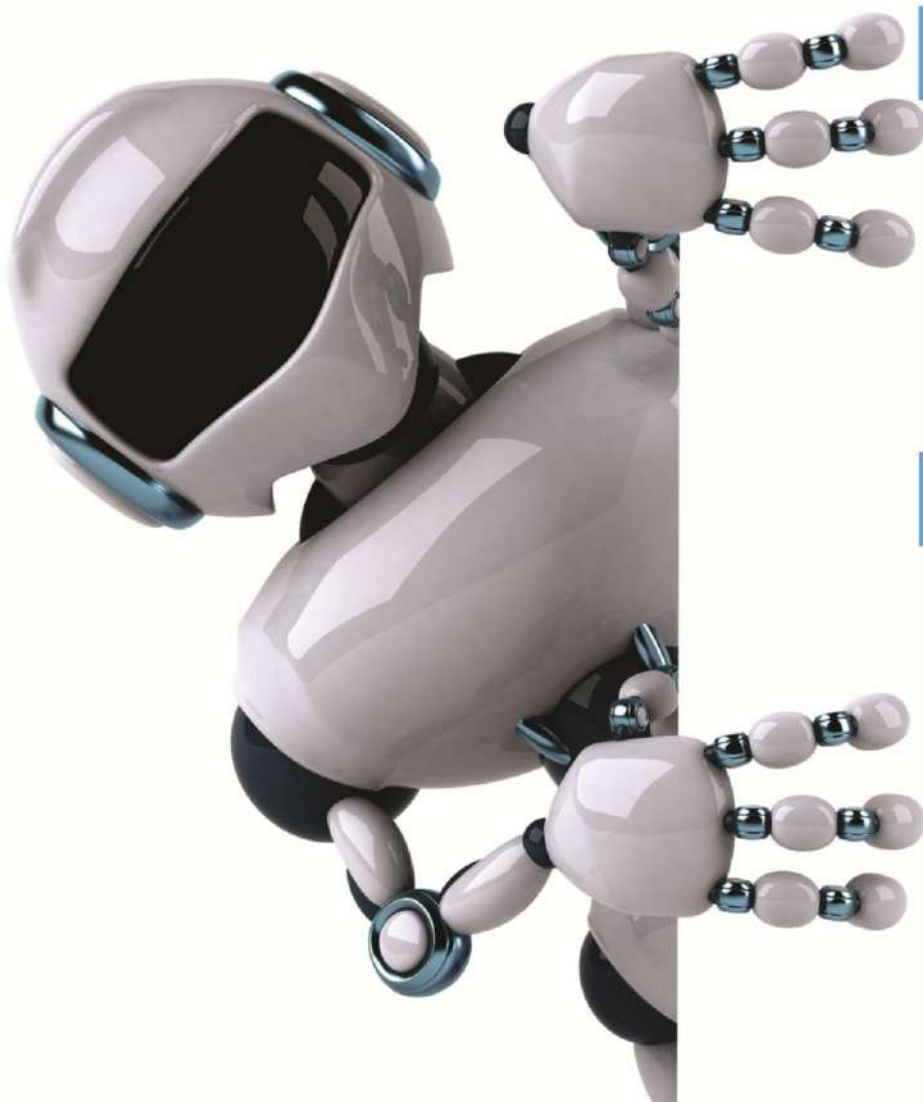# Darpan

NEWSLETTER

DEPT. OF COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT 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.

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.

TOC H INSTITUTE OF SCIENCE AND TECHNOLOGY

ARAKKUNNAM P O, PIN: 682313, ERNAKULAM DISTRICT, KERALA
TEL : 2748388, 2749600, 2749393, FAX : 0484 2748388

Email : mail@tistcochin.edu.in   Web : tistcochin.edu.in

PROGRAM OUTCOMES

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.

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)

Student of the Computer Science and Engineering program will:

PSO1: Professional Skills
Attain the ability to design and develop hardware and software based systems, evaluate and recognize potential risks and provide creative solutions.

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.

GLORIOUS ACHIEVEMENTS

CSI NATIONAL AWARD
BEST ACTIVE STUDENT BRANCH

Toc H CSI Student Branch has been honoured with the prestigious National level 'Best Accredited Student Branch Award' from Computer Society of India for the year 2015-'16, the **fifth time** in a row. With this, TIST has proven its continuing excellence in coordinating best in class professional society activities. TIST is the only college in Kerala which holds pride for this prestigious National level recognition continually since 2012. The institute has a very active student wing, which has distinguished itself by organizing international conferences, intercollegiate competitions, technical sessions and workshops, thus contributing towards the skill development of students. Asst. Prof. Elsaba Jacob received the award from Mr. Sanjay Mohapatra, Vice President, CSI, during the 51st CSI Annual Convention held at Le Meridian, Coimbatore on 25th January 2017. CSI President, Dr Anirban Basu and Hon. Secretary, Prof. A K Nayak were present during the ceremony.

CSE TOPPERS

B.TECH CSE - TOPPERS 2017

1st Position
Akshay K
CGPA - **8.82**

2nd Position
Sreelakshmi K K
CGPA - **8.63**

3rd Position
Aswathy Subramanian
CGPA - **8.53**

M.TECH CSE - TOPPERS 2017

1st Position
Steffy Livera
CGPA – **9.10**

2nd Position
Remilda Rajan
CGPA – **8.82**

BEST DEPARTMENT AWARD
2015-'16

The Department of Computer Science and Engineering has been honoured with the 'Best Department Award' of Toc H Institute of Science and Technology for the best all round performance in the academic year 2015-'16. The award was presented during the graduation day ceremony held on 19th August 2016.

NOTABLE STUDENTS' ACCOMPLISHMENTS

SV.CO - STARTUP VILLAGE-SILICON VALLEY INITIATIVE WINNERS

Abraham Solomon, Neeraj Naveen, Mohammed Shafeeque O M and **Devender Gupta** of 2013-'17 batch were selected to the final round of "**SV.CO**", the Startup Village-Silicon Valley initiative held in November 2016. They successfully completed their training and got selected for Silicon Valley Visit.

Abraham Solomon, one among the team members of SV.CO finalists, has **visited Silicon Valley** in June 2017. He is one among the 21 young entrepreneurs selected by **KSUM** (Kerala Start-up Mission), from among the engineering colleges across Kerala based on their entrepreneurial skills and innovative ideas.

BEST CONCEPT AWARD

Arathi P Menon, Ria Elizabeth Joe, Thara Jose of S1 CSE (2016-'20 batch) won the "Best Concept Award" for the paper titled '**Micro Hydel Project at Dam Toe**', in the National Level Paper Presentation Contest '**MAKE IN INDIA**', led by Project Council and the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India, held at Sathyabama University Chennai on 19 November 2016.

BEST STUDENT AWARDS

Yadev Jayachandran and **Ria Elizabeth Joe** (2016-'20 batch) were honoured with the 'Best Student Award' in the male and female categories of the 1st year TIST during the academic year 2016-'17. The 'Alexander Endowment Award' in memory of Late. Shri. Kochukunju, sponsored by Dr. Alex Mathew, Director of Toc H Public school society, was presented during the annual day celebrations held in March 2017.

SMART INDIA HACKATHON 2017' - FINALISTS

Siddharth Prajosh C (2014-'18 Batch) and **Yadev Jayachandran** (2016-'20 batch) participated in the Grand Finale of '**Smart India Hackathon – World's Biggest Digital Movement**'. This was a 36 hours non-stop digital programming competition held simultaneously at 29 different Nodal Centers (26 Locations) across India. ISRO and Department of Space organised the finale, based on the theme "Information and Cyber Security", at Gujarat University, Ahmedabad, Gujarat during 1st and 2nd April, 2017, where 49 teams participated. The team presented their project on 'Solution to detect Physical Intrusion Detection' and secured certificates and mementos.

TIST FOUNDATION AWARDS FOR 'BEST STUDENTS'

Aswathy Subramanian (2013-'17 batch) is bestowed with the 'TIST Foundation Award' for being the '**Best Outgoing Student under TIFFERS**'. The award sponsored by Dr. K Varghese, Founder Director & Manager of Toc H Public school society, was presented during the annual day celebrations held in March 2017.

Sreelekshmi R Nair (2015-'19 batch) is bestowed with the 'TIST Foundation Award' for being the '**Overall topper in first year B.Tech under TIFFERS**'. The award sponsored by Dr. V Job Kuruvilla, former principal and director of TIST, was presented during the annual day celebrations held in March 2017.

NOTABLE STUDENTS' ACCOMPLISHMENTS

TIST IEDC COORDINATORS

Siddharth Prajosh C, Sahana M Sherief, Manju Mohan (2014-'18), Muhammed Ashique Kuthini and Raichel Suseel (2015-'16) serves as office bearers of the Innovation & Entrepreneurship Development Cell.

