTEL-AICTE FDP on "Advanced Power Electronics and Control" during Jul-Sep 2023.
- Dr. V. Vijikala attended a Five Days Faculty Development Programme on "Research Perspectives in Energy, Environment & Conservation" by SCMS School of Engineering & Technology from 29th May to 2nd June 2023.

ASH

- Ms. Anu Jose attended a webinar on 'Elevate Mathematics Teaching with MATLAB Via Experiential Learning' held on 8th Sep 2023 organized by CoreEL Technologies.
- Dr. Sudha George Valavi has participated in the 7 Day National level Online Faculty Development Program on Outcome Based Education organized by Nirmala College, Muvattupuzha , in association with The Kerala State Higher Education Council (KSHEC) from 10 May 2023 to 17 May 2023.
- Dr.Sudha George Valavi has participated in a hands on training workshop on Drug design held on 13th and 14th October 2023 at Sacred Heart college Thevara in association with KSCSTE.
- Ms Anu Jose successfully completed 8 weeks NPTEL FDP course on "Accreditation and outcome based learning" by IIT Kharagpur and has secured an Elite-Silver certificate.
- Ms Mayasree O successfully completed 8 weeks NPTEL FDP course on "Accreditation and outcome based learning" by IIT Kharagpur and has secured an Elite-Silver certificate.
- Ms Siji Thomas successfully completed an 8 week NPTEL FDP course on "Concepts in Magnetism & Superconductivity" by IIT Kharagpur and has secured an Elite-Silver certificate.
- Ms Jasmine Johny successfully completed an 8 week NPTEL FDP course on "Concepts in Magnetism & Superconductivity" by IIT Kharagpur and has secured an Elite-Silver certificate.
- Dr. Joseph Jestin, Librarian

  1. Attended a webinar on "How to Make a Blog for Your Library" Learn Step by Step" by Dr Rajesh Sharma, Librarian, KV Bilaspur organized by DELNET on 29th October, 2022.
  2. Attended the Author Workshop APJAKTU : Understanding Research Metrics and Elsevier's Science Direct on Tuesday 22 November, 2022.
  3. Attended DELNET-CEMCA Webinar on "Leveraging OERs to Enhance Higher Learning on 30th September, 2022.
  4. Attended the DELNET-CISCO webinar on "Best practices to protect against ransomware attacks" on June 16, 2023.
  5. Participated in the "Google AI Campus Fest" - Tensorflow Workshop and Hackathon, jointly organized by Sahrdaya College of Engineering & Technology, Thrissur, Kerala, and Google for Developers, India Edu Program, on September 16, 2023.
  6. Organized EBSCOhost & IEEE Xplore Digital Library training for B.Tech students of SCET on November 24, 2023.

4.3 Paper Publications & Presentations by Faculty Members
ASH
- Dr Sukhila Krishnan
  1. Published paper entitled "Biosensors for Carcinoembryonic Antigen Detection for Future Prospective: A Review" in Sustainable Chemical Engineering, doi:https://doi.org/10.37256/sce.4220233104, Volume 4 Issue 2|2023| 119
  2. Published a book chapter Advance Biodegradable polymer composite materials for Biomedical Additive manufacturing Applications in the book titled

Development,properties and Industrial Applications of 3D printed polymer composites by IGI Global publisher .2023: page no:10,ISBN 13:9781668460092

BM

- Ms. Reshma Jose published a paper titled "Liver Tumour Classification using Optimal Opposition Based Grey Wolf Optimization" in the International Journal of Pattern Recognition and Artificial Intelligence (2022) 2240005 (23 pages), DOI: 10.1142/S0218001422400055.
- Dr. Remya George and Ms. Reshma Jose published a paper titled "Effects of long-term exercise training on physiological signals and personality traits in women in law enforcement" in the Journal of Intelligent and Fuzzy Systems Systems 44 (2023) 1085–1097, DOI:10.3233/JIFS-221588. (SCI-E).
- Dr. Remya George and Mr. Jibin Jose presented the paper "Wearable Smart Cervical Collar with Real-time Rehabilitation of Neck Posture Correction" during IEEE Conference on Information & Communication Technology (IEEE CICT-2022) on 20.11.22 organized by IIITM Gwalior.
- Dr. Remya George and Dr. Finto Raphel presented the paper "Automated Detection And Classification Of Lung Sound Using A 3-D Printed Electronic Stethoscope" during IEEE Conference on Information & Communication Technology (IEEE CICT-2022) on 20.11.22 organized by IIITM Gwalior.
- Presented & Published the paper "Machine learning-Based sleep stage prediction using EEG signals recorded in PSG"in 2023 2nd International Conference on Electrical, Electronics, Information and Communication Technologies, ICEEICT 2023.

