Darpan

DEPARTMENT OF
COMPUTER SCIENCE
AND ENGINEERING

ANNUAL
NEWSLETTER

VOL.12

2020-'21

VISION

To acquire global excellence in the field of Computer Science and Engineering, nurturing in professionals, technical competence, innovative skills, professional ethics and social commitment.

Toc H INSTITUTE OF SCIENCE & TECHNOLOGY

Arakkunnam, Ernakulam, Kerala ☎ 0484 2748388 ✉ mail@tistcochin.edu.in 🌐 tistcochin.edu.in

DEPARTMENT MISSION

- To equip students with a strong foundation in the area of Computer Science and Engineering using effective teaching -learning practices.
- To provide state-of-the-art infrastructure to suit academic, industry and research needs at the global level.
- To engage students and faculty in interdisciplinary research that promotes innovative ideas for sustainable development.
- To incorporate skill enhancement programmes for students and faculty to cope with the contemporary developments in technology.
- To inculcate effective communication skills, professional ethics and social commitment among professionals through value added programs.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

Graduates of Computer Science & Engineering will
1. Evolve as globally competent computer professionals, researchers and entrepreneurs possessing collaborative and leadership skills, for developing innovative solutions in multidisciplinary domains.
2. Excel as socially committed computer engineers having mutual respect, effective communication skills, high ethical values and empathy for the needs of society.
3. Involve in lifelong learning to foster the sustainable development in the emerging areas of technology.

PROGRAM SPECIFIC OUTCOMES (PSO)

Students of the Computer Science and Engineering program will:
1. **PSO1**: **Professional Skills:** Attain the ability to design and develop hardware and software based systems, evaluate and recognize potential risks and provide creative solutions.

2. **PSO2**: **Successful Career and Entrepreneurship:** Gain knowledge in diverse areas of Computer Science and experience an environment conducive in cultivating skills for successful career, entrepreneurship and higher studies.

PROGRAM OUTCOMES (PO)

Engineering Graduates will be able to:
1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

DEPARTMENT PROFILE

The Department of Computer Science and Engineering, since its inception in **2002**, imparts quality education in the field of **Computer Science and Engineering**. Since 2009, the Department started offering PG program, M.Tech in Data Security. In 2020, an additional intake of 30 seats in B.Tech got sanctioned, thereby making the total seats as 90. For equipping students with the must have *Industry 4.0 skillset for the 21st century*, the Department introduced a new PG course **- M.Tech in Data Science** in 2020, which is one of the most sought after courses globally. This program would enable learners to be adept in a wide array of skills such as mathematical modeling, data preparation, ML, AI and data analytics.

Students/ Staff Strength:

No of Students:	B.Tech - 313	M.Tech - 20	Total - **333**
No. of Faculty:	**19**	Technical Staff:	**6**

GLORIOUS ACHIEVEMENTS

PROJECT 'BLOCULUS' BAGS BRONZE PRIZE IN 'STATE INNOVATION AWARDS' - KSCSTE TECH FEST 2021

The Blockchain based project titled 'BLOCULUS' developed by the students of the Department of Computer Science and Engineering won **Bronze Prize in the 'State Innovation Awards'**, a State Level Contest for Innovative Engineering Projects organized as part of the annual TECHFEST 2021 by *KSCSTE (Kerala State Council for Science, Technology and Environment).*

The project is an Incident Detection and Post Incident Analysis Framework that can be utilized in vehicle accident scenario, using Blockchain and Machine Learning, developed by Rithin Varghese, Vyshnav Sasidharan, I P Raghesh Kumar and Nandu Nagesh, under the guidance of Asst. Prof. Abin Oommen Philip. The team received the award, which comprises of Rs. 10,000/- as cash prize and certificates, from the Hon. Minister for Higher Education Dr. R Bindhu during the Award Ceremony held at Thiruvananthapuram on 7th December 2021.

KSCSTE FUNDED STUDENT PROJECTS 2021 (CSE 2017-'21 BATCH)

Two project proposals, **'Green Dream'** and **'Bloculus'**, from CSE 2017-'21 batch got recommended for funding (Engineering Stream) from the *Kerala State Council for Science, Technology and Environment (KSCSTE)* under Student Project Scheme 2021. The scheme provides financial assistance to students to carry out science and technology projects.

Detecting Accidents at Vehicular Edge using Machine Learning followed by Evidence Management using Blockchain

RITHIN VARGHESE   VYSHNAV SASIDHARAN   NANDU NAGESH   RAGHESH KUMAR   ASST.PROF. ABIN PHILIP

Green Dream: A Deep Learning based Real-Time Model for Automatic Waste Segregation from Video Streams

PRINCE PUTHUSSERY   NIKHITA MARIAM CHERIAN   GOKUL KIRAN   ASST. PROF. SREEJA M U

FINALISTS - CSI INAPP INTERNATIONAL STUDENT PROJECT AWARDS 2021 & NATIONAL LEVEL ENGINEERING STUDENT'S 'INDIA INTERNATIONAL SCIENCE FESTIVAL'

Final Year Project titled, **'BLOCULUS - Incident Detection and Post Incident Analysis Framework using Blockchain and Machine Learning'** got selected to the finals of the 10th edition of **CSI InApp International Student Project Awards 2021**. The team got selected from the 600+ Projects submitted with over 2000 participants from all over the world, and won cash prizes and certificates. This project has also got selected to the final round of the National Level Engineering Student's **'India International Science Festival 2021'**.

B.TECH COMPUTER SCIENCE AND ENGINEERING - HONOURS DEGREE
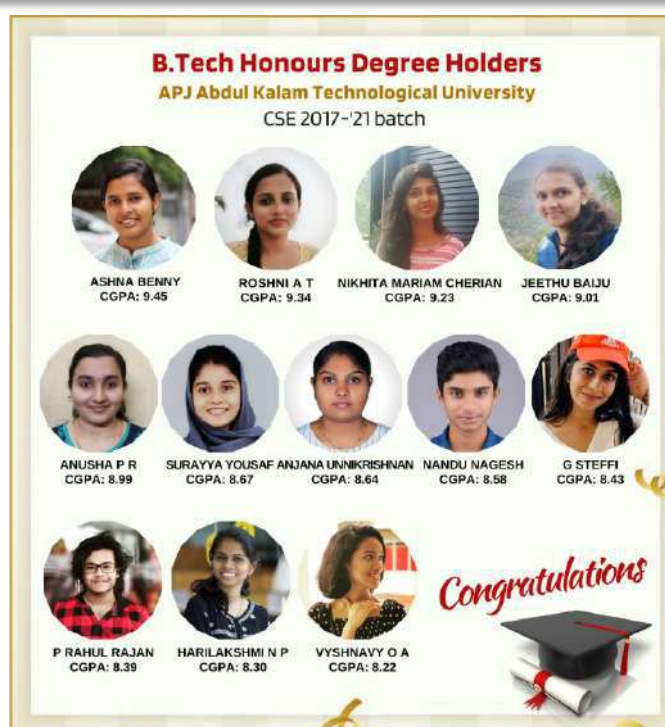
12 students from the Department of Computer Science and Engineering, out of their hard work and efforts, secured B.Tech CSE with Honours degree. B. Tech (Hons.) program incorporates advanced subjects in the engineering specialization, research, interdisciplinary studies, etc. and is only offered by colleges having NBA accredited UG programs.

ACADEMICS & PLACEMENTS

UNIVERSITY RESULTS

B.TECH CSE – TOPPERS
2017-'21 batch

CGPA: 9.45
ASHNA BENNY

ROSHNI A T
CGPA: 9.34

NIKHITA MARIAM CHERIAN
CGPA: 9.23

JEETHU BAIJU
CGPA: 9.01

ANUSHA P R
CGPA: 8.99

M.TECH CS (Data Security) – TOPPERS
2019-'21 Batch

1st	2nd
Nimina George	**Sahana M Sherief**
CGPA – **9.15**	CGPA – **9.07**

B.TECH : (2017-'21 batch): **75% pass** in the B. Tech Degree Examination, June 2021.

M.TECH : (2019-'21 batch) - **100% pass** in the M. Tech Degree Examination, June 2021.

Semester-wise Results:

Year of Adm.	Semester	No. of Students Appeared	No. of Students Passed	Pass Percentage
2017	S8	55	54	**98 %**
	S7	55	43	**78 %**
2018	S6	57	41	**72 %**
	S5	57	53	**93 %**
2019	S3	54*	48	**89 %**
	S2	62	60	**97 %**
2020	S1	92	75	**82 %**

* 9 students couldn't attend due to Covid

PLACEMENTS

» **92.6%** (50/54) of the eligible students of B.Tech 2017-'21 batch got placed in various reputed companies like Infosys, TCS, CTS, H&R Block, IBS Software, UST Global, Amazon, Wipro, Byju's, Buck, UVJ Technologies, Quest, Speridian, Travancore Analytics etc. The students secured multiple offers, with a total count of 90 offers.

» **75.4%** of students in current B.Tech 2018-'22 batch got placed in various reputed companies, with **94 offers** so far.

MOUs & INDUSTRY CONNECTS

The department holds MoUs with IT organizations and other institutes for imparting industry standard seminars, hands-on trainings & industrial visits.

1. Techno Lodge, Kakkoor, Piravom (The first rural IT park in Kerala) *renewed in 2021*
2. ICT Academy of Kerala (ICTAK)
3. RedHat India
4. Oracle Academy *renewed in 2021*
5. VSB Technical Univ, Ostrava, Czech Republic
6. Additional Skill Acquisition Program (ASAP), Govt. of Kerala *(approved ASDC – Skill Development Centre)*
7. ICFOSS (International Centre for Free and Open Source Software)
8. KBA (Kerala Blockchain Academy)
9. Google Cloud Career Readiness Program
10. Federal Academy for Cyber Education (FACE) *new*
11. GitHub Campus *new*
12. UREKA Education, UK *new*

MOU with Federal Academy for Cyber Education (FACE)

Department of Computer Science and Engineering signed an MoU with Federal Academy for Cyber Education (FACE), a CDAC accredited organization, on 9th August 2021. Students will be benefitted to attend special training programs and workshops conducted at the TIST campus by FACE and CDAC resource persons.

Diploma in Cyber Security and Forensics (Certified by CDAC)
B.Tech Computer Science and Engineering (2017-'21 Batch)
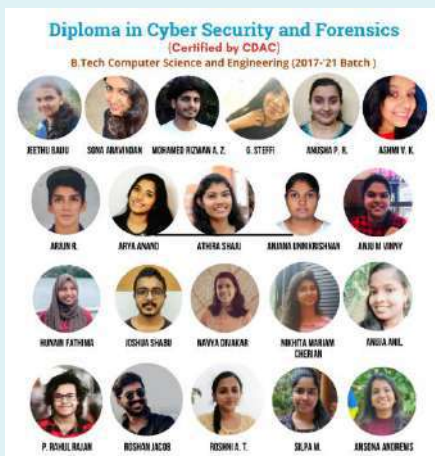
21 students successfully completed the 3-month **Diploma course in Cyber Security and Forensics offered by CDAC** through its certified training partner FACE.

FACULTY ACHIEVEMENTS

Ph.D from CUSAT

Dr. Jesna Anver
Associate Professor

Topic: *"Classification based Single Image Super Resolution using Kernel Adaptive Filters"*

AWS Certification

Ms. Leda Kamal
Assistant Professor

AWS Cloud Practitioner Certification

ASAP – ADDITIONAL SKILL DEVELOPMENT CENTRE (ASDC) & COURSES

Toc H is listed as an ASDC of ASAP (Additional Skill Acquisition Programme), an MHRD and Govt. of Kerala Initiative to offer futuristic certification courses in AI and ML and other new generation courses by Google, Amazon, IBM etc. for addressing the skill gap of engineering students. ASAP Consultancy for training has generated an **income of Rs. 2,22,500** so far.

34 CS/IT students in being Cloud certified through ASAP Google Cloud ACE Program.

23 students certified in ASAP Artificial Intelligence and Machine Learning course spanning 3 terms and 600 hours.

5 students completed IBM Advanced Certification courses in Artificial Intelligence & Machine Learning and Business Analytics.

6 students completed the UI Path Robotic Process Automation Certification course conducted in association with ASAP.