STUDENT ENTREPRENEURS

Abraham Solomon, Neeraj Naveen, Mohammed Shafeeque and **Devender Gupta** of 2013-'17 batch started a company 'NIMKRAFT'.

Jerin A Mathews (CSE Alumni) along with **Mohammed Ashique Kuthini** of 2015-'19 batch started a company 'RECTFY' and they received a 'Startup Box' from Kerala Start-Up Mission (KSUM), containing an iPhone 6, iPad mini, Macbook Air, display adapter, Nexus 5, Kindle, 1 TB Hard disk and Arduino Starter Kit.

LAURELS – STUDENTS

SESSIONS CONDUCTED

Steffy Livera, Remilda Rajan and **Honey Brijeet Johny**, M.Tech Data Security 2015-17 batch students, in association with Women's Cell, conducted an awareness session on **women's safety, 'NIRBHAYA'**, for TIST B.Tech, M.Tech and MBA students, as part of women's day celebrations on 8th March 2017 at TIST. They also have conducted Cyber Security awareness session for B.Tech Safety Engineering students.

TECHNICAL LEADERSHIP

·**Manju Mohan** (2014-'17) served as a **Student Ambassador** (from June to July, 2017) for **IMAD** (Introduction to Modern Application Development). IMAD is an online course conducted by IIT Madras and Hasura in partnership with NPTEL. Manju is also selected as a **Team Lead for Cyber Security** in the **IEEE Computer Science 'Technergize'** initiative.

ARTS & SPORTS

·**Kiran P** (2013-'17 batch) was the member of College Cricket Team which won first place in the MBC Cricket Tournament conducted at Mar Baselious Christian College of Engineering, Kuttikanam.

·**Amal Santhosh** (2013-'17 batch) was part of college dance team which secured first prize in Dance Competitions in various College Cultural fests.

TECHNICAL EVENTS

·**Siddharth Prajosh** (2014-'18) participated and won the 'Young Pioneer and Aspiring Start Up Founder' award in the **Make-A-Thon event** conducted by Startups Club Networks LLP at VIT, Vellore on 5th & 6th July 2016.

·**Siddharth Prajosh** (2014-'18) secured first prize in debugging (Bug Tracker) contest in the Code Veda technical symposium held at Mangalam College of Engineeering, Kottayam on 30th Sept & 1st Oct 2016.

·**Aravind M and Naseem Mohammed Ali** (2014-'18) won first prize in Double Dare competition held on 23rd January 2017 in BLITZKRIEG 2K17 held at Sacred Heart College, Thevara.

·**Harikrishnan V and Sankar P G** (2015-'19) won third prize in the debugging contest in DHISHNA 2017 held at School of Engineering, CUSAT on 4th February 2017.

·**Mohammed Asif** (2015-'19) won first prize in "Dead Man's Chest" competition held as part of Bharatham 2K17 at FISAT Anagmaly on 17th February 2017.

ONLINE CERTIFICATIONS

Thomas Biju (2014-'17) secured online certification for the course on 'Introduction to Modern Application Development' by **NPTEL** Online in July August 2017.

GLORIOUS ACHIEVEMENTS

FACULTY ACHIEVEMENTS

CSI - LONGEST CONTINUOUS SBC AWARD

Asst. Prof. Elsaba Jacob of CSE has been bestowed with the National level '**Longest Continuous Student Branch Coordinator Award**' from CSI, in recognition for the significant contributions to the CSI student chapter activities. This is the **second time** that she is chosen for this prestigious recognition as best coordinator. The award was presented during the 51st CSI Annual Convention held at Le Meridian, Coimbatore on 25th January 2017.

BEST INSTITUTIONAL KNOWLEDGE OFFICER AWARD FROM ICTAK

Asso. Prof. Jesna Anver is selected as the '**BEST IKO – 2016**' - Institutional Knowledge Officer of ICT Academy of Kerala. She received the award during the ICTAK Annual Summit held at Trivandrum on 19th January, 2016. The award was handed over by the honourable Vice Chancellor of Kerala Technological University, Dr. Kuncheria P Issac.

BEST TEACHER AWARD 2015 - '16

Ms. Panchami V, Asst. Prof., Dept. of CSE has been honored with the '**Best Teacher Award**' of Toc H Institute of Science and Technology for the year 2015-'16. The award was presented during the graduation day ceremony on 19th August 2016.

BEST PPT PRESENTATION AWARD

Ms. Elsaba Jacob, Assistant Professor, Dept. of CSE has been honoured with the '**Best PPT Presentation Award**' of Toc H Institute of Science and Technology for the academic year 2015-'16. The award was presented during the graduation day ceremony held on 19th August 2016.

REGISTERED FOR PH.D

Ms. Ceira Sara Cherian, Assistant Professor, Dept. of CSE registered for Ph. D in Kerala Technological University (KTU), in 2016-'17.

UNIVERSITY RESULTS & PLACEMENTS

B.TECH RESULTS

April 2017 (2013-'17 batch) - 53% pass with 10 distinctions and 19 first classes in the B. Tech Degree Examination, April 2017.

PLACEMENTS

· 60% of the eligible students of B.Tech 2013-'17 batch got placed in various reputed companies like Infosys, UST Global, etc.

· 15% students opted for higher studies.

M.TECH RESULTS

April 2017 (2015-'17 batch) - 100% pass with all distinctions in the M. Tech Degree Examination, April 2017.

B.TECH RESULT ANALYSIS

Batch	Semester	Pass Percentage
KTU		
2015-'19 batch	S4	65% *(4th position among all colleges under KTU, 2nd among all self financing colleges)*
	S3	71.67% *(4th position among all colleges under KTU, 1st among all self financing colleges)*
2016-'20 batch	S2	61%
	S1	64.41%
CUSAT		
2013-'17 batch	S8	57%
	S7	70%
2014-'18 batch	S5	64%
	S4	66%

CSAT & CSI STUDENT BRANCH ACTIVITIES

LAUNCH OF CSAT & CSI ACTIVITIES 2016-'17

The launch of activities of CSAT – Computer Science and Engineering Student's Association and CSI Student Branch of Toc H Institute of Science & Technology for the academic year 2016-'17 was inaugurated on 18th August 2016, by **Mr. Anoop Alex Koshy, Chief Consultant, NueTech Consultants Ltd., Thiruvananthapuram,** (Former Master Trainer - IT & Life Skills, ICTAK & Senior Project Manager, Infosys Technologies Limited). The function was presided over by Prof. Dr. P J Joseph, President, Toc H Public School Society. Assoc. Prof. Sreela Sreedhar, HOD-CSE presented the annual report. Dr. D Vincent H Wilson, Principal, Dr. Ravindran Nair, Dean-Mechanical Engg., and Dr. Varghese Paul, Dean, CS & IT, felicitated the gathering. HODs and faculty from different departments and students from CSE attended the event. The inaugural ceremony was followed with a technical interaction session with Mr. Anoop. He shared his thoughts on the topic **"Digital World and My Possibilities"**.

DARPAN 2016, THE ANNUAL NEWSLETTER RELEASE

The Annual Newsletter of the department, '**DARPAN 2016**' was released during the event by the chief guest. Awards were distributed for the toppers of B.Tech and M.Tech.

MAJOR EVENTS

NATIONAL CONFERENCE 'LISDA 2016'

Department of CSE in association with TIST Library organized a **National Conference on 'Innovative Library Services in Digital Age's' LISDA-2016** on 1st and 2nd July 2016. The 2 Day Conference was inaugurated by **Sri. T C Mathew, Vice president**, BCCI, and presided over by Prof. (Dr) P J Joseph, President, Toc H Public School Society. Dr. A Ganesan, Director, Knowledge Resource Centre, PRIST University, Thanjavoor delivered the keynote address on **"Innovative Library Services in Digital Age's"**. Many distinguished people from reputed institutions all over India attended as leading presenters and delegates.

The leading presentations were the following.

· **"Digitizing Heritage: An Account of the Digitization Projects of Kerala State Central Library"** by Ms. Sobhana P K, State Librarian, Govt. of Kerala.

· **"Building Digital Libraries using Greenstone"** by Dr. M.G. Sreekumar, IIM, Kozhikkode.

· **"Library Automation in Contemporary Open Source Environment"** by Mr. T K Gireesh Kumar, Central University, Kasargod.

· **"Achieving the Objectives of the Public Library Movement using Information and Communication Technologies (ICT)"** by Prof. (Dr). P J Joseph, President, Toc H Public School Society, Kochi.

· **"Agricultural Information Systems and its Impact among the Farmer Community: A Study with Special Reference to Kerala"** by Smt. Laila T Abraham, Librarian, MG university, Kottayam.