BT

- Dr. Amitha Joy, Dr. Midhila Padman and Dr. P. Praveena published a research article titled 'In silico Identification of Potential Small Molecules Targeting Six Proteins in Nipah Virus using Molecular Docking, Pharmacophore and Molecular Dynamics Simulation' in Letters in Drug Design& Discovery' (SCIE).
- The paper titled 'Docking and Molecular Dynamics Simulation Studies for the Evaluation of Laccase Mediated Biodegradation of Triclosan' presented by Ms. Ranimol.G, faculty of Department of Biotechnology and Ms. Devipriya. C.B, Post Graduate student in Department of Biotechnology,in the International Conference Biogangam 2022, was published in the conference proceedings 'Advances in Biogical Sciences and Research', 2023 (Scopus).
- The paper titled 'Phytochemicals as potential drug candidates for SARS-CoV-2: An RDRp based in silico drug designing -' presented by Ms. Marria.C Cyriac, faculty of Department of Biotechnology and Ms. Christy Joy, Post Graduate student in Department of Biotechnology in the International Conference Biogangam 2022, was published in the conference proceedings 'Advances in Biological Sciences and Research', 2023 (Scopus)
- Nivya R.M and Dr. Amitha Joy published an article entitled In silico discovery of novel calcineurin inhibitors using ligand-based 3-D pharmacophore modelling and molecular dynamics simulation. Journal of Biomolecular Structure and Dynamics, 2023, Vol 41, 10-18. (PhD publication of Nivya R.M)
- Dr. Amitha Joy and Maria Cyriac published an article entitled Modelling of AgrA inhibitors to combat anti-microbial resistance in Staphylococcus aureus. Journal of Biomolecular Structure and Dynamics, 2023, Vol 41, 1-8.
- Dr. Amitha Joy published an article entitled Pharmacophore modelling and molecular dynamics simulation to identify novel molecules targeting catechol-o-

methyltransferase and dopamine d3 receptor to combat Parkinson's disease, Polymer Bulletin, 2023, Vol 80,1-31 Issue 12.

CE

- Ms. Sujana R has published a paper 'Soil Stabilization Using Agro-industrial Waste' in Lecture Notes in Civil Engineering book series of Springer Nature as a part of the Proceedings of International Conference on Structural Engineering and Construction Management (SECON '23).
- Ms. Asha Devassykutty has published a paper 'Design and Modeling of a Precast Concrete Structure and Its Performance Evaluation with Conventional Structure' in Lecture Notes in Civil Engineering book series of Springer Nature as a part of the Proceedings of International Conference on Structural Engineering and Construction Management (SECON '23.

CSE

- Dr. Manishankar S
1. A Cloud based Interactive framework for emergency medical data sharing, Recent trends in Computational Sciences, Taylor and Francis ISBN-978-1-032-42685-3
2. Traffic Pattern Classification in Smart Cities Using Deep Recurrent Neural Network, MDPI, Sustainability 2023, 15(19), 14522; https://doi.org/10.3390/su151914522-
- Anusree K has published a paper A Novel Prediction of Alzheimer's Disease by using Artificial Intelligence' as a part of the Proceedings of the 7th International Conference on Intelligent Computing and Control Systems (ICICCS-2023).
- Rehna Baby Joseph has published a paper "Fungal Diseased Mango Leaves Segmentation Using Soft Computing Methods" as a part of the Proceedings of the 9th International Conference on Advanced Computing and Communication Systems(ICACCS-2023)

ECE

- Binet Rose Devassy published a paper entitled "Histopathological image classification using CNN with squeeze and excitation networks based on hybrid squeezing". Signal, Image and Video Processing Vol.17, 3613–3621 (2023) https://doi.org/10.1007/s11760-023-02587-y
- Ambily Francis
1. Ambily Francis and Immanuel Alex Pandian published a paper entitled "Ensemble learning approach for multi-class classification of Alzheimer's stages using magnetic resonance imaging". TELKOMNIKA (Telecommunication Computing Electronics and Control). 2023 Apr 1;21(2):374-81.
2. Published a paper entitled "Agroassist: Agriculture Automation" In 2023 International Conference on Innovations in Engineering and Technology (ICIET) 2023 Jul 13 (pp. 1-6). IEEE.
3. Published a paper entitled "Deep Learning based Beach Cleaning Robot " In 2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC) 2023 May 4 (pp. 427-433). IEEE.
4. Published a paper entitled "Vein Detection and Cannula Insertion using Raspberry Pi " In 2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC) 2023 May 4 (pp. 1387-1393). IEEE.
5. Presented a paper entitled "Detection of different progression stages of Alzheimer's disease using SURF " In 2023 9th International Conference on Smart Computing and

Communications (ICSCC), conducted by Muthoot Institute of Technology and Science, Kochi.

- Gnana King G R,

1. Published Model-Based Design for Mispa CountX Using FPGA. In: Shakya, S., Balas, V.E., Haoxiang, W. (eds) Proceedings of Third International Conference on Sustainable Expert Systems . Lecture Notes in Networks and Systems, vol 587. Springer, Singapore. (Scopus Indexed)

2. Presented and Published a Paper entitled " A Novel MRI and PET Image Fusion in the NSST Domain Using YUV Color Space Based on Convolutional Neural Networks". Wireless Pers Commun 131, 2295–2309. https://doi.org/10.1007/s11277-023-10542-w (SCI Indexed)

3. Presented and Published a Paper entitled "Brain tumour classification: a comprehensive systematic review on various constraints, Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization, 11(3), pp. 517–529 DOI: 10.1080/21681163.2022.2083019. (ESCI , Scopus Indexed)

4. Presented and Published a Paper entitled "Computer-aided diagnosis for early detection and staging of human pancreatic tumors using an optimized 3D CNN on computed tomography. Multimedia Systems 29, 2689–2703 (2023). https://doi.org/10.1007/s00530-023-01146-2 (SCI Indexed)

5. Presented and Published a Paper entitled "Prediction of the COVID disease using lung CT images by Deep Learning algorithm: DETS-optimized Resnet 101 classifier. Front. Med. 10:1157000. doi: 10.3389/fmed.2023.1157000 (SCI Indexed)

6. Published a book chapter entitled " Machine learning based devices for pregnant women" in the book "Predicting Pregnancy Complications Through Artificial Intelligence and Machine Learning" with ISBN13: 9781668489741|ISBN10: 1668489740|EISBN13: 9781668489765, June, 2023. Chapter 11 (pages 199-204)

7. Presented and published a conference Paper entitled HELFER—Automatic Load-Carrying Robot. In: Ranganathan, G., EL Allioui, Y., Piramuthu, S. (eds) Soft Computing for Security Applications. ICSCS 2023. Advances in Intelligent Systems and Computing, vol 1449. Springer, Singapore.

