DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

INSTITUTE VISION

"Moulding Professionals par Excellence with Integrity Fairness and Human Values".

INSTITUTE MISSION

1. We commit to develop the institution as a Center of Excellence of International Standards

2. We guide our students in the attainment of intellectual and professional competence for successfully coping with the rapid advancements in technologies and the ever changing world of business, industry and services

3. We help each and every student in their personal growth into mature and responsible individuals

4. We strive to cultivate a sense of social and civic responsibility in our students, thus empowering them to serve humanity.

5. We promise to ensure a free environment where quest for the truth is encouraged

DEPARTMENT VISION

"Moulding socially responsible and professionally competent Computer Engineers to adapt to the dynamic technological landscape."

DEPARTMENT MISSION

➲ Foster the principles and practices of computer science to empower life-long learning and build careers in software and hardware development.

➲ Impart value education to elevate students to be successful, ethical and effective problem-solvers to serve the needs of the industry, government, society and the scientific community.

➲ Promote industry interaction to pursue new technologies in Computer Science and provide excellent infrastructure to engage faculty and students in scholarly research activities.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The program educational objectives (PEO) of the Department of Computer Science and Engineering are to develop graduates who possess:

☑ The creative and critical reasoning skills to solve technical problems ethically and responsibly to serve the society.

☑ The competency to collaborate as a team member and team leader to address social, technical and engineering challenges.

☑ Ability to contribute to the development of the next generation of information technology either through innovative research or through practice in a corporate setting.

☑ Potential to build start-up companies with the foundations, knowledge and experience they acquired from undergraduate education.

PROGRAM SPECIFIC OUTCOMES (PSO)

The Program Specific Outcomes of the Department of Computer Science and Engineering are :

➲ Ability to integrate theory and practice to construct software systems of varying complexity.

➲ Able to Apply Computer Science skills, tools and mathematical techniques to analyze, design and model complex systems.

➲ Ability to design and manage small-scale projects to develop a career in a related industry

PRINCIPAL'S MESSAGE:

I am happy to note that the Computer Science Department of Viswajyothi College of Engineering and Technology is releasing the second issue of Newsletter "VOICE" for the academic year 2019-2020, enumerating the various activities and achievements of department. The purpose of the newsletter is to educate readers about the exciting new developments and ongoing programs of the department. It is clear that the department is striving hard to set an example in this institution by supplementing various activities apart from the curriculum. The department is witnessing a period of exciting growth and opportunity propelled by the growth of technology and its recognition through excellence. I am sure that the newsletter will propagate the technical temper among the students and faculty. Wishing you all the best.

Dr.K.K.Rajan

HOD'S MESSAGE

It gives me immense pleasure to lead the Department of Computer Science and Engineering in VJCET and present the latest issue of our department newsletter "Voice". The department consistently preserves its achievements and publish its all activities through "VOICE". This issue of VOICE is one in which we address the growth and changes we experienced last semester, and show you the ways that we are working to make this department the best. The strength of our department is the future of the industry, a set of highly motivated students who understand the dynamics of the industry and upgrade their skills accordingly. Our dedicated staff members strive to equip the students to cater the need of the industry. With support from industry partners, proactive recruitment and outreach programs, an improved first-year curriculum, and mentoring programs, the CSE department strives to achieve excellence in our UG programs. I congratulate to the team of faculty members and the students for their brilliant and original efforts. I wish all the Students and Faculty a great academic career.

Mr. Amel Austine

FACULTY PUBLICATIONS

- **Amel Austine, Dr. R. Suji Pramila,** "A Review on Recent Research Directions in Device to Device Communication", in proceedings of 3rd IEEE International Conference on Inventive Computation Technologies (ICICT) – 2018, Date of publication: 12 March 2020.

- **Amel Austine, Dr. R. Suji Pramila,** "Interference Management by Resource Exchange for D2D Communication in Cellular Network", International Journal of Recent Technology and Engineering (IJRTE), Volume-8, Issue-5S, January2020.

