FISAT | FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY

Focus on Excellence

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Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University & MG University
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DEPARTMENT OF COMPUTER SCIENCE

VOL. 12   MARCH 2022

Programmes

- B.Tech in Computer Science and Engineering
- B.Tech in Computer Science and Design
- M.Tech in Artificial Intelligence and Data Science
- M.Tech in Computer Science and Information Systems
- Ph.D in Computer Science & Engineering

icon
ANNUAL NEWSLETTER

VISION

To become a centre of excellence, moulding quality computer science professionals, catering to the ever-changing needs of the industry, society and promoting quality research.

MISSION

Department of Computer Science and Engineering is committed to :

M1- (Teaching-Learning) : Inculcate a passion for academic excellence through innovative teaching and learning process.

M2- (Develop Entrepreneurial Skills) : To create opportunities for students to pursue research and develop entrepreneurial skills.

M3- (Social Skills) : Nurture the students to be technically competent, morally upright and socially responsible computer science engineers to meet global challenges.

At a Glance...

Mr. Shimith P R
Chairman, FISAT

I am extremely delighted that the Department of Computer Science is launching the 12th edition of its newsletter ICON–22. The creative and innovative abilities of the students and staff are very much evidenced in the multifarious activities of the department, withstanding the challenges thrown up by the pandemic. The laurels obtained by the department in academics, placements, co-curricular and extra-curricular activities showcase its adherence to the institutional motto of "Focus on Excellence". I take this opportunity to congratulate the staff and students of the department and the editorial team for bringing out this newsletter. I extend my best wishes to the department for all its endeavors.

Dr. Manoj George
Principal, FISAT

Warm Greetings !!
Quality and excellence are important in today's world, which is full of obstacles and increasing competition. We're all aware that our ability to provide and sustain a diversity of methods in our day-to-day teaching and learning is intimately linked to academic success or failure. I am delighted to know that the Department of Computer Science is consistent in sustaining their excellence in all their ventures. I take this opportunity to congratulate the staff for their academic achievements. I appreciate the 2017 – 21 batch students in the CS Department for their glorious campus placements. My heartfelt wishes and congratulations to all the faculty and students for procuring exuberant success in all their endeavors. I wish all the success for the newsletter ICON –2022.

Dr. C Sheela
Vice-Principal
FISAT

It brings me great pleasure to write a few lines as a prelude to the Computer Science Department's newsletter ICON –2022. In our fast-paced modern world, engineering education has grown into a collection of underlying principles, promoting research and developing ethical and clever engineers. The commendable efforts of the CS Department's students and staff have brought honor to our institution. I congratulate the staff and students in CS Department for their tireless efforts to release the newsletter ICON –2022.

Dr. Mini P R
Dean (Academics)
FISAT

I am glad to know that the Department of Computer Science is bringing out yet another volume of ICON to showcase the myriad activities and achievements of the department, reflecting its aspirations and ambitions. I hope this newsletter will help cherish the jubilant moments and preserve the success stories of the department. I congratulate the staff and students for the commendable achievements and extend my sincere appreciation to the editorial team for their efforts in bringing out this newsletter.

ICEFOSS' 21 – NINTH NATIONAL CONFERENCE

ICEFOSS 2021 was the latest milestone in a series of Open Source Software conferences in CS Department. ICEFOSS-2021, the Ninth National Conference was organized by FISAT Free Software Cell in the department and was held on 30th and 31st Jan 2021. The programme was conducted in an online mode amidst the Covid -19 pandemic situation. A total of 150 people participated in the conference, including students from various colleges in Kerala.

FISAT FREE SOFTWARE CELL

ICEFOSS 2021

INAUGURAL SPEECH
2:00 pm
Prof.Rajan Gurukkal
Vice-Chairman
Kerala State Higher Education
Council

GUEST SPEAKER
3:00 pm
Timothee Giet
GCompris maintainer
Graphic Artist
and Freelancer

PRESIDED BY
Mr.Aneesh Kumar R
President
FBOAES

30th JAN

ഫിസാറ്റിൽ ദേശീയ സമ്മേളനത്തിനു തുടക്കം

The programme was addressed and inaugurated by Mr. Rajan Gurukkal, Vice-Chairman, Kerala State Higher Education Council. Presence of the eminent speaker Timothee Giet and the webinar by Ms. Aiswarya made the programme a grand success by sharing their unique insights. As a part of the conference, workshops on various aspects of free software were conducted for the students.

INTRODUCTION TO MACHINE LEARNING

As a part of ICEFOSS 2021, Free Software Cell, FISAT, conducted a workshop by Dr. Sreeraj M, on 'Introduction to Machine Learning' for the registered participants. The workshop focused on machine learning in image processing applications. The hands-on session gave the students an idea on how to face real world problems using machine learning.

FISAT FREE SOFTWARE CELL

ICEFOSS 2021
PRESENTS

MACHINE LEARNING

Dr. Sreeraj M
Assistant professor
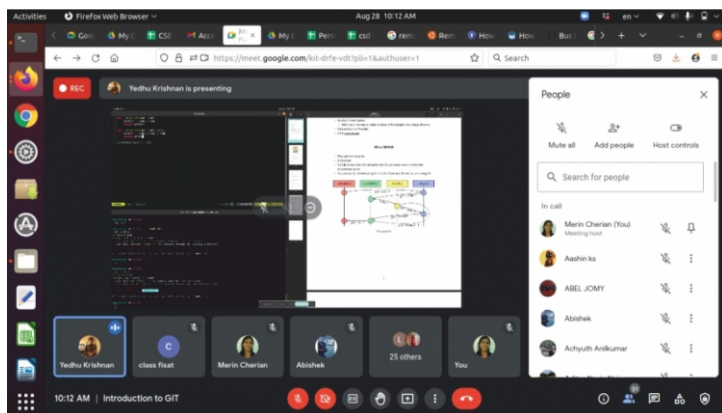Sree Ayyappa College

Register Now

31ST JAN

GAME JAM

A practical session on Game Jam by Mr. Pankaj Kumar G, Assistant Professor, CS Department and Mr. Sherfin S, an alumnus, was an insight to game development using pi games. The workshop introduced python game development libraries pygame and arcade. Participants were introduced to various components of game development in an incremental manner. Various components such as player creation, environment design, scoring system & keyboard moments were discussed in the session.
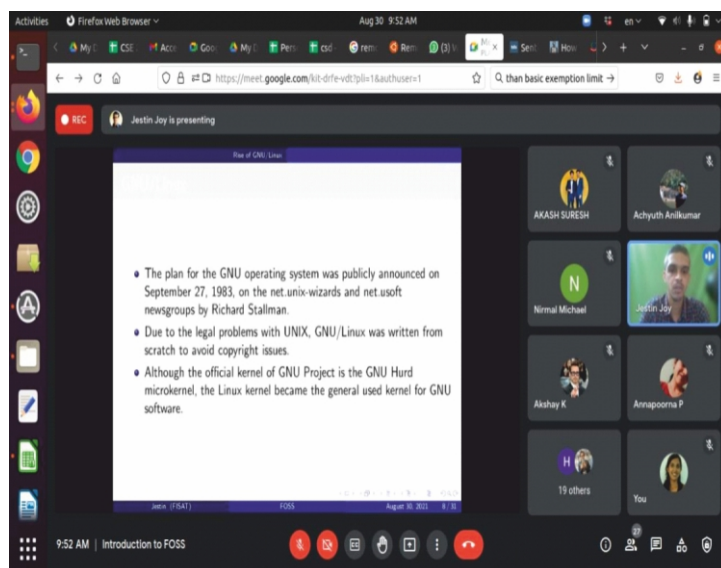

FISAT FREE SOFTWARE CELL

ICEFOSS 2021
PRESENTS

GAME JAM

Pankaj Kumar G
Assistant Professor, FISAT

Sherfin S
Freelance Consultant

Register Now

30TH JAN

INTRODUCTION TO GIT

An online workshop on GIT was conducted on behalf of FFSC on 28th Aug 2021 for first year students. Git is a version control system which helps us to manage multiple versions of files/ projects in a single directory. This open source software was developed by Linus Torvalds. The main difference between Git and Git Hub is that Git is a tool whereas GitHub makes tools that integrates with Git and hosts version controlled repositories online. Though we can use Git without GitHub, we cannot make use of GitHub without Git. Mr. Yedhu Krishnan, Software Developer, PromoHunt was the resource person.

INTRODUCTION TO FOSS

An online workshop on FOSS was conducted on 30th Aug 2021 for first year students. The event mainly focused on free and open source software, its evolution, all those eminent personalties who were part of the various contributions, market share of OS, Linux kernel and distribution, desktop environment, file system hierarchy and Linux. Dr Jestin Joy, Assistant Professor, St. George's College, Aruvithura, was the resource person.

Dr. Prasad J C

The Duties of The Teacher are Neither Few Nor Small, But They Elevate The Mind and Give Energy To The Character –DOROTHEA DIX

Dr. Jyothish K John

We remain profoundly grateful to our former HoD, Dr. Prasad J C, for his whole hearted support, motivation and relentless efforts in bringing up the department to its prestigious status. Thank you sir for being an initiator for the restorative practices in the department.

We enthusiastically welcome Dr. Jyothish K John, as the new HoD of CS and extend our unconditional support and diligent efforts in our ever-continuing journey to further heights.

NEW COURSES IN CS

After receiving NBA accreditation, CS Department got approval to launch two more courses, B.Tech. in Computer Science and Design (60 seats) and M.Tech. in Artificial Intelligence and Data Science (12 Seats). AICTE, KTU and DTE gave approval for the new courses after a detailed inspection. Dr. Prasad J C, Professor, CS was bestowed upon the task to commence the new courses in the department.

B.Tech. in Computer Science and Design:

The current scenario prevailing in industry requires skilled people who have expertise in digital media, gaming, animation, virtual/augmented reality, etc. The programme will also allow students, who want to pursue higher studies, to take up higher studies in CS/IT or in Design.

M.Tech. in Artificial Intelligence and Data Science:

Data professionals play a pivotal role in business decisions. The World Economic Forum predicts that by 2022, skills in Artificial Intelligence and Data Science will be more important than job titles. Department has started a new M.Tech. Programme in Artificial Intelligence and Data Science (AI and DS) in 2021. Programme is recognized by AICTE and KTU, Kerala. The intake for the programme is 12. Programme type is full time and duration is 2 years. Eligibility for admission to this programme will be subject to the rules and regulations of APJ Abdul Kalam Technological University (KTU) / AICTE / Govt. Artificial Intelligence and Data Science is a new branch of study which deals with precise methodologies, processes, and techniques drawn from different domains like Computer Science, Statistics, Information Science etc. Programme deals with the concepts of Machine Learning and Deep Learning models and provides concepts in building the model for solving various complex, computational and real world problems.

Expert Visit Inspection Committee (EVIC) verification process in FISAT Campus to start new courses on 10th Aug 2021.

FIRST YEAR INDUCTION PROGRAMME- VIDYARAMBHAM

FISAT organized a one-week induction programme from 22nd- 27th Nov 2021 for the fresh entrants to B. Tech. programmes, in line with the AICTE and KTU requirements. The objective of this programme was to acclimatize the students to the new environment and get them acquainted with the institution culture. The chief guest, Dr. Alexander Jacob IPS addressed the students with his valuable words.