8. Presented and published a conference Paper entitled Escasalus—ML-Based Food Quality Checker. In: Ranganathan, G., EL Allioui, Y., Piramuthu, S. (eds) Soft Computing for Security Applications. ICSCS 2023. Advances in Intelligent Systems and Computing, vol 1449. Springer, Singapore.

4.4 Outreach Activities

- *SAHRDAYAM 2023* -A house for the needy was completed under the leadership of Civil department and handed over on 17th August2023 (Chingam first) by His Excellecy Mar. Pauly Kannookadan to Smt.Santha P C, Karur, costing 6.5 lakhs with 46.5Sqm(500sqft) fund raised from Management, Civil Department Students, Faculty, Administrators, NSS, Client and wellwishers.
- A part of Biotechnology Popularisation Programme, Department of Biotechnology conducted a one day workshop for the school students.
- On November 30th, ACES organized an event titled "Engineer in the Making: Celebrating Young Minds" to impart knowledge about the field of computer science. Gokul Raj of S7 CS highlighted department projects to school students, fostering

inspiration and insight into the exciting world of computer science for the budding minds.

5.0 Technical Associations:

The Technical Associations in all the six departments organized a number of Programmes to promote the technical and organizational skills of the students. A number of invited talks and symposium were organized by the Technical Association. The following are some of the major Programmes organized during the report period.

5.1 EBSA (BIOMEDICAL ENGINEERING DEPARTMENT)

- Ms. Schleshin Molly David of 2002-2006 Batch working as Biomedical Engineer at Soma Bio Tech, Atlanta visited the department on 8/8/2023 and interacted with the students of S5 Biomedical Engineering and gave them a brief insight about the job prospects, challenges and opportunities abroad.
- Alumnus Mr. Nobu Karippai, Lead Engineer -R&D (Diabetes Care), Roche, Germany interacted with final year students on 14/8/2023.
- Two of the alumnus Ms. Swetha Manoj working as Procurement Manager at Abu Dhabi and Ms. Mishel working as Biomedical Engineer at BMS Hospital, Bahrain of 2010-2014 Batch visited the department and gave a talk on the different job aspects in Biomedical Engineering and its future.
- Second year Biomedical Engineering students at Sahrdaya College of Engineering and Technology (2022 Batch) visited the Anatomy and Physiology Museum and Skill Lab on September 13th 2023.
- Mr. Netturi Naresh Kumar, Scientist, Meditech zone, AP, visited the department and Faculty members, to discuss the possible collaborations and relations.
- The Department of Biomedical Engineering conducted a Technical Quiz on 15/9/2023 as part of World Engineers Day.
- As part of World Heart Day on 29th September 2023, the Department of Biomedical Engineering Day conducted a Cardiac Treasure Hunt.
- Two Project teams from the Department of Biomedical Engineering visited Genrobotics, Palakkad to understand new rehabilitation and scavenging robots.
- Mr. Leo Mavely, Founder and CEO, Axio Biosolutions delivered a talk and monitoring session on Surgical solution to military and steps to entrepreneurship for S3 Biomedical students at Multimedia Hall on 9/10/2023.
- The department of Biomedical Engineering released its Biannual newsletter SILIENCE (Vol 10, Issue 1) on 16/10/2023.
- EBSA conducted a photography contest based on Kerala Piravi emotions as part of Kerala Piravi celebrations on 1/11/2023.
- Dr. Thomas Varghese, Orthopaedic Surgeon at K.M Cherian Memorial Hospital, Chenganassery delivered a talk on Neuromuscular System for third semester Biomedical Engineering students on 7th November 2023.
- The Department of Biomedical Engineering conducted a Webinar on "Applications Of Deep Learning and Machine Learning in Biomedical Image Processing" by Mr. Sreesankar J, Assistant Professor in Department of Computer Science at Karunya Institute of Technology on 16th November.