· **"Consortium for e-Journals: An Imperative for Self Financing Engineering Colleges"** by Dr. M. Jayapradeep, VPE, Mavelikkara.

· **"Techniques of Literature Search for Relevance and Efficiency in Research"** by Mr. Humayoon Kabeer, Govt. Arts & Science College, Calicut.

INTERCOLLEGIATE EVENT - TECH FOSS 2K17

TECHFOSS 2K17

The Department of Computer Science and Engineering, jointly with IEDC (Innovation and Entrepreneurship Development Cell) of TIST, in association with the Computer Society of India, organized a two day national intercollegiate technical event 'TECH FOSS 2K17' on 17th & 18th February 2017. This is the **fifth time** that TIST is organizing an open source promotion initiative. The chief guest of the day was **Mr. Sijo Kuruvilla George, Founding CEO @ Startup Village.** He officially declared the launch of the two days program and delivered the keynote address on 'Entrepreneurship and Challenges'. He shared his experiences as a mentor for many innovative talents from engineering colleges.

Prof. Dr. Preethi Thekketh, Principal, TIST delivered the Principal's address, and extended her wishes for the success of the event. TIST CSI and CSAT office bearers received the 'CSI Best Student Branch Award from Mr. Sijo. Dr. Raveendran Nair (Dean-Academics), Ms. Sreela Sreedhar, HOD-CSE, Mr. Titus Thomas (TIST IEDC Nodal Officer), Ms. Elsaba Jacob (TIST CSI SBC), Professors, HODs and faculty of various departments, faculty and students of CSE attended the event.

MAKER EXPO

The major highlight of Tech FOSS was the Maker Expo, an initiative to promote development of **open source based tools.** Knowledge sharing groups interacted and demonstrated various free and open source tools and software to the interested participants. The exhibits included projects like Drone, Friska Water Cooler, Solar Lamp, Music system from Scrap, Holographic projector from mobile video, Talking Robot, Blood circulation checking equipment, Wiky Robot, Micro Second measuring system, Measuring gauge etc. There was a live demo of 3D Printing Technology by MakerBot. There was a live quadcopter flight show, dancing robot show and hoverboard demo. Mr. Akhil, a robotic expert, conducted a hands-on session on "**How to build a drone in 45 minutes?**" using the drone kit.   Maker expo witnessed enthusiastic participation from more than 250 students, including external college participants.

ANDROID WORKSHOP

Two days workshop on Android was conducted by **Mr. Jerin A Mathews, CTO, Rectfy (CSE Alumni)**. There were 35 participants, including 11 external participants from different engineering colleges across Kerala. The workshop started with the basics of Android, and had hands on training on app making. The session proved to be useful in helping students to get hands on experience on mobile app development.

RUBY ON RAILS WORKSHOP

Two days Ruby workshop was conducted by **Mr. Roshan Jossey and Mr. Muralikrishna, enthusiasts from Kerala Ruby Group**. Learning to build a modern web application is made much easier and more fun with Ruby on Rails. The workshop covered web development using Ruby and exemplified with GITHub, that will help moving the right direction in the web development process.

PYTHON DJANGO WORKSHOP

Two-day hands-on workshop on Web application development using Python/Django framework was conducted by **Mr. Jibin Jose, an enthusiast from KochiPython Community.** Django is a high-level Python Web framework that encourages rapid web development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so users can focus on writing their app without needing to reinvent the wheel. It's free and open source. The workshop was designed to provide an enjoyable experience to everyone with Python programming language and it provided an amazing opportunity to shape the future with most demanding Skills. More than 90 participants attended the workshops.

CONTESTS: Android – My First App Challenge

TechFOSS 2k17 witnessed an interesting contest, Android – My First App Challenge. Mr. Syamkumar A S of Mar Baselios Institute of Technology and Science [MBITS], Kothamangalam, secured first prize for 'Currency Converter' App.

Tech FOSS 2k17 witnessed enthusiastic participation from more than 300 participants from different colleges across Kerala – SCMS School of Engineering, Karukutty, Vidya Academy of Science and Technology, Trissur, Mar Baselios Institute of Technology and Science, Kothamangalam, K M E A Engineering College, Aluva, Holy Kings College of Engineering and Technology, Pampakuda, MES College of Engineering and Technology, Kunnukara, Vimal Jyothi Engineering College, Kannur, Mangalam College of Engineering, Kottayam, Sacred Heart College, Thevara, National Institute of Open Schooling, etc. The day helped to open a new world of open source to the participants – a freedom trend.

FDP ON SECURE CLOUD COMPUTING

Department of Computer Science & Engineering of Toc H Institute of Science & Technology, Arakkunnam in association with Computer Society of India (CSI) conducted five days Faculty Development Programme on "Secure Cloud Computing" from 13th to 17th June 2016. **Ms. Asa John, Cloud Solution Architect, TCS, Infopark, Kochi** inaugurated the programme. The inaugural function was presided over by Dr. D Vincent H Wilson, Principal, Toc H Institute of Science & Technology. Dr. Varghese Paul, Dean (CS & IT) and Asso. Prof. Sreela Sreedhar, HOD-CS felicitated the gathering. The programme focused on research issues related to cloud security. Expert faculty members from IIITM-K Thiruvananthapuram & other reputed engineering institutions, industrial experts from TCS Cochin and UST Global served as resource persons on various aspects of secure cloud during these days. Hands-on sessions on cloud by experts from Kerala Start Up Mission were also included as part of the FDP.

The sessions included the following.

- Expert Lecture on 'Introduction to Cloud Computing' by Ms. Asa John, Cloud Solution Architect, TCS, Infopark
- Expert Lecture on 'Block Chains & Its Application to Cloud Security' by Dr. Tony Thomas, Asst. Professor, IIITM- K, Thiruvananthapuram
- Expert Lecture on 'Cloud Services (AWS)' by Mr. Krishna Kumar Gopinathan, Cloud Solution Architect, UST Global, Kochi.
- Expert Lecture on 'Research Issues in Cloud' by Dr. Sangeetha Jose, Assistant Professor, Dept. of IT, GEC Idukki.
- Hands-on Workshop on 'Virtualization' by Mr. Pankaj Kumar G, Assistant Professor, Federal Institute of Science & Technology, Angamaly.
- Expert Lecture on 'Cryptographic Cloud' by Dr.Varghese Paul, DEAN CS/IT, TIST (Retd. Professor, CUSAT).
- Hands-on Workshop on 'Private Cloud Setup (OPENSTACK)' by Mr. Pankaj Kumar G, Assistant Professor, Federal Institute of Science & Technology, Angamaly.
- Hands-on Workshop on 'Public Cloud and Cloud Security (AWS) - Amazon Cloud Services' by Mr. Shahul Hameed, Fellow at Kerala Startup Mission (KSUM)

FDP ON 'DATA ANALYTICS USING R' BY ICTAK

Department of Computer Science and Engineering, in association with **ICTAK** organized a three day Faculty Development Programme on 'Data Analytics using R programming' from 13th to 15th December 2016. Topics included basics of data mining and big data, basics of R programming, R graphics, basic statistics, packages, database applications and case discussions.

Day 1: Data Mining Overview, Introduction to Data Science, Why Big Data?, Introduction to R: An overview and features of R programming system, R environment, Basic Data Structures, Data types, Introduction to R Studio, Working with Real Data, Vector operations, Conditionals: using "if" and "else" statements in R, Basic Plotting.

Day 2: R Graphics, Manipulating data in R, Looping in R: Introduction to the concept of looping in R, Write your own functions, Basic Statistics: Covariance,
Correlation, Regression etc., Advanced data manipulation.

Day 3: Packages, Merging Data, Database Applications, Connecting to My SQL, Reading a web page into R, Case

FDP ON 'FREE AND OPEN SOURCE SOTWARE (FOSS)'

Department of Computer Science and Engineering, in association with Computer Society of India organized a three day Faculty Development Programme on **'Free and Open Source Software'** from 16th - 18th December 2016. Main objective of the FDP was to provide a platform for participating faculty members to get an exposure in FOSS environment and hence enable students to use open source packages for development and research.

Day 1: Hands-on sessions on Linux Commands, Shell Programming, Shell Scripts, Text Processing and Regular Expression with Perl, Awk, Kernel configuration, compilation and installation, Virtualisation environment, Package Management System.

Day 2: GUI programming, Version Control using GIT, Familiarization of Virtualisation Environment, PHP, Application deployment on a cloud-based LAMP stack/server, Advanced Linux commands.

Day 3: Hands on training on GIT, PHP

Asst. Prof. Jestin Joy (Assistant Professor, FISAT, Angamaly), Mr. Jerin A Mathews (CTO, Rectfy), Mr. Libin P Babu (Software Engineer, Geojit Technologies), Mr. Raphy P Varghese (CEO, gooseBerry.media), were the resource persons.