The induction programme consisted of interesting activities like expert lectures on socially relevant topics like Substance Abuse, Cyber Laws, Traffic Safety, Safety on Youth etc, debate and various campus orientation sessions. The induction programme was concluded by debate competition and cultural activities named "ESPERANZA 2K21".

From HoD's Desk

"When times are good, be grateful, and when times are tough, be graceful."
—Dustin Poirier

Dr. Jyothish K John
Professor & HoD

We have almost overcome the pandemic covid-19. The pandemic affected us adversely in most of the areas. But there are no challenges that cannot be overcome by human being with his determination and hard work. The last two years opened to us a lot of alternate ways with which we can survive, especially in a crisis. It is hard to find another period where technological development has helped humans to this extent. We could communicate and continue our studies through virtual platforms. Yet, we missed the social interactions which are essential since man is a social animal. It is time to compensate for all that we missed in these last two years.

FISAT is a socially committed institution with the motto "Focus on Excellence" and believes in the holistic development of students. The students who have a flair for non scholastic activities get ample opportunities to exhibit them and grow. The activities which are focused on social commitment are also promoted which helps our students to improve their interpersonal skills and social quotient. In the last two years, we couldn't focus on these areas due to the pandemic restrictions. However, our technical cells and associations could manage these hurdles by organizing first-rated seminars, discussions, workshops and thus none of our students have refrained from polishing their technical knowledge. We have already planned a mega National event ICEFOSS 22, an open source based conference, and a hackathon.
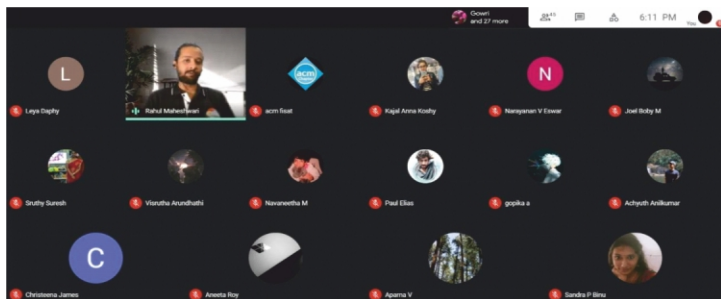
Academics is prime among all. The department is concentrating on improving the academic results by organizing add-on classes and executing the structured remedial plan. The academics of the students should be kept intact so that all the students get eligible for placements. The placement statistics of the CS department touch new records during the last two years, with 90% of students getting placed with an average of three offers. The department is very keen in arranging industry oriented courses like Google ACE, AWS, Fortinet, Apple developer programme etc, which helps the students a lot in achieving their dream Job offers. The students are to be moulded in such a way that they should grab as many offers and make better use of the situation prevailing in the industry.

We are happy that we could start two emerging programmes under Computer Science (B.Tech in Computer Science and Design and M.Tech in Artificial Intelligence and Data Science). The department will give more emphasis on these programmes and make sure that they will be also provided with excellent opportunities.

We the department acknowledge the service done by Dr. Prasad J C as the HoD of the department for the past years and the department will continue its journey to achieve the objective of becoming a 'Centre of Excellence'.
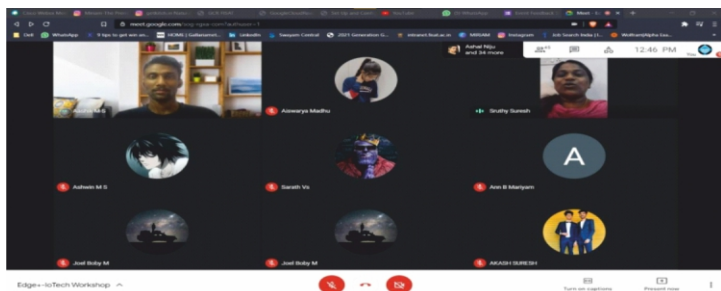
ASK ME ANYTHING

ACM Student chapter FISAT has organized 'Ask Me Anything' session on the 11th May 2021 which was handled by Mr. Rahul Maheshwari, Solutions engineer - Cloud Architect, Google, Bangalore. The session was intended to pinpoint and clear all the queries of the participants on the technical side. A total of 45 students participated in the event which included both the ACM and Non-ACM members. The session was very enlightening and fruitful thus motivating all the participants equally and packed them with a bunch of knowledge to face the new technical world.
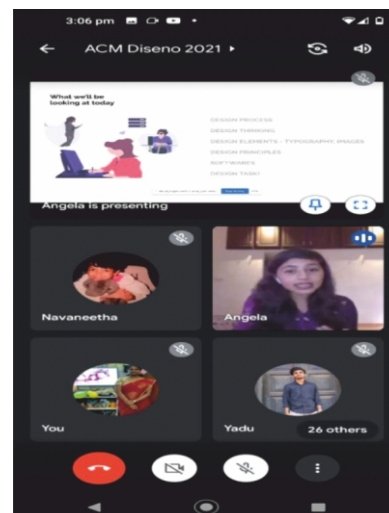

EDGE+

The Intra College level technical event "Edge+" was organised by ACM Student Chapter on 18th – 21st May 2021. The event comprised of various technical and social events organised under ACM. Edge+ consisted of 3 sub events viz. – IoTecH – Workshop and Hands-on Competition, UnRavel – The Mysterified Brainstormer, The Tambola Housie and ACM Rejuvin 2021. Haniya Rehman(S2 CSE A), Aishwarya Madhu(S2 CSE A), Ashwin M.S(S4 CSE A) were selected as the top performers of the whole event. Winners were encouraged with exciting prizes. The participants were also given certificates as a token of encouragement.
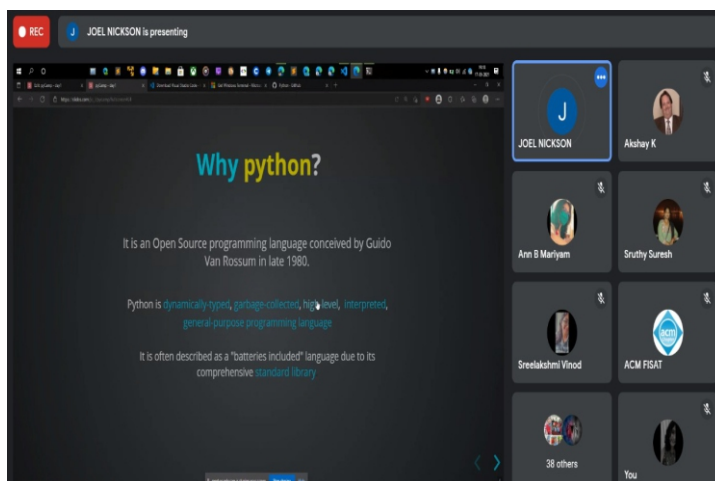

DISENO

ACM Student Chapter FISAT had organized a Graphic Designing Workshop "Diseno" on Basic graphic designing principles in UI designing on the 29th May 2021. The workshop was handled by Ms. Angela Johnson, (Freelance Graphic Designer, Ireland & Graphic Designer at Shalom World). The workshop was based on the major topics of Graphic design principles such as colour, typography, space etc. the students got an insight in to developing a design process, and the softwares to be used. A total of 30 students participated in the workshop that included both the ACM and Non-ACM members of the Computer Science Department of FISAT.

PYCAMP

An exclusive Workshop on Python for the students of FISAT was organised by ACM, on 17th–19th of Sep 2021. The sessions were handled by Joel Nickson, student, (S4 CSE A). This informative session was attended by over 22 students. Sessions were very much informative and students were able to understand the basics of Python language.

HOUR OF CODE '21

ACM Student chapter, FISAT has organized "Hour of Code Programme" for the students of Christava Mahilaya Public School, Aluva on 16th Dec 2021. The Hour of Code is a global movement celebrated as a part of Computer Science week. The session on 'Introduction to Python', was handled by Achyuth Anilkumar and Sreerag S, second year CSE students.

ഫിസാറ്റ് കമ്പ്യൂട്ടർ കോഡിങ് പരിശീലനം

അങ്കമാലി ● ഫിസാറ്റ് എൻജിനീയറിങ് കോളജ് കമ്പ്യൂട്ടർ സയൻസ് വാരാചരണത്തോടനുബന്ധിച്ചു കമ്പ്യൂട്ടർ സയൻസ് ആൻഡ് എൻജിനീയറിങ് വിഭാഗം ആലുവ ക്രൈസ്തവ മഹിളാലയം സ്കൂളിലെ ഒൻപതാം ക്ലാസ് വിദ്യാർഥികൾക്കായി കമ്പ്യൂട്ടർ കോഡിങ് പരിശീലനം സംഘടിപ്പിച്ചു.

അസോസിയേഷൻ ഓഫ് കമ്പ്യൂട്ടിങ് മെഷിനറി (എസിഎം) ഫിസാറ്റ് ചാപ്റ്ററിന്റെ സഹകരണത്തോടെയാണ് പരിശീലനം നടത്തിയത്. കമ്പ്യൂട്ടർ സയൻസ് എൻജിനീയറിങ് വിഭാഗം മേധാവി ഡോ.ജ്യോതിഷ് കെ: ജോൺ നേതൃത്വം നൽകി. ക്രൈസ്തവ മഹിളാലയം പബ്ലിക് സ്കൂൾ പ്രിൻസിപ്പൽ എലിസബത്ത് മാണി, ശ്രുതി സുരേഷ്, അച്യുത് അനിൽകുമാർ,എസ്.ശ്രീരാഗ്, നവീൻ ബി ജേക്കബ്, വൈസ് ചെയർപഴ്സൻ അനീക ജിയോ തുടങ്ങിയവർ പ്രസംഗിച്ചു.
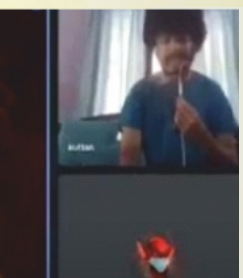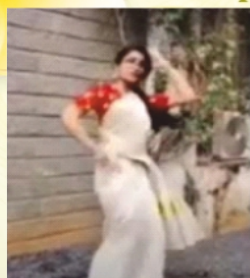
ONAM CELEBRATIONS

The Onam celebration is an occasion for people of Kerala to remind themselves of the all-pervasive nature of the Divine. Due to Covid-19, individual class based onam celebrations were held online. Various events and competitions such as Kerala Sreeman, Malayali Manga, Onappatttu and Onappookkalam were organised.