ICTAK VIRTUAL INTERNSHIP – ML & AI

Adarsh Anil Kumar | Arathi P Kumar | Reshma Ramesh | Sooraj P S | Richard Antonio Ablett

ushar Kiran S D | Ayda Sara Shaji | Krishna R | Anjana Anil | P Jathin Johny

Ten students from CSE successfully completed the 10 days **Virtual Internship on Machine learning and Artificial Intelligence** conducted by the Information and Communication Technology Academy of Kerala (ICTAK) in the month of May 2021. The students received good exposure to prospective applications of machine learning in practice and are capable of devising machine learning features to real-world challenges. The internship provided hands-on experience on creating end-to-end applications that use machine learning in practice.

PARTICIPATION IN 'FUTURE PIRAVOM' PROGRAM WITH MLA

The students from CSE, Abhinav P Sathyan, Roshan Mathews, Alan Job, Anju M Vinny, Arya R, Vyshnav P Sasidharan, along with Asst. Prof. Anuraj C K actively participated in the **Future Piravom program**, a platform offered by Piravom Municipality for sharing novel and creative ideas for the overall development of Piravom, on 19th February 2021. The students got an opportunity to propose creative project ideas for the overall development of Piravom with **Adv. Anoop Jacob, MLA, Piravom Constituency**. The proposals included socially relevant and creative ideas for promoting entrepreneurship, tourism, business, and improving public health and basic amenities like drinking water and waste disposal mechanisms. The proposals received wide appreciation and encouragement from the Future Piravom team.

SOCIALLY RELEVANT STUDENT PROJECTS

AUTOMATIC HAND SANITIZER WITH TEMPERATURE SENSOR

Roshan Mathews and **Abhinav P Sathyan** of B.Tech 2019-'23 batch under the guidance of **Asst Prof. Anuraj C K** developed an 'Automatic Hand Sanitizer with a Digital Thermometer' at low cost. This product helps to avoid the human effort for temperature checking at the entry point of organizations while monitoring the temperature while automatically dispensing hand sanitizer. If the temperature is above the particular level, it will automatically generate an alarm, the temperature will be displayed in the LED display also. This work was proposed as a Covid cell product of CSE Dept. for Toc H group of Institutions. The devices are installed at TIST campus and at Toc H Public School, Vyttila.
Funding: IEDC & Toc H Management

C-SCAN KERALA - MOBILE APPLICATION

Emmanuel P Saji, Lakshmi Sathyakumar and G Ananthakrishnan of B.Tech 2019-'23 batch developed and released a covid-19 android application, "C-Scan Kerala" in Google Playstore. This app provides information regarding total, recovered, deceased and active Covid cases in Kerala. It provides daily data and total data for all 14 districts.
Google Play Store link: https://play.google.com/store/apps/details?id=com.silvanusapps.cscankerala

JALASAMRUDHI PROJECT

Jalasamrudhi is a joint project by the Dept. of CSE & IT with Mulanthuruthy Panchayat which aims to identify and locate water resources (both functioning and unused) in Mulanthuruthy. Locations of such sources will be Geotagged by conducting onsite surveys through a mobile application and creating a location map of water resources for better tracking. This project will help the panchayath to take action to protect and make use of unused water resources for avoiding scarcity of water at different locations and agriculture-related activities.
Funding agency: Mulanthuruthy Panchayat, Amount: Rs. 70,000/

NATTUPEDIKA APP

As, part of Covid Cell activities, B,.Tech 2017-'21 batch students, I P Raghesh Kumar, Vyshnav Sasidharan, Arya Anand, Vyshnavy O A, Anjana Unnikrishnan, Asish Thomas, Allen John, Anusha P R, under the guidance of Asst. Prof. Eldhose P Sim, have developed a mobile application '*Nattupeedika*', which aids the online shopping in Mulamthuruthy Panchayath. This is a mobile App to aid online shopping during the lockdown with the features: enlist the shops, timings and details of available goods using which the customers can place orders, check medicine availability and place order by uploading the prescriptions., details of nearest health centres and contact details of officials.

LAURELS - STUDENTS

ICTAK FSD SCHOLARSHIP

Arya Anand of the 2017-'21 batch was selected by ICT Academy Kerala (ICTAK) for a 100% Scholarship in Full Stack development course.

Nigin N Manayil (2019-'23 batch) secured first prize in CODIGO Coding competition conducted by IEEE Student Branch TIST in association with IEEE Robotics and Automation Society on 24th April 2021.

Shilpa Hari of the 2020-'24 batch won the first prize in Axioo, a blogging competition conducted by IEEE WIE AGs of CEA, NSSCE, TIST and Saint Gits College of Engineering as part of WIEvacity Week 2021.

Shilpa Hari of the 2020-'24 batch emerged as winner in the Article Writing Competition conducted as part of the Science week celebration by IEEE TIST SB in February 2021.

Hanan Eapern Moncy and **Nanditha Susan Cherian** (2019-'23 batch) emerged as winners in the Idea Pitching Competition 'Antogatva' conducted as part of Vidyut Tech Fest by EEE, TIST.

Nandana Jayan of 2020-'24 batch, secured third prize in the QFIESTA technical quiz competition conducted by IEEE Student Branch TIST in association with IEEE Power and Energy Society on 26th April 2021.

Winners - Battle of Mind, the technical speaking competition conducted by IEEE TIST SB.
Best Speaker award bagged by Thushar Kiran of 2018-'22 batch.
Best team award bagged by Abdu of of 2021-'25 batch.

Gopi Shankar S of 2020-'24 batch, secured second prize in the **Quizophile** competition conducted by IEEE Student Branch TIST in association with IEEE Robotics and Automation Society on 25th April 2021.

Nimiya Angel of the 2019-'23 won second prize in the QUOTE ME contest conducted by the IEEE Student Branch, TIST in association with IEEE Women in Engineering in the month of June 2021.

Shilpa Hari and Praisy Maria Joseph of the 2020-'24 batch won first and second prizes respectively in the PODCAST painting competition conducted as part of the tech fest 'Dyuthitharangam' organized by Department of Electronics, TIST in June 2021.

ANNUAL REPORT 2020-'21

CSAT & CSI STUDENT BRANCH ACTIVITIES:

INAUGURATION OF CSAT & CSI ACTIVITIES 2019-'20:

The inauguration of activities of **CSI Student Branch** and **CSAT** – Computer Science and Engineering Student's Association for the academic year 2020-'21 was held online through google meet on 16th September 2020 by **Mr. Jyothis K S, Co-Founder, ZappyHire, Kochi**. The function was presided over by Dr. Alex Mathew, President, Toc H Public School Society. Ms. Arya Anand, Secretary, CSAT delivered the welcome speech. The report of CSI & CSAT activities for the academic year 2019-'20 was presented by Dr. Sreela Sreedhar, HOD, CSE. Prof. Dr. Preethi Thekkath, Principal, TIST felicitated the gathering. The function was attended by the HODs of various departments of TIST, and all the staff and students of CSE Department. Ms. Vyshnavy O A, Secretary, CSI SB, proposed the vote of thanks.

DARPAN 2020, THE ANNUAL NEWSLETTER RELEASE:

Annual Newsletter **'Darpan 2020'** was released during the event by **Dr. K Varghese**, Founder Director & Manager, Toc H Public School Society.
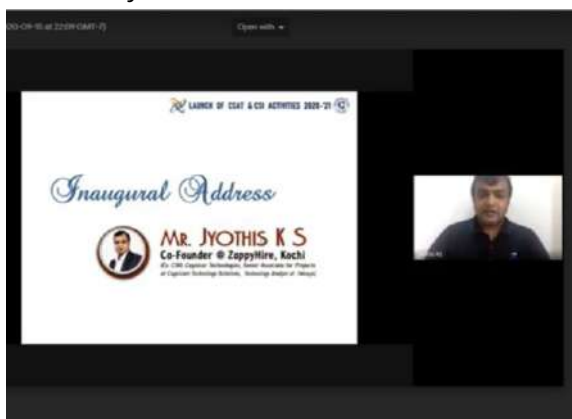
NATIONAL LEVEL TECHNICAL FEST - TECH FOSS 2021 (14th – 23rd May 2021)

The Department of CSE, in association with the Computer Society of India (**CSI**), & International Centre for Free and Open Source Software (**ICFOSS**) organized a National Level Intercollegiate Technical Fest **'TECH FOSS 2021'** in virtual mode. This is the eighth event in the TechFOSS series, planned in online mode considering the Covid-19 situations. The mission of the event was to highlight the virtues of free software and to promote contributions to the open source arena. Above all, it was also intended to let the students connect together and to unfold new tech-driven learnings, amidst the drawbacks of the global pandemic. Tech FOSS 2021 started with the logo launch on 3rd May 2021 through social media pages.

Major Events:

- Session on Open Source and Community building
- 3 days Workshop on Web Development and GIT
- Hack the Hackathon - 'Women in Technology Hackathon' – 40 hours 40 teams
- 3 Technical Competitions – Coding, Tech Quiz & Idea pitching
- 3 Non-technical competitions – Debate, Blogging, Photography
- 'Build Your own App' hands on knowledge session for school students
- 2 competitions for school students - Science Quiz & Idea presentation

TECH FOSS EVENT DETAILS

1. SESSION ON 'OPEN SOURCE AND COMMUNITY BUILDING

An introduction session on 'Open Source and Community Building' which aligns with the theme of TechFOSS was conducted on 17th May 202, 4 pm - 5.30 pm via google meet by **Mr. Siddharth Prajosh**, **Software Engineer, Stayqrious, whi is also the pioneer and community manager, Kochi Python**. The session introduced the term open source, and explored the importance and various possibilities of open source. There were **231 participants**, including 67 from Toc H and 163 students from other 21 colleges including national level institutes.
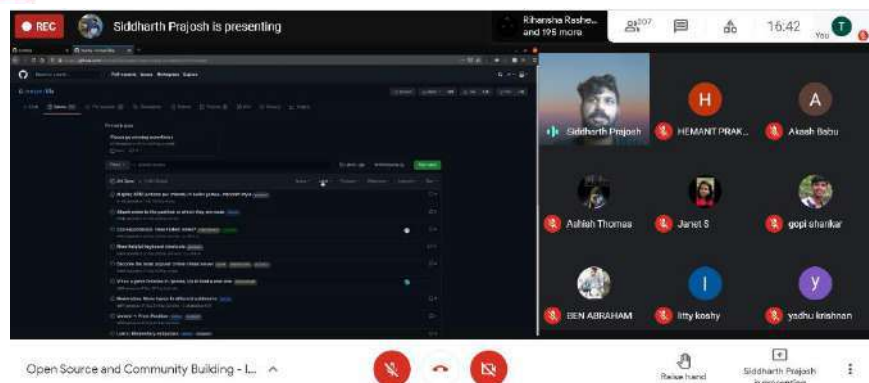
2. THREE DAYS WORKSHOP ON WEB DEVELOPMENT & GIT

Hands-on workshop on 'Web Development and GIT' which spanned 3 days, 14th – 16th May 2021, 2.5 hours per day via google meet was handled by **Mr. Kevin Jacob, a Fullstack React Web Developer.** All the participants were trained hands on using Visual Studio Code to create their own web documents. The session also gave an outline on PHP, which is a server side scripting and the most popular frameworks like bootstrap, libraries, CMS and platforms. The session also dealt with the most popular VCS (version control system) called Git, along with GitHub, a site that provides hosting for your repositories and several tools for working with them. More than 200 participants attended the workshop, including 70 from Toc H and 131 from 53 other colleges at national and state level.

TECHNICAL CONTESTS:

3. UNRAVEL: CODE_DEBUG_DECIPHER

The code debugging competition was conducted on 18th May 2021, in online mode, using the *HackerRank* platform. Participants could use basic languages like C, Python & C++. 40 teams from 23 different colleges participated in the event.

Prince Puthussery (S8 CSE, TIST) bagged the first prize. Nigin N Manayil & Joel Jose (S4 CSE, TIST) secured the second prize and Murugan K (Adhi College, Chennai) bagged the third prize. Cash prize and certificates were awarded to the winners.

4. TECHWIZ – TECHNICAL QUIZ

The technical quiz competition was hosted in online mode using *Quizziz* platform on 19th May 2021. 50 participants from different colleges participated. A preliminary round was held in the beginning and 20 selected participants competed in the finals. Diya Mereen Thomas (Amal Jyothi College of Engineering) secured first prize and Janaki S Nair (S4 CSE, TIST) secured second. Cash prize and certificates were awarded to the winners.