- **Dr.Anishin Raj M.M et.al,** "Leukocyte Sub Type Identification Using Spline Interpolation And Graphical Analysis", International Journal of Advanced Trends in Computer Science & Engineering, Vol 9, No 1.3 June 2020

- **Dr.Anishin Raj M.M et.al,** "Various OCT Segmentation and Classification Techniques", In Proceedings of ICCIDT-15th and 16th June 2020

- **Dr.Anishin Raj M.M et,al,** "An Improved Method for LSB Based Image Steganography Technique using Collatz Conjecture Sequence",

- International Journal of Advanced Trends in Computer Science & Engineering, ISSN 2278-309.

- **Dr. Anishin Raj M.M et.al,** "A Hybrid Approach for Video Steganography by Streching the Secret Data" Springer-Lecture Notes in Network and Systems, ISSN: 2367-3370.

- **Silpa Joseph et.al,** "Detection and Localization of Image and Video Tampering", International Journal of Innovative Technology and Exploring Engineering, vol.9 no. 4, pp. 1951–1956, February 2020

- **Neenu Daniel, A.Anitha,**"A Study on Recent Trends in Face Spoofing Detection Techniques, published in proceedings of 3rd IEEE International Conference on Inventive Computation Technologies (ICICT) - 2018 DOI: 10.1109/ ICICT43934.2018.9034361. Date Added to IEEE Xplore: 12 March 2020 Scopus ID: 21100793693

- **Neenu Daniel, A.Anitha,**" Detection of Face Spoofing using Color Texture and Edge Features", International Journal of Recent Technology and Engineering (IJRTE),Volume-8, Issue-5S, January 2020.DOI: 10.35940/ijrte.E1008.0285S20 ISSN: ISSN: 2277-3878

- **Rini Simon,** "Iris Controlled Object Movement", Proceedings of the International Colloquium organized by Mar Athanasius College Of Engineering, March 2020.

- **Soumya Mathew,**" A survey on Various Extreme Learning Machines" published in the " International Journal of Advances in Computer Science and Technology(IJACST), Volume 9. No. 7 July 2020.

- **Soumya Mathew, Dr. Anishin Raj M.M** et.al, "A Performance Comparison of Supervised and Unsupervised Image Segmentation Methods", Springer Nature- Computer Science journal, ISSN:2661-8907 Jan 2020

- **Alphonsa Kuriakose et.al** ,"VIZIYON: Assistive handheld device for visually challenged", Procedia Computer Science 171, 2486-2492

- **Alphonsa Kuriakose et.al,**"CLadron : AI assisted device for identifying artificially ripened climacteric fruits", Procedia Computer Science 171, 635-643

STAFF ACHIEVEMENTS

- **Dr. Anishin Raj M.M** has been the reviewer of "Journal of Intelligent & Fuzzy system", SCIE and Scopus indexed Journal in April 2020.

- **Dr. Anishin Raj M.M** secured best paper award for paper titled "Leukocyte Sub Type Identification Using Spline Interpolation and Graphical Analysis" at International Conference (ICCIDT)-June 2020, Mangalam College.

- **Dr. Anishin Raj M.M** has completed MA (English) from Indira Gandhi National Open University (IGNOU) in Jan-2020

- **Mr.Andrews Jose** has conducted one day Seminar on "OBE assessment software and NAAC Assessment" at KMEA College, Edathala on 08-01-2020 and 11-02-2020 respectively

- **Mr.Andrews Jose** has conducted one day Seminar on "OBE Software and Demo" at Al-Azhar College, Thodupuzha on 28-01-2020

- **Mr.Andrews Jose** has conducted one day FDP on "Assessment in OBE and roadmap for accreditation" at MBCCET on 15-02-2020

- **Mr.Andrews Jose** has conducted one day FDP on "NBA Accreditation –assessment" at UC College on 28-02-2020

- Mr.Andrews Jose has registered a faculty start-up company "Accredit360" under Viswajyothi Business Incubation Center (VBIC), Vazhakulam. "Accredit360" has signed Agreement with the following colleges.