FDP ATTENDED BY FACULTY

NAME OF FACULTY	FDP TITLE
Dr. JYOTHISH K JOHN	'Architecture and Security', MAC, Kothamangalam, 15/3/21 – 17/3/2021
	'Cloud of Things', Barton Hill, Trivandrum, 22/02/21 – 27/2/2021
Dr. PRASAD J C	'Internet of Things (IoT)', ATAL & CUSAT, 2/2/2021 – 6/2/2021
	'New Generation Data Science', LBS Technology for Women, Trivandrum, 22/2/21 – 26/2/20
	'Robotics and Artificial Intelligence',THIST, 21/5/2021 – 23/5/2021
	'Deep Learning Using Medical Data, Finland Labs', 12/07/2021 – 16/07/2021
	'MATHEMATICS FOR MACHINE LEARNING, CET Trivandrum', 30/06/2021 – 16/07/2021
Dr. ARUN KUMAR M N	'National Education Policy', Regional Institution of Education, Bhopal, 10/2/2021 – 11/2/2021
	'The New Era in Geography: Geoinformatics', S.T.K.V.S. Commerce College, 13/2/2021
	'IT Systems in Healthcare', Chevalier T.Thomas Elizabeth College, 26/2/2021
	'Signal Processing and Artificial Intelligence in Healthcare (ASPAIH)', IIIT, KANCHEEPURAM, 15/2/20–24/2/20
	'Research Opportunities In Electrical & Electronics Engineering', MVJCE , Bangalore, 1/3/20 – 5/3/20
	'Block Chain Technology & Cyber Security', College of Engineering, Vadakara, 16/3/21 – 20/3/21
	'Cyber Security', IIT Kanpur, 15/3/21 –20/3/21 '
	'Fine Tune your Research Planning', Government Engineering College, Palakkad, 22/3/21 – 26/3/21
Dr. PAUL P MATHAI	'Fine tune Your Research Planning', Government Engineering College, Palakkad, 22/3/21 – 26/3/21
	'Intellectual Property Rights', FISAT, 25/4/21
	'Intellectual Property Rights', FISAT, 16/1/21
	'NIRF Workshop', Institute of Academic Excellence, 18/1/21 – 19/1/21
	'IOT Based smart manufacturing in 2030', Jodhpur Institute of Technology', 18/1/21 –22/1/21
HEMA KRISHNAN	'Data Analytics', College of Engineering, Kidangoor, 15/2/21 – 19/2/21
	'High Performance Computing and deep learning for image, text analytics', MBCET, 22/2/21 – 27/2/21
DIVYA JOHN	'Infrastructure and Security Challenges in Cloud Computing', SCMS, 19/07/2021 – 24/07/2021
Dr. RESHMI R	'Block Chain Technology and Cyber Security', College of Engineering, Vadakkara 16/3/21 – 20/3/21 '
	'Exploring Image Processing and Computer Vision using Python', College of Engineering Kidangoor, 15–19/2/21
	'Cloud and Fog Computing Platforms for IoT Applications', 08/02/2021–06/08/2021
	'Data Science For the Next Decade', 05/07/2021 – 09/07/2021
	'Practical Data Science', 19/07/2021 – 23/07/2021
	'Inculcating Universal Human Values in Technical Education', 12/06/2021 – 12/10/2021
SHIMY JOSEPH	'Exploring Image Processing and Computer Vision using Python', CEK, 1/3/21 – 5/3/21
	'Block Chain Technology and Cyber Security', College of Engineering, Vadakara,16/3/21–20/3/21
	'Machine learning & Deep learning using Python', UKF college of Engineering, 14/6/21–18/6/21
ROSHNA K I	'Exploring Image Processing and Computer Vision using Python', CEK, 1/3/21 – 5/3/21
	'Block Chain Technology and Cyber Security', College of Engineering, Vadakara,16/3/21–20/3/21

LAKSHMI S	'Fine tune your Research planning', GEC Palakkad, 22/3/21 – 26/3/21
	'Block Chain Technology and Cyber Security',College of Engineering , Vadakara, 16/3/21 – 20/3/21
	'Deep Learning for computer vision and Time Series Data Analysis', Amritha Viswa Vidyapeedam, 4/3/21–6/3/21
PREETHI N P	'Speech Processing in deep Learning', College of Engineering , Aranmula, 12/07/2021 – 16/07/2021
SOUMYA S RAJ	'High Performance Computing and Deep learning for image', MBCET, 22/2/21 –27/2/21
	'Data Analytics', College of Engineering, Kidangoor, 15/2/21 – 19/2/21
	'Block Chain and Cyber Security', College of Engineering, Vadakara, 16/3/21 – 20/3/21
	'Fine tune Your Research Planning', Government Engineering College, Palakkad, 22/3/21 – 26/3/21
HANSA J THATTIL	'Arichecture and Security', MACE Kothamangalam, 15/3/21 –17/3/21
CHETHNA JOY	'Simulation and Implementation of Digital Circuits', MBC Engineering & Technology, 15/3/21 – 19/3/21
	'Python for Teachers & Researchers', Karunya Institute of technology & Sciences, 11/3/21–12/3/21
	'Starting Research from scratch', Karunya Institute of technology & Sciences, 24/5/21 – 28/5/21
Dr. JESTIN JOY	'User-centric Computing for Human-Computer Interaction',NPTEL,1/1/21–29/1/21
	'Free Software',ICFOSS,19/4/21–23/4/21
SIYAMOL CHIRAKKAROTTU	'Block chain technology and cyber security', College of Engg., Vadakara, 16/3/21 – 20/3/21
	'Data Analytics', College of Engineering, Kidangoor, 15/2/21 – 19/2/21
	'High performance computing and deep learning for image, text analysis', MBCET, 22/2/21 –27/2/21
	'Exploring image processing and computer vision using python' ,CEK, 1/3/21 – 5/3/21
SIMI STEPHEN	'Exploring Image Processing and Computer Vision using Python',College of Engineering, Kidangoor,1/3/21
	'Business Analytics and Data Science', MEA Engineering College, Perinthalmanna,15/3/21
NEENU JOHNSON	'Blockchain and cyber security', College of Engineering, Vadakara, 16/3/21 – 20/3/21
	'Introduction to generative adversarial networks', NIT, calicut, 20/5/21 – 22/5/21
REMYA R	'Machine learning & Deep learning using python', UKF college of Engineering, 14/6/21–18/6/21
	'FDP on data science' , SJCET, Palai, 19/7/21 – 23/7/21
ANURANJ P	'Smart Computing – Technologies and Applications', MES Kuttippuram, 22/07/2021 – 27/07/2021
ANITHA T NAIR	'Machine learning & Deep learning using python', UKF college of Engineering, 14/6/21–18/6/21
	'FDP on data science' , SJCET, Palai, 19/7/21 – 23/7/21
	'Signal processing and AI', IIIT, KANCHEEPURAM, 15/2/21 – 24/2/21
PANKAJ KUMAR G	'Tools used in digital training and learning', 05/07/2021 – 10/07/2021
	'Emerging trends on networks and IoT', AICTE ISTE, 16/07/2021 – 22/07/2021
MERIN CHERIAN	'Practical Data Science', St. Joseph's College of Engineering, Palai , 19/07/2021 – 23/07/2021
	'Deep Learning and Neural networks', Mohandas College of Engineering. 05/07/2021 – 09/07/2021
JISMY MATHEW	'Block chain Technology & Cyber Security',College of Engineering Vadakara,16/3/21
	'High performance computing on deep learning for image text analysis', MBCET, 22/2/21-27/2/21
	'Reference Management Tool Mendely',FISAT,28/1/21

PAPER PUBLICATIONS BY FACULTY

- Jyothish K John "A Study on Workflow Execution Time Prediction", International Journal for Innovative Research in Science & Technology, Volume 8, Issue 1, June 2021.

- Anitha T Nair, Arun Kumar M N, Anitha M L, & Anil Kumar M N, "Computer Aided Diagnostic System for Diabetic Retinopathy Detection using Image Processing and Artificial Intelligence", International Journal of Computer Science and Information Security (IJCSIS), Vol. 19, No. 5, May 2021.

- J.C. Prasad , Megha Justin , V.V. Revathy , Sona Jose , M. Sona Saju "Deep Learning Approach For Identifying and Classifying Cancer Types Using BPSO and GAN", Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 12, Issue 7, July 2021: 9682–9700.

- Hema Krishnan, M. Sudheep Elayidom, and T. Santhanakrishnan. "Weighted holoentropy-based features with optimised deep belief network for automatic sentiment analysis: reviewing product tweets." Journal of Experimental & Theoretical Artificial Intelligence (2021): 1–29.

- Hema Krishnan, M. Sudheep Elayidom, and T. Santhanakrishnan. "Optimization Assisted Convolutional Neural Network for Sentiment Analysis with Weighted Holoentropy-based Features. "International Journal of Information Technology & Decision Making (2021): 1–37.

- Hema Krishnan, Pankajkumar G, Poosari A, Jayaraj A ., Thomas, C., & Joy, G. M. (2021, May). "Machine Learning" based Sentiment Analysis of Coronavirus Disease Related Twitter Data. In 2021 2nd International Conference on Secure Cyber Computing and Communications (ICSCCC) (pp. 459-464). IEEE.

- Paul P Mathai, "Deep Learning Based Capsule Neural Network Model for Breast Cancer Diagnosis Using Mammogram Images." Interdisciplinary Sciences: Computational Life Sciences (2021): 1–17.

- Cherian Merin, and Kannan Balakrishnan. "Evaluating Word Embedding Models for Malayalam." REVISTA GEINTEC-GESTAO INOVACAO E TECNOLOGIAS 11.4 (2021): 3769-3783.

- Paul P Mathai, "An Enhanced Fusion Based Region Selection For Co-salient Detection."International Journal of Advance Research and Innovative Ideas in Education (2020).

- Siyamol Chirakkarottu, and Sheena Mathew. "A Novel Secure and Robust Encryption Scheme for Medical Images.", Current medical imaging 17.1 (2021): 73-88.

- Sreeraj M, and Jestin Joy "A machine learning based framework for assisting pathologists in grading and counting of breast cancer cells." ICT Express (2021).

- Joy Jestin, Kannan Balakrishnan, and Sreeraj Madhavankutty. "SignText: a web-based tool for providing accessible text book contents for Deaf learners." Universal Access in the Information Society (2021): 1–7.

- Anoop Pauly, Deepa Mary Mathews, Prasad J C "Cyber Security and Ethical Hacking in Blockchain Technology" AICTE sponsored International Conference on 'Blockchain' at SCMS, Cochin, 29th Sept to 1st October 2021.

- Chethna Joy, G. Naveen Sundar, and D. Narmadha. "AI Driven Automatic Detection of Bacterial Contamination in Water: A Review." 2021 5th International Conference on Intelligent Computing and Control Systems (ICICCS). IEEE, 2021.

Dr. Jyothish K John:

Reviewer and Session Chair in the International Conference ICACA2021, organized by Department of Computer Applications, FISAT.

Dr. Jyothish K John got the level 1 AWS certification (AWS certified Cloud practitioner) and 25 students completed the training programme successfully after attending the 40 hours session.

Dr. Prasad J C:

Completed online courses on :

'The Joy of Computing using Python' NPTEL Course Elite & Silver in 2021.

'Deep Learning Using Medical Data', Finland Lab, 12–16 July 2021.

'Blockchain A–Z™: Learn How To Build Your First Blockchain', Udemy, Oct 2021.

Dr. Arun Kumar M N:

Reviewer for international conference ICRTST–2021, E & C Department ATMECE, Mysore–28.

Reviewer and Session Chair in the International Conference ICACA2021, Department of Computer Applications, FISAT.

Dr. Paul P Mathai:

Selected as Programme Committee (Reviewer) member in the International Conference ICACC2021 at Rajagiri School of Engineering and Technology.

Reviewer and Session Chair in the International Conference ICACA2021, organized by Department of Computer Applications, FISAT.

Dr. Reshmi R:

Resource Person for Professional Development Programme, organized by Department of Computer Applications, FISAT. Talk on "Outcome Based Education".

Reviewer and Session Chair in the International Conference ICACA2021, organized by Department of Computer Applications, FISAT.

Ms. Hansa J Thattil & Ms. Chethna Joy :

Mentored the second year CS students Mohammed Nihal, Jopaul Joy and Amarjith to redesign and develop the website of FISAT library .