SOCIAL COMMITMENT & EMPOWERMENT ACTIVITIES

'AKSHARA DEEPAM' PROGRAMME AT FATHIMA MATHA HSS PIRAVOM

Department of CSE **sponsored Mangalam daily** for the next academic year, in support for 'Akshara Deepam' programme by Mangalam at Fathima Matha HSS, Piravom. This is an initiative to inculcate reading habits among the young generation. Dr. Varghese Paul, Dean, handed over the copy to student representatives of the school. Asso. Prof. Sreela Sreedhar (HOD) and Asst. Prof. Saira Varghese were present durng the event which was held on 20th June, 2016.

AWARENESS SESSION ON "INDIAN DEFENCE SERVICE & CAREER OPPORTUNITIES FOR ENGINEERING GRADUATES"

An interactive and informative session on "Indian Defence Service & Career Opportunities for Engineering Graduates" was organized on 1st July, 2016 for the benefit of B.Tech students of all branches, who has a passion towards joining IDS. **Capt. Aji P Mathew, Army Officer, Raiwala**, Uttarakhand was the resource person. He shared his experiences as defence personnel. He also explained the different career opportunities within IDS and gave an overview of the different examinations to be cleared in achieving the same.

OLD AGE HOME AND ORPHANAGE VISIT

Students of CSE along with faculty members, visited **old age home 'Karunalayam'** in Mamalakkavala, Piravom and **'Sughadha' Orphanage** at Kolenchery in September 2016. The visit was a valuable experience, as it gave an insight regarding the need to value the senior citizens of our family and society, despite isolating and excluding them to the old age homes and orphanages. They also recognized the value of a family; many children around the world are growing up in orphanages, without the love and care of a family which is critical to a child's healthy development. The students and faculty spent time with the inmates, distributed gifts for them, arranged 'Ona Sadya' for them and they returned with the satisfaction of brightening up at least a day for the needy.

DISTRIBUTION OF INK PENS FOR PROMOTING ECO-FRIENDLINESS

When it comes to protecting the environment, even the impact of a small bit of plastic used to make a ball pen can make a difference; also, the reality is that most ball pens are thrown away at the first sign of trouble or just lost after a single use thereby increasing the plastic waste. The Dept. of CSE of Toc H Institute of Science and Technology, in association with 'Kakkoor Grameena Vayanasala', distributed ink pens to school students, as a first step towards eco-friendliness. The event on 3rd June 2017 was inaugurated by Sri. K M Gopi, Secretary, Muvattupuzha Taluk Library Council. Assoc. Prof. Sreela Sreedhar, HOD-CSE attended the event.

CSE STUDENTS OF TOC H INITIATES 'NAKSHATRA VANAM' AT CAMPUS

CSE students came up with the environmental support initiative 'Nakshatra Vanam' at their campus at Arakkunnam. Kerala Forest Department Retd. DFO Sri. S. Unnikrishnan initiated the programme on 6th August 2016, by planting a Neem tree sapling in the Campus. Toc H Environmental protection awareness session and a Quiz program were also conducted in accordance with this green initiative. The 27 trees representing the 27 birth stars have medicinal, social and aesthetic values, which helps purify the air, thereby maintaining a healthy and sound green ecosystem in the campus. Details regarding these star trees were labeled and exhibited. Toc H Management Secretary Sri. K A Simon, Principal Dr. D Vincent H Wilson, Dean Dr. Varghese Paul, HOD Assoc. Prof. Sreela Sreedhar and Asst. Prof. Elsaba Jacob addressed the students.

EMPOWERING HOUSEWIVES IN COMPUTER EDUCATION

NSS unit, CSE and IT departments of TIST, in association with CSI Cochin Chapter, conducted a **two week free course on basic computer training for the housewives** from 7th – 16th June 2017. The participants were trained in basic computer usage, Microsoft office and internet. They were also familiarized with smart phone usage, and at the same time, given awareness on the security aspects of the smart world. Those who completed the course were given certificates.

SOCIAL OUTREACH PROGRAM AT SCHOOL

Yadev Jayachandran of 2016-'20 batch of the Dept. of CSE had taken an motivational session for students at **Infant Jesus Public School, North Paravur** on 22nd July 2017 to enhance their passion for technology. The topic was 'Trends in Information Technology', which gave an overview of latest technologies and guided the interested students regarding how they can start with.

MEMORANDUM OF UNDERSTANDING (MoU)

The Department also holds **MoU**s with the following organizations.
- Technolodge, The First Rural IT Park in Kerala
- Centre for Development of Advanced Computing (C-DAC)
- ICT Academy of Kerala (ICTAK)
- Oracle Academy
- Red Hat Academy
- VSB Technical University, Ostrava, Czech Republic

QUALITY IMPROVEMENT PROGRAMS

INFOSYS CAMPUS CONNECT

CSE Department successfully conducted Infosys Campus Connect Foundation Program 4.0 sessions for CSE S7 students. Asst. Prof. Abin Oommen Philip (CC Coordinator) along with other faculty handled the sessions.

SESSIONS ORGANISED FOR STUDENTS

Short Term Training Program (Industry Internship) on 'Web Development'

An Industry Internship Program for S3 and S5 students on 'Web Development' was conducted from 20th June to 2nd July 2016 by Zixent Technologies LLP, Technolodge, Piravom in association with CSI Student Chapter and TechnoLodge, Piravom. Mr. Mohammed Shadab and Mr. Anilal G, UI/UX developers at Zixent led the training programme. Mr. Shine Joseph, Mr. Josemon Maliakal, Mr. Nibin Paul and Mr. Sooraj E R from Zixent Technologies handled technical sessions and hands-on session for students. The sessions covered html, css and php programming.

Placement Training

Two day placement training program was organised for S7 CSE students from 27th and 28th June 2016. The sessions were handled by Mr. R Aditya Naik and Ms. Nisa Johnson (Alumni of TIST, 2016 batch). The training process involved aptitude training and group discussions.

GATE Awareness Session
Mr. Baazil P Thamby from TIME Pvt. Ltd. motivated the students regarding the importance of GATE in higher education/job hunting and urged them to acquire the same. S5 and S7 students attended the session on 30th June 2016.

Motivational Talk on 'Entrepreneurship and Career'
Mr. Raphy P Varghese, CEO, gooseBerry.media, Technolodge, Piravom, delivered a motivational session on 'Entrepreneurship and Career' for S5 students on 15th July 2016. This was conducted as part of world outside program (WOP). Mr. Raphy interacted with the students and shared his experiences as an entrepreneur.

Training Session on 'Presentation Skills'
Mr. Vijayan P N from TIME, Kochi took a session on 'Presentation Skills' for S5 students 18th July 2016. The students were given tips on improving presentation skills and they had speak up sessions.

Bridge Course on C Programming
Asst. Prof. Leda Kamal and Asst. Prof. Anuraj C K of the Department of CSE, TIST, conducted theory sessions and hands on workshop on C Programming for the S3 students from 20th July to 29th July 2017. The bridge course covered basics of C, programming constructs with examples and pointer concepts. The course served as a support in enabling the students to do the data structures lab of the KTU syllabus.

Technical Session on Java
Mr. Prashob Rajan, Mr. Sujith R, Mr. Sreejith P C of Syntax Softech Private Ltd., Kochi, conducted a session on JAVA on 22nd July 2016 for S7 students. The session covered the basic concepts of java programming with workout examples.

Personality Development Session
Personality Development session was conducted on 22nd July 2016 by Mr. Basil George from Mission India, Thiruvalla, for S5 students. The students were given all round grooming in shaping their personality for a successful life.

Group Discussion Training
Mr. R Krishnan of TIME, Kochi handled a Group Discussion training session for S5 students on 27th July 2016. The students were divided into groups and live training session was conducted for them. Instructions regarding how to present the ideas in a GD were given to the participants.

Personality Development Session - 'Character Building'
A series of personality development sessions was organized for S5 students on 22nd July, 5th August and 18th August 2016 by Mr. Basil George from Olive Life Solutions. The sessions concentrated on overall character development of the students.

Orientation Programme on 'Introduction to Engineering'
Mr. Manoj, Mr. Suraj and Mr. Benny George handled orientation sessions on 'Introduction to Engineering' for S1 students on 4th August 2016. The students were given an overview of the KTU engineering course.

Orientation Programme by ICTAK
Mr. Santhosh V and Mr. Krishnan Menon from ICTAK conducted an Orientation Programme for B.Tech S1 students on 17th and 18th August 2016.

Talk on 'Digital World and My Possibilities'
Mr. Anoop Alex Koshy, ME (IISc), Chief Consultant, NueTech Consultants Ltd., Thiruvananthapuram (Former Master Trainer - IT & Life Skills, ICTAK & Senior Project Manager, Infosys Technologies Limited) delivered a talk on 'Digital World and my Possibilities' to CSE students on 18th August 2016. The talk threw light on the unlimited possibilities that awaits an engineer and motivated the students to explore the opportunities.