5. IDEAQ – IDEA PITCHING

Idea Pitching contest was conducted via google meet platform on 17th May 2021. The event was based on the theme *'Disaster Management'*. **Prof. Sebin Sunny P** (Regional MoC, Atal Innovation Mission & Nodal Officer, IEDC, Sreepathy Institute of Management and Technology, Palakkad was the main judge for the event. The evaluation was based on the novelty of the idea, technology / service / innovation, revenue or business model and presentation. 14 teams from different colleges participated in the event. Gokul Rejithkumar, Godson Thomas, Adarsh V S & Derin T Jose (Federal Institute of Science and Technology) secured first prize. Arjun Rajeev, Mubeena Kabeer, K P Manjulika & Abishek K B (Toc H) secured second prize.
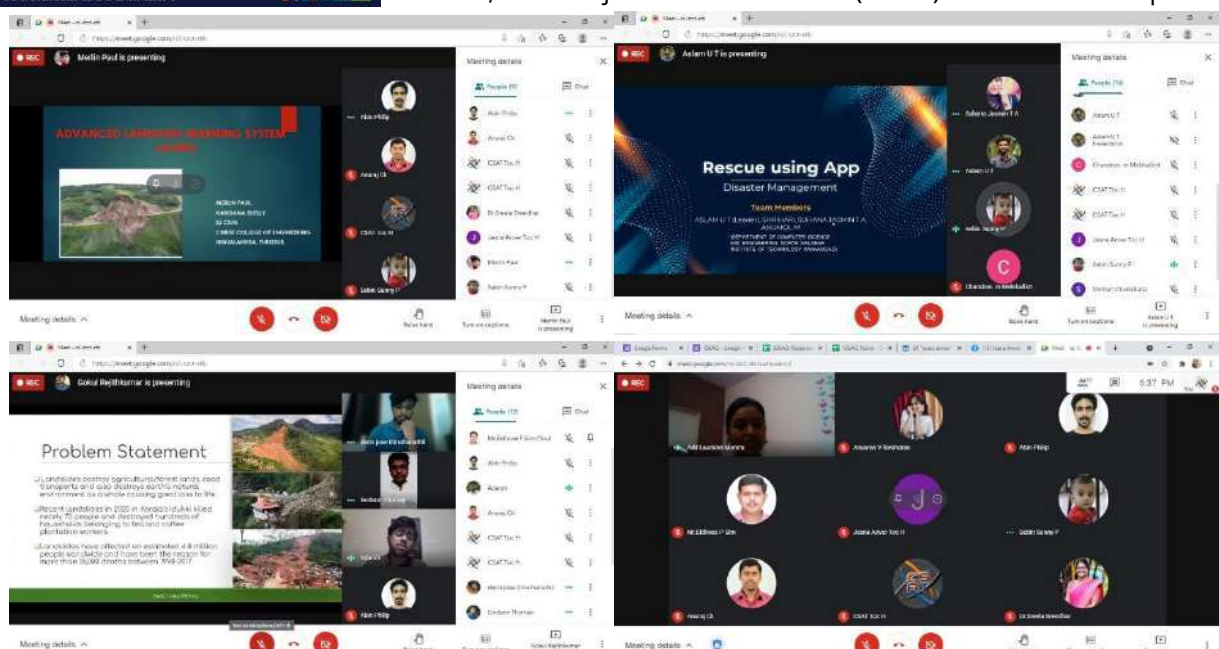
NON TECHNICAL CONTESTS:
6. SPEAK TO LEAD (DEBATE)

The debate competition was held on 20th May 2021 in online mode. The event was conducted in 2 rounds. In first round, participants were given chance to express their views, for the motion followed by against the motion. In round two participants could express their points and views. The judges' evaluation was based on the way of presentation, language, validity of supporting or opposing points, and the active participation in both rounds. Betcy Elizabeth Bervin (EEE, TIST) secured the first and Shilpa Hari (CSE, TIST) secured second.

7. MIND TALES (BLOG WRITING)

Mind Tales, the blogging competition was held on 20th May 2021. The participants penned down the thoughts and made it a story based on the theme 'Diary entry of a public worker during the pandemic'. Neha Maria Antony (The National University of Advanced Legal Studies) secured first, Anjali Krishnan (Delhi University) secured second and Krishna R (CSE, TIST) secured third prize.

8. INSIGHT (PHOTOGRAPHY)

Insight, the photography contest was based on the theme 'Creative Photography'. Contestants could send in entries with appropriate captions. The photographs satisfying the guidelines were reposted in the *@techfoss2021* Instagram page. The photographs were evaluated by the experts based on the theme as well as 25% weightage on 'likes'. Abhay Renjan (College of Engineering, Cherthala) secured first and Jacob J Kurian (Chinmaya College of Arts and Science, Thrippunithura) secured second. Yadhukrishna K B (TIST) received special mention for the theme and caption spreading positivity.

EVENTS FOR SCHOOL STUDENTS

9. HANDS ON SESSION – BASICS TO BUILD YOUR OWN APP

Tech FOSS '21 hosted a hands-on session exclusively for school students – 'Basics to Build Your Own App', which outlined step by step guidelines on Android App Development for complete beginners to make useful apps. The session was handled by **Mr. Yadev Jayachandran (Associate Software Engineer, H&R Block)**. The session served beneficial for school students who had a passion for App Development, but puzzled how to start with. The school students can rightly utilize this online learning period to learn new technologies and create news applications useful for the society. The session was conducted in google meet on 22nd May 2021 and about 65 school students from more than 35 schools across Kerala and abroad attended the session. The participants were awarded with certificates.

10. SCIENTIA - SCIENCE QUIZ COMPETITION

As par of Tech FOSS, a science quiz competition for school students was conducted on 21st May 2021. The event was hostel in *Quizziz* platform and was held online, it was a new experience for school students. There were 51 participants from 28 different schools. A preliminary round was held in the beginning and 20 selected participants competed in the finals.

The winners were awarded with cash prize and certificates.

1st - Thaniya M Thabu (8th Std), Jyothi Nivas Public School, Aluva

2nd - Anand Shaji (12th Std), Viswadeepthi CMI Public school, Adimali

3rd - Koshy Prasanth (11th Std), The High Range School, Mattuppetty, Munnar

11. IDEAQ – IDEA PRESENTATION COMPETITION

An idea presentation competition for school students was organized on 21st May 2021 as part of Tech FOSS. The theme of the event was 'Fight the Covid-19 Pandemic'. The participants exhibited extreme enthusiasm and good presentation skills. The winners of the event are:

1st prize - Gowri Prarthana A (7th Std), KV I, Naval Base, Kochi

2nd prize - Harishankar Suresh and Noel Mathew Anil (10th Std), Marygiri CMI public school

Gautham Binoy (9th Std) from G.H.S.S Kallil, Methala

Asst. Prof. Sreeja M U, Asst. Prof. Rinu Rose George and Asst. Prof. Eldhose P Sim were the evaluators.

HACK THE HACKATHON

Aspire . Build . Innovate – 40 teams, 40 hours

'HACK THE HACKATHON' was a **40 Hour National Level 'Women in Tech'** program organized by the Department of CSE, in association with the CSI and ICFOSS CELL, as part of 'TECHFOSS '21' Technical Fest. The theme of the Hackathon was **'Tech to Tackle COVID-19'**. The program was conducted from 20th to 22nd May 2021, and had dual objectives; the primary goal was to develop technical solutions to tackle the effects of Covid-19 pandemic. An aligned objective was to support bridging the gender gap in technology & programming, by providing mentorship and guidance for the **182 women participants grouped into 40 teams**.

DAY 1: Introduction and kick starting with the idea

The hackathon was hosted in virtual mode with a series of events starting with a session on '**How to crack a Hackathon from scratch?'**. The session was handled by **Ms. Anusree S, Director, Pehia Foundation** *(AI Engineer Innovation Incubator Advisory, Google APAC Women tech makers Scholar, Google GHCI Scholar)* at 7.00 pm. This session provided an overview on what a hackathon is and also gave insights on how to tackle a problem in the given short span. She also gave some inputs of online collaboration platforms which may help to code together in virtual mode.

DAY 2: Reviewing and mentoring

The second support session was handled by **Mr. Anish S Nair, Co-Founder & CEO, Logix Space Technologies,** on 21st May 2021, which gave more insights on the different hardware and software tools and technologies to develop solutions to the problems identified. He explained the topics - Problem Statement / Idea Generation, Idea to Prototype / Product Conversion, Problem Statement / Theme, Introduction to Tools and Technologies for idea realization to participants with examples.
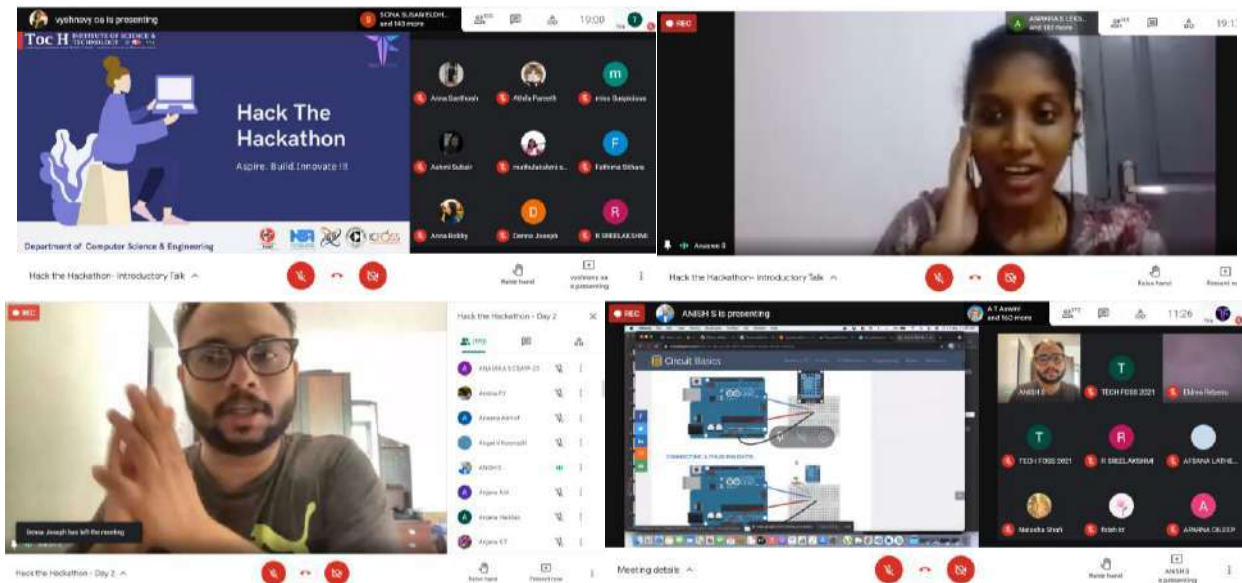
This was followed with the mentoring sessions on the same day between 04.00 pm to 07.00 pm, which was handled by 8 expert mentors from ICFOSS, IT firms in India and abroad. Individual teams were given time to discuss their ideas and solutions with the mentors which aided further brainstorming and fine tuning of the projects.

Mentors:
1. Asst. Prof. Rameshchand, IEDC Nodal Officer, College of Engineering, Munnar.
2. Ms. Dhanya Venugopal, HR Manager, Amistad ONGPC LLC, Dubai.
3. Mr. Anish S Nair, Co-Founder & CEO, Logix Space Technologies Pvt. Ltd.
4. Mr. Shafeek P M, Technical Coordinator, ICFOSS.
5. Mr. Sudheesh V S, Research Assistant, ICFOSS.
6. Mr. Navaneeth K, Research Fellow, ICFOSS.
7. Mr. Abhay P.A, DevOps Associate, Upekkha.
8. Mr. Jishnu N V, PAT-SAP CPI Developer Cognizant.