Ms. Merin Cherian :

Successfully completed the Course on AI and ML by Oracle Academy in November 2021.

Congratulations !

Ms. Reshmi R has been awarded Ph.D on "QoS Oriented Dynamic And Energy Aware Resource Allocation Schemes For High Performance Computing Clouds" from Anna University , Chennai in May 2021.

Ms. Hema Krishnan successfully completed her Ph.D on "Design and optimization of efficient classification models for sentiment analysis of product reviews" from Cochin University of Science and Technology (CUSAT) in January 2022.

CS family is extremely proud of you both for accomplishing this task with hard work. Congratulations on your achievement!!

Dr. Hema Krishnan

Dr. Reshmi R

CS DEPT LAUNCHED KEAM ALLOTMENT PREDICTOR 2021

KEAM Allotment Predictor was designed and developed by second year CSE students to help KEAM 2021 students and parents in the selection of suitable engineering colleges, in Kerala, based on KEAM entrance rank. The working of Rank Predictor is based on the statistical information of the third round allotment of KEAM 2020. KEAM College predictor is made as simple and innovative as possible. Using this web page, students and parents can save the time spent in searching about courses and colleges. The last rank given is based on the state admission quota – which is 50% of the intake in private colleges. Decisions for option allotment and admission can be done easily with this tool.

HRITWIK N E
S5 CSE A

AMAN K S
S5 CSE A

ANEETA S
S5 CSE A

JOEL NICKSON
S5 CSE A

Mentor

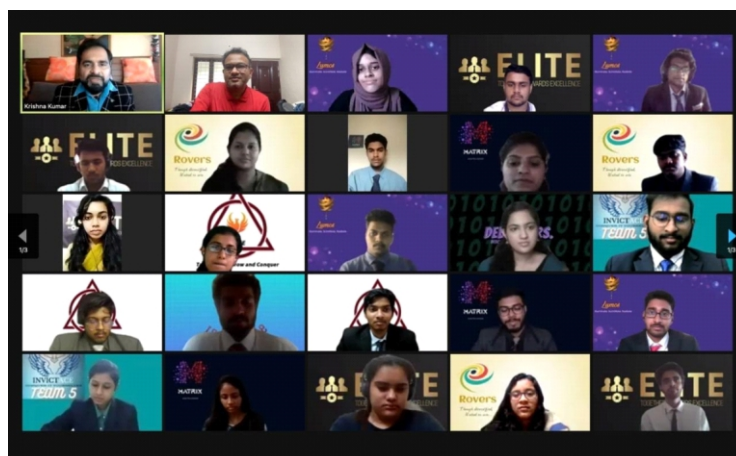Dr. PRASAD J C
Professor, CS Dept

BEST OUTGOING STUDENT 2021

The Best Outgoing Student is awarded every year to appreciate the student's efforts in academic, extra-curricular activities and contributions in the department. This year this exemplary achievement is secured by Ms. Visrutha Arundhathi R. She has achievements in co-curricular, extra-curricular and sports along with academic excellence.

EMPOWER 2022

EMPOWER, the Placement Training Programme was conducted by Mr. Krishnakumar and Ms. Mridula in association with the Placement Cell for the students of FISAT. This programme aimed at providing a platform for the third year Computer Science students from 20th – 22nd Jan 2022 to develop and improve their soft skills and help them get acquainted with the placement process. It was conducted in online mode using Zoom Meetings. The Training Programme was a great success and each of the 67 students benefited from it. The programme started off smoothly with inaugural addresses by Dr. Unni Kartha and Dr. Krishna Kumar. The training was more of an interactive session in order to help the students break the shackles of speaking in front of others. There were various activities that helped the students in learning more about what to do in their career, both academic and in the future while working for a company. These activities helped the students in a long way in building their skills and prepared them for attending interviews. Mock Interviews were also conducted which guided the students on how to attend interviews with proper body language and following all common etiquettes. Quizzes and activities were conducted at the end of each day to increase the morale within the teams.

AWS TRAINING AND CERTIFICATION (ADD-ON COURSE)

Amazon Web Services (AWS) is a leading Cloud Service Provider. The current scenario in the IT industry is the migration of all the resources including Hardware and Networking to Virtual Infrastructure. This helps the industry and customers to reduce their cost of procuring hardware and maintaining them. The AWS cloud foundation gives an overview of all AWS products, the process of migration, maintaining AWS resources, billing, and management. AWS certification is regarded as the most valued cloud certification and companies hire graduates with AWS cloud certification.

Dr. Jyothish K John got the Level-1 AWS certification (AWS certified Cloud practitioner) and became eligible for running the AWS Foundation Course in FISAT. The duration of the course was 4 months. 25 students were enrolled and the 'kick start' of the course was held on 20th Feb 2021. The students completed the AWS training programme successfully in August 2021, after attending the 40 hour classes (20 hrs online and 20 hrs live sessions) and submitting all the online assignments. They were awarded with the course certificate from AWS academy. The add-on course helped them to gain knowledge about AWS cloud products and their industrial relevance. The lab conducted on AWS Free Tier also helped them to get in-depth knowledge in server configurations and other major tasks.
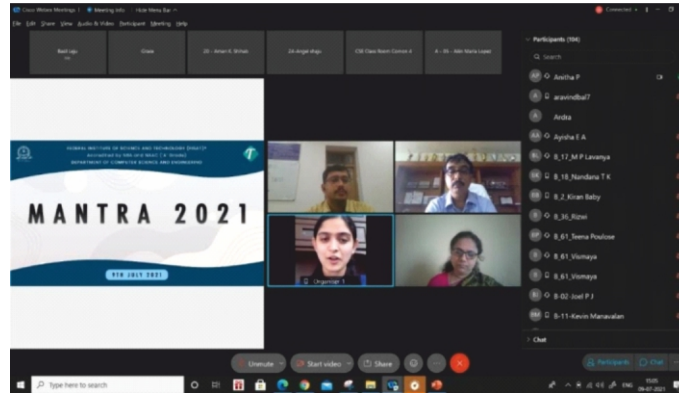
FDPs ATTENDED BY NON TEACHING STAFF

Ms. Ambili Menon	'Network and System Administration' on 10/5/2021, FISAT 'Foundations of Cyber Security & Digital Forensics', 26/7/21 – 30/7/21 at V R Siddhartha Engineering College
Mr. Aravind Balan	'Network and System Administration' on 10/5/2021, FISAT 'Advanced Communication Systems– A Research Perspective', 9/8/21 – 13/8/21 ,College of Engineering Karunagappally.
Ms. Ambily Sekar C	'Foundations of Cyber Security & Digital Forensics', 26/7/21 – 30/7/21 at V R Siddhartha Engineering College
Ms. Neeba Cheriyachan	'Foundations of Cyber Security & Digital Forensics', 26/7/21 – 30/7/21 at V R Siddhartha Engineering College
Ms. Sreelalithambika P K	'Foundations of Cyber Security & Digital Forensics', 26/7/21 – 30/7/21 at V R Siddhartha Engineering College
Mr. Varun P nair	'Advanced Communication Systems– A Research Perspective', 9/8/21 – 13/8/21 ,College of Engineering Karunagappally.
Noma Mathew M	'Internet of things' , 9/11/21 – 10/11/21, FISAT 'Hands on training on Machine Learning & Data Science', 11/11/21-12/11/21, FISAT
Salini T R	'Blockchain Applications In Businesses For Wealth Creation', 2/8/21 –6/8/21, Indian Institute of Plantation Management

MANTRA 2021

On 9th July 2021, the Annual CS Day – Mantra 2021 was conducted by Thyra CS Students Association to uphold its aim and provide a platform for the students of B.Tech Computer Science Department to be encouraged to showcase their potential

and to promote healthy competition among them. It was beautifully coordinated on a digital platform accepting the critical pandemic scenario and was a spirited event that the students looked forward to amidst their online academic schedule. The students gave their wholehearted contribution by volunteering and participating in Coding Contests, Quizzes, Typing Competitions and more.

Crafting yourself for Deep Tech Startups

Department of Computer Science conducted a talk on "Crafting yourself for Deep Tech Startups" by Mr. Sumod K Mohan, an alumnus, FISAT and Founder/CEO of AutoInfer Pvt. Ltd. on 15th Dec 2021 for 5th semester students. He gave the students an awareness about Incubators and Accelerators, also familiarized various phases in software development.
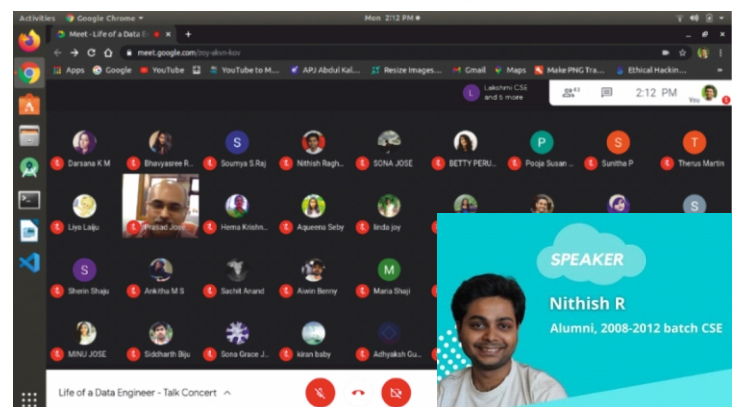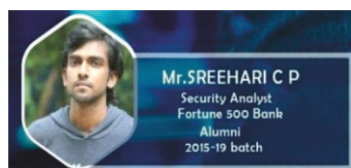

Sumod K. Mohan
Founder/C.E.O
AutoInfer Pvt. Ltd

Webinar on Cyber Security & Ethical Hacking

An exclusive webinar for the students of FISAT was organized by Thyra, CS student's association on the

Mr.SREEHARI C P
Security Analyst
Fortune 500 Bank
Alumni
2015-19 batch

topic Cyber Security and Ethical Hacking scheduled on 11th Sep 2021. The session was presided over by an alumnus of FISAT, Mr. Sreehari C. P, Cyber Security Specialist, TCS. The session gave a brief glance on Kali Linux based Ethical Hacking Tools.