Talk on 'Relevance of Computing in Modern World'
Mr. Jibin Jose, CEO, Flip Technologies (CSE alumni) conducted a motivational talk on 'Relevance of Computing in Modern World', for S1 and S3 students on 18th August 2016. He shared his own story, how he developed himself as a successful entrepreneur. He reminded the students regarding the importance of utilizing opportunities while they are doing their engineering and urged them to keep themselves updated with latest technology aspects.

Talk on 'Higher Education Options Abroad'
Mr. Nisanth P of Edwise Consultants Pvt. Ltd., Kochi, delivered a guest lecture on 'Higher Education Options Abroad' for S3 students on 19th August 2016. The session gave an overview of the varied opportunities for an engineer abroad.

Motivational Talk on 'How to Tackle Interviews?'

Mr. Pramod C Menon (Alumni of TIST), Technical Lead, Wipro Technologies delivered a motivational talk to S7 CSE and IT students on how to tackle interviews during their placement drives on 8th September 2016. During his session he shared his personal experience with the students as an Interviewer and also how he had faced the interview during his placement drives. He also urged the students to form various groups within the class to conduct group discussions and interview training within themselves.

Expert Session on 'Overview of Programming Languages'

Dr. Varghese Paul, Professor, RJSET (Retd. Professor, CUSAT) took a session on 'Overview of programming languages – C and Python' for S1 and S3 students on 23rd September 2016. This was done as part of bridge course for KTU students for giving them an overview of the new course.

Technical Session on 'Cloud Computing Infrastructure and Career Opportunities'

Mr. Jayakumar R of Ariston Cloud Services, Kochi, conducted a session on 'Cloud Computing Infrastructure and Career Opportunities' on 1st October 2016 for S1 & S3 CSE and IT Students. The session outlined the details on Cloud Computing and its associated job opportunities.

Awareness Talk on '21st Century Skills'

A session on '21st century Skills' was organized for S1 students on 4th October 2016 by Mr. Sahul Hameed and Mr. Yadhukrishna, Kerala Start Up Mission (KSUM). The students were given an awareness regarding the set of activities that any student must be familiar with to equip themselves for a career in engineering or entrepreneurship.

One day workshop on 'Cyber Forensics'

A one day workshop was organized for interested students from B.Tech and M.Tech CSE on the topic 'Cyber Forensics'. The session was handled by Mr. Jacob Jose, Head of Security Engieering, Gladius and Schild Security Consulting, Kochi, on 21st October 2016. The session covered Linux Installation and Networking, Kali Linux Installation and Networking, Android Debugging and Cyber Forensics.

One day workshop on LATEX for M.Tech Students

One day hands on session on Latex Typesetting tool was conducted for M.Tech students on 5th November 2016 by Ms. Mahima Mary Mathews, CSE alumni (former Software Engineer at Accenture).

CDAC Training on 'Programming in Java'

One week hands on training on 'Programming in Java' was conducted by Mr. Jayaram P and Ms. Devi Surya from CDAC, Kochi for the S6 students from 14th December to 21st December 2016. The students were given hands on training on Java web development and usage of SQL for handling DBMS based mini projects. The topics included Introduction to Java, Object oriented Programming, Data types, Variables, Loops, Control Statements, Arrays, Classes, Methods and Objects, Inheritance, Abstract Classes, Packages and Interfaces, Exception Handling, java.lang and java.util packages, Event Handling, Introduction to Swing, Swing Components and JDBC. The sessions were very useful for the students for their mini project development.

Industry Experience Sharing by Alumni

Mr. Amal Joy Chemparathy (SMAVA GMBH, Germany) and Mr. Vignesh Sharma (Concur India Pvt. Ltd. Bangalore), alumni of the department shared their industry experiences with S6 Students on 16th December 2016.

Technical Session on 'Drone Design and Big Data Analytics'

A technical session on 'Drone Design and Big Data Analytics' was conducted by Mr. Rakesh Kumar from Singularis Software Technologies, Kottayam, for S6 CS students on 7th January 2017. The session was about the growing relationship between drones and big data to improve the world, and it gave an insight on how the usage of data generated by drones in big data and operational analytics is going to add a new horizon in data storage, transfer infrastructure and data processing software.

Talk on 'Higher Education and Liberalization in US'

A talk on 'Higher Education and Liberalization in US' was conducted on 17th January 2017 for S7 students.

Sessions on 'Communication Skills and Team Building'
A session on 'Communication Skills and Team Building' was organized by TIME, Kochi for S6 Students on 8th February 2017. The session was helpful to horn the soft skills of students for equipping themselves for placement drives.

Awareness Session on 'Drug Abuse and its Impact on Society'
Selected students from S2 and S4 CSE attended a session on 'Drug Abuse and its impact on Society' conducted by Mr. Job, Kerala Excise Department. Kerala Police Team demonstrated and trained 'Self Defense skills' for women. The event was organized by NSS and Women's Cell of TIST on 17th February 2017.

Interaction Session with Mr. Sijo Kuruvilla
A motivational interaction session was arranged for 7 selected students from CSE with Mr. Sijo Kuruvilla, former CEO of Startup Village, Kochi on 23rd February 2017. He interacted with the students and gave guidelines on the different opportunities to excel in Computer Science field. He also shared his experiences as an entrepreneur.

Session on 'Current Trends in Computer, Communication and Technology'
A session on 'Current Trends in Computer, Communication and Technology' was organized for B. Tech and M. Tech students on 13th March 2017. The session was handled by Dr. Manjaiah D H, Professor, Mangalore University. He gave an overview of the latest trends in computing and technology and urged the students to keep themselves updated with latest technologies.

Motivating Session on 'Research in Computer, Communication and Technology'
Dr. Varghese Paul, Professor, RSET, (Retired Professor, CUSAT), delivered a session on 13th March 2017 for motivating the students to do research in Computer Science & Engineering. He explained the different areas of research in computer field.

Technical Session on 'Artificial Intelligence and Machine Learning'
A technical session on 'Artificial Intelligence and Machine Learning' was organized for S2 and S4 CSE students on 17th March 2017. The session was handled by Mr. Praveen Sridhar, Machine Learning Engineer at Datalog.ai. He is also the Technology Innovation Fellow at Kerala Start up Mission (KSUM). He explained details on building and deploying machine learning models for natural language understanding and other purposes with sample study details from his own experiences. He also shared his experiences at open source organizations like Mozilla and Swathantra Malayalam Computing to build an Indic Language Keyboard for Firefox OS with support for 14 Indian languages.

PROJECT EXPO 2017
The Department on Computer Science and Engineering in association with CSI TIST Student Chapter organized 'Project Expo 2017' on 17th March 2017. Different projects developed by final year students were showcased in the expo. Faculty members and students from various departments of the institute visited the exhibition. Interaction of junior students with their senior colleagues give them exposure to various possible areas and help them to identify their area of interest and where they can take up projects. Dr. N Vishwanath, Professor, CSE, Dr. Perumal Sankar, Professor, ECE and Asso. Prof. Sreela Sreedhar, HOD-CSE were the judges. Two best projects, 'Telepresence Robot' and 'Smart Mirror' were given cash prize and certificates.

Workshop on GIT - Version Control Tool
Department of CSE, in association with gooseBerry.media, Technolodge, Kakkoor, organized two days workshop programme on GIT for S4 CSE students on 10th and 11th April 2017. Mr. Raphy P Varghese, CEO, gooseBerry.media handled the two day session. Git is a version control system (VCS) for tracking changes in computer files and coordinating work on those files among multiple people. The students were given hands on training in GIT implementation.

Placement Training by TCS
A placement training programme was organized for S4 CSE students by TCS on 10th May 2017. The resource persons from TCS handled the training sessions.

Web Technologies Workshop Series

Mr. Mohammed Ashique Kuthini (2015 - '19) conducted Web Technologies Workshop series for S2 and S4 students from March to May 2017. The workshop was organized in association with CSI and IEDC, TIST. The students were trained to build web sites using latest technologies.

Short Term Training Program (Industry Internship) on 'Basics of Project Management"

Industry Internship training on 'Basics of Project Management' was conducted by Mr. Raphy P Varghese, CEO, gooseBerry.media, Technolodge, Piravom from 19th to 30th June 2017 for S2 students. This was a unique internship program to build Leaders for the Industry. The program included aptitude test, resume preparation, group discussions, mock interview, team formation, developing product idea, project management training in - UNIX and GIT commands, GIT - version control and project management, HTML5, CSS3, UI/UX, SEO/SMO basics, web hosting, idea pitching and product presentation. The students were divided into teams and the best performing teams were awarded.