DAY 3: Final Pitching

On the third day, the teams were asked to submit the presentations and the top 10 teams were shortlisted to finals. The final round of Hackathon was held via google meet at 10.00 am, where the top 10 teams presented their solutions, which addressed the problems we face in various fields related to Covid. Ms. Anusree S and Mr. Anish S Nair evaluated the final solutions and the winners were declared.
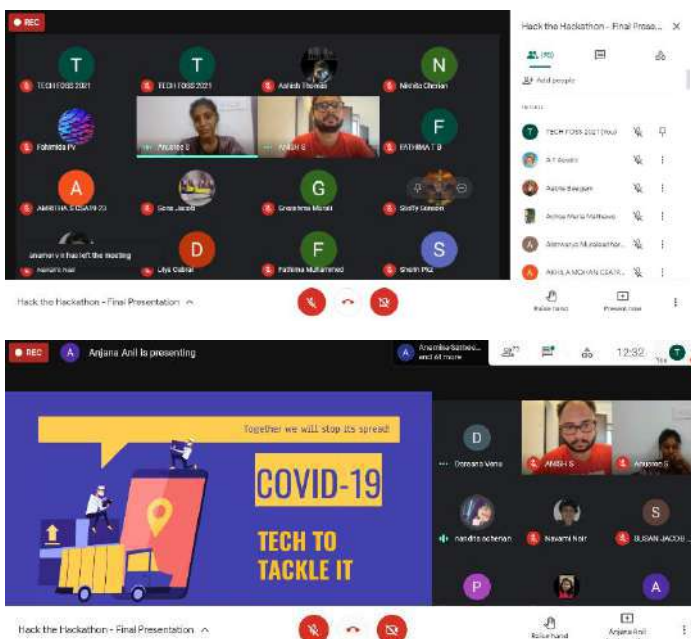
Tech FOSS '21 witnessed wide participation from 91 colleges in national and state level. National level participation of colleges included: IIT Bhubaneswar, MIT WPU, Pune, Zakir Husain Delhi College, Delhi University, Global Institute of Technology and Management, Farukhnagar, Gurgaon, Haryana, Government College of Engineering and Ceramic Technology, West Bengal, Jadavpur University, Kolkatta, West Bengal, Vellore Institute of Technology, Vellore, Adhi College of Engineering and Technology, Chennai, KCG College of Technology, Chennai, Aarupadai Veedu Institute of Technology, Chennai, Hindustan University, Chennai, SRM Institute of Science and Technology, Chennai, Amrita Vishwa Vidyapeetham, Coimbatore. The school level events also had wide participation from **61 different schools across the state and also in the national level and international level**, like St. Norbert School, Indore, Madhya Pradesh, DPS Modern Indian School, Doha, Qatar, International Indian School, Buraidah, Saudi Arabia.

Amidst the negatives of pandemic, events like this offers a virtual platform of learning, competing, experiencing, and above all, share some positive vibes.

FACULTY DEVELOPMENT PROGRAM

2 DAYS FDP ON 'IOT PROTOCOLS AND SECURITY:

Dept. of Computer Science and Engineering, in association with CSI TIST Student Branch organized a 2 day FDP on "IoT PROTOCOLS AND SECURITY" on 29th & 30th July 2020, 4:00 pm - 06:00 pm. The FDP was inaugurated by Mr. Sreekumar K V, Head - Academic Relations, ICT Academy of Kerala, Trivandrum. Day 1 session was on "**IoT Protocol Stack and Industrial IoT- Industry 4.0**" by **Dr. K Koluthungan, Associate Professor, Dept. of Information Science and Technology, Anna University**. Day 2 session was on "**Internet of Things Security**" delivered by **Dr. Bijoy A Jose, Assistant Professor, CSE, CUSAT**. Academicians, Research Scholars and PG Students from different states in India participated in the FDP sessions.
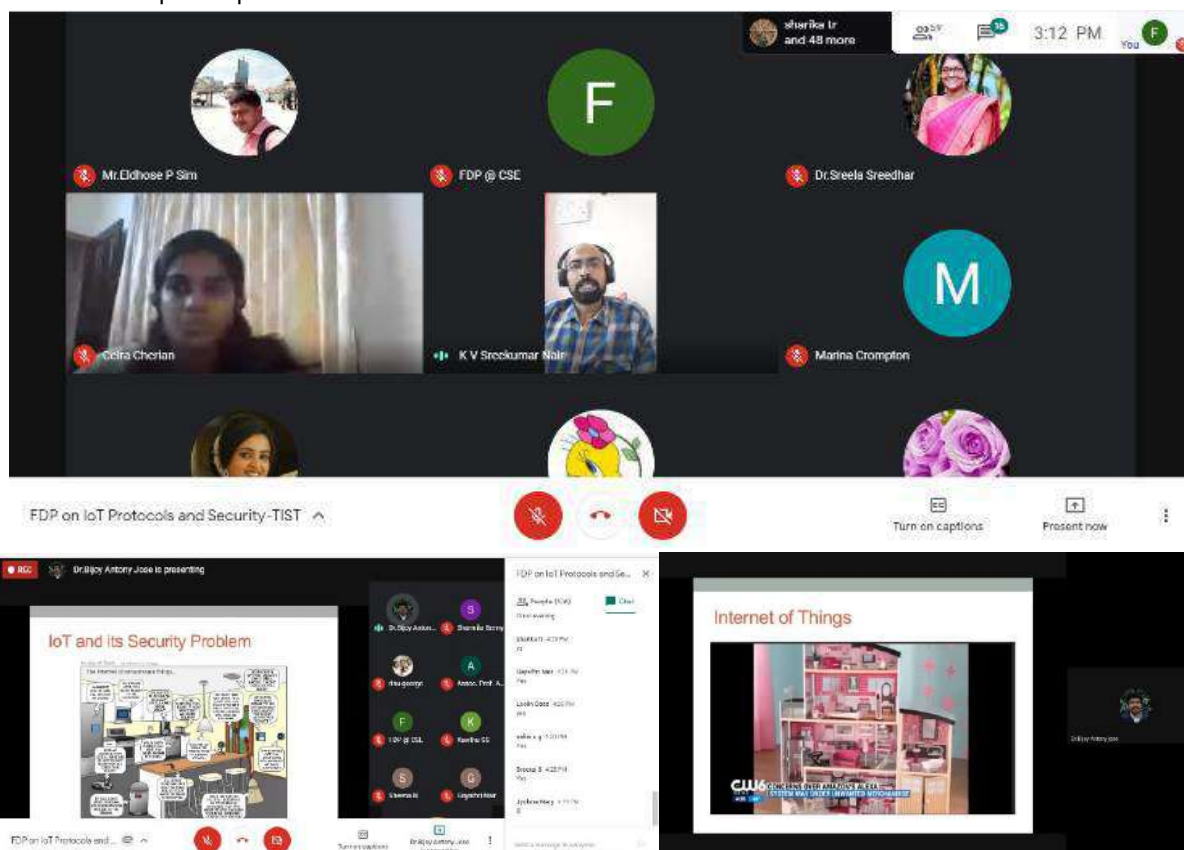
ALUMNI MEET – RECOMPILE 2021

The CSE Department of TIST organized a virtual alumni meet "Recompile 2021" in Google Meet platform on 9th January 2021 from 5 pm to 7 pm. The planned objective was to interact with the alumni, database updating of the alumni association, taking alumni feedback etc even amidst the pandemic restrictions. About 100 alumni from various batches and all faculty members of CSE department participated in the meeting.

The meeting started with a welcome note by Dr. Sreela Sreedhar, HOD-CSE. She motivated the alumni members to have a strong tie-up with our college and share information regarding latest technology updates in industries, and also motivated them to find time from their busy schedule to visit college and mentor their juniors to fill the gap. Faculty members felicitated the gathering and appreciated the alumni members for their career success. The alumni members shared the information related to current updates and requirements in the industry. Alumnus shared their memories of college days and expressed their gratitude for arranging the alumni meet. All enjoyed a nice get together time, recollecting the moments made together in this campus, rebuilding the bonding with the institution.
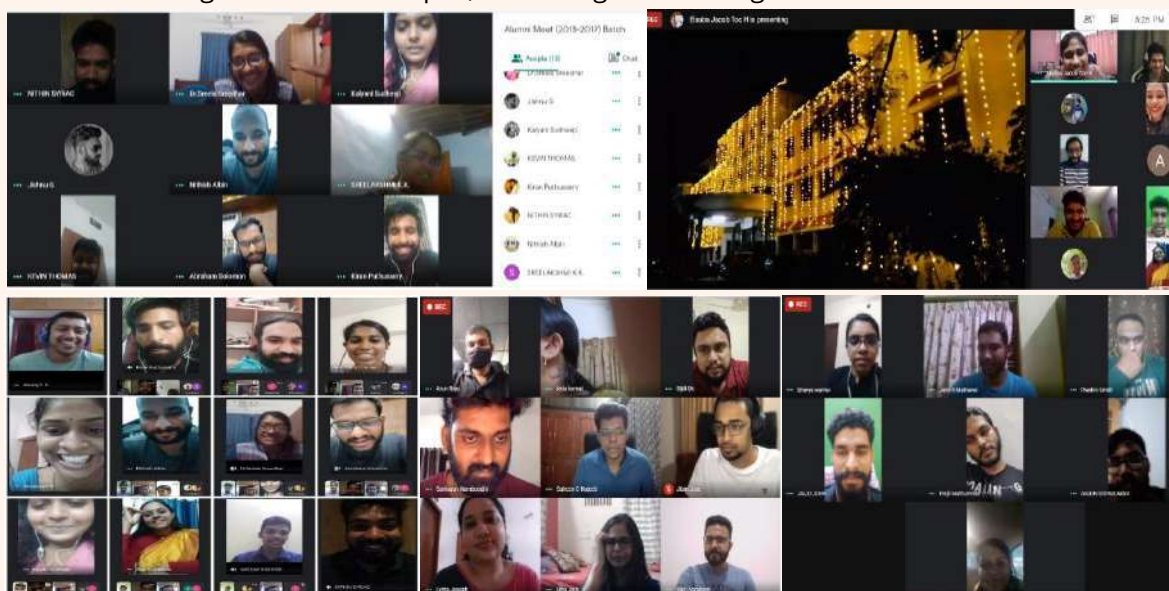
VIRTUAL FAREWELL –'HAKUNA MATATA'

As our final year students are setting on to a new phase from this campus during the pandemic, planning for an offline farewell was in vain. As an alternative, *A Virtual Farewell* "*HAKUNA MATATA*" was planned and conducted on 1st August 2020.
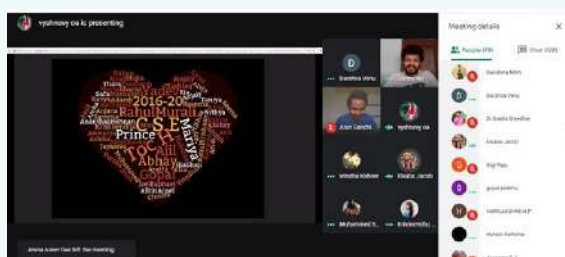
All the final years joined the event online and the pre final years organized the best farewell online, with memorable performances and games. Dr. Sreela Sreedhar, HOD-CSE addressed the students. Students shared their memories in campus.

EXPERT LECTURES

'Blockchain 2.0 - A Shift from Bitcoin to Real-World Applications'

Dept. of CSE, in association with CSI TIST Student Branch organized a webinar on "Blockchain 2.0" on 3 August 2020 (2.00 pm to 3.30 pm). The session was handled by **Ms. Cinthia Joy Godly, Asst. Manager - Academic matters, Federation University @IIBT, Australia**. The speaker gave an introduction about how blockchain applications went far beyond cryptocurrency and bitcoin. The session also detailed about the various real time applications of blockchain and the research opportunities in blockchain. Around 100 participants from different academic institutions and industry attended the session.

'Role of AI in Future Hiring Process'

An expert session on "Role of AI in Future Hiring Process" was handled **by Mr. Jyothis K S, Co-Founder, ZappyHire, Kochi** through google meet on 16 September 2020. In his his session, Mr. Jyothis K S initially explained regarding the manual hiring process happening in the HR section, and then introduced the term Artificial Intelligence. Later, he explained the interesting use cases of automating HR process in future like smart filtering and ranking of resume, behavioral assessment - how the candidate social media behaviours are analysed, how the recruitment recommendations are given from the data driven approach, and the involvement of AI in the entire process. He concluded by mentioning that by 2022, the entire hiring process will be automated worldwide. He also answered the queries of the students regarding the concerns of false or mis classification and how the system is becoming more accurate.