Life of a Data Engineer

The talk on 'Life of a Data Engineer' by Mr. Nithish R, an alumnus of FISAT, hosted by the THYRA CS association, was held on 29th Mar 2021 for the final year students of Computer Science batch. The talk had covered the role of a Data Engineer, including why companies need them, how they work and an overview of some of the skills required for this role.
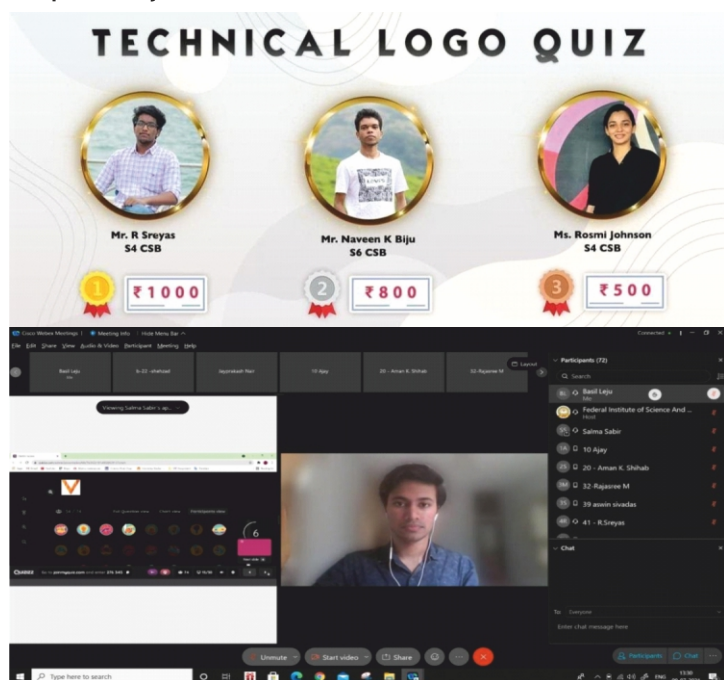

SPEAKER
Nithish R
Alumni, 2008-2012 batch CSE

TECHNICAL LOGO QUIZ

As part of Mantra 2021, an interesting Technical Logo Quiz Competition was conducted on 9th July 2021 in association with Thyra-CS Students Association on the online platform – Quizziz. The event was coordinated by Salma Sabir, Swaliha Abdul Salam, Honey Mariam and hosted by Ahmed Ajwed, who intelligently and pleasantly handled the audience as well as the quiz flow. R Sreyas (S4 CSE B) won the first prize and Naveen K Biju (S6 CSE B) and Rosmi Johnson (S4 CSE B) won the second and third prizes respectively.
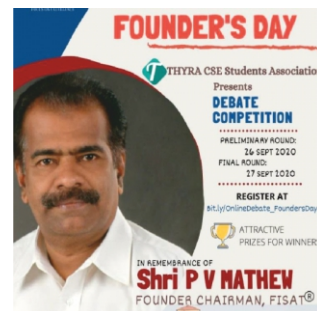

FAST TYPING COMPETITION

As part of the MANTRA 2021, Thyra–CS Students Association decided to host a Typing competition for CS students. The competition was held on 7th Aug 2021 and nearly 100 students participated. The winners of the competition are: – First prize – Abhishek M K (S3 CSE A)(Rs.1000); Second prize – Evans Nevil (S3 CSE A) (Rs.800); Third prize – Anagha Jayaraj (S7 CSE A) (Rs.500).

ONLINE DEBATE COMPETITION

As part of the college Founder's Day celebrations, Thyra-CS Students Association hosted an Online Debate competition for CS students. The preliminary round was held on 26th Sep and the final debate was held on 27th Sep 2021. Finals of Online Debate competition was inaugurated by Dr. Anitha P (Former Chairman, FISAT) and the programme was felicitated by Dr. C Sheela (Vice-Principal, FISAT) and Dr. Sunny Kuriakose (Former Dean - Student Affairs, FISAT). The first prize winner Ms. Sanika Sreenivas (S5 CSE B) was awarded with 2000 INR and second prize winner Mr. Mohamed Shehzad Hanif (S7 CSE B) received 1000 INR.

SMRITHI 2021

Every year a Coding Contest is conducted by the Department of CS in the remembrance of the late Mr. Shagheej A (2017 pass out student). Thyra-CS Students Association as part of Mantra, conducted Shagheej Memorial Technical Coding competition, Smrithi 2021 on 8th July. The first prize of ₹ 2000 was secured by Shemin Anto (S7 CSE B), the second prize of ₹1000, and the third prize of ₹ 500 was secured by Ajay Nair (S5 CSE A) and Emmanuel Jojy (S5 CSE A) respectively.

BEST MAIN PROJECT AWARDS

Position I

Team Members : Nikhil Mathew Thomas, Rizwi Liakath, Sangeeth P M, Vismaya (S8 CSE B)
Title : Student Engagement Recognition in an E-learning Environment
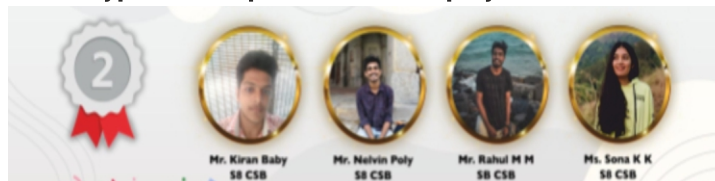

The Covid-19 Pandemic has brought new challenges to every domain. Students are unable to go to schools and colleges. Students and teachers all over the world are facing a lot of issues as there is a lack of communication between the learner and the mentor. Google Meet and Zoom has helped us to attend classes virtually but conducting online classes is not as efficient as offline classes. In platforms like Google meet, the teacher has to swipe back and forth between screens while taking class to check if all students are attentive. Teachers need to have more than a pair of eyes to teach and verify whether each of the students are attentively listening. If a student is not attentive in class, the existing system does not automatically send an alert to the teacher. Therefore, there is no motivation for students to concentrate as there is no one monitoring them.

An alert system and student engagement calculator has been incorporated with the algorithm so as to calculate the engagement levels of each student and send the overview of this to teachers after each class. Our system thereby increases the efficiency of online classes . The engagement in the course consists of three parts which are emotional engagement, behavioural engagement and cognitive engagement.

The proposed system judges students' engagement levels by checking if the student is looking somewhere else or has dozed off in between. It checks if the user is both physically and mentally present in class.

Position II

Team Members : Kiran Baby, Nelvin Poly, Rahul M M, Sona K K (S8 CSE B)
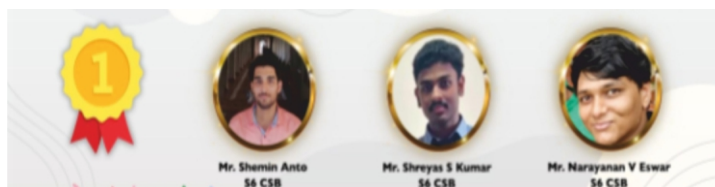**Title : Hyperface Implemented Multiplayer TPS Game**

AI and gaming have exploded in popularity in today's world. Face detection has aided various technological breakthroughs, including mobile, security, and so on. The video game industry is growing at a rapid pace, reaching new heights in terms of popularity and technological breakthroughs. The goal of our project was to collaborate on facial detection in video games. It has already been done on other gaming devices such as PlayStation, but our goal was to bring the same experience to mobile phones, computers, and laptops without the need for additional hardware. It focused on creating a game and incorporating facial detection into it. As soon as the game begins to load, the camera will begin to recognize the player's face. The game was also available in multiplayer mode, so you could play it with your buddies. The project was chosen for the final rounds of the 10th CSI-InApp International Student Project Awards 2021, which had over 600 entries at the initial round.

BEST DESIGN PROJECT AWARDS

Position I

Team Members : Shemin Anto, Shreyas S Kumar, Narayanan V Eswar, (S6 CSE B)
Title : Enhanced Anomaly Detection for IOT Devices

The Internet of Things(IoT) has made life easier and simple by connecting everyday objects to the internet thereby making things smarter. It has gained a huge popularity in recent years. Monitoring, storing, and managing the vast

amount of data generated by these sensors is a challenging task. The data generated may follow a particular pattern, and it is desired to detect deviations from standard patterns often known as anomaly. Unless there exists a system which can facilitate all the requirements mentioned formerly, usage of IoT will be ineffectual.

Things Platform is such a system which assures effective usage of IoT devices in almost every field. It facilitates the collection as well as storage of the sensor data, monitoring and detection of anomalies with the help of a single platform. It's a web application that serves as an IoT platform for monitoring IoT devices and detecting anomalies in the dataset produced by the devices.It is developed using Django, React, and bootstrap. Anomaly detection using an enhanced version of the DBSCAN algorithm with the capability of detecting content or point anomalies in the time series data was developed and deployed along with Things Platform. This project was developed in the Cognitive Computing Research Centre (CCRC) of FISAT.

Position I
Team Members : Paul Elias, Joel Jorly, Nahid M A, Shiv Shankar (S6 CSE B)
Title: Detecting Cyber bullying in social media

"Multi Language based social media cyberbullying detection" finds out the percentage of cyberbullying comments in Malayalam and its English transliteration using machine learning techniques to classify the comments. The model works on comments, and comments have data not useful for classification as it is, and need to be processed. Comments are scrapped using the Selenium web driver. Using SVM algorithms, the comments are classified as cyberbullying or supporting. Datasets (comments) are manually labelled and these labelled datasets are used for training the classifier. By including suitable pre-processing techniques, language barriers are

overcome. The model is trained to detect the custom features from Malayalam and English transliteration of Malayalam language. This project was done under the guidance of Pankaj Kumar G, Assistant Professor, CS with the support of Cognitive Computing Research Centre (CCRC), FISAT.

Position II
Team Members : Jibin George, Bennet Benny, Gautham Krishna.S, Gautham S (S6 CSE A)
Title : Malware Analysis using ML and OSINT

"Malware detection Using Machine Learning and Open Source Intelligence " adopts two novel techniques for the detection of malware: Machine Learning and Open Source Intelligence. Malware authors have the knowledge and expertise to craft malicious applications disguised as legitimate ones. Unwary users' compromise on their security on using such seemingly normal applications. Such types of attacks in which the malicious code is embedded inside legitimate files, are able to evade existing anti-virus solutions.

The proposed method makes use of a hybrid approach for malware detection in which a Convolutional Neural Network model and an Open Source Intelligence tool, Virus Total is used. The MD5 and SHA1 hash values of the file given for analysis are computed. The generated hash values are given as input to the Virus Total API and the response is analysed. Virus Total generates a report containing the analysis of the file using many different anti-virus solutions. If the file is not found to be malicious, it is then converted into a grayscale image and given as input to the pre-trained CNN model to classify as either malware or benign. A fast and accurate result can be obtained using OSINT and the use of a CNN model that is trained on a promising dataset ensures a high detection rate. Thus the proposed method is able to combine two novel techniques for malware detection and deliver an accurate result.

RESEARCH CENTRE, CS DEPARTMENT

The Department Research Centre is affiliated to Kerala Technological University (KTU). The centre will provide required support and guidelines for the research scholars to pursue Ph.D under KTU. Research Scholars are registered for the Degree of Doctor of Philosophy (Ph.D) as per the University norms. The research centre coordinates and monitors the progress of the research activities of the research scholars as well as encourages and coordinates consultancy projects and sponsored projects. Research centre ensures publications in quality journals, indexed in SCI/SCIE/Scopus/Web of Science and also promotes industrial collaborations involving active and mutually beneficial R&D projects.

Two faculty members of the department has been approved as the research supervisors of KTU –

Dr. Arun Kumar M N (Image Processing, Machine Learning Medical Image Analysis) and Dr. Paul P Mathai (Data Mining, Machine Learning). Eight research scholars are currently registered for the Research programme at CS research centre namely:

1. Ms. Hansa J Thatil
   Area of Research: Bioinformatics, Data Mining
2. Ms. Lakshmi Raj
   Area of Research: Medical Image Analysis
3. Ms. Roshna K I
   Area of Research: Image Compression
4. Ms. Raisa Vargheese
   Area of Research: Data Mining, Machine Learning
5. Ms. Sruthy Suresh
   Area of Research: Data Mining, Machine Learning
6. Ms. Preethi N P
   Area of Research: Graph Mining, Machine Learning
7 Ms. Sona Mary Louis
   Area of Research: Data Mining, Machine Learning
8. Ms. Aishwarya Vijayakumar
   Area of Research: Data Mining, Machine Learning

Congratulations!