5.2 BEATS (BIOTECHNOLOGY ENGINEERING)

- Department of Biotechnology in association with BRSI conducted a two day workshop on 'Modern Tools in Bioinformatics' by Mr. Vipin Thomas, Asst.Prof, Dept. of Biosciences, Union Christian College, Aluva for the final year students.
- Department of Biotechnology in association with BRSI organized a workshop on Python programming on 21 & 22 August 2023, guided by Star Innovations for S5 students. The workshop was led by Mr Vishal N S, the resource person, reflecting his profound knowledge in python programming and highlighted its importance and applications throughout the two days.
- A One Day training on LaTeX was organized by the Department of Biotechnology on 13/09/2023 for S7 BT & S5 BT on 14-09-2023. The session was handled by Mr. Anand Narayan, Alumni of BT 2019-23.
- Department of Biotechnology in association with BRSI conducted a one day workshop on 'MATLAB Tools' by Mr. Rakshith B S, Senior Application Engineer at CorEL Technologies, Bangalore on 16-09-2023.
- Mr. Varghese N Ouseph, Head of R&D at Agappe Diagnostics Ltd. shared his profound knowledge in Analytical Techniques in Biotechnology in the interactive session conducted as a part of Add on course on 05/10/2023, for the third year BT students.
- For familiarizing the students with the analytical techniques in biotechnology an online interactive session was conducted on 07/11/2023 by Dr. Shiny Velayudhan, Scientist, division of dental products, Biomedical technology wing, Sree Chithira Tirunal Institute of Medical Science and Technology.
- BEATS in collaboration with BRSI and NDLI Club successfully organized the IDEATHON'23 fostering interdisciplinary knowledge on September 20, 2023.
- An online interaction on "Prospects of higher education in foreign universities' ' was conducted on 12-09-2023.The session was handled by our former students Britto Lorence and Bristo Lorence, currently pursuing masters in Food science and Biotechnology, Tesside University, United Kingdom.
- Alumnus Mr.Aneesh Jose, Technical Head Amazon, Japan interacted with the third year student on skills developments during the B Tech degree course and on directions and dimensions of higher education.
- BEATS in association with BRSI organized 'Dr George Thottapilly Memorial Lecture' by Dr Jagadeesh Bayry ,Professor, IIT Palakkad on the topic "An insight on Immunotherapy "
- As a part of the Science popularization programme Department of Biotechnology organized a series of workshops in November 2023 for the rural student community and gave an exposure and hands-on training on various diagnostic techniques in Biotechnology. The third year students gave leadership, framework and lead the workshop which also gave them a new perspective on the techniques.
- Mr. Leo Mavely, Founder and CEO, Axio Biosolutions delivered a talk and monitoring session on Surgical solution to military and steps to entrepreneurship for S3 Biotechnology students at Multimedia Hall on 9/10/2023.
- The Vth semester students of Biotechnology Department along with two faculties visited ICAR – Central Institute for Cotton Research, Coimbatore on 20th October 2023 to understand the different techniques involved in plant research chiefly in cotton research.
- The students of third semester BT 2022-2026 batch visited Kerala Forest Research Institute (KFRl), Peechi on 10th November 2023and got insights on the molecular

biology, tissue culture research labs and the analytical techniques labs which was efficient enough to give students enlightenment to the application of knowledge and research potentials in Biotechnology.

5.3 PACE (CIVIL ENGINEERING)
- A One Day training on LaTeX was organized by the Department of Civil Engineering on 14/08/2023 for S7 CE & S5 CE students. The session was handled by Mr Jaise S Arakkal, Alumni of CE 2019-23.
- A Three Day Workshop on Rhino, Grasshopper and Reviton was organized by the PACE from 12/09/2023 to 14/09/2023 for S5 CE 2021-25 Batch in collaboration with IEI and CAD Centre.
- An Alumni Interaction was organized on 14/09/2023 for S3, S5 & S7 CE students. Mr Fousan P, Project Engineer, Brick Zone Building Solutions - Alumni of CE 2013-17 has shared his experiences.
- The Department of Civil Engineering in association with the IEI student chapter had organized a Poster Making Competition on 15th September 2023 in connection with National Engineer's Day.
- A One Day Workshop on AutoCAD was organized on 30/09/2023 for S3 CE 2022-26 Batch. The session was handled by Ms Asha Devassykutty & Ms Gokila Chandran.
- An Awareness Talk on Construction Industry was organized by the Department of Civil Engineering on 06/10/2023 for S7, S5 & S3 students.

5.4 ACES (COMPUTER SCIENCE & ENGINEERING DEPARTMENT)
- In collaboration with CSI, a 3-day Python workshop was successfully conducted.
- On October 16, "Just a Minute" event, commemorating Engineers' Day, was conducted in collaboration between IEEE CS Society and NDLI.
- On October 18th, ACES, in collaboration with IEEE CS Society, conducted a session on synergizing computational science for sustainable energy advancement at St. Joseph CGHSS Thrissur.
- Starting on October 20, 2023, the ACES Coding Team initiated weekly coding classes and challenges for S5 students, concentrating on competitive coding for placements. Assigning five questions weekly, the active participation underscored students' eagerness to improve coding skills. Collaborating with the Google Developers Student Community Sahrdaya, these sessions, skillfully led by the ACES Coding Team, fostered a constructive and engaging learning environment, enhancing the collaborative spirit within department.
- On October 21, ACES hosted an online gaming competition titled "VANGUARD," featuring the game Valorant.
- On October 21, ACES, in collaboration with IEEE CS, organized an eFootball tournament featuring Pro Evolution Soccer (PES).
- On October 26th and 27th, ACES, in collaboration with NDLI, organized a two-day workshop on Front-end Web Development led by Mr. Elwin Jose, a Technical Support Associate at SOTI and ACES alumni.
- On November 2nd and 3rd, ACES, in collaboration with NDLI and CSI, hosted a session on Disaster Management for S5 CSE students. The informative session, led by S7 CSE students Mr. Joel Anto and Ms. Merin Dixon, provided valuable insights into disaster preparedness and response.