Sl.No	College	Date
1	Al-Azhar College, Thodupuzha	01-01-2020
2	Nirmala College, Muvattupuzha(R&D-CSED)	01-01-2020
3	Mar Baselious Christian College,Peermedu	03-03-2020
4	Al-Ameen College, Edathala	01-01-2020
5	KMEA College, Edathala	01-01-2020

FACULTY DEVELOPMENT PROGRAM

- **Amel Austine.** National Level FDP on Latest Trend and Challenges in IT Industry, 27.06.2020 to 31.06.2020, Organized by Dept. of CSE, RMD Engineering College Chennai.

- **Dr. Anishin Raj,** Attended an online STTP on Research Methodology Department of ME, AJCET from 28/05/2020 -30/05/2020

- **Dr.Anishin Raj,** Attended a 3 days' workshop on Professional Communication National MACE Kothamangalam, 19th,20th and 24th February,2020

- **Andrews Jose** completed an online non-credit course on Coursera Administrator Training offered by Coursera.

- **Andrews Jose and Dona Jose** completed an online non-credit course "Image Classification with CNNs using Keras" authorized by Coursera Project Network and offered through Coursera.

- **Andrews Jose and Dona Jose** completed an online non-credit course "Information Systems Auditing, Controls and Assurance" authorized by The Hong Kong University of Science & Technology and offered through Coursera

- **Neenu Daniel.** National Level FDP on Latest Trend and Challenges in IT Industry, 27.06.2020 to 31.06.2020 Organized by Dept. of CSE, RMD Engineering College Chennai

- **Neenu Daniel** completed an online non-credit course "Introduction to HTML 5 with Michigan University offered through Coursera

- **Sabitha Raju, and Cinita Mary Mathew** Training on "Python Programming through INFYTQ platform", organized by Infosys Ltd on 6th to 13th July 2020

- **Rini Simon,** National Level FDP on Python for Data Science",24-06-20 to 28-06-20, Organized by Dept. of CSE, MITS Andra Pradesh.

- **Rini Simon,** National Level Online FDP on Advancement of IoT",08-06-20 to 12-06-20, Organized by CSI Pune Chapter.

- **Soumya Mathew** attended a 3 days Online STTP on Research Methodology, organized by Department of ME, Amal Jyothi college of Engineering from 28-05-2020 to 30-05-2020

- **Arsha J K,** National Level Online FDP on Data Science Analytics, 07-07-20 to11-07-20, Organized by Dept. of CSE Anurag University and Black Buck Engineers.

- **Arsha J K,** National Level One week FDP on Developing Potentials-Emerging Technologies of Computer Science",01-07-20 to 07-07-20,Organized by Dept. of CSE, Vidya Jyothi Engg College, Hyderabad.

- **Arsha J K,** National Level FDP on Python for Data Science",24-06-20 TO 28-06-20, Organized by Dept. of CSE, MITS AndraPradesh

- **Arsha J K,** National Level Online FDP on Data Science Concepts Theoretical and Practical Approaches",15-06-2020 to 19-06-2020, Organized by Dept. of CSE, Computer Society of India, Banglore

- **Arsha J K,** National Level Online FDP on Perl Scripting", 10-06-20 to14-06-20, Organized by Spoken tutorial IIT Bombay,

- **Arsha J K,** National Level Online FDP on Advancement of IoT", 08-06-20 to 12-06-20, Organized by CSI Pune Chapter,

- **Arsha J K,** National Level Online FDP on Computer Vision using Convolution Neural Networks", 08-06-20 to 10-06-20, Organized by Anurag University and Black Buck Engineers,

- **Arsha J K,** National Level Online FDP on Internet of Things", 02-06-20 to 06-06-20, Organized by Anurag University and Black Buck Engineers,

- **Arsha J K,** National Level Online FDP on Big Data Engineering", 01-06-20 to 05-06-20, Organized by CSI, IEEE, Dept. of CSE Kings Engineering college,

- **Arsha J K,** National Level Online FDP on Demystifying Network Security", 26-05-20 to 30-05-20, Organized by S.A Engineering college, CSI, IEEE, ACM,