'Artificial Intelligence & Machine Learning - will they replace us or provide new opportunities?'
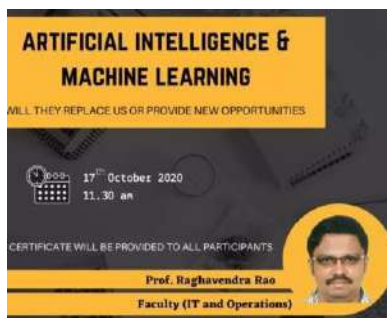
Department of CSE, in association with IBS Kochi organized the webinar on 'Artificial Intelligence & Machine Learning' for final year and pre-final year students on 17 October 2020 at 11.30 am. The session was handled by **Prof. Ragevendra Rao, Faculty (IT and Operations), IBS**. The session was very informative and the students were able to understand the significance of AI and Machine Learning in the present era. The facilitator also discussed the emerging trends and research opportunities in the field of AI.
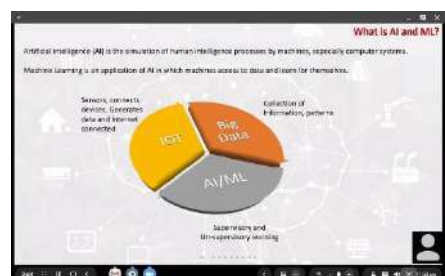
SHORT TERM TRAINING PROGRAMS

ONLINE COURSE ON 'PROGRAMMING IN JAVA'

Department of CSE in association with Teknowmics Knowledge Solutions organized an online STTP course in Java from 26 February 2021 to 30 April 2021, every Friday from 5.00 pm to 6.00 pm. The sessions are handled by the technical experts **Ms. Sandhya M and Mr. Sharukhan**, **Software Engineers, Teknowmics Knowledge Solutions**.

This course provides an overview of the core Java Concepts, basics of web development, introduction to MVC architecture, and Spring Framework. A total of 90 students from different branches have registered for this training program. The basic objective of conducting this program is to train students in the area of software development in order to build scalable and flexible applications in an industry-standard way.
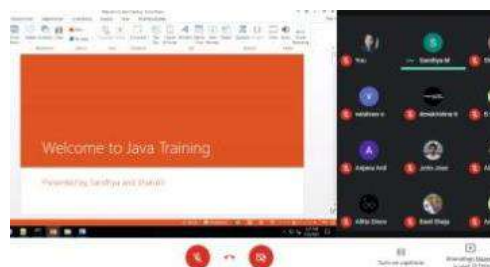
TEMENOS: UI/UX BOOTCAMP

CSE, Toc H in association with with **TinkerHub** conducted a week-long Boot-camp on UI/UX design from 14 -22 November 2020. The session was handled by **Muhammed Shahan**, who is the **Creative Strategist at Catalyst IEDC MBCET**, **Design Lead at DSC MBCET**.

The camp focused on the introduction to designing, its different purposes, trends and types of designing, resources of color, icons, illustration etc and UI/UX design concepts. Also introduced the Figma tool for design, creating animations, better prototyping and navigation.

Ms Daniela Gracia (Lead UI /UX designer from Toronto, Canada) was the chief guest for the closing ceremony. The chief guest shared her experiences in the field and explained in detail about the opportunities in UI /UX.

Daniela Gracia
Creative Lead
UX Designer from Toronto, Canada

The winners were announced by the chief guest and they were awarded with certificates and prizes**.** At the end of the program a **quiz** was also conducted. The winner of the quiz was awarded with an Amazon voucher.

200+ participants were a part of the bootcamp and all participants, as teams, submitted their projects through the **Discord** channel.

TECHNICAL WORKSHOP

INTRODUCTION TO PYTHON AUTOMATION

Department of CSE, in association with TinkerHub conducted two days workshop on Python Automation on 5th and 6th February 2021. The session was arranged online from 5.30 pm to 7 pm. Around **111 participants** registered for the event. The event was handled by **Mr**. **Akash Muraleedharan, Developer Team Lead, Tinkerhub, RIET.** The session started with an introduction to Python fundamentals and then proceeded to the introduction to automation using Python. The session also dealt with email messaging and organization of files using Python and also gave a brief idea about Whatsapp Messaging using Python.

TECHNICAL TALKS / SEMINARS

Inauguration of Hack Club, TIST and Orientation session on 'Benefits of HackClub'

A new node of HackClub – TIST was launched on 07.09.2020. Hack Club connects to a worldwide community of other young makers to help learn, collaborate, and connect. Hack club opens door to quality hackathons, makeathons, tons of swags, and limitless support for all the innovative ideas of students. With weekly meetings, self-directed coding projects, debates on various aspects of technology, the club aims to cultivate the essential skills required for students to be fit for industry. Orientation session on 'Benefits of HackClub' was handled by I P Raghesh Kumar, S Sidharth and Farzan F A (Hack Club coordinators).

Technical Session on 'Introduction to Block Chain'

The session was handled by **Mr. Jishnu N V, Programmer Analyst Trainee at Cognizant** on 21.09.2020. In the session, he gave an introduction about blockchain and the recent trends and opportunities in the blockchain on a project-based approach. This webinar served as a platform to clarify doubts in the domain and has instigated an open discussion regarding the project opportunities in the field of blockchain. The session was very interactive and informative.

HackClub Monday Meet up and Session on "Introduction to GITHIB and Student Developer Package"

The first weekly meeting with the members of hackclub TIST was held on 21.09.2020. The session on "Introduction to GITHUB and Student Developer Package" which provided information on the benefits of Github package was briefed by Farzan F A (HackClub Coordinator). The new members were guided to sign up on slack and joined the hackclubtist channel.

Webinar on 'Bitcoins' by Speridian Technologies

In association with TIST placement cell and Speridian Technologies, a webinar on Bitcoins was organized as part of the Campus Connect Program on 24 September 2020, for final year students. Resource persons from Speridian handled the session.

Hacktoberfest 2020 - A session on "GitHub and the importance of Open Source contributions"

A session on "GitHub and the importance of Open-Source contributions" was delivered to the Hackclub members by **Mr. Brian Douglas, Director of Developer Advocacy, GitHub, United States**, on 02.10.2020. The aim is to promote the increasing use of GitHub and its API by fostering a community of early adopters through the developer programs, and also to empower the best developers to work in open source.

Webinar on "Software Design Tools and Prototype Development"

The session organized in association with IEDC Toc H and was handled by **Prof. Sarju S, IEDC Nodal Officer, SJCET Palai**, on 03.10.2020. The major topics covered are introduction to software development life cycle, software requirement specification (srs) document, details of use cases, gui design tools, fundamentals of software testing- test case design, software project documentation. The session was very informative in the aspect of the design project and helped the students to get a clear view of the various activities involved in the software development life cycle.

Webinar on "Be Cyber safe: Cyber Security Awareness session"

CSE, in association with the Federal Academy for Cyber Education (FACE) and the Computer Society of India (CSI) conducted a webinar on "Be Cyber safe: Cyber Security Awareness session", by **Shri. Bhadran V. K. Senior Director (Ret.), CDAC Trivandrum**, on 9 May 2021. The session covered realistic and highly relevant information which could practically be implemented immediately to promote safer online environments. The session which was conducted online through google meet was well received with active participation from different categories.

Session on "Figure out LinkedIn"

Dept. of CSE in association with Toc H Tinkerhub Chapter conducted an online session on "Figure out LinkedIn" by Mr. Vishnu Peethambaran, digital marketer, specialising in SEO, social media marketing on 29 May 2021. The session was aimed at providing exposure on how to manage professional identity through Linkedin to the participants. It was well received and the participants learned how to build and engage one's professional identity, optimize and strengthen one's profile, win referrals, etc.

Awareness Session on Funding Methods and Schemes for Startup – "PITCH PERFECT"

A talk on various funding methods and schemes was handled by **Mr. Vishal Kadam Technical officer, Kerala Start up Mission** on 18.06.2021. The session was arranged in association with IIC & IEDC Toc H. In this session, Vishal discussed various funding opportunities for early stage startups, like incubation facility and various incubation methods, R&D support, mentoring support such as *'The Mentorship/Connect Programme'* which is an extension of the Startup Leadership Academy & Training Programme. He also explained Seed funding facility for early-stage startups and support offered in the product development, testing & trials, test marketing and IPR Issues. The participants could rightly utilize the session for effectively conducting an incisive study and objective analysis for their startup ideas before taking the final leap. The session also provided an insight into how the avenues differ invariably depending upon the stage of the start-up. The session which was conducted in google meet was attended by more than 100 participants.

MOTIVATIONAL TALKS

Session on Resume Building & How to ace Recruitment drives?

The session held on 12 September 2020 was handled by **Mr. Siddharth Prajosh, Full Stack Engineer, StayQrious** and **Mr. Yadev Jayachandran, Associate Software Engineer, H & R Block**, (Alumni, CSE). They shared their placement experiences and gave tips for building resumes in an impressive manner. They imparted insights on how to tackle the aptitude test and how to be equipped themselves as an industry-ready candidate. The session imparted a positive impact on students.
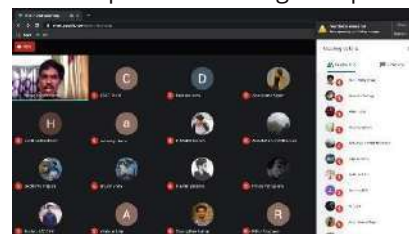
How to prepare for a Technical Interview?

Department of CSE in association with CSI student branch organized a talk on "How to Ace a Technical Beat ?" on 9 October 2020. The session was delivered by **Mr. Subin Sebastian, Software Business Development Manager, Dubai**. The session served as a platform for an open discussion regarding the recent trends and career opportunities round the world. The session emerged out to be very informative and interactive.

"Computer Science & Engineering: Look Beyond the Normal"

A session on "Computer Science & Engineering: Look Beyond the Normal" was organized for the first-year students on 5 December 2020 from 11.30 am to 12.30 pm. The session was handled by **Mr. Jibin Jose Head of Startup initiatives at I2E, Associate Partner at Startup Bridge**, (Alumni, CSE) and through Microsoft Teams online platform. He shared his thoughts on how to become an entrepreneur, where to start from, what are the essential skills needed, how to equip ourselves industry-ready etc. He also discussed about the various opportunities available and how to grab them. The session emerged out to be very informative and motivational.

Let's hear their journey- "A walk down the memory lane"
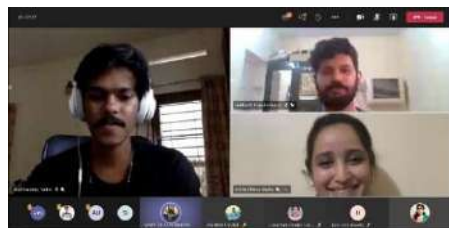
The webinar was organised for first-year students on 5 December 2020, handled by **Mr. Siddharth Prajosh, FullStack Engineer, Stay Qrious**, **Mr. Yadev Jayachandran, Associate software Engineer H&R Block**, **Ms. Ashika Chinnu Sabu, System Engineer Trainee, Infosys**, (Alumni). The session was very inspiring and interactive. The Alumni shared their life and experience at Toc H, and they discussed about their involvement and participation in the various technical forums and events. Also, they shared their placement experience and the tips for facing semester exams and how to come out as a successful engineer. The session imparted a positive vibe on students.

Women In Tech session on 'Tech Journey'

A motivational session exclusively for girls was hosted in association with Tinkerhub Toc H on 19 June 2021 for encouraging girl students who are confused about how to kickstart a technical career. The session was handled by **Ms. Amalu Susan Santhosh, PM at RedCarpet, Google WTM Scholar & GHCI Scholar.** The session outlined the ways in which women can lead in Tech, how to grab scholarships and internships, and proved to be much effective in wiping out the inhibitions and gave confidence to fight amidst each hurdle.