- On November 4th, S7 CSA students visited ICFOSS, a government-backed IT company in Thiruvananthapuram. Engaging in fruitful discussions, they explored collaboration possibilities and initiated talks about establishing an ICFOSS cell in the college.
- On November 6th, ACES, in collaboration with IEEE CS Society and IEEE WIE Society, organized a debate competition.
- On November 8th, ACES in association with BME and in collaboration with IEEE CS Society, organized a technical training session on LaTeX for S7 BME students. The session, led by CSE research scholars Ms. Keerthana and Ms. Sonu, aimed to enhance students' skills in document preparation using LaTeX, facilitating interdisciplinary knowledge exchange.
- On November 8th, ACES, in collaboration with IEEE CS Society and IEEE WIE Society, organized a product marketing competition focused on smart products.
- On November 10th, ACES, in collaboration with IEEE CS Society and IEEE WIE Society, organized an extempore competition.
- On November 23, 2023, ACES, in collaboration with IEEE CS and IEEE WIE, hosted an online Cartoon Making competition at 7 pm via Google Meet.
- On November 23, 2023, ACES, in collaboration with IEEE CS and IEEE WIE, organized an offline pencil drawing competition in the CSE project lab.
- On November 24th, ACES, in collaboration with Google Developers Student Community, hosted a monthly coding test for S5 and S3 CSE students.
- On November 24th, ACES, in collaboration with ACES Media Cell, organized a photography competition with the theme "My Favorite Time of the Day."
- On November 30th, in celebration of Children's Day on November 14, ACES organized an event titled "Engineer in the Making: Celebrating Young Minds" to impart knowledge about the field of computer science. Gokul Raj of S7 CSA highlighted department projects to school students, fostering inspiration and insight into the exciting world of computer science for the budding minds.
- In December, as part of the festive season, ACES is spreading joy by celebrating Christmas at the "Anugrha Sadan" orphanage. This initiative aims to extend various forms of support to orphaned children, fostering a spirit of warmth and compassion during the holiday season. ACES is committed to making a positive impact in the lives of these children.
- On August 26th, as part of Onam celebrations, the college organized a Pokkalam and Maveli competition. ACES triumphed, securing the 1st prize in both categories.
- On November 1st, the college organized a Malayali Manka and Makan competition, where Ms. Esther Santosh from ACES was honored with the title of Malayali Manka.

5.5 ELECSTA (ELECTRONICS & COMMUNICATION DEPARTMENT)

- Department of ECE organized "Hardware Hackthon" in association with IEEE CASS student branch on 23-25 November 2023.
- On 23/8/2023 Department of ECE organized an expert talk in connection with IEI chapter inauguration .
- A talk on Disaster Management by Dr. Ramesh V.M, Hon. Secretary of National Security Council, Kerala Chapter organized on 24/8/2023.
- The Department of ECE conducted a 2 day workshop on Python programming by star innovations for S3 ECE students on 12/9/2023 & 14/9/2023.

- The Department of ECE organized the Google AI Campus Fest 2023, on 16/9/2023 an event that promises to be a celebration of cutting-edge advancements in artificial intelligence and technology. The fest had showcased the latest breakthroughs in AI, featuring distinguished speakers, interactive workshops, and engaging panel discussions.
- The Department of ECE is organizing an invited talk on Sustainable Engineering for S3 and S7 ECE students on 20/09/2023. The session was handled by the expert team from TCS Cochin.
- The Department of ECE is organizing a hands-on session on Familiarisation MATLAB for S3 ECE students on 20/09/2023.The session was handled by the expert team from Coreel Technologies.
- The Department of ECE is organizing a industrial Interaction on RTL Design Verification for S7 ECE students on 20/09/2023The session was handled by Mr. Jayakrishnan V R., Staff Engineer, Imagination technologies, United Kingdom.
- The Department of ECE is organizing an Alumni Interaction for S5 ECE students on 20/09/2023.
- ELECSTA organized a 3 day workshop on Vegaprocessor.
- Avinash HAridas of S8 ECE received first prize in Junior 75 category, Kapa Mr. Thrissur body building physique championship 2024.

5.6 AESON (ELECTRICAL & ELECTRONICS ENGINEERING DEPARTMENT)

- Department of EEE conducted a session on Awareness on Professionalism on 27/02/2023 for all students of EEE Department. The session was handled by Dr M R K Menon, STEM & Aerospace Educator.
- Department of EEE in association with Centre for Research & Development (RDC) conducted a Technical session on Technical paper writing for S6EEE Students on 28/02/2023. The session was handled by Dr V Vijikala Associate Professor Department of EEE & Ms Amrutha S ,Research Scholar Department of Chemistry.
- Department of EEE in association with Hardware club and Centre for IOT and Robotics Research (CIRR) conducted 2 days Hands on Workshop on Eyantra Robot "Firebird V" for S4EEE students on 28/03/2023 & 29/03/2023.The session was be handled by Mr Akhil Davis S6 ECE student.
- Department of EEE conducted five days hands on training session on Python programming and Machine Learning for S6 EEE students from 24/04/2023(Monday) to 29/04/2023(Saturday)from 9:00am- 4:20 pm. The session was handled by Mr Midhun, Revertech Technologies, Kochi.

6.0 Student Achievements

- Nivya R.M presented a paper entitled Computer aided discovery of novel phytoderived calcineurin inhibitors as potential therapeutic candidates in the 11th IEEE Humanitarian Technology Conference held at Marwadi University, Rajkot, India on October 17th 2023.
- Two group of students from S5 and S7 Biomedical Engineering consisting of
  1. Anatt P Davi, Anagha K, Krishna Sugunan, Gopika Shabu (S5)
  2. Divin Davis, Vishnu Prajil, Arifa Thasneem, Greeshma Nadh (S7)

participated in ITT program, a Global training Programming by SIEMENS HEALTHINEERS from 2nd August 2023 to 9th August 2023. The team of S7 students won third prize.