- **Arsha J K,** National Level Online FDP on Recent Trends in Medical Image Processing", 28-05-20 to 30-05-20, Organized by Mohemad Sadak Engineering College

- **Nimmy George** completed a five week online course "Fundamentals of network communication" authorized by the university of Colorado and offered through Coursera

- **Nimmy George** completed a five week online course "Peer to peer protocols & Local networks" authorized by the university of Colorado and offered through Coursera

- **Alphonsa Kuriakose,** completed a five week online course "Fundamentals of network communication" authorized by the university of Colorado and offered through Coursera

PROGRAMS ORGANIZED BY THE DEPARTMENT IN ASSOCIATION WITH CSI/ISTE/IIC /R&D

I. CSI STUDENT BRANCH RECIEVES "BEST ACCREDITED STUDENT BRANCH AWARD"

The CSI Student Branch of Viswajyothi College of Engineering and Technology, one of the most vibrant branches of CSI Cochin Chapter was selected to receive the prestigious "Best Accredited Student Branch Award" in the year 2017-2018 and 2018-2019 by the Computer Society of India which has 73 chapters all over India, over 500 student branches, and more than 200000 members. The student branch receives "The Best Accredited Student Branch" consecutively for 5 years is a noticeable achievement. The award was received by Head of Computer Science and Engineering Department Prof. Amel Austine from Prof Mike Hinchy, President of IFIP and Dr. R.K Vyas, Vice-president CSI in the CSI Annual Convention 2020 at Kalinga Institute of Industrial Technology, Bhuvaneswar on 18th January 2020.

2. Hands on training on "Internet of Things" for S6 CSE A&B Students on 13th January 2020

The session was handled by Mr Varghese Benny, CEO Rabbits Square. The programme venue is R&D Seminar Hall and its organized by Industry Institute Interaction Cell(IIIC)

3.Hands on session on "GIT Vesrion Control System" on 16-17th January 2020

The resource person was Mr. Balu M N. GIT is a distributed revision control and source code management system with an emphasis on speed

4. Seminar on "Software Development Engineer in Test" on 31st January 2020

The session was handled by Mr. Jishnu T G, Test Engineer, Infosys

5.Interaction with +2 Students on 20th February 2020

Mr.Manoj Francis of CSE Dept had given a talk on importance of FAB lab

6. National Level Intercollegiate Quiz Competition Prayudh '20 on 27th February 2020

Sebastian Thomas and Basil Eldho of MA College of Engineering and Technology, Kothamangalam bagged the first prize. The team composed of Felix Palatty and Deepak Krishnan H of MA College of Engineering and Technology, Kothamangalam is in the second position.

7. Webinar on Next Generation Smart Vehicles-Challenges and Opportunities for Engineers on 3rd June 2020

The webinar coverd the various challenges and opportunities for Engineers on next generation smart vehicles. The session was handled by Dr.John Jose, IIT Guwahati.

8. 5th National Conference on Security Parallel Processing, Image Processing and Networking (SPIN-2020) on 17-18th June 2020

SPIN 2K20 (5th National Conference on Security, Parallel Processing, Image Processing and Networking) is being organized by department of Computer Science and Engineering on June 17TH & 18TH 2020 . The conference aims to provide an opportunity to all to have scientific discussions on latest development in the field of Computer science and Engineering. The conference encourages students, researchers and academicians to come with innovative ideas to promote professional interaction and lifelong learning. The Department of Computer Science has always tried to stay competitive by keeping the sharp, clear sighted vision. Future education is mainly technology-oriented. SPIN 2K20 would provide a forum for the exchange of latest technological information, presentation of new developments in the area and priorities for development in the field of security, parallel processing, imaging and networking. The keynote speaker was Dr.Anand Kumar, Dept of IT, NIT, Surathkal.

Publications in the Proceedings of SPIN 2K20

1. **Aleena Aloysius, Namitha James, Neha George, Nivea Ann Rajan, Soumya Mathew,** "Anonymous Single Sign on - Enhanced Security Using Blockchain" ,SPIN 2K20 , 5th National Conference organized by CSE department.