Dr. Paul P Mathai got guideship and now he is an approved Research Supervisor of KTU in the Department of CS, FISAT. He is currently guiding three research scholars in the CS Department. Congratulations for the achievement !!

Dr. Paul P Mathai

FUNDED PROJECTS

Special compliments to all those students and faculty in CS Department who are sanctioned with funds for projects from various funding agencies in the year 2021.

I. Artificial Intelligence Technique for Gene Expression by Tumor RNA-Seq Data

The project is sanctioned Rs. 10000/- from Kerala State Council for Science, Technology and Environment (KSCSTE)

Principal Investigator : Dr. Prasad J C

Student Investigators : Megha Justin(S8 CSE B) 2), Revathy V V (S8 CSE B), Sona Jose (S8 CSE B), Sona Saju M (S8 CSE B)

One of the most dangerous and dreadful diseases in the world is cancer. In 2018, it was found that over 9.5 million people died due to cancer. Early detection of cancer plays an important role, as it increases the possibilities of betterment. Latest improvement of artificial intelligence techniques in terms of productivity and precision and also optimization algorithms have largely smoothened in the human genomics study. In this project an RNA Seq analysis method is proposed or identification and classification of cancer types, which uses Binary Particle Swarm Optimization using Decision Tree (BPSODT) as feature selection tool and Generative Adversarial Network (GAN) along with different classic augmentation techniques to avoid overfitting by increasing the size of dataset and a deep learning network as the last phase for classification and thus helps in increasing accuracy.

II. Fully Convolutional Networks for Weed Detection in Precision Farming

The project is sanctioned Rs. 8000/- from Kerala State Council for Science, Technology and Environment (KSCSTE)

Principal Investigator : Ms. Merin Cherian

Student Investigators : Anagha MB (S8 CSE A), Darsana KM (S8 CSE A), Fathima Pareed (S8 CSE A), Gladis MS (S8 CSE A)

Weeds can be defined as any plant or vegetation that interferes with farming or forestry purposes, such as planting crops, grazing animals or planting forests. Weeds compete with plants for one or more aspects of plant growth such as mineral nutrients, water, solar energy and environment and inhibit plant performance. Therefore weed control is very important for plant growth. Traditional weed control methods are cultural weed control, mechanical weed control, biological weed control and chemical weed control. Traditional methods of weed control do not work effectively and the use of accurate farming plays a role. The next problem is finding the family of weeds and the right herbicide to spray the weeds. To overcome this difficulty, An android/ios app named Kisan Ki Dhosth (KKD) is designed. This application clearly identifies the weed and identifies the appropriate herbicide. This can be achieved by using the photograph taken by the farmer. The dataset consists of weeds which are widely seen in Kerala, making it more user-friendly for farmers. Since persistent use of herbicide remains active in the environment for a long period of time, potentially causing soil and water contamination, home remedies like salt, vinegar, newspaper and boiled water controls can be used.

III. Investigating the accessibility of University websites in the state of Kerala

The project is sanctioned Rs. 5000/- from APJKTU CERD

Principal Investigator : Dr. Jestin Joy

Student Investigators : Anupriya Dominic (S8 CSE A), Betty Perumayan (S8 CSE A), Haneena Mohamed (S8 CSE A), Dharwish Raj (S8 CSE A)

By making any website accessible, we need to ensure that all of our potential users, including people with disabilities, have a decent user experience and can easily access the information. In this work, the team investigated all the University websites and did automated tests to check the accessibility and friendliness of these websites and came up with a report.

STUDENT ACHIEVEMENTS

1. Nijai Giri (S1 CSE B) has secured third position in the State U-19 Chess Championship -2021 organised by All Kozhikode Chess Association Kerala on 19th Dec 2021.

2. 'Hyperface implemented multilayer TPS game' final year project by Kiran Baby,Nevin Poly, Rahul M M and Sona K K (S8 CSE B) has been selected for the final rounds in 10th CSI app international Student Project award 2021 held between 31st July 2021 and 1st Aug 2021.

3. Naigal Roy and Joyal Raphel (S5 CSE B)secured first prize for the Hackathon conducted as part of Droid 2.0, National Conclave on Robotics hosted by IEEE FISAT SB on 4th and 5th Dec 2021.

4. Hritwik N E (S5 CSE A) has published paper titled '2D to 2.5 D transitions through controlled swelling delamination of hydrogel microstructures' in Science Direct.

5. Anagha Jayaraj (S7 CSE A) has secured third prize for Rec -mo (Just a minute video) in IEEESB- at Jeppiaar Engineering College.

6. Joel Jorly (S7 CSE B) has participated one day national multidisciplinary conference on "Crisis of covid-19 and India: Implications, challenges and Remedies", and presented a paper on the topic "Impact of covid-19 on Employment, Lifestyle and opportunities".

7. Joel Jorly (S7 CSE B) as a Google Cloud Facilitator and enrolled 120 students from FISAT into the #Google CloudReady programme organized by Google.

8. Aparna V (S6 CSE A) received third prize in sculpt enhavo, content writing competition, IEEESB Jeppiar Engineering College held on April 2021.

9. Aman Jose (S3 CSE A) has secured second prize in the inter collegiate quiz competition in mathematics conducted by Dept of mathematics in March 2021.

10. Aman Jose (S3 CSE A) has secured third prize in the inter collegiate quiz competition in mathematics conducted as part of 9th All kerala mathematics tournament organized by the by the dept of mathematics St Berchmans College, Changanassery in Feb 2021.

11. Eby Kurian (S3 CSE A) has secured second position in the online ideathon competition organized by IEEESB, College of Engineering , Kidangoor.

12. Anupama Vidyasagar (S3 CSE A) has secured first position in the She code competition conducted by IEEE SB, in govt Engineering College Idukki.

13. Anupama Vidyasagar (S3 CSE A) has secured third prize in the technical quiz competition conducted by IEEESB, College of Engineering Trivandrum.

14. Eby Kurian and Akshay K (S3 CSE A) have won second prize in inter departmental mathematics quiz competition for P.V. Mathew memorial trophy.

15. Abhishek M K and Arshia Ashok (S3 CSE A) have won third prize in inter departmental mathematics quiz competition for P.V. Mathew memorial trophy.

16. Arsha M Joby (S3 CSE A) has won first prize in the Quiz competition conducted by NSS as part of International Girl Child Day.

17. Dreama Paul (S3 CSE A) has won first prize in the Quiz competition conducted by NSS as part of International Girl Child Day.

18. Anusree Prakash (S3 CSE A) won the second prize in posture design competition conducted by IEEESB.

19. Rosmi Johnson (S5 CSE B) received second prize in SHE CODE organized by IEEE SB GECI.

20. Rosmi Johnson (S5 CSE B) received second prize in Codevita conducted by IEEESB College of Engineering Perumon.

21. Hanna Antony (S3 CSE A) has secured Second position in presentation competition conducted as part of Droid2.0 – a national conclave on Robotics conducted by IEEE RAS Kerala Chapter and RAS SBC of IEEE FISAT SB.

22. Arsha R Joby (S3 CSE A) got third prize and Hanna Antony of (S3 CSE A) got second prize in the quiz programme based on Engineer's Day organized by NSS Cell.

23. Sreelakshmi Vinod (S1 CSE B) & Hritwik N E (S5 CSE A) have passed the Qualifier Exam conducted by IIT Madras for its online B.Sc in Programming and Data Science.

Congratulations!

CS TOPPERS

S1 CSE

AKASH SURESH
(SGPA - 10)

ANUSREE PRAKASH C P
(SGPA - 10)

APARNA S MENON
(SGPA - 10)

DEVINANDA S K
(SGPA - 10)

JOSEPHINE JAMES
(SGPA - 10)

K SHWETHA SUGESH
(SGPA - 10)

NAVNEETH M NAMBIAR
(SGPA - 10)

JOAN DAVID
(SGPA - 10)

S4 CSE

S6 CSE

EMMANUEL JOJY
(SGPA - 9.91)

P L SIJIN
(SGPA - 9.91)

ARUNIMA RAJ B
(SGPA - 10)

CS PRESENCE IN THE STUDENTS' COUNCIL OF FISAT 2021-2022

Anagha S (S7 CSE A)
Magazine Editor

Ahmed Ajwed (S7 CSE A)
University Union Counsellor

Gautham Prasanth (S1 CSE A)
B.Tech Ist year Representative

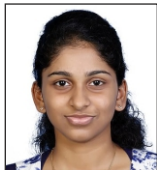# *Great Pride of our department...*

26 brilliant students of our passout batch of 2021 have elevated the glory of our department by procuring the B.Tech Honours Degree from APJ Abdul Kalam University (KTU). With their tremendous effort and perseverance they have amassed this glorious degree and have become the trendsetters by going an extra mile. Hearty Congrats to all of you Dears!!!

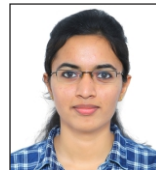| Nikhil Shanmughan | Linda Joy | Sona Grace John | Liya Laiju | Minu Jose | P Sunitha | Vismaya | Maria Sajan | Nimitha Joseph |

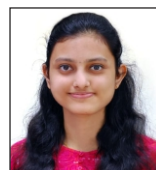| Maria Shaji | Malavika Rajeev | Megha Justin | M P Lavanya | Keerthana K | Pooja Susan Korah | Ranu Paul | Malini R Rao | Sidharth Sreekumar |

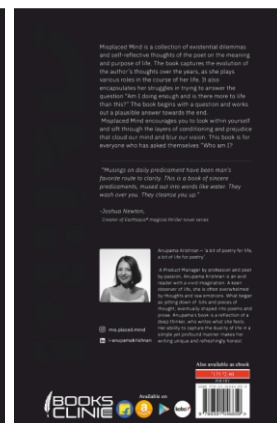| Visrutha Arundhathi | Chandana Sasikumar | Devu R Kurup | Anamika Cherukat | Anagha M B | Bhavyasree Raj | Ananya M S | Anoushka Anand |

congrats! to Ms. Anupama Krishnan!!

Ms. Anupama Krishnan, CSE Alumni, Working as product manager, e-commerce implementations in a start up called Trika Technologies in Bangalore, has been recognized as an eminent poet by her book 'Misplaced Mind'. Misplaced Mind is a collection of poetry with existential dilemmas and self-reflective thoughts of the poet on the meaning and purpose of life. The book captures the evolution of the author's thoughts over the years, as she plays various roles in the course of her life.

Congratulations!

CS Team congratulates **Mr. Sangeet M** (2015-2019) for bagging All India Rank 262 in GATE 2021 Exam. He is currenly pursuing M.Tech in Artificial Intelligence at Indian Institute of Science, Bangalore. *Kudos to him!!!*

Divya Jose T (2014-2018), Software Engineer, Nissan Digital India LLP.

FISAT moulded not only my academic life but also my personal life. The quality of education was excellent, and we never had to rethink the choice we made of joining FISAT, especially the CS department. The teachers were very supportive. CS department succeeded in inculcating curiosity and innovation by giving us the environment to try out the concepts we learn in books. Owe much to this prestigious institution for my communication and time management skills.

Susan T Mathew (2013-2017) Developer, SAP Labs India

FISAT provided me with a great environment for academic and personal growth. The college offers excellent infrastructure, facilities and a terrific library system. The passion and dedication of the teachers are beyond words! I'm thankful to the college and teachers for helping me build a strong foundation which has helped me tremendously in my career.