International Yoga Day Celebration

Students from CSE department attended a talk on 'Importance of Yoga' and Yoga practice session on 21st June 2017. Smt. Sheeba Vinod, Yoga Therapist from Aamri International Hospital, Kakkanad, led the talk and practice sessions.

Placement Training

Five days placement training program by Konfidence group and Insight group was organised from 27th June to 1st July 2017 for S7 CSE students. The training process involved aptitude training, group discussions and mock interviews.

HTML/CSS Workshop

A one day workshop on HTML/CSS for interactive website building was conducted for Ist year students on 26th July 2017. Mr. Jerin A Mathews, CTO, Rectfy (CSE Alumni), Mr. Mohammed Ashique Kuthini of B.Tech 2015-'19 batch and Mr. Yadev Jayachandran of B.Tech 2016-'20 batch handled the sessions.

QIP/TRAININGS ATTENDED BY FACULTY

· **Asst. Prof. Leda Kamal** attended one day workshop on 'Discrete Mathematical Structures' on 26th July 2016 at Ilahia college of Engineering and Technology.

· **Asso. Prof. Sreela Sreedhar** attended VMWare Academic Leadership Meet, Kochi conducted by VMvare and ICTAK in September 2016.

· **Asst. Prof. Anuraj C K** and **Mr. Babin Babu** attended KSFECMA Academic Staff College Inauguration at Nedumbassery on 7th October 2016.

· **Asst. Prof. Mithu Mary George** and **Asst. Prof. Mima Manual** participated on 5 day Workshop on 'SDLC and Project Management' organized by RSET in association with CSI from 13th to 17th December 2016.

· **Asst. Prof. Saira Varghese** participated in FDP on 'Research Directions in Cloud Computing' organized by Dept of CSE and CSI at SNGCE, from 17th to 21st January 2017.

· **Asst. Prof. Anuraj C K** participated in 4 day workshop on FDP on FOSS lab jointly organized by IC-Foss and KTU from 23rd to 27th January 2017 at ICTAK, Infopark, Thrissur.

· **All faculty** from CSE department attended 5 day FDP on 'Advanced Web Technologies' organized by the Dept. of IT in association with ISTE TIST student chapter from 12th June to 16th June 2017. Sessions included HTML/ BootStrap 4, Flask, JS, CSS, JS, Node JS, Angular JS and WordPress.

· **Asst. Prof. Elsaba Jacob** attended five days FDP on Design Project from 15th to 19th July 2017 at Rajagiri School of Engineering and Technology, Kakkanad.

Asst. Prof. Ceira Sara Cherian attended two days workshop on Graph Theory on 25th and 26th of July 2017 at KMEA College of Engineering and Technology, Edathala.

GATE QUALIFIED STUDENTS

· Akshay K
· Nidhin Prathap
· Aswathy subramanian
· Meghna Ashoka Mohan
· Sreelakshmi K K

STUDENT PARTICIPATIONS

CO-CURRICULAR (EXTERNAL)

·Winu Kavanal and Sreehari N P (2015-'19) participated in Map My Home 2.0 Contest by dept of Survey and Land Records, Govt of Kerala from July 25th to 15th August 2016.

·Siddharth Prajosh (2014-'18) participated in the National level Workshop and IoT Project contest 'IoT Challenge 2016' conducted by i3indya Technologies in association with Sahrdaya CET, Kodakara on 23rd & 24th September 2016.

·Siddharth Prajosh (2014-'18) participated in the 4x120 Coding Competition at the National level Techno Manegerial Symposium 'Excel 2016' held at Model Engineering College, Kochi from 5th to 8th October 2017.

·Saurav Mohan, Siddharth Prajosh, Amrutha T G and Manju Mohan (2014-'18) participated in ICTAK Techathalon regional round.

·Siddharth Prajosh (2014-'18) participated in ICTAK Techathalon conducted by ICTAK & Kerala Startup Mission held at Technopark on 22nd October 2016.

·Aiswarya Milton Lopez, Jini Sara George, K Lekshmi, Kailas P A, Krishnapriya S (2015-'19) participated in the robotics competition 'LINE Following ROBO challenge' in the ROBORAVE India competition held at Choice School, Trippunithura, Kochi on 5th & 6th November 2016.

·Team Falcon comprising Harikrishnan Vijayan, Sankar P G, Uvais Toc H and Sreehari N P (2015-'19) secured honorable mention at 'ACM ICPC' (International Collegiate Programming Contest) Asia Amritapuri Multisite Regionals 2016 hosted by Amritha University, sponsored by IBM, during 22nd & 23rd December 2016.

·Siddharth Prajosh, Sony Sebastian, Aysha Zenab Kenza, Mereena Baby and Nikitha Sajan (2014-'18) participated in the Coding and Debugging contest held on 23rd January 2017, in BLITZKRIEG 2k17 held at Sacred Heart College Thevara.

·Siddharth Parjosh and Sony Sebastian (2014-'18) participated in IT QUIZ held on 23rd January 2017, in BLITZKRIEG 2k17 held at Sacred Heart College Thevara.

·Mathew S Paramban (2014-'18) participated in Debugging contest at DHISHA 2017 held at School of Engineering, CUSAT on 4th February 2017.

Amitha P Abraham, Aparna Radhakrishnan, Anjaly G S, Ann Mary Thomas, Fazeela M H, Naseem Muhammed Ali, Rashid, Nikitha Pinheiro, Nimisha Anna Ajith, Tinu Mariya, Sreela P and Sruthi S Prakash (2014-'18) participated in the Code Relay - Coding Contest at DHISHA 2017 held at School of Engineering, CUSAT on 4th February 2017.

Aysha Zenab Kanza, Lakshmi Mohan, Malavika Suresh, Mereena Baby and Nikitha Sajan (2014-'18) participated in Best Management Team Contest held on 4th February 2017, in INCEPTRA 2K17 held at Rajagiri College of Management and Applied Sciences.

·Renjith Saji Chacko and Siddharth Prajosh (2014-'18) participated in Prayudh'17, an Intercollegiate Quiz Competition held at Viswajyothi College of Engineering and Technology on 14th February 2017.

·Uvais K H and Praful Konnully (2015-'19) participated in Fast Wiring contest conducted as part of Brahma 2K17 held at AISAT Kalady on 22nd to 25th February 2017.

·Uvais K H, Harikrishnan V, Mohammed Ashique Kuthini, Praful Konnully, Noyal Jose and Akshay K (2015-'19) participated in Hackthon event conducted as part of Brahma 2K17 held at AISAT Kalady on 22nd to 25th February 2017.

·Akshay K, Harikrishnan Vijayan, Mohammed Ashique Kuthini, Noyal Jose (2015-'19) participated in MOCK CID contest conducted as part of Brahma 2K17 held at AISAT Kalady on 22nd to 25th February 2017.

·Siddarth Prajosh (2014-'18) participated in Robo Soccer event in 'Invento '17' held at Govt. College of Engineering, Palakkad from 10th to 12th March 2017.

·Jishnu N V and Joel Suresh (2016-'20) participated in 'Code Scramble' competition held as a part of 'Abhiyanthriki 2017' held at Rajagiri School of Engineering and Technology on 17th & 18th March 2017.

·Akshay K N, Amal M K, Anjaly R, Krishnendhu Menon T N, Rahul Murali, Arun Gandhi and Jishnu N V (2016-'20) has participated in 'Criminal Minds – Criminal Case Hunting' and treasure hunt competition in Ragam'17 conducted by National Institute of Technology, Calicut from 24th to 26th March 2017.

CO-CURRICULAR (INTERNAL)

·Ashika Chinnu Shabu (2016-'20) participated in the All Kerala Inter – Collegiate Quiz Competition in general mathematics held at TIST on 18th March 2017.

·Yadev Jayachandran (2016-'20) secured second prize in quiz competition conducted as part of National Technology Day at TIST on 12th May 2017.

·Akhila Anjanan, Ganjimala Praneetha, Gayathri Menon, Rose Sunil, and Sreekutty Sreenivasan (2015-'19) participated in Quiz competition conducted by ENCON CLUB at TIST.

·Jini Sara George, K Lekshmi Sasidharan and Rhea Mary Josi (2015-'19) participated in Essay writing competition conducted by ENCON CLUB at TIST.

ARTS & SPORTS

·Jishnu N V (2016-'20) has participated in Photography competition held as a part of 'Abhiyanthriki 2017' at Rajagiri School of Engineering and Technology on 17th & 18th March 2017.

·Akshay K N (2016-'20) has participated in String Solo in Ragam'17 conducted by National Institute of Technology, Calicut from 24th to 26th March 2017.

·Jishnu N V (2016-'20) has participated in Western Solo in Ragam'17 conducted by National Institute of Technology, Calicut from 24th to 26th March 2017.