2. **Abhinav P Anil, Gladgill Joy, Shone Jacob, Sibin George,** "Antiphisher: A phishing link detection web application using machine learning techniques", SPIN 2K20 ,5th National Conference organized by CSE department.

3. **Georgekutty Jose, Aby Mathews, Akshay Kurian, Prasanth K N,** "Augmented Reality Virtual Dressing System", SPIN 2K20 ,5th National Conference organized by CSE department.

4. **Sona Joy, Christy Maria George, Maria Sajeev, Pearl Jose,** "Automated Billing Cart using SSD based object detection", SPIN 2K20 ,5th National Conference organized by CSE department.

5. **Anna Manoj, Juby Francis, Maria Benny, Merin Sunny,** "Automated Plant Recognition System", ", SPIN 2K20 ,5th National Conference organized by CSE department.

6. **Nikitha Paul, Parvathy Vinu, Pooja Raju, Reshma Binu,** "Automated Toll Collection System", SPIN 2K20 ,5th National Conference organized by CSE department.

7. **Liya Yohannan, Raina Ealu George, Rina Jose,** "Cardless ATM - An ATM security system using Iris Scanning and Personal Identification Number", SPIN 2K20 ,5th National Conference organized by CSE department.

8. **Akshaya Thomas, Divya Sunny, Rose Mary M Kuriachan,** "Diagnosis Of Diabetic Retinopathy Using Xception", SPIN 2K20 ,5th National Conference organized by CSE department.

9. **Aiswarya Rajan M, Ameena Navas , Lakshmi, Sonamaria S Thottupuram** , "Early Stage Detection of Parkinson's Disease", SPIN 2K20 ,5th National Conference organized by CSE department.

10. **Abel Thomas Jaison, Akshay Chacko, Alan Thomas,** "Fake Currency Detection using Neural Networks", SPIN 2K20 ,5th National Conference organized by CSE department.

11. **Aby Thomas, Akshay Kumar, Alias Paul, Sebastian Joseph** , "Fake review detection using deep learning", SPIN 2K20 ,5th National Conference organized by CSE department.

12. **Bencin Benny, Melvin Shaju, Paul Mathew, Thomas James,**

"Future Price Prediction And Online Platform For Selling Agriculture Produce", SPIN 2K20 ,5th National Conference organized by CSE department.

13. **Nidhin Mathew, Ashish Pillai, Melvin Joseph, Anstin Naijo,** "Handwriting Recognition of Medical Prescriptions", SPIN 2K20 ,5th National Conference organized by CSE department.

14. **Anna Salas, Ann Mary Jose, Jintu Justin, Nileena Francis,** "Human Motion Detection", SPIN 2K20 ,5th National Conference organized by CSE department.

15. **Shon Sony, Neena George, Nileena Martin,** "Indoor Tracking", SPIN 2K20 ,5th National Conference organized by CSE department.

16. **Akhil Abraham, Allen Aby, Bestin Chacko,** "Leaf Disease Recognition and Remedy Prediction using CNN", SPIN 2K20 ,5th National Conference organized by CSE department.

17. **Pranoy Prakashan, Deepak Benny, Dolby Vincent, Geo George,** "Mobile Guide Robot", SPIN 2K20 ,5th National Conference organized by CSE department.

18. **Geo G Vincent, Jose Antony, Midhu Simon Thottam, Kevin Regy,** "Navigation System Using Raspberry Pi For The Blind", SPIN 2K20 ,5th National Conference organized by CSE department.

19. **Aleena Paulose, Anjaly Johnson, Anila Johny Kottam,** "Peer to Peer for Privacy and Decentralization in the Internet of Things", SPIN 2K20 ,5th National Conference organized by CSE department.

20. **Alana Tomy, Ano Jai, Shwetha Shaji,** "Permission Misuse Detection System", SPIN 2K20 ,5th National Conference organized by CSE department.