SOCIAL COMMITMENT & EMPOWERMENT ACTIVITIES

"Stress Release Tips for Facing Entrance Exams Amidst COVID-19 Lockdown Blues"

The outreach session was delivered by **Smt. Reena Madhu (Clinical Psychologist & online counselor-InSPA, AP, TIST)** to 12th students across different schools on 4 July 2020. The pandemic created a stressful atmosphere for the plus two students and parents. This was a motivational session to help them face entrance exams with confidence amidst the uncertainities, stress and fear. It helped to share several tips to release their stress and anxiety, and guided them on how to come out a successful and cheerful student and created a positive impact on students.
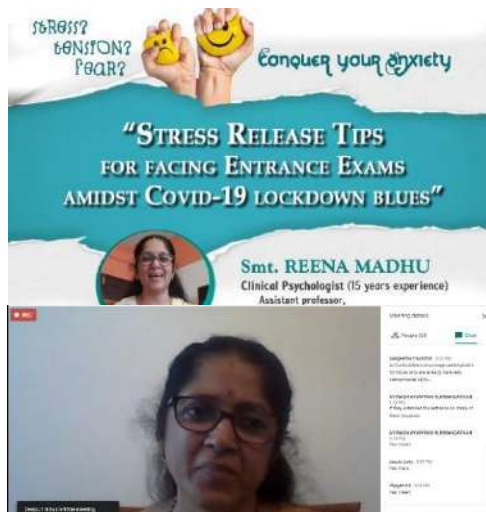
Awareness session on "Women in Leadership"

Dr. Sreela Sreedhar, HoD, Dept. of Computer Science and Engineering, inaugurated the women's day celebration of Kakkoor Public Library and delivered an awareness session on 'Women in Leadership' on 7 March 2021. Several residents of the Kakkoor panchayath attended the session.

Class on "Overcoming Covid 19 with Confidence"

Department of CSE, Kakkoor Grameena Vayanasala and Janamaitri Police Koothattukulam jointly organized an interactive session on "Overcoming Covid 19 with Confidence" by **Dr. Shinto K Thomas, Consultant Physician & Covid Nodal Officer, Aravinda Hospitals, Ponkunnam** on 5 May, 2021 at 2.00 pm. The session which was conducted online through google meet provided essential tips on overcoming COVID-19 and its profound effects on our health. The speaker detailed the preventive measures to be taken, including frequent hand washing, social distancing, and other measures aimed at preventing the spread of COVID-19.

Awareness on "Cyber Crimes and Precautions"

Dept. of CSE in association with FACE academy organised a webinar on 'Cyber Crimes and Precautions' which was handled by **N. Vinayakumaran Nair, Cyber Security Consultant, AC (Retired) Hi-Tech Crime Enquiry Cell, Kerala Police** on 6 Sept. 2020. The session was useful for the participants in understanding the hidden issues in using Internet and helped them to be cautious while using it. Understanding how the adversaries are working and what they are targeting can help us ensure a better cyber defence.

**Designed and distributed Covid awareness posters in association with
Kakkoor Grameena Vayanasala and Janamaithri Police Koothattukulam**

PLACEMENT TRAININGS / HIGHER EDUCATION

Amidst the challenges of pandemic to conduct live trainings, online placement training sessions were organised for final year students in aptitude training, reasoning, mock interviews and resume preparation by various training partners throughout the recruitment period, so that the students will be ready to crack aptitude tests and interviews with ease.

Sl. No.	Duration	Dates (Online mode)	Program S7 (2017-'21 Batch)	Training Company
1	4 Days	14, 19, 20, 26, 27 August 2020, 9, 12, 16, 17, 20, 21, 23, 24, 27 September 2020.	Aptitude Training	Konfidence
2	3 Days	2, 3, 4, 10, 11, 17, 18 October 2020	TCS Specific Aptitude Training	Pragmatix
3	2 Days	9 ,10, 16, 17 January 2021	WIPRO Specific Aptitude Training	Pragmatix

BEST PROJECTS 2021

BLOCULUS: Incident Detection and Post Incident Analysis Framework using Blockchain and Machine Learning
Team Members: I P Raghesh Kumar, Nandu Nagesh, Rithin Varghese, Vyshnav Sasidharan
Guide: Asst. Prof. Abin Oommen Philip

SANJEEVANI - Identification of Drowning Victims in Freshwater Bodies using Drift Prediction and Image Processing based on Deep Learning
Team Members: Anjana Unnikrishnan, Anju M Vinny, Anusha P R, Roshni A T
Guide: Asst. Prof. Anuraj C K

GREEN DREAM: CNN based Classifier for Waste Detection
Team Members: Prince Puthussery, Nikhita Mariam Cherian, Gokul Kiran T. K.
Guide: Asst. Prof. Sreeja M. U.

PAPER PUBLICATIONS BY FACULTY / STUDENTS:

Publication by Faculty

- **Abin Oommen Philip** published a paper entitled "Secure Incident & Evidence Management Framework (SIEMF) for the Internet of Vehicles using Deep Learning and Blockchain" in Open computer Science Journal, Special Issue On Machine Learning Approaches For Convergence Of IoT And Blockchain, Nov 2020 (Scopus Indexed).

- **Sajith P. J.** presented and published a paper entitled "Optimized Intrusion Detection System Using Computational Intelligent Algorithm" in Advances in Electronics, Communication, and Computing – Select Proceedings of ETAEERE 2020/Springer, January 2021.

- **Sreeja M U** published a paper titled "An aggregated deep convolutional recurrent model for event-based surveillance video summarisation: a supervised approach" in IET Computer Vision (SCI), Volume15, Issue4, June 2021

- **Sreeja M U** published an article titled "A unified model for egocentric video summarization: an instance-based approach" in the Computers and Electrical Engineering (Elsevier), Volume 92, June 2021.

- **Sreeja M U** published a paper titled "Enhanced Block-Based Feature Agglomeration Clustering for Video Summarization." In the Wiley Machine Learning Algorithms and Applications (Aug 2021): Chapter 7, 117-140.

Publications by Students

- **Abhima Prasad** (M. Tech, 2018 batch), **Dr. N. Vishwanath, Dr.Sreela Sreedhar, Saira Varghese** published a paper entitled "Encryption and Watermarking of Remote Sensing Images for Crop Insurance" in the International Research Journal of Engineering and Technology (IRJET), July 2020.

- **Sruthi Suresh** (M. Tech, 2018 batch), **Dr. N. Vishwanath, Dr.Sreela Sreedhar, Saira Varghese** published a paper entitled "An Improved Reversible Data Hiding in Encrypted JPEG Bitstreams" in the International Research Journal of Engineering and Technology (IRJET), July 2020.

- **Abhay P A, Jishnu N V, Meenakshi KT, Yaswanth P S** (B. Tech, 2016-'20 batch), **Abin Oommen Philip** presented a paper entitled "Auto Block IOT: A Forensics Framework for Connected Vehicles" in the International Conference on Innovative Technology for Sustainable Development 2021 (ICITSD 2021), January 2021 (IOP), VIT, Chennai, and published the same in 'The open access Journal of Physics: Conference Series', 012002, Volume 1911, June 2021.

SPONSORED RESEARCH/FUNDED PROJECTS

Name of the Project	Principal Investigator	Year of Award	Amount Sanctioned	Duration	Funding Agency	Type
BLOCULUS-Detecting Traffic Accidents using Machine Learning followed by Evidence Management using Blockchain	Asst. Prof. Abin Oommen Philip	2021	10,000	1 year	KSCSTE	Government
Green Dream: A deep learning based realtime model for automatic waste segregation from video streams	Asst.Prof. Sreeja M U	2021	10,000	1 year	KSCSTE	Government

QUALITY IMPROVEMENT PROGRAMS

FACULTY – INTERNAL PARTICIPATION

» All faculty from CSE department attended **2 days FDP on 'IoT Protocols and Security'** organized by the Dept. of CSE on 29th & 30th July, 2020, in online mode.

FACULTY – EXTERNAL PARTICIPATION

EXTERNAL FDPs:

Sl.No.	Faculty	Days	FDP Title	Institution/ Industry	Date
1	Ms.Elsaba Jacob	3	Emerging Technologies	Sathyabama Institute of Science and Technology, Chennai	2 - 4 July 2020
2	Dr. Sreela Sreedhar	2	Introduction to Digital Twinning	CUSAT - TEQUIP Sponsored	23, 24 July 2020
3	Ms.Elsaba Jacob	5	International FDP on Recent Trends and Advancements in Information Technology	FISAT, Angamaly	27 July - 1 Aug 2020
4	Mr.Eldhose P Sim	6	Data Analytics & Machine Learning	Amal Jyothi College of Engineering, Kottayam (AICTE STTP)	29 July - 1 Aug 2020
5	Mr.Abin Oommen Philip	6	Blockchain Fundamentals	Saintgits College of Engineering, Kottayam (AICTE)	24 - 29 Aug 2020
6	Dr. Sreela Sreedhar	6	Data Analytics & Machine Learning	Amal Jyothi College of Engineering, Kottayam (AICTE STTP)	3 - 8 Aug 2020
7	Ms.Elsaba Jacob				
8	Ms.Mithu Mary George				
9	Ms.Sreeja M U	5	Data Science	NIT Arunachal Pradesh	4 - 8 Aug 2020
10	Dr. Jesna Anver	5	Deep Learning and NLP	Rajagiri School of Engineering & Technology	10 - 14 Aug 2020
11	Mr.Abin Oommen Philip	5			
12	Ms.Leda Kamal	5	Inculcating UHV in Technical Education	AICTE	24 - 28 August 2020
13	Ms.Sreeja M U	3	Faculty Development Programme on "Modern Trends in Agro-Informatics"	CUSAT	26 - 27 Aug 2020
14	Dr. Sreela Sreedhar	6	Cyber Security, Cyber Forensics and Cyber Laws	Hindustan Institute of Technology and Science (AICTE STTP)	31 Aug - 5 Sept 2020
15	Ms.Leda Kamal	5	Blockchain	JNTUA College of Engineering, Anantapur (AICTE ATAL)	8 - 12 Sept 2020
16	Ms.Sreeja M U	5	STTP on Emerging AI techniques in Data Analytics	Div of IT, School of Engineering, CUSAT in association with THDC Institute of Hydropower Engineering and Technology, Uttarakhand	12-16 Sept 2020
17	Ms.Kavya Kishore				
18	Ms.Ashly Joseph	2	National level workshop on python programming	CMS College, Kottayam	19 - 20 Sep 2020
19	Mr.Abin Oommen Philip	6	Blockchain Applications	Saintgits College of Engineering., Kottayam (AICTE)	5 -10 Oct 2020
20	Mr.Sajith P J				
21	Ms.Ashly Joseph	5	Blockchain	Government Engineering College, Patan (AICTE ATAL)	19 - 23 Oct 2020
22	Mr.Abin Oommen Philip	5	Blockchain	Vishwajoythi College of Engineering (ATAL)	19 - 23 Oct 2020
23	Mr.Sajith P J	5	Blockchain	LBS College of Engineering, Kasargod (AICTE ATAL)	2 Nov - 6 Dec 2020
24	Ms.Ceira Sara Cherian	5	Cyber Security	TKM, Kollam (TEQIP)	2 - 11 Nov 2020
25	Mr.Sajith P J				
26	Ms.Sreeja M U	5	Machine Learning and Deep Learning for Video Analytics	Mangalore University (AICTE ATAL)	2 - 6 Nov 2020