TRAINING PROGRAMS

·Siddharth Prajosh (2014-'18) attended 'DemoDay', an event conducted by Startups Club Networks LLP on 19th and 20th August at Dunes Hotel, Kochi.

·Siddharth Prajosh (2014-'18) and Mohammed Ashique Kuthini (2015-'19) has participated in the Kerala Startup Mission's IEDC Entrepreneurial summit held on 23rd August 2016 at Girideepam Convention Center, Thiruvananthapuram.

·Siddharth Prajosh, Sony Sebastin, Mathew S Parmban and Alwyn Sabu (2014-'18) participated in the IoT workshop – 'IoT challenge 2016' held at Sahridaya College of Engineering and Technology, Trissur on 23rd to 24th September 2016.

·Anitta A S, Merin Peter, Sahana M Sherief and Amrutha T G (2014-'18) attended the Seminar and Workshop on 'Emerging Technologies in Open Source- Cloud and Devops' held at Albertian Institute of Science and Technology, in association with IPSR Solutions Ltd and Red Hat on 6th January 2017.

·Siddarth Prajosh (2014-'18) participated in Maker Summit at the KSCSTE TechFest 2017 organized by KTU and Kerala State Council for Science Technology and Environment, held at MA College Kothamangalam on 13th and 14th January 2017.

·Ayesha Zenab Kenza and Lakshmi Mohan (2014-'18) attended the Academic Conference 'Symbiosis of Academicians and IT Industry - TECH Next India 2017' at IIT Bombay on 14th to 15th January 2017.

·Albin Xavier (2016-'20) attended a workshop on Virtual Reality held as part of DRISHTI '17 conducted by ISTE NITC student chapter, NIT Calicut from 11th to 12th February 2017.

·Akshay K, Sankar P G, Ebin Biju, Harikrishnan Vijayan, and Noyal Jose (2015-'19) participated in two day workshop on Android Application Development held at Deen Dayal Upadhya Kaushal Kendra, CUSAT from 17th to 18th March 2017.

Achievements in TIST Arts Fest – 'MUDRA '17'

·Vishnu N V secured first prize in light music competition.
·Juby T C secured first prize in spot dance competition.
·Ashika Chinnu Shabu secured first prize in kadhaprasangam.
·James M V secured first prize in the Western Solo.
·James M V secured first prize in the Strings (instrumental).
·Merin Peter secured second prize in folk dance competition.
·Yadev Jayachandran secured second prize in monoact.
·Sahana M Sherief secured third prize in light music competition.
·Ansa N Varkey secured third prize in mappilapattu.

·CSE team comprising of Ananthu S Mohan, Amal Santhosh, Juby T C, Nithin Cyriac, Kevin Thomas, Anjali Manhas, Sahana M Sherief, Merin Peter, Anitta A S, Manju Mohan, Tinu Maria, Sruthy S Prakash, Leona Joy, Aiswarya Sen, Ananthakrishnan, Arathi P, Muhammed Sahil K, Reema K G and Vrindha M K secured second prize in the group dance competition.

·Ashika Chinnu Shabu and team secured second prize in the Eastern group song competition.

·Ashika Chinnu Shabu, Yadev Jayachandran, Nithya Gopinath, Abhishek A A, Sreelakshmi R Nair, Sruthy Rajeev and James M V secured first prize in Skit competition.

·Ann Mary Tom, Vishnu N V and James M V secured second prize in the Western group song competition.

·Ansa N Varkey, Varsha Hari, Gispriya T George, Rahul Sunil, Sreelakshmi R Nair, Carral Vincent, Leona Joy and Raichel Suseel secured second prize in the Nadanpattu competition.

·Nahan R N and Ranjana Raju secured third prize in Mehandi Design.

·Anjana P S and Krishnendhu Menon T N secured third prize in Rangoli.

Achievements in TIST Sports – Citius Altius Fortius '17

·Kiran P secured first prize in Triple Jump.
·Jayasree C J secured first prize in High Jump.
·Jayasree C J secured first prize in 100m race.
·Raichel Suseel secured first prize in Shot Put.
·Raichel Suseel secured first prize in Discus Throw.
·Gopalakrishna Prabhu secured second prize in Triple Jump.
·Aiswarya Sen secured second prize in Javelin Throw.
·Adarsh V S secured third prize in Triple Jump.
·Aiswarya Sen secured third prize in Discus Throw.
·Aiswarya Sen secured third prize in 200m race.

PAPER PRESENTATIONS/PUBLICATIONS

M.TECH STUDENTS

M.Tech CSD 2015-'17 Batch

• Steffy Livera published a paper "Mixed Fingerprint Encryption using LFSR to Secure Images" in the International Journal of Engineering Research-Online, Vol.5., Issue.1., 2017, January-February, PageNo:- 167-172, ISSN: 2321-7758

• Steffy Livera presented a paper "Extended Vignere Cipher using ASCII values to enhance Security in Libraries" in the National Conference, LISDA 2016, Innovative Library Services in Digital Age, conducted on 1st and 2nd July 2016 at Toc H Institute of Science and Technology, Arakkunnam.

Presented in the IEEE sponsored International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS '17) held on 17th and 18th March 2017, organized by the Dept. of Electronics and Telecommunication Engineering, Karpagam College of Engineering Coimbatore.

• Ebin Raju presented a paper "A Novel Hashed Symmetric Encryption Algorithm based on Feistel Structure".

• Honey Brijeet Johny presented a paper "Enhancing the Security and Authenticity of Image Steganography using RSA Cryptography"

• Remilda Rajan presented a paper "A Secure Authentication System based on FASSKEY for Web Based Applications"

• Steffy Livera presented a paper "Mixed Fingerprint Encryption to Enhance Security in Smartphones"

B.TECH STUDENTS

• Akshay K, Geo Kevin Rubison and Josbin Simon (2013-'17 batch) presented a paper titled "Developing Library Automation Package In-house" in the National Conference LISDA 2016, Innovative Library Services in Digital Age, conducted on 1st and 2nd July 2016 at Toc H Institute of Science and Technology, Arakkunnam.

• Arathi P Menon, Ria Elizabeth Joe and Thara Jose of S1 CSE (2016-'20 batch) presented a paper "Micro Hydel Project at Dam Toe", in the National Level Paper Presentation Contest 'MAKE IN INDIA', led by Project Council and the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India, held at Sathyabama University Chennai on 19th November 2016.

• Yadev Jayachandran (2016-'20 batch) presented a paper "MSF Meterpreter Payload attacks: towards android Vulnerability and losing Whatsapp accounts" at KETCON 2017 organized by KTU and Kerala State Council for Science Technology and Environment, held at MA College Kothamangalam on 13th and 14th January 2017.

FACULTY

· Asst. Prof. Panchami V published a paper "A Fast Color Based Non linear 8 bit Pseudo-Random Number Generator Enabling Diffusion for Lightweight Cryptographic Applications" in the International Journal of Control Theory and Applications May 2016, Vol.8 Issue 5 1817-1822

· Asst. Prof. Panchami V published a paper "Wi-Fi Assisted Communication Networks (WACN)- A Novel and Independent Solution for Communication over Challenged Networks" in the International Journal of Innovation and Scientific Research June 2016, Vol.25 Issue 1 ISSN: 2351-8014

· Asso. Prof. Jesna Anver published a paper titled "Single Image Super-Resolution using Kernel Recursive Least Squares" in Springer – Single Image and Video Processing, Vol 10 No. 8, PP 1551-1558, November 2016.

· Asso. Prof. Jesna Anver presented a paper on " Image Super Resolution Using Approximate Linear Dependence- Kernel Recursive Least Square" at First International Conference on Recent Innovations in Engineering and Technology, Hydrebad on 22nd and 23rd December 2016.

· Asst. Prof. Saira Varghese presented a paper "Varied Approach to Attribute based Access Model for Secure Storage in Cloud" in the IEEE sponsored International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS '17) held on 17th and 18th March 2017, at Karpagam College of Engineering Coimbatore.

IV to Technolodge, Piravom - S4 students

The micro project team of S1 CSE visited Technolodge, Piravom on 1st July 2016. They were accompanied by Asst. Prof. Elsaba Jacob, Asst. Prof. Mithu Mary George, Asst. Prof. Rinu Rose George, Asst. Prof. Leda Kamal, Asst. Prof. Ashly Joseph and Asso. Prof. Sreela Sreedhar. They were given a brief introduction on Technolodge which is a Start up Village consisting of 36 companies including company founded by Alumni of TIST. The talks were informative and inspirational. Later the students were split into 3 groups and each group was given the opportunity to visit various companies.