- Mr. Jibin Jose and Ms. Nice George (S7 BME) participated in Precision care health challenge 2023: Hackathon organized by GE Healthcare.
- The final year project titled SMART COMMODE SYSTEM FOR BED-BOUND PATIENTS by the team comprising Allwino Varghese, Megna Daison, Vishnu Priya A S and and Nevin T Shine from the Department of Biomedical Engineering has secured the 4th Prize in the prestigious DREAMVESTOR entrepreneurship competition among 816 remarkable entries, emerging as one of the top 20 finalists.
- Mr. Jinto James, S7 BME has been selected as the Chairman of the new Students Council 2023-24.
- A team of students from the Department of Biomedical Engineering consisting of Rosemary Shofy, Anson T Mathew, Thasleema Akbar and Pranprakash secured first position in the IDEATHON 2K23 organized by BEATS association on 20/9/2023 on the Topic- Design and Development of PoC- BIOSENSOR.
- Cresy Aleena, Ayana Rose Viju and Abhirami S of third semester Biomedical Engineering participated in the APJAKTU Women's Kabaddi competition at the zonal level and secured fourth position.
- 12. Ebin Wilson and Eliyas Rajeev of S5 BM participated in Nasscom Future Forge 2023 conducted at Bangalore on 7th and 8th November 2023 which was 50% sponsored by IEDC, Sahrdaya.
- Anushka Sumesh of Fifth semester Biomedical Engineering was honored with the 'Bank of Baroda's Achievers Award - Academics,' including a Memento of Appreciation, Citation, and a Cash award of Rs. 35,000.
- Eva of Fifth semester Biomedical Engineering was honored with the 'Bank of Baroda's Achievers Award - Sports,' including a Memento of Appreciation, Citation, and a Cash award of Rs. 35,000.
- Sreerag Menon of seventh semester Computer Science & Engineering was honored with the 'Bank of Baroda's Achievers Award – Best All Rounder including a Memento of Appreciation, Citation, and a Cash award of Rs. 35,000.
- Ms. Fathima Fida of Third semester Biomedical Engineering was recognised with Academic Excellence Award for securing SGPA of 10 for S1 University Examinations.
- Ms. Nice George of Sixth semester Biomedical Engineering was recognised with Academic Excellence Award for securing SGPA of 10 for S6 University Examinations. She became the top scorer in Sixth semester University Examinations with a SGPA of 9.57.
- Mr. Joyal Joy of S7 BM was selected for the Interzone Chess Championship a part of APJAKTU E-zone chess tournaments held at JCET, Lakkidi on 14th and 15th November 2023.
- Ashin Jiboo, Sharon K C and Devanarayan P of S3 BME secured second prize in the APJAKTU Men's Kho-kho competition held on 25/11/2023.
- ACES proudly announce that four Computer Science and Engineering students secured internships at ISRO, VSSC Thiruvananthapuram from November 15th.
- Joseph K.A,Joshua Sony C, Lakshmi Rajkumar M, Syam Krishna P.S presented a paper titled deep learning based beach cleaning robot in 2nd international conference in Applied artificial intelligence and computing .
- Muhammad naisal Ansar, Aljo Jose, Angela Sabu, Jisa Joy, Lijo Paulose presented a paper titled vein detection and cannula insertion using Raspberry pi in 2nd international conference in Applied artificial intelligence and computing .

- Ms Siona Sabu was elected as the sports secretary for the college council 2023-24
- Mr Tinu Titus was elected as the Arts secretary for the college council 2023-24
- A team of students from S3 ECE won the second prize for the hardware hackathon conducted by C-DAC and IEEE CAS at Sahrdaya college of engineering and technology.

6.1 <u>Participation In Inter Collegiate Competitions</u>
- A project team "Portable car stretcher" from BME won Second Prize in the SRISHTI 2023 and SHRESHTA 2023.
- A student project team "Game console based rehabilitation for stroke patients" from BME secured Third Prize in the project expo Srishti 2023 organised by Jyothi College of Engineering.
- Joselit S Thayil, Charles Varghese, John Francis of S5 ECE participated in a Hackatly 2023- Hackathon conducted by IEDC of college of Engineering Thalassery.
- Akhil Davis, Abhisekh S Menon of S7 ECE participated in a Hackatly 2023- Hackathon conducted by IEDC of college of Engineering Thalassery.