27	Ms.Saira Varghese	5	Cyber Security	Sri Venkateswara College of Engineering, AICTE, ATAL	30 Nov - 4 Dec 2020
28	Ms.Ceira Sara Cherian	5	Cyber Security	Indian Institute of Information Technology, Kottayam (ATAL AICTE)	1 - 5 Dec 2020
29	Mr.Sajith P J				
30	Mr.Sajith P J	6	IoT Based Manufacturing and Design - Challenges and Opportunity	Viswajyothi College of Engineering and Technology (AICTE)	14 - 19 Dec 2020
31	Ms.Kavya Kishore	6	STTP on "Data Science: Unfolding Layers of Knowledge"	Acropolis Institute of Technology & Research,Indore (AICTE)	7 - 12 Dec 2020
32	Ms.Saira Varghese	5	Blockchain Technology and Applications	Indian Institute of Technology Ropar,AICTE ATAL	11 - 15 Jan 2021
33	Ms.Sreeja M U	5	Mathematics for Machine Learning	NIT, Arunachal Pradesh (AICTE)	27 - 31 Jan 2021
34	Ms.Kavya Kishore	5			
35	Dr. Jesna Anver	5	Artificial Intelligence in Natural Language Processing	Muthoot Institute of Technolgy & Science	8 -12 Feb 2021
36	Ms.Ashly Joseph	5	Machine Learning with its Mathematical Foundations	Vimal Jyothy Engineering College, Kannur	2 - 6 Mar 2021
37	Ms.Mithu Mary George	5			
38	Ms.Leda Kamal	5	Blockchain Technology and Cyber Security	TEQIP, COE Vadakara	16 - 20 March 2021
39	Mr.Abin Oommen Philip				
40	Dr. Sreela Sreedhar	3	Systemizing Research -Problem Finding to Patenting	Rajagiri School of Engineering & Technology	29 - 31 March 2021
41	Ms.Saira Varghese				
42	Ms.Leda Kamal				
43	Ms.Elsaba Jacob				
44	Mr.Abin Oommen Philip				
45	Mr. Anuraj C K				
46	Mr.Eldhose P Sim				
47	Ms.Elsaba Jacob	5	Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools and Altmetrics	Information and Library Network (INFLIBNET) Centre, Gandhinagar, Gujarat	5 - 9 April, 2021
48	Mr. Anuraj C K	5	FDP on Tech FOSS	ICFOSS	19 - 23 April 2021
49	Ms.Elsaba Jacob	5	Inculcating Universal Human Values in Technical Education	AICTE	3 - 7 May 2021
50	Mr.Abin Oommen Philip				
51	Ms.Ceira Sara Cherian				
52	Ms.Ashly Joseph				
53	Ms.Rinu Rose George				
54	Ms.Mithu Mary George				
55	Mr. Anuraj C K				
56	Mr.Eldhose P Sim				
57	Ms.Sreeja M U				
58	Ms.Kavya Kishore				
59	Ms.Saira Varghese	5	Inculcating UHV in Technical Education	AICTE	17 - 21 May 2021
60	Dr. Sreela Sreedhar	3	Research Trends in Social Network Analytics	SCMS School of Engineering & Technology (KTU Sponsored)	24 - 28 May 2021
61	Ms.Mithu Mary George	4	Future Trends in Data Analytics	Lourdes Matha College of Science and Technology	15 - 18 June 2021
62	Ms.Saira Varghese	2	Transformation through NAAC Accreditation process, National Level Workshop for HEI	Institute for Academic Excellence, Hyderabad in collaboration with Collegiate Education & Technical Education Department, Telangana State	21, 22 June 2021
63	Ms.Mithu Mary George	5	Data Science for HealthCare	ATAL FDP	21 - 25 June 2021

MOOC Courses:

1. Ms.Mithu Mary George - 6 weeks online training on Data Science by Internshala.
2. Ms.Elsaba Jacob - NPTEL Online Course :Introduction to Industry 4.0 and Industrial Internet of Things (Jan-April 2021)
3. Ms.Leda Kamal - AWS Cloud Practioner Essentials.
4. Ms.Rinu Rose George - NPTEL Online Course on Internet of Things
5. Mr.Abin Oommen Philip - Blockchain Architecture and Use Cases, IIT Madras NPTEL, Jul-Oct 2019
6. Ms.Ashly Joseph - Coursera -non credit course on "Cryptography : Boolean functions & related Problems" authorized by Novosibirsk State University (04.07.2020)
7. Ms.Sreeja M U - NPTEL course on Python for Data Science

Seminars, Trainings and Workshops:

Faculty	External Trainings Attended
Ms. Saira Varghese	1. Webinar on Cryptography and its Applications organized by IIT Kottayam on 24/07/2020 2. Webinar on "Introduction to AI,MLand DL on 11/8/2020 3. Online session on Introdcution to Nptel swayam course on Google Cloud on 11/9/2020
Ms. Ceira Sara Cherian	1. Webinar on "Cloud Computing & Applications" organised by Maratha Manadal Engineering College on 02/07/2020 2. Webinar on "Cyber Safety and Security Awareness" on 03/07/2020 3. Webinar on Industry 4.0 For Discrete Manufacturing organised by IIIT, Kottayam on 06/07/2020 4. Webinar on "Basis of Machine Learning" organised by MES College of Engineering, Kuttipuram on 15/07/2020 5. Webinar on "Data Analytics" organised by Mount Zion College of Engineering on 17/07/2020 6. Webinar on "Industrial IoT & Industry 4.0" organised by Department of ECE, Rajagiri School of Engineering & Technology, Kochi, on 10/08/2020 7. Webinar on "Funding Opportunities for Faculty Members" organized by the Dept of CSE, Nehru Institute of Engineering and Technology, Coimbatore, Tamil Nadu on 08/08/2020
Mr. Anuraj C K	1. LoRaWAN Hands-on Workshop supported by ICFOSS at ASIET, Kalady
Ms. Elsaba Jacob	1. One Day Workshop on "Internet of Things(IoT) and its Applications" organized by Lenora College of Engineering, Rampachodavaram on 02/07/2020. 2. Techspot Webinar on Machine Learning and Deep Learning, Federal Academy for Cyber Education 26/07/2020 3. Webinar on Intelligent Internet of Things by Dr. Hari Prabhat Gupta, IIT (BHU) organised by the Dept. of CSE, SCMS School of Engineering & Technology on 29/07/2020
Ms. Leda Kamal	1. 2 weeks orientation course on ASAP AWS course 2. Completed Certified Blockchain Associate course from Kerala Blockchain Academy 3. 2 day International Blockchain Summit organized by KBA on 11, 12 December 2020.
Mr. Eldhose P Sim	1. Attended Webinar on "Introduction to AI, Machine Learning and Deep Learning Concepts "hosted by Computer science & Engineering Dept, ICCS College of Engineering and Management on 1 Aug 2020 2.. Attended IEDC Nodal Officers Orientation Program Organized by KSUM on 19 Aug 2020
Ms. Jesna Anver	1. Webinar on Deep Learning for NLP Applications, LBS College of Engineering Kasaragod on 07 July 2020
Mr. Abin Oommen Philip	1. Webinar on Machine Learning with Analytics by Novitech, 31/07/2020 2. Webinar on Iot with Cloud and Data Analytics by NoviTech, 03/08/2020
Ms. Ashly Joseph	1.Webinar on cryptography and its applications organised by IIIT Kttayam on 24 July 2020
Ms. Sreeja M U	1. Webinar on "Cues for Quality Research Publications in Computer Science" organized by Division of Computer Science & Engineering, School of Engineering, Cochin University of Science & Technology on 26, 27 February 2021. 2.Webinar on "Outcome Based Education and Accreditation" by APJ Abdul Kalam Technological University and National Board of Accreditation on 9 March 2021

Mr. Sajith P J	1. National Level Workshop on Robotics & the Circuits conducted by NITK, Surathkal from 19/09/2020 to 20/09/2020 2. Webinar on Data Analytics on 18 October 2020 3. Webinar on Interactive Presentation Tools on 5 November 2020 4. International Webinar on Security in Cyberspace on 9, 10 and 11 November 2020 5. International Webinar on Applications of Blockchain Technology in Global Vaccine Development and Production on 17 and 18 November 2020 6. Webinar on Theoretical Computer Science Challenges & Opportunities on 21 November 2020 7. International Webinar on Event Streams and Messaging on 25 and 26 of November 2020. 8. Webinar on Entrepreneurship and Start-Ups on 30 June 2021
Ms. Kavya Kishore	1. National Level Workshop on Machine Learning conducted by NITK, Surathkal from 05/09/2020 to 06/09/2020 2. Online session on Introduction to Google Cloud Computing Foundations on NPTEL, 11/09/2020 3. National Level Workshop on Raspberry Pi- A Practical Approach conducted by NITK, Surathkal from 12/09/2020 to 13/09/2020 4. Webinar on "Outcome Based Education and Accreditation" by APJ Abdul Kalam Technological University and National Board of Accreditation on 9 March 2021

STUDENTS –EXTERNAL PARTICIPATION

Total Students Participated: Outside State – 20, Within state - 23

OUTSIDE STATE:

20 students - Aakash Ashok, Minal Shibu, Sangeeth Shaji, Ananthakrishnan K S, Varghese K A, Smruthy Jenson, Akshara Vinod, Krishna R, Emmanuel P Saji, Nidhin Nandakumar, Steve Varghese, Eva Petal Pradeep, Alen Jacob, Tejus K, Lina Anil, Seba Abraaham, Arathi P Kumar, Nikhil Philip, Nimiya Angel and Arjun K S (2019 –'23) participated in the National level Online Quiz on "Power Electronics & Drives" on 27 May 2021 Mandsaur University, Madhya Pradesh.

WITHIN STATE:

Sl. No.	Name of Students	Batch	Name of the Institution/ Organization	Event Type	Date	Winner/ Participated	Symposium/ Seminar/ Workshop
1	Aakash Ashok	2019 - 2023	AISAT, Kalady	CALIBRATE 2.0 by IEEE Instrumentation & Measurement Society Chapter	23-05-2021	Participated	Technical Symposium
3	Anagh Sanil						
4	Sangeeth Shaji						
5	Ananthakrishnan						
6	Alen Jacob						
2	Emmauel P Saji	2019-2023	TKMCE	Cosmo Quest - Quiz Contest	29-05-2021	Participated	Technical Symposium
8	Akshara Vinod	2019-2023	St. Albert's College College	"A Café Commercial"	01-10-2020	Winner	Technical Symposium
7	Alen Rub Shibu	2018-2022	Takshak '21 at MACE	National event - "Electric future and mobility"	22-05-2021	Participated	Technical Symposium
9	M.Vishnu Prasad						
11	Kiran George						
12	PV ARJUN KUMAR						
13	John Mathew						
14	Anakha s lekshmi						
15	Nikitha Gerison						
10	Nidhin Nandakumar	2019-2023	RSET	Red Tales, by IEDC RSET	09-01-2021	Participated	Technical Symposium
16	Emmanuel P Saji						
17	G Ananthakrishnan						

19	Kirshna R	2019-2023	IIT Palakkad	Cloud Computing Workshop	23, 24 Jan 2021	Participated	Technical Symposium
20	Abhijith K	2020-2024	GEC, Bartonhill	Webinar on "LinkedIn Profile Development and Benefits	21-15-2021	Participated	Webinar
21	Abhishek PV						
22	Rohan D J	2020-2024	SJCET, Palai	The Arduino Debugging hosted by IEEE Student Branch	02-06-2022	Participated	Workshop
23	John Basil Varghese	2020-2024	RSET, Kochi	Bootcamp on "Decoding Social Entrepreneurship"	20-11-2021	Participated	Boot Camp

ONLINE / MOOC COURSES | INTERNSHIPS – STUDENTS

MOOC Courses – 109	
2018 Adm	46
2019 Adm	54
M.Tech	9

Internships – 17 students	
2018 Adm.	11
2019 Adm.	6

BEST PRACTICES

STUDENT INTERNSHIPS:

All students of 1st, 2nd & 3rd year B.Tech and 2nd year M.Tech undergo internship trainings in reputed companies during their semester break. This gives them an exposure to live industry scenario. Due to Covid pandemic, only limited number of virtual internships were possible in this academic year.

CLASS COMMITTEE MEETINGS

Class committee meetings are conducted regularly in every semester (online) for all the batches. This is an interaction program with the student representatives and faculty, so that feedbacks can be assessed regularly and action plans can be taken up.

PTI MEETINGS

Parent Teacher Interaction meetings are conducted online once in a semester for all the batches. The activities and achievements of the department are briefed to the parents during this meeting. One to One calls with teaching faculty is also arranged to keep track of the performance of their wards so that proper follow up actions can be taken. Feedback from parents on academics and infrastructure are collected for continual improvement.

FEEDBACK MECHANISM

The department follows online feedback mechanism. The feedbacks for each subject are taken twice a semester to assess the faculty performance. Infrastructure feedback is also taken to assess the infrastructure provisions.

GROUP ADVISORY & SPECIAL MENTORING

Department follows group advisory system for effective mentoring of students. The students of each class are divided into groups and a teaching faculty is assigned as mentor for their support. Special Mentors are also provided for under performers and constant monitoring is being done. Meeting with Principal is arranged for Toppers as well as Low performers once in a semester, so that their problems if any can be solved effectively. Counseling and Psychology department of TIST provides further assistance in mentoring.