Jayasankar Santhosh (2010-2014) PhD Researcher in Artificial Intelligence, German Research Centre for Artificial Intelligence, Kaiserslautern, Germany

FISAT was significantly above the quality criteria as an institute under MG University. The exposure it provided was unparalleled and provided me with immense opportunities to mould my future career. As a student of the Computer Science department I was able to develop and improve on many vital skills such as team-work, communication, analytical mind, curiosity and the value of these skills enabled for shaping my future career. Computer science is a fertile ground for critical thinking and the activities and curriculum provided by FISAT and the Department of Computer Science ensured that it was spot on. My college years helped me grow as a person in a variety of ways, and I will always cherish those memories and keep those moments close to my heart.

Mr. Arun P V (2006 - 2010), Technical Lead, TCS, Johannesburg, South Africa

It has been 10 years since I passed out from college. I am a 2010 CSE pass out from the Computer Science Department. Like everyone, I also have nostalgic memories while thinking about the college. Also, I feel very blessed for the opportunities I got during my 4-year tenure in FISAT. After joining the first job, while working as a project co-ordinator, I realized the value of exposure and knowledge got in the department.

The Computer Science department professors are professional and they have supported a lot during my 4-years of study at FISAT. The department supports the students with state of art computer labs and electronic labs. The staff are very knowledgeable people who profoundly guide the students to excel in their academics and career. They are approachable, and offer patience to listen, understand students' problems and resolve it.

Department supports the students not only with the academics but also encourages students in organizing and working for various activities like tech fest, seminars, professional meets etc through clubs and associations like IEEE, CSI & FFSC. This provides opportunities to gain knowledge pertaining to the industry standards and requirements. This has helped me a lot in my professional career.

Best wishes to the Department and FISAT.

COGNITIVE COMPUTING RESEARCH CENTRE (CCRC)

CCRC of Computer Science Department, conducted an add-on course in 'Introduction to Real Time Object Detection'. This course is mainly for the active learners of 2018 admission batch students. Mr. Pankaj Kumar G, Asst. Professor, CS conducted the classes in both online and offline modes. Maheswaran (S7 EEE), Narayanan V Eswar (S7 CSE B), Paul Elias Sojan (S7 CSE B), Shiv Shankar Nath (S7 CSE B) and M Navaneetha (S7 CSE B) have successfully completed the course.

Special Congratulations To CCRC Team !!

Special appreciation to Mr. Pankaj Kumar G, Assistant Professor, CS for his esteemed leadership in mentoring the students and grooming them as sound professionals by guiding them in various projects under CCRC.

1) Maheswaran T Parameswaran(2019-2023 EEE), Pankaj Kumar G, S Krishna Bhat(2017-2021 CSE), Shemin Anto (2018-2022 CSE) Shreyas S Kumar(2018-2022 CSE), Narayanan V Eswar(2018-2022 CSE) received Best Paper award for 'A Hybrid Approach for Detection of Pneumonia from X-Ray Images', at International Conclave on Skills, Engineering & Technology (ICSET) March 2021 organized by ICT Academy Kerala.

2) Paul Elias Sojan (2018-2022 CSE), Joel Jorly(2018-2022 CSE), Nahid M A (2018-2022 CSE), Shiv Shankar Nath (2018-2022 CSE), Pankaj Kumar G won Most Promising Paper award for 'Multilingual Cyberbullying Detection On Social Media Comments' at International Conclave on Skills, Engineering & Technology (ICSET) March 2021 organized by ICT Academy Kerala.

3) S Krishna Bhat, Shemin Anto, Narayanan V Eswar, Shreyas S Kumar, Pankaj Kumar G, 'Interactive Workbook for Effective Virtual Laboratories'. In: Garg L. et al. (eds) Information Systems and Management Science. ISMS 2020. Lecture Notes in Networks and Systems, vol 303. Springer, Cham. https://doi.org/10.1007/978-3-030-86223-7_6, September 2021.

4) Liya Laiju , Saurav N S, Rishad P, Krishna Bhat S, Pankaj Kumar G (2022) SRL Video Recommender for Syllabus Driven E-Learning Platforms. In: Sivasubramanian A, Shastry P N, Hong P C (eds) Futuristic Communication and Network Technologies. Lecture Notes in Electrical Engineering, vol 792. Springer, Singapore. https://doi.org/10.1007/978-981-16-4625-6_31

Heartfelt Condolences

"There are no goodbyes for us.... Wherever you are, you will always be in my heart"
– Gandhi

We express our deepest condolences on the sudden demise of Ms. Brinda Rajesh, pass out student of the year 2021.

CSI EVENTS

Panel discussion on Computer Science & Software Industry

Department of Computer Science in association with the Computer Society of India (CSI) student branch FISAT, hosted a discussion on 'Computer Science and Software Industry' on 6th June 2021. The moderator for the event was Dr Jestin Joy, Asst. Professor, Dept. of CS, FISAT. Due to the COVID-19 pandemic, the talk was conducted in Online mode using the Clubhouse app.

The programme started by assuring about the scope of the industry in the future. They mentioned the significance of learning the topics like Artificial Intelligence, Machine learning, Cybersecurity, Data Science and Algorithm Analysis". Panelists shared their thoughts mainly about placements and MOOC courses. Software engineers from different companies listed out the capabilities they looked for in a freshly graduated engineer and emphasised the quality of continuous learning. They focussed on the need to update themselves with progress in technology for sustaining in the industry.

Webinar on Basics of Elliptic Curve

Computer Society of India (CSI) student branch, FISAT hosted a webinar on 'Basics of Elliptic Curve' on 4th Feb 2021. The resource person for the event was Dr. Anilkumar M N, Professor, Dept. of ECE, FISAT. The webinar focused on various concepts like groups, fields, hard problems in cryptography which enabled the participants to gain a better understanding of the underlying process in the elliptic curve. He also gave an insight into how the elliptic curve can be used in cryptographic applications.

FCS

FISAT Consultancy Services under the guidance of staff in charges Ms. Hansa J Thattil & Ms. Chethna Joy took the initiative to redesign and develop FISAT Library website with team members Mohammed Nihal(S5 CSEB), Jopaul Joy (S5 CSE B) and Amarjith Raj (S5 CSE A). The website was successfully launched on Founder's Day and the team members were honoured.
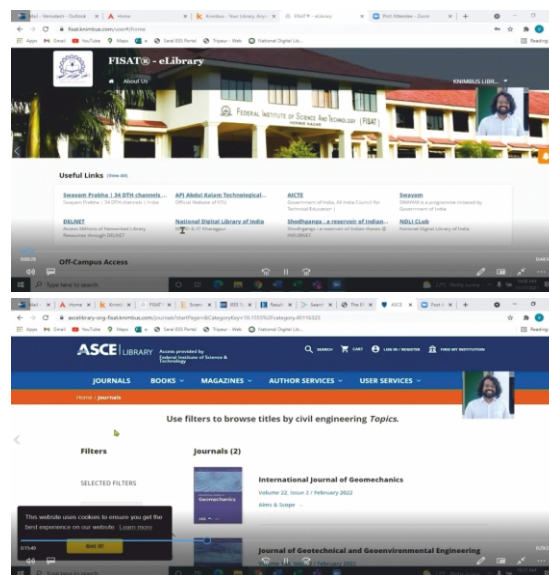
CHRISTMAS 2021

Christmas symbolizes merriment and love and is a festival full of culture and tradition. This year Christmas celebrations were conducted department wise on 23rd Dec 2021. Students decorated their classes with stars and Christmas trees. Staff and students joined to cut Christmas cakes. Christmas carols were also conducted. As part of the celebrations, students of S3 CSE A visited Emmanuel Children's Home, Mookkannoor and students of S3 CSE B visited Government Leprosy hospital, Thirumudikkunnu, Koratty.

NDLI CLUB EVENT

Department of CS in association with NDLI Club organized and successfully conducted a one hour webinar on "Effective Utilization of E-Resources for an Efficient Research and Learning using FISAT Digital Library" by Mr. Venkatesh V, Head of Training and Development, Knimbus Online Pvt, on 27th November, 2021 at 10.00 am. Objectives were to enable all the library users to access all the e-resources at their disposal remotely for better learning and research and also to solve complex research questions and problems and make it easier for the users to pursue an effective and efficient academia, especially during pandemic situations. This event that opened up new horizons of knowledge and research among FISAT staff and students was coordinated by Mr. Sino Varghese, Chief Librarian and Ms. Simi Stephen, Assistant Professor, CS.
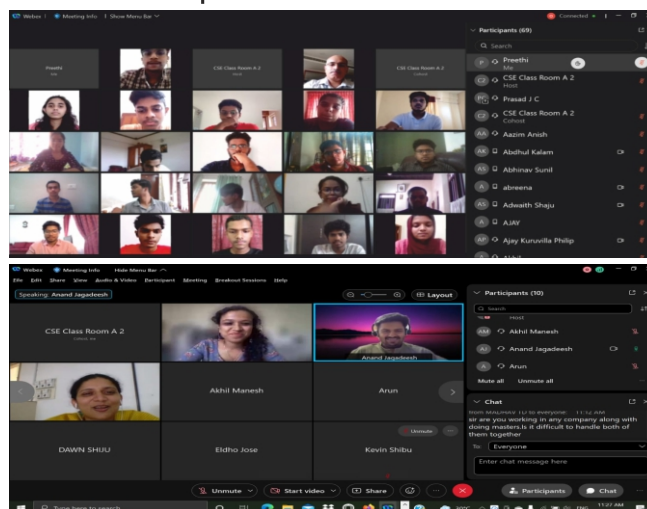

GOOGLE ACE PROGRAMME

CS Department got an opportunity to partner with Google ACE Programme in partnership with ASAP. The three-phase GCP course prepares students for Associate Cloud Engineer Certification. The students got access to courses 1-5 in the Architecting with Google Cloud Platform specialization on Coursera, free of charge. They were also given access to Qwiklabs, a Google training tool, free of charge for extra hands-on practice. The course was intended for final year students.Students get free access to Architecting with Google Compute Engine Specialization with up to 40 hours of content. Students also complete hands-on labs, gaining free access to self-paced labs on Qwiklabs. 44 students were enrolled in the programme. Ms. Anitha T Nair, Asst. Professor of CS is selected as the mentor of the course.

ALUMNI INTERACTION

Alumni interaction by
Mr. Anand J and Mrs. Deepa Menon

Our prominent alumni, Mr. Anand J and Mrs. Deepa Menon interacted with the first-year students of the CS Dept. on 5th Nov 2021. Due to the COVID-19 pandemic, the talk was conducted in Online mode using Webex. Anand, an alumnus (2013-2017) is currently doing Master of Science in Artificial Intelligence at the University of St. Andrews, Scotland, UK and is a freelance software engineer and consultant. Anand worked for the Power Max Replication and Cloud team at Dell Technologies. Mrs. Deepa Menon, an alumnus (2006-2010) is currently working with a management consulting firm 'Zinnov' in Bangalore as Engagement Lead. Prior to this, she was associated with one of the Big 4s 'PwC' working in their technology wing. They motivated the students on learning towards excelling in the domain of their interest.