IV to HAL, Bangalore - S5 students

The students of 5th semester visited Hindustan Aeronautical Ltd. (HAL), Bangalore on 25th August 2016. A presentation based on the various processes of production of the various aircrafts flown all over India was shown. They also visited the Visvesvaraya Industrial and Technological Museum (VITM) which has interactive exhibits and each floor of this museum is dedicated to a scientific discipline. Thirty five students from the department were accompanied by two faculty members, Asst. Prof. Anuraj C K & Asst. Prof. Mima Manual.

IV to INFOSYS, Mysore - S5 students

The students of 5th semester visited INFOSYS on 26th August 2016, Mysore to pertain the knowledge about the inner atmosphere and industrial acquaintances of the finest company in the country. The students were invited to be the part of "SPARK"- interactive program conducted by Infosys. The event highlighted the current trends in IT industry, Company profile, Success stories, Areas of specialization, Selection procedure for fresher and overall life at Infosys –CLIFE.

IV to FAB LAB, Kalamassery - S6 students

An Industrial visit was carried out at FABLAB (Kerala Technology Innovation Zone, Kinfra Hi-Tech Park, Kalamassery, Kochi) on 27th January, 2017 for S6 students. The main objective behind the visit was to make student aware about digital fabrication which empowers the users to create smart devices for themselves which can be tailored to local or personal needs. Fabrication Laboratory is a technical prototyping platform for innovation and invention which aims at providing stimulus for local entrepreneurship and serves as a platform for learning and innovation. Students had live demo of the following equipments: Laser Cutter, Vinyl Cutter, 3D Printer, Moulding and Casting, KINECT, CNC Router etc. The students were accompanied by Asso. Prof. Sreela Sreedhar and Asst. Prof. Elsaba Jacob.

IV to SmartLink, Goa - S7 students

The students of 7th semester visited SmartLink, Goa on 18th July 2017. The students were accompanied by Asst. Prof. Abin Oommen Philip and Asst. Prof. Dhanya. SmartLink is a networking company where the students were familiarized with switching, broadband routing, IP surveillance etc.

IV to RD Clock Technologies Pvt. Ltd., Mangalore - S7 students

The students of 7th semester visited RD Clock Technologies Pvt. Ltd., Mangalore on 21st July 2017. RD Clock Technologies focuses on three fields, food processing, home automation and software development. Sessions included popular communication protocols, and the students were exposed to their home automation products.

CSAT – CSI STUDENT COORDINATORS

~ Mr. Siddharth Prajosh (CSI TIST - Secretary)
~ Mr. Yadev Jayachandran (CSI TIST - Joint Secretary)

~ Ms. Sahana M Sherief (CSAT - Secretary)
~ Mr. Arjun Menon (CSAT - Joint Secretary)

ACADEMIC EXCELLENCE

GEORGEKUTTY P THATTIL MEMORIAL ENDOWMENT: (The award is presented each year to the CSE topper, in memory of our beloved student, Georgekutty P Thattil (2010-'14 Batch) who passed away on November 2nd 2011, sponsored by his family.) - Mr. Akshay K (2013-'17 Batch)

B.TECH PROFICIENCY
Mr. Akshay K, Ms. Sreelakshmi K K (2013-'17 Batch)
Ms. Anciya T A, Ms. Saina A S, Ms. Aparna Radhakrishnan - (2014-'18 Batch)

M.TECH PROFICIENCY
Ms. Steffy Livera, Ms. Remila Rajan (2015-'17 Batch)

FACULTY AND STAFF TEAM CSE

Teaching faculty : 16
Technical staff : 9
Number of faculty having Ph. D : 2
Faculty doing research in various fields : 7

Professor
1. Dr. N. Vishwanath

Associate Professors
1. Ms. Sreela Sreedhar, HOD
2. Dr. Rasmi P S
3. Ms. Jesna Anver

Assistant Professors
1. Ms. Saira Varghese
2. Ms. Leda Kamal
3. Ms. Elsaba Jacob
4. Ms. Panchami V
5. Mr. Abin Oommen Philip
6. Ms. Mima Manual
7. Ms. Ceira Sara Cherian
8. Ms. Ashly Joseph
9. Ms. Rinu Rose George
10. Ms. Mithu Mary George
11. Ms. Anju Kuriakose
12. Mr. Anuraj C K

System Administrator
1. Mr. Ritesh P

Lab Instructors
1. Ms. Jisha Rajeev
2. Ms. Manju C N
3. Mr. Joby Varghese
4. Ms. Smitha P K
5. Ms. Fareeda Begum
6. Ms. Remya Tomy
7. Mr. Manoj M John
8. Mr. Sreelal C U

System Technician
1. Mr. Babin Babu

Lab Assistant
1. Ms. Lizzy K M

Office Assistant
1. Ms. Nimisha George

ACADEMIC ADVISORY COMMITTEE

An Academic Advisory Committee comprising of experts from Academics and Industry is constituted to guide the departmental activities in the best way to improve the academic performance of the students and to promote Institute Industry Interaction. The committee consists of TIST Management, Principal, Dean, HOD, senior faculty members, Alumni and PTA representatives as internal members. External Academic Experts include Dr. Vineeth Paleri (Professor, Dept. of CSE, NIT Calicut) and Dr. Varghese Paul (Professor, Dept. of IT, CUSAT). IT Industry Experts are Mr. Anoop Alex Koshy (ex SPM, Infosys Technologies Ltd.), Mr. Deva Kurian Joseph (Head, Kochi Delivery Center, TCS Digital Enterprise), Mr. Arlin Varghese (Associate Director-Projects, CTS) and Dr. Ricky Jacob (CEO, Paysack).

BEST STUDENT PROJECTS
B.Tech 2013-'17 Batch

Project: **TELEPRESENCE ROBOT**
Team: Abraham Solomon, Ananthu S Mohan, Neeraj Naveen
Guide: Asst. Prof. Ceira Sara Cherian

Project: **ROBUST RAILWAY CRACK DETECTION**
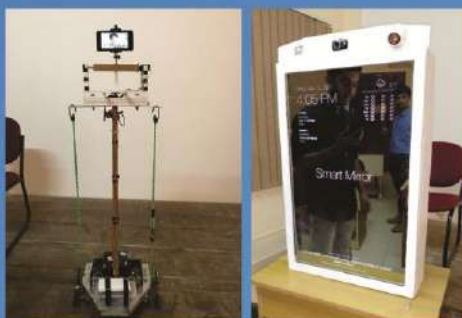Team: Akshay K, Geo Kevin Rubison, Josbin Simon, Vyshak M Nair
Guide: Asso. Prof. Jesna Anver

Project: **SMART MIRROR**
Team: Bibin K B, Jishnu G, Muhammed Shafeeque O M
Guide: Asst. Prof. Rinu Rose George

Project: **SELF LEARNING ROBOTIC ASSEMBLER**
Team: Ashish Alex, V Mohammed Ibrahim, Vishnu Prakash, Aishwarya S Warrier
Guide: Asso. Prof. Jesna Anver

Project: **BRAILLE COMMUNICATOR**
Team: Fathima O B, Juby T C, Theertha Rajeev
Guide: Asst. Prof. Anju Kuriakose

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.

PTI MEETINGS

Parent Teacher Interaction meetings are conducted 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 meeting 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.

CLASS COMMITTEE MEETINGS

Class committee meetings are conducted regularly in every semester 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.

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.

OUTGOING STUDENTS

B.TECH COMPUTER SCIENCE AND ENGINEERING (2013-'17 BATCH)

NOW TRENDING

TensorFlow

Contribution : Siddharth Prajosh , S7 CSE
Courtesy   : Tensorflow.org

TensorFlow™ is an open source software library for numerical computation using data flow graphs. Nodes in the graph represent mathematical operations, while the graph edges represent the multidimensional data arrays (tensors) communicated between them. The flexible architecture allows you to deploy computation to one or more CPUs or GPUs in a desktop, server, or mobile device with a single API. TensorFlow was originally developed by researchers and engineers working on the Google Brain Team within Google's Machine Intelligence research organization for the purposes of conducting machine learning and deep neural networks research, but the system is general enough to be applicable in a wide variety of other domains as well.

Mixed Reality

Contribution : Yadev Jayachandran,S3 CSE
Courtesy   : Microsoft

Mixed reality is the result of blending the physical world with the digital world. Mixed reality is the next evolution in human, computer, and environment interaction and unlocks possibilities that before now were restricted to our imaginations. It is made possible by advancements in computer vision, graphical processing power, display technology, and input systems. The term mixed reality was originally introduced in a 1994 paper by Paul Milgram and Fumio Kishino, "A Taxonomy of Mixed Reality Visual Displays." Their paper introduced the concept of the virtuality continuum and focused on how the categorization of taxonomy applied to displays. Since then, the application of mixed reality goes beyond displays but also includes environmental input, spatial sound, and location.

GALLERY

TECH FOSS '17