21. **Rose Maria Johnson, Shilpa Benny, Anna Maria George, Sreyamol M S, Mrs. Mayadevi P A,** "Retrieving Profiles By Image-Based Search", SPIN 2K20 ,5th National Conference organized by CSE department.

22. **Harsha P H, Jeena Paul, Jisa Shaji, Pooja Manoj,** "Safety Drive Based On Vehicle to Vehicle Communication", SPIN 2K20 ,5th National Conference organized by CSE department.

23. **Jayalakshmi V P, Jiya K J, Krishna O I,** "Secure Cloud Storage Framework With Visual Authentication and Blockchain", SPIN 2K20 ,5th National Conference organized by CSE department.

24. **Abhin Raj, Thomas Sunny, Akshay S, Sonal I,** "Signboard character recognition and product listing", SPIN 2K20 ,5th National Conference organized by CSE department.

25. **Aishwarya G Prabhu, Janet M Shaju, Sumayya P,** "Smart Security: Liveness Detection Based User Authentication System", SPIN 2K20 ,5th National Conference organized by CSE department.

26. **Adarsh S Chundattu, Akhil George, Joseph John, Sarang Prakashan,** "Three Factor Authentication For Online Exams", SPIN 2K20 ,5th National Conference organized by CSE department.

27. **Aleena Maria Tomy, Magi Tomy, Mariya Benny, Sonu Benny,** "Traffic Light Control Using Image Processing", SPIN 2K20 ,5th National Conference organized by CSE department.

28. **Aneesha Stalin, Liya Jose, Ramya Krishna R, Susan Aby,** "Vision Based Traffic Accident Detection based on sound and change in position of vehicle", SPIN 2K20 ,5th National Conference organized by CSE department.

STUDENTS ACHIEVEMENTS

Shahir S of S4 CSE B became a Finalist Defcon CtF International Competition OPPO Securty Top 2.

Aleena Sara Baby of S4 CSE B Secured First prize in Du Coer blog writing competition conducted by UNI Viswajyothi Chapter.

Anns Maria Mathew of S4 CSE A Won Second Prize in CODIT'20 an Online coding contest held at Amal Jyothi College of Engineering, Kanjirapally.

Deepak D Krishna, Elson Jose of S6 CSE A have been qualified for InfyTQ Competition by Infosys.

Jesley Vincent,Jiya Brigit Jaison, Sneha Anna Roy of S6 CSA bagged first prize for Spy Next Door held at Adi Shankara Institute of Engineering and Technology, Kalady

Paul B Arackal, Sean Santhosh Joseph secured First prize for Coding Duo held at Adi Shankara Institute of Engineering and Technology and TKM Kollam.

Roshy R of S6 CSE A secured second prize for Technical quiz held at M.A College of Engineering and Technology, Kothamangalam.

Amitha Mani S6 CSE A secured First prize for Teqnoqart Technical quiz at VJCET Vazhakulam

PLACEMENT STATISTICS

SL	Name of Company	No of Students
1	TCS	28
2	INFOSYS	31
3	PARTIAN TECHNOLOGIES	17
4	IBS	11
5	NMS	9
6	SUTHERLAND GLOBAL	6
7	WIPRO	1
8	IBM	1
9	6D TECHNOLOGIES	1
10	QUEST	1
11	UST GLOBAL	2
12	CTS	1
13	EXPERION	1

UNIVERSITY RESULTS

Batch	Result Percentage
S1 CSE	89.6%
S3 CSE	61.2%
S5 CSE	75.45%
S7 CSE	81.03%

ACADEMIC EXCELLENCE
2016-2020 batch (S7 Toppers)

Jintu Justin-S7 CSE A   **Harsha P.H –S7 CSB**

2017-2021 batch (S5 Toppers)

Elson Jose –S5 CSA   **Govind V Shenoy –S5 CSB**

2018-2022 batch (S3 Toppers)

Meenakshi Anil -S3 CSA   **Aleena Sara Baby- S3 CS B**

2019-2023 batch (S1 Toppers)

Anoopa Meera Baby -S1 CSA   **Ajin V M- S1 CS B**

STAFF EDITORS

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