THE RISE OF METAVERSE IN HEALTHCARE: THE NEW ERA OF TREATMENT

PRAISY MARIA JOSEPH (2020-'24 batch)

Metaverse can be defined as an augmented virtual world which is derived by the convergence of virtual and physical space, where users can interact within the augmented world, to meet each other virtually and can immerse themselves in performing virtual activities that gives real experiences. Much has been envisioned about its potential to revolutionize gaming, entertainment, socializing, work and commerce; Healthcare is another field where it offers previously unimaginable possibilities and its impact could be transformational.

As evolving through time, Metaverse unfolds new potential by utilizing a combination of the technologies like Artificial intelligence, Virtual Reality, Augmented Reality, Internet of Medical devices, smart clouds, edges, 5G etc., along with robotics to provide new directions to healthcare.

For many decades, the delivery of healthcare has required physical interaction between a patient and a doctor as a means of making a diagnosis, receiving medical treatment, or performing surgical procedures for the patient. This changed slightly with the emergence of telehealth services, which made part of the patient-doctor relationship through digital means and the Internet. Metaverse is going to augment these visits with a virtual office, where patients and physicians can meet in a 3D clinic or any other location, it's expected to give a much better user experience when it comes to teleconsultation services.

Senior Living – Metaverse enables healthcare providers, practitioners, and residents to provide joint engaging experience for quality of life, health, and mental wellbeing. VR and AR enables senior living to engage with family, friends and extended community making a difference in their lives.

Healthcare data is one of the most complicated and related data all over the world, this data is crucial to patient care, as physicians can diagnose and treat through data coming from a lot of medical examinations and analyses. Medical wearables empowered patients and physicians in the last few years to produce a lot of **insightful health data** that are needed by professionals.

Metaverse Technology will transform **surgery**. Surgeons might meet in a virtual operating theatre and they can collaborate together in surgery with assistance from other consultants and experts. During the surgery, I can imagine the surgeon can see above patient's body his vitals, images, history, and he can navigate easily among multiple patient data. This would make it more convenient in surgeries and surgeons become more empowered with virtual tools to perform complicated procedures with precision and flexibility.

Imaging technologies in metaverse can enable better visualization for radiologists to see dynamic images with more details that can help them make a better diagnosis of diseases. Radiologists can collaborate on medical images in a 3D format, while they are in different places.

There will be challenges also like - privacy & security concerns, high technology costs, interoperability etc. We have to figure out how to create this technology in a way that is not only safe for the patient but also meets the human aspects.

Ref: https://healthcarebusinessclub.com/articles/healthcare-provider/technology/metaverse-in-healthcare/

HOW GAMING IN THE METAVERSE WILL DEPEND ON THE INFRASTUCTURE THAT SUPPORTS IT

ROHAN D J (2020-'24 batch)

The gaming industry is the fastest-growing sector in entertainment today. Helped by steady advancements in virtual reality technology and the emergence of cloud gaming, the industry will reach a market value of $314billion by 2026. This technology-driven growth has put the gaming industry at the forefront of the metaverse discourse. Currently, gaming as a social platform provides the closest resemblance to general conceptions of the metaverse.

Gaming UX in the metaverse will be defined by two fundamental infrastructures: network architecture and underlying technology. Conceptually, this will pit centralized models against decentralized alternatives. The unavoidable reason for this is gaming's ongoing migration to the cloud. Google, NVIDIA, and Sony have announced three different proprietary platforms for cloud gaming: Stadia, GeForce Now, and PS Now. These services are already available to users as a complete product. Microsoft also proposed its platform, xCloud, which is currently under testing. Amazon announced Luna, its unique cloud gaming platform.

Two fundamental gaming elements in the metaverse:

Cloud gaming and virtual reality (VR) are unique and significant services already available to gamers. VR represents a set of immersive technologies that simulate the real world. It is a vast sector that continues to mature, as exemplified by the growth of its Augmented Reality (AR) and Mixed Reality (MR) components. Cloud gaming, on the other hand, has existed for some time. It entails using remote servers to store video game data and perform game-related computing tasks while being delivered over the Internet to a personal computer, mobile device, or game console. One of the primary advantages of cloud gaming is that it is not dependent on powerful hardware to function. Pro-gamers understand the sheer frustration caused by overheating hardware, especially in multiplayer modes.

However, game computing in the cloud requires low latency networks that ideally situate servers as close to end-users as possible. The centralized network architectures currently in place by hyper-scale cloud service providers are ill-suited to these needs. For example, games like Ubisoft encountered critical UX challenges such as frame-drops and glitches due to reliance on centralized cloud servers. Another common problem for players was match instability due to session migrations.

Decentralized networks and blockchains

We recently highlighted the advantages of combining decentralized network architectures with blockchain technology. Essentially, distributing compute across a vast global network will significantly lower network latency and is arguably the best bet for gaming compute needs in the metaverse. For example, our Cudos network aims to distribute storage and compute across tens of thousands of nodes situated globally and on a fully open-sourced network that enables developers to build and earn equitably. Their network already supports NFTs natively on the Cosmos chain, positioning them for a vital role in the economy of the metaverse.

Infrastructure will define gaming UX in the metaverse, utilizing a decentralized network architecture and blockchain technology. We can collaboratively build efficient and sustainable ecosystems that are responsive to the rapidly evolving needs of the gaming community.

PLACEMENTS 2021

CSAT – CSI STUDENT COORDINATORS 2020-'21

✶ **Mr. Vyshnavy O A (CSI TIST - Secretary)**

✶ **Ms. Anjana Unnikrishnan (CSI TIST - Joint Secretary)**

✶ **Ms. Arya Anand (CSAT - Secretary)**

✶ **Mr. Sidharth (CSAT - Joint Secretary)**

2 നാട്ടുവർത്തമാനം മംഗളം

Mon, 24 May 2021
epaper.mangalam.com

വനിതൾക്കായി വെർച്ചൽ ഹാക്കത്തോൺ

പിറവം: കോവിഡ് പോരാട്ടത്തിനുതകുന്ന സാമൂഹിക പ്രസക്തിയുള്ള നൂതന സാങ്കേതിക വിദ്യകൾ വികസിപ്പിക്കുക എന്ന ആശയവുമായി ആരക്കുന്നം ടോക് എച്ച് എൻജിനീയറിങ് കോളേജ് 40 മണിക്കൂർ വെർച്ചൽ ഹാക്കത്തോൺ സംഘടിപ്പിച്ചു. മൂന്ന് ദിവസങ്ങൾ 40 ടീമുകളിലായി 150-ൽ ഏറെ വിദ്യാർഥികൾ പങ്കെടുത്ത ഈ വനിതാ ഹാക്കത്തോൺ കുട്ടികൾക്ക് വളരെ പ്രോത്സാഹനമായി. കോളേജിലെ കംപ്യൂട്ടർ സയൻസ് വിഭാഗത്തിന്റെ രാജ്യാന്തര തലത്തിലുള്ള ടെക് ഫെസ്റ്റിന്റെ ഭാഗമായി, സി.എസ്.ഐ, എഫ്.ഒ.എസ്.എസ്. സെല്ലിന്റെ സംയുക്ത ആഭിമുഖ്യത്തിലാണ് ഹാക്കത്തോൺ സംഘടിപ്പിച്ചത്.

പെറിയ ഫൗണ്ടേഷൻ ഡയറക്ടർ അനൂശ്രീ, ലോജിക് സ്പേസ് ടെക്നോളജീസ് സി.ഇ.ഒ. അനീഷ് നായർ എന്നിവർ വിധികർത്താക്കളായി. കോവിഡുമായി ബന്ധപ്പെട്ടു വിവിധ മേഖലകളിൽ നാം നേരിടുന്ന പ്രശ്നങ്ങൾക്കുള്ള പരിഹാര മാർഗങ്ങൾ ഈ ഹാക്കത്തോണിന്റെ ഭാഗമായി കുട്ടികൾ പ്രോജക്ടുകളായി അവതരിപ്പിച്ചു. ഈ പ്രോജക്ടുകൾ പൂർത്തീകരിക്കുന്നതോട് കൂടി കോവിഡ് അനുബന്ധ വിഷയങ്ങളിൽ പല പ്രശ്നങ്ങൾക്ക് പരിഹാരമാകും എന്ന ശുഭ പ്രതീക്ഷയാണ് ഇതു പോലുള്ള പ്രോഗ്രാമുകൾ സമൂഹത്തിനു നൽകുന്നതെന്ന് ടോക് എച്ച്. കംപ്യൂട്ടർ ആൻഡ് സയൻസ് എച്ച്.ഒ.ഡി. ഡോ. ശ്രീല ശ്രീധർ അഭിപ്രായപ്പെട്ടു.

ടോക് എച്ച്-ൽ പുതിയ കോഴ്സുകൾക്ക് അനുമതി

കൊച്ചി ▶ ആരക്കുന്നം ടോക് എച്ച് ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് സയൻസ് ആൻഡ് ടെക്നോളജിയിൽ പുതിയ ബിടെക്, എം.ടെക് കോഴ്സുകൾ നടത്താൻ ഓൾ ഇന്ത്യ കൗൺസിൽ ഫോർ ടെക്നിക്കൽ എജ്യൂക്കേഷനും കേരള സാങ്കേതിക സർവകലാശാലയും അനുമതി നൽകി.

ഇലക്ട്രിക്കൽ ആൻഡ് കംപ്യൂട്ടർ എൻജിനീയറിങ് (ബി.ടെക്), ഡേറ്റ സയൻസ് (എം.ടെക്) എന്നീ കോഴ്സുകൾ തുടങ്ങുന്നതിനും ബി.ടെക് കംപ്യൂട്ടർ സയൻസിന് 50 ശതമാനം സീറ്റ് വർധിപ്പിക്കുന്നതിനുമാണ് അനുമതി ലഭിച്ചിരിക്കുന്നതെന്ന് മാനേജർ ഡോ. കെ. വർഗീസ് അറിയിച്ചു.

ഡേറ്റ സയൻസിൽ അധ്യാപക പരിശീലനം

22/06/2021

ആരക്കുന്നം: ടോക് എച്ച് എൻജിനീയറിങ് കോളേജിലെ കംപ്യൂട്ടർ സയൻസ് വിഭാഗം 'ഡേറ്റ സയൻസ് ഫോർ ദി നെക്സ്റ്റ് ഡെക്കേഡ്' എന്ന വിഷയത്തിൽ ജൂലായ് അഞ്ചുമുതൽ ഒമ്പതുവരെ അധ്യാപക പരിശീലനം നടത്തും. എ.പി.ജെ. അബ്ദുൽ കലാം സാങ്കേതിക സർവകലാശാലയുമായി (കെ.ടി.യു.) സഹകരിച്ചാണിത്. കെ.ടി.യു. അഫിലിയേറ്റഡ് കോളേജുകളിലെ അധ്യാപകർക്കും ഗവേഷണ വിദ്യാർഥികൾക്കും പങ്കെടുക്കാം. 25-നകം രജിസ്റ്റർ ചെയ്യണം. ലിങ്ക്: http://bit.ly/toch-fdp-2021

Toc H college wins bronze medal at innovation awards

Kochi: The blockchain-based project titled 'BLOCULUS' developed by the students of the department of computer science and engineering, Toc H Institute of Science and Technology, Arakkunnam, won bronze prize at the State Innovation Awards, organized as part of the annual TECHFEST 2021 by the Kerala State Council for Science, Technology and Environment.

The project is an 'incident detection and post incident analysis framework' that can be utilized in vehicle accident scenario, using blockchain and machine learning. The project is developed by Rithin Varghese, Vyshnav Sasidharan, Raghesh Kumar and Nandu Nagesh under the guidance of assistant professor Abin Oommen Philip. The team received the award, which comprises a purse of Rs 10,000 and certificates, from higher education minister R Bindu on Tuesday. This project also got selected to the final round of the national-level engineering students' 'India International Science Festival' and to the 10th CSI InApp International Student projects Award 2021. TNN

Behind This Issue...

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Asst. Prof. Leda Kamal (CSAT Coordinator)
Ms. Janet S, Mr. S Sidharth (S5 CSE)

CSAT – Computer Science and Engineering Student's Association of TIST

CSI TIST Student Branch

NBA — NATIONAL BOARD of ACCREDITATION — Accredited UG Programs*
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TocH Kochi

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