They enlightened the students with their professional experience in technology and consulting. They were very enthusiastic to answer the queries posted by the students. The students were so happy to hear their cherished memories as a student of the CS Dept in FISAT. The session was worthwhile.
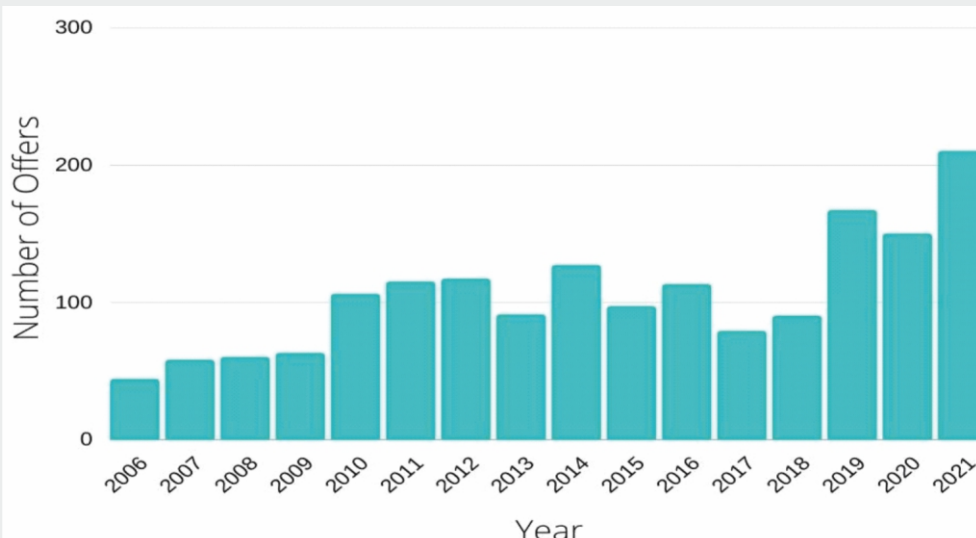
PLACEMENT STATISTICS – CS

Students of CS Department have bagged a record of 280 offers, which is the highest number of offers ever received. Approximately 95% of students who expressed an interest in using placement services were hired by 46 companies.

Mr. Saurav N S (S8 CSE B) is placed in QUANTIFY with highest offer of Rs 10 lakh per annum.

Ms. Chandana Sasikumar (S8 CSE A) has procured the top most number of offers in the academic year 2020-21.

The Training and Placement Cell facilitates the process of placement of students graduating from the institute, besides collaborating with leading organisations in setting up internship programmes for the students. The Cell provides the infrastructural facilities to conduct pre-placement talks, online and written aptitude tests, group discussions and mock interviews, besides catering to the hospitality of industry officials while on campus.

Name	Company
Aakash M Menon	Accenture,Sutherland,TCS,6D Technologies
Abhinav Asok	TCS,Guidehouse
Abhishek P Nair	Sutherland,Wipro,Experion,PriceWaterHouseCoopers
Abishek K Biju	Sutherland,Qburst,Wrench Solutions
Adarsh Ajit	Infosys,BigBinary
Adhil Ali	TCS
Adhyaksh Guhan	INNOVATURE SOFTWARE LABS
Aiwin Benny	TCS,PriceWaterHouseCoopers
Akshay K N A	TCS
Akshay Susanth	TCS,Experion
Alan Loovees	TCS,BigBinary,WhiteRabbit
Albert Francis X	TCS
Anagha M B	TCS
Anamika C	CTS
Ananya M S	Accenture,NeST,Sutherland,Experion,Quest Global
Anet Eliza Johny	Accenture,Sutherland,BYJUS APP,People10
Anjaly J A	Ospyn Technologies
Ankitha M S	Infosys,Sutherland
Anoushka Anand	CTS,TCS,Kalkitech
Anupriya Dominic	CTS
Aqueena Seby	IQVIA
Arjun Vinod	Quest Global
Asif M C A	Infosys,TCS,Dexlock
Aswin S	Accenture,CTS,TCS
Betty Perumayan	Sutherland,Qburst
Bhavyasree Raj	Infosys,TCS
Bijin Babu	SunTec,Speridian
Brinda Rajesh	Infosys,Sutherland,Wipro,Experion
Chandana S M	US Technology,Wipro,TCS,Qburst, Ruby Seven Studios,Mountblue Technologies
Darsana K M	Accenture,Wipro,TCS
Daryl David S	TCS,INNOVATURE SOFTWARE LABS
Deepak Rao F	CTS,TCS,Mindtree,Dexlock
Derek Joseph A	Infosys,Sutherland,Wipro,People10
Devika Ajith	TCS
Devu R Kurup	CTS,TCS,Dexlock,BigBinary
Dheeraj M	Sutherland,IQVIA
Gayathri M G	Infosys,Sutherland,US Technology
Gladis M S	Accenture,TCS- Digital
Godwin Jolly	Accenture,TCS,ZERONE TECHNOLOGIES
Gokul Suresh	Survey Sparrow
Goutham K	TCS,PriceWaterHouseCoopers
Haneena M	Buck
Jose Kurisingal	Accenture
Karthik N	TCS,Manhattan Associates
Keerthana K	Wipro,TCS,Experion,TCS- Digital
Kiran Baby	TCS
Linda Joy	TCS,Quest Global
Liya Laiju	TCS,Experion,WhiteRabbit

Name	Company
Malavika Rajeev	Envestnet
Malini R Rao	Accenture,Infosys,6D Technologies
Maria Sajan	CTS,TCS,Experion
Maria Shaji	Infosys,TCS
Megha Justin	Sutherland,ITC Infotech
Merlin Mariam M	Infosys,TCS,Experion
Minu Jose	Wipro,TCS,Quest Global
Mohamed Ismail	Infosys,NeST,Sutherland
Mohammed H B K	TCS
M Promod L	Accenture,TCS,Experion
Nandana T K	Accenture,FACE
Nelvin Poly	CTS
Nevin Joshy	SOTI
Nikhil Mathew T	Sutherland,People10
Nimitha Joseph	FACE,Envestnet
Nuzair Rasheed	BigBinary
O Prebiton Paul	TCS,SOTI
P A Prithviraj V	IQVIA
Pooja Susan K	Wipro,TCS
Poornima K R	Sutherland,ITC Infotech
P Sunitha	Accenture,TCS,Experion
Rahul M M	Sutherland,InApp
Ranu Paul	CTS,TCS,Experion,PriceWaterHouseCoopers
Revathy V V	Terralogic Software Solutions,ITC Infotech
Rishad	BigBinary,Factweavers
Rizwi Liakath P	Infosys,Experion
R Vysakh	Infosys,People10
Sachit Anand K S	Sutherland
Sajith Geo Paul	Pearldata,Veritas Prime Labs
Sangeeth P M	Sutherland
Saurav N S	CTS,TCS,TCS- Digital,Quantiphi
Sherin Shaju	Infosys,Sutherland
Shinto A S	CTS,Ruby Seven Studios
Siddharth Biju	TCS
Sidharth S	Factweavers
S Krishna Bhat	INNOVATURE SOFTWARE LABS, BigBinary,People10
Sona Grace John	CTS,TCS,Experion,Dexlock
Sona Jose	Wipro,TCS,Quest Global
Sona K K	Infosys
Sona Saju M	Mphasis,Terralogic Software Solutions
Surabhi P S	Experion
Tarun Sabu	TCS
Therus Martin	Sutherland
Thomas Mani	Sutherland,Travancore Analytics
Vaisakh Pradeep	Ruby Seven Studios
Vishnu E S	Buck
Vismaya	Sutherland,Wipro,Mphasis,FACE
Visrutha A R	TCS,Quest Global

INDUSTRIAL VISIT

An Industrial Visit was made to Twin Disc (Aries Technical-Marine Service), Verna, Goa, by S7 CSE students accompanied by the faculty members, in Dec 2021. Aries Technical is located in the Phase II D part of the Industrial estate in Verna, Goa. An engineer-in-charge received them at the entrance and gave a brief introduction to the technical centre and the technology they work with. Then he took them to different sections of the technical centre and explained the process of power transmission which are extensively used in marine equipments and its technology. Computers are heavily relied upon to automate repetitive tasks and monitor different equipment. It was an informative, motivational and a successful visit.
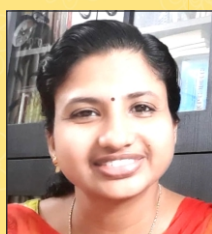

FAREWELL 2017-21 BATCH

On 14th July 2021, a colourful and memorable Virtual Farewell was organized for the batch of pass out students of 2021. This event was held virtually on Webex platform due to Covid pandemic situation. Principal, Vice-Principal, and all the teachers of the department conveyed their best wishes to the outgoing batch of 2021.

CS TEAM

Congratulations!!!

Ms. Simi Stephen, Assistant Professor, CS, have qualified UGC–NET May 2021 examination. *Congrats!!!*

Sending all the good vibes and wishing you the best of luck!

Dr. Jestin Joy, Ms. Jinu Mohan, Mr. Deepak V Pillai departed our department during this academic year. We, the CS family, wish them all the very best for all the new ventures.

Goodbye

Ms. Jinu Mohan

icon ANNUAL NEWSLETTER 2022

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

Graduates of Computer Science and Engineering will
PEO1 - (Successful Careers) : Achieve successful careers in the IT industry with their knowledge, interpersonal skills and adaptability to evolving industry trends.

PEO2 - (Commitment to Society) : Be industry ready professionals with ethics, knowledge and entrepre-neurship to drive social change and lead development in the industry.

PEO3 - (Lifelong Learning) : Possess interest in pursuing higher studies, enriching soft skills, adopting ethical code of conduct and life-long learning.

PROGRAMME SPECIFIC OBJECTIVES (PSOs)

Graduate Programme in Computer Science and Engineering will demonstrate:

PSO1 : The ability to implement, analyze and develop algorithms based on computational theory in the fields of networking, machine learning, data mining, pattern recognition, robotics and other important areas of computer science for productive and effective design of computer-based systems of diverse complexity.

PSO2 : The ability to apply standard engineering practice, strategies and tactics for the development and management of software and hardware projects, using open source programming environments to deliver quality end product.

Editorial Note

Those who know do, Those that understands, teach   -Aristotle

The CS department is releasing its 12th volume ICON. The Department newsletter, ICON is a treasure trove of information about staff and student contributions to the department's growth. The department continues its glory even in this pandemic situations. The department's remarkable contribution in all the ventures put forwarded by the college is admirable. Special congratulations to the staff who are awarded Ph.D and guideship. Special recognition to the research activities by our faculty under our research centre. Even in the midst of adversities, it is worth noting the high placement offers of more than 200 offers for the 2017 – 21 CSE batch. The department is proud of the new courses, B.Tech Computer Science & Design and M.Tech Artificial Intelligence & Data Science.

ICON is a forum for recognizing and applauding our students' achievements in academics, co-curricular activities and extracurricular activities. Let's put together our efforts for the bright future of the Department and the institution!!

Editorial Team

Associate Editor

Ms. Simi Stephen
Assistant Professor

Mr. Vishnu Prasad
Designer

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Ms. Anitha T Nair, Assistant Professor
Ms. Siyamol Chirakkarottu, Assistant Professor

STUDENT EDITORS
Anagha Jayaraj (S7 CSE A)   Nino Joy (S7 CSE B)
Emmanuel Jojy (S5 CSE A)   Mohammed Nihal (S5 CSE B)
Annapoorna P (S3 CSE A)   Navaneeth M Nambiar (S3 CSE B)