7.0 <u>SPORTS</u>
- In the APJAKTU women's Kabaddi competition at the zonal level, we came in fourth place. This was Sahrdaya's first attempt, however two players were able to be selected for the interzone team selection list. It was held on October 28 and 29, 2023 at VAST.
- In the E-zone basketball men and women championship, which happened at ICCS College of Engineering and Management on November 1st and 2, 2023, we placed third in the men's section.
- We are in fourth place in the APJAKTU women's shuttle badminton competition in the E-Zone competition, 18 colleges were competing here, and 23 colleges were competing in the Men's section.Men's section placed fifth in the competition that was conducted on November 4 and 5, 2023, at NSS Engineering College Palakkad.
- In the APJAKTU, E- Zone volleyball competition, which took place in GEC, Palakkad on November 10 and 11, 2023, we are ranked fifth position. One player was chosen for interzone selection trials, Mr. Muhammad Ans, Department of EEE
- Results of the APJAKTU, E-zone chess tournaments: for the men's section, we came in sixth place out of 16 colleges that competed, and for the category for women, we came in seventh place out of 9 colleges that participated. Team Sahrdaya won the first ranking in the individual category (Men) with a perfect 5/5 record. Mr. Joyal Joy (S7 BM) was chosen for the Interzone Chess Championship. It was held at JCET, Lakkidi on 14th and 15th November 2023.
- The men's team of Sahrdaya Kho-kho placed second in the APJAKTU Kho-kho competition, which took place at GEC Palakkad. The team moved to the interzone.
- Mr. Ashlin Shaju of S7 BT was selected for the Inter-university Yoga competition held at Anna University, Chennai. He was selected from intercollegiate Yogasana championship 2023.
- Mr. Sharon K C (S3 BME) selected to the Men's Kho-Kho University team
- Mr. Joyal Joy (S7 BME) was chosen for the Interzone Chess Championship.
- Mr. Adil Umer won Gold in 63 Kg category National Arm Wrestling Competition 2023 held at Pune.
- Ms. Eva Joy of S6 BME, secured silver medal in the APJAKTU athletic meet in the category of high jump (W).

8.0 NATIONAL SERVICE SCHEME

- Conducted Yoga session on the occasion of 'International Yoga Day' on 21st June 2023.
- On the occasion of 77th Independence Day on 15th August 2023, conducted Flag Hoisting Ceremony in college campus and visited Pratheeksha Bhavan orphanage.
- Conducted cleaning and beautification of Butterfly garden on 21st and 22nd August 2023.
- Volunteered distribution of meals as part of "Onathinu oru oonu" scheme on 27th August 2023.
- Conducted "Carbon neutrality Survey" from 18th – 21st September 2023.
- Organized an orientation programme and campus activity for the newly joined NSS volunteers 2023-25 batch on 22nd September 2023.
- Conducted a "Soil Survey class" on 23rd September 2023.
- On the occasion of "Swachhata Hi Seva", Pullipara LP School beautification and wall painting from 24th – 25th and 30th September 2023.
- On the occasion of "Swachhata Hi Seva", Pullipara Anganawadi cleaning and beautification on 1st October 2023.
- Organized a "Sanjeevanam 2.0 Blood Donation Campaign" on 4th October 2023. We received an appreciation certificate from IMA Blood Bank Thrissur for the voluntary blood donations.
- Conducted cleaning and beautification of Kodakara panchayat on 11th November 2023.
- Conducted Road safety flagship orientation program on 25th and 26th November 2023.

9.0 News @ IEDC

- Sahrdaya got recognized with the Local Entrepreneurship Advancement Programme (LEAP) from the Kerala Startup Mission.
- IEDC Sahrdaya, partners with NASSCOM startups, conducted a "National Entrepreneurship Acceleration Programme" on 25th November 2023.
- An Interaction & Mentoring Session was conducted by Leo Mavely (Founder & CEO - Axio Biosolutions, Medtech | Hemostats | Biomaterials) on 10/10/2023. He also gave 1 to 1 mentoring session to the RIPWS Grantees
- Research Innovation Programme for women startups was conducted which is funded by Kerala Startup Mission with a total budget of 25 lakhs. 7 women researchers have been selected and will be given research grants of upto Rs 5 lakhs.
- Four of our innovations have secured recognition at the Kerala start up Mission IEDC Idea Fest 2023. Each of these selected projects will be supported with funding of ₹ 2 lakh through our IEDC.

10.0 RDC Activities

- RDC and IPR Cell jointly organized "Intellectual property - legal view" talk by National university of legal studies for EC and BT final year students."
- Ms Marria C Cyrriac, Research scholar, Faculty BT Department, guided by Dr Leon Ittiachen (BT), presented her Ph.D. work progress on August 23, 2023
- Ms Anly Antony, Research scholar, Faculty CSE Department, guided by Dr R Satheesh Kumar (CSE), presented her Ph.D. work progress on September 29th, 2023.

- Ms Pooja Das, Research scholar, BT Department, guided by Dr Dhanya Gangadharan (BT) and co-guided by Dr. Leon Ittiachen, Director, presented her Ph.D. work progress on November 15th, 2023.
- Nivya R.M, PhD Student under the guidance of Dr. Amitha Joy, BT Department, presented a paper entitled Computer aided discovery of novel phytoderived calcineurin inhibitors as potential therapeutic candidates in the 11th IEEE Humanitarian Technology Conference held at Marwadi University, Rajkot, India on October 17th 2023.
- Ms. Nivya R.M and Dr. Amitha Joy published an article entitled In silico discovery of novel calcineurin inhibitors using ligand-based 3-D pharmacophore modelling and molecular dynamics simulation. Journal of Biomolecular Structure and Dynamics, 2023, Vol 41, 10-18. (PhD publication of Nivya R.M)
- Dr. Amitha Joy and Ms. Maria C Cyriac published an article entitled Modelling of AgrA inhibitors to combat anti-microbial resistance in Staphylococcus aureus. Journal of Biomolecular Structure and Dynamics, 2023, Vol 41, 1-8.
- Dr. Amitha Joy published an article entitled Pharmacophore modelling and molecular dynamics simulation to identify novel molecules targeting catechol-o-methytransferase and dopamine d3 receptor to combat Parkinson's disease, Polymer Bulletin, 2023, Vol 80,1-31 Issue 12.
- Ambily Francis published a paper entitled "Agroassist: Agriculture Automation" In 2023 International Conference on Innovations in Engineering and Technology (ICIET) 2023 Jul 13 (pp. 1-6). IEEE.
- Binet Rose Devassy published a paper entitled "Histopathological image classification using CNN with squeeze and excitation networks based on hybrid squeezing". Signal, Image and Video Processing Vol.17, 3613–3621 (2023).
- Mr. Vijith P R, research scholar joined on 06/12/2023 under the guidance of Dr. Gnana King.
- Dr. Amitha Joy received the CERD faculty research incentive for publication in SCIE indexed journal.

11.0 <u>IQAC</u>
- Coordinated Internal and External Academic audits for the 2022-23 academic year
- Successfully organized an awareness session on the Audit Manual and audit procedures. This session was specifically tailored to benefit faculty members within the institution.
- Supportive and coordinating role in facilitating the NBA Accreditation process for the Electronics and Communication Engineering Department.
- Consolidated the findings and feedback provided by the departments regarding the proposed 2024 curriculum and syllabus revisions from the University.
- Prepared and reviewed the UGC autonomous-related documentation.
- Drafted the constitution and duties and responsibilities for 2023-2024 administrative committees.
- Conducted diverse feedback analysis on stakeholder feedback and formulated the action taken report.
- Formulated internship guidelines for students in accordance with KTU regulations.
- Reviewed institute level policies formulated during the period.
- Collaboratively organized a Management Review Meeting (MRM) with ISO.
- Facilitated the coordination of the Energy, Environment, and Green Audit.

- Modified PO attainment calculations including add-on courses.
- Composed the AQAR 2022-2023 and submitted it for feedback and suggestions.
- IQAC in association with ISTE conducted faculty development program on 'Mentor Mentee Relationship & Academic Student Mentoring' on 24th January, 2024.

12.0 IEEE CHAPTER @ SAHRDAYA

- In connection with National engineer's day IEEE computer society has conducted a JAM on September 15,2023.
- On September 13 & 14, 2023 IEEE Computer society has conducted a workshop on 'Machine learning using python'.
- In connection with National doctor's day IEEE EBMS organized an online poster making competition on July 8,2023
- IEEE sahrdaya SB conducted their Annual General Meeting on June 27, 2023.
- On May 25, 2023 IEEE EBMS conducted an online quiz competition on the topic "Biomedical Inventions".
- From May 16 to 18, 2023 IEEE sahrdaya SB conducted a 3-day internship event on the topic "Cloud Computing".
- On May 24, 2023 IEEE IAS society organized an online training session named "Entrotalk".
- In collaboration with IAS SBC GECT and IAS SBC JECC, IEEE IAS SBC sahrdaya conducted an online PCB designing Workshop on May 18, 2023.

13.0 CENTRAL LIBRARY & NDLI CLUB

- In connection with National Reading Day, the Central Library conducted a quiz completion on June 23, 2023.
- On November 24, 2023, in connection with National Library Week, Central Library arranged a EBSCOhost & IEEE Xplore Digital Library training program for first-year B.Tech. students.
- The NDLI Club in association with the Computer Science Department conducted an online session on AR Essentials on September 22, 2023.
- The NDLI Club in association with the Biotechnology Department conducted an inter-department idea presentation competition, "IDEATHONE'23," on September 20th, 2023.
- The NDLI Club in association with the Biomedical Department conducted the "Cardiac Hunt" on September 26th, 2023.
- The NDLI Club in association with the Civil Engineering Department conducted an online quiz competition on November 21st, 2023.
- The NDLI Club of Sahrdaya was recognized as one of the best-performing NDLI clubs in Kerala on September 5, 2023, by IIT Kharagpur.

14.0 OTHER IMPORTANT PROGRAMES

- Our college hosted the Google AI Campus Fest 2023, an event that promises to be a celebration of cutting-edge advancements in artificial intelligence and technology, on 16th September 2023.
- Arts day – "AROHAM 2K24" for the academic year 2023-24 was celebrated on 1st & 2nd March, 2024. Mr. Tom Emmatty, Film Director & Actor inaugurated the function. The following students were selected as the best performers of Arts Day;
1. Sargathilakam – Sruthy M – S4 BT

2. Sargaprathibha – Aldrin Sojan – S4 CS
3. Kalathilakam – Amritha A S – S4 CE
4. Kalaprathibha – Sreerag Menon – S8 CS A

- College day 2023 is scheduled on 23/03/2024. Fr. Davis Chiramel, popularly known as Kidney Priest, Founder of acts will inaugurate the event.
- Graduation day, Send off, Placement day celebrations of 2020-24 batch of B.Tech and 2022-24 batch of M.Tech will be organised in June 2024.
- Sahrdaya in collaboration with KSCSTE-NATPAC successfully conducted two specialized road safety training programs for Driving School Instructors and college students on 31/01/2024 & 01/02/2024.
- We had the blessing ceremony of AI skills lab on 18/01/2023.
- The Dept of ASH in association with ISTE organized a talk on 'Expectations of industries from Engineering Graduates' on 21/02/2024. Dr. Abdul Habid Pullichola, Founder Chemraw Tech Pvt Ltd addressed the students.

15.0 Conclusion

I thank our Chairman, Board of Trustees, Members of Academic Council, Faculty members, Staff and Students for their cooperation help and Support for the development of Sahrdaya.

Dr. Nixon Kuruvila
Principal