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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



NEWSLETTER
2015

TOC H INSTITUTE OF SCIENCE AND TECHNOLOGY



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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.

PROGRAMME EDUCATIONAL OBJECTIVES

Graduates of Computer Science & Engineering shall

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.

PROGRAMME 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.

WE SALUTE YOU SIR.. YOU INSPIRED US NOT ONLY TO DREAM.. BUT ALSO TO THINK & TO ACT

"My message, especially to young people is to have courage to think differently, courage to invent, to travel the unexplored path, courage to discover the impossible and to conquer the problems and succeed. These are great qualities that they must work towards."

"Learning gives creativity, creativity leads to thinking, thinking provides knowledge, knowledge makes you great..."

Dr. A P J Abdul Kalam



GLORIOUS ACHIEVEMENTS

CUSAT 1ST RANK — M.TECH

MS. AMRUTHA MURALIDHARAN

1ST RANK IN CUSAT M.TECH
COMPUTER SCIENCE: SPECIALI-
ZATION IN DATA SECURITY EX-
AMINATION, MAY 2014.



CUSAT 18TH RANK — B.TECH

MS. MALINI P V

18TH RANK IN CUSAT B.TECH
COMPUTER SCIENCE & ENGINE-
ERING EXAMINATION, APRIL 2014



CSI NATIONAL AWARDS

TIST CSI Student Branch has been recognised by **Computer Society of India** with the prestigious National level **"Best Accredited Student Branch Award"** for the year **2013-'14 (3rd time in a row)**. The Institute has been instrumental in organizing international and national seminars, inter-collegiate competitions for best project, mobile apps, technical quiz, & coding, technical sessions and workshops, which help to improve the technical skills and leadership abilities of the students. The activities are focused to keep the students abreast of the emerging technology trends. **Toc H Management** appreciated the CSI National Award winners with memento and certificates on 18th December 2015.



Asso. Prof. Sreela Sreedhar (HOD, CSE) received the awards from **Mr. H R Mohan, President of CSI**, at the CSI Annual Convention held on 12th December 2014 at the Jawaharlal Nehru Technological University, Hyderabad.



Prof. Dr. P J Joseph (Director, Toc H Public School Society) presenting the memento to CSI Student Coordinators and HOD.



Mr. Anoop K Nayak of 2010-'14 batch bagged the "Highest Committed Student Branch Activist Award" from CSI, the only student from Kerala chosen for the honour.



Ms. Elsaba Jacob, Assistant Professor of CSE Dept. is one among two from Kerala to win the "Longest Continuous Student Branch Coordinator Award" from CSI.

RESULTS & PLACEMENT

B.Tech Degree Exam, April 2015: 67% pass with **8 distinctions** and **28 first classes**. (Positioned **3rd** among 21 colleges under CUSAT)

Result Details: 2014-'15 Academic Year

Year of Adm.	Semester	No of Students	Pass %	Position in CUSAT
2013	S1&2	59	51%	Not Available
	S3	61	76%	1 st
	S4	61	77%	Not Available
2012	S5	61	46%	Not Available
	S6	54	74%	2 nd
2011	S7	54	93%	1 st
	S8	54	91%	1 st
2010	S8	62	82%	1 st

M.Tech Degree Examination, May 2014: 96% pass with **20 distinctions** and 1 first class.

PLACEMENTS

- 70%** of the eligible students of B.Tech 2011-'15 batch got placed in various reputed companies like Infosys, IBM, TCS etc.
- 10%** students opted for higher studies.

GATE QUALIFIED STUDENTS

- Mariya Jacob
- Soumya P.S
- Veena Suresh
- Govind Raj

NOTABLE STUDENTS' ACCOMPLISHMENTS



CYBER CELL WEBSITE:

Ms. Sangeetha N Kumar, Mr. Syam Mohan and Ms. Lissy P K of M.Tech (Data Security) 2013-'15 batch, developed a website for Cyber Cell as part of their internship programme at Cyber Cell, Alappuzha.

LINUX BASED MAIL SERVER FOR TIST: (www.tistedu.in)

Mr. Gokul Kishan (M.Tech, 2013-'15), Mr. Renjith R Bhat (M.Tech, 2014-'16) and Mr. Samuel T Thomas (B.Tech, 2011-'14) received special appreciation from Principal for developing Linux based email server for the Institute.

LATEX WORKSHOP:

Mr. Gokul Kishan and Mr. Harisankar R (M.Tech, 2013-'15) conducted workshops on LATEX typesetting tool for different batches of TIST faculty, B.Tech & M.Tech students.

BEST STUDENT AWARD - FIRST YEAR:

Mr. Melvin Martin of 2014-'18 Batch was selected as the best student of first year.

FACULTY ACHIEVEMENTS

100% RESULTS



ASST. PROF. SAIRA VARGHESE
CS1304 OBJECT
ORIENTED PROGRAMMING



ASST. PROF. MITHU MARY GEORGE
CS 1503 SOFTWARE
ENGINEERING

REGISTERED FOR PH.D

Asst. Prof. Saira Varghese registered for Ph. D at NI University in 2014-'15.

BEST TEACHER AWARD



ASST. PROF. MITHU MARY GEORGE WAS HONORED WITH THE "BEST TEACHER AWARD" OF CSE-TIST FOR 2014-'15

ACADEMIC ADVISORY

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 & faculty members of CSE, parents and alumni as internal members. External Academic Experts include Prof. Dr. Vineeth Paleri, Dept. of CSE, NITC and Prof. Dr. Varghese Paul (Dept. of IT, CUSAT). IT Industry Experts are Mr. Anoop Alex Koshy (Former SPM, Infosys Ltd.), Mr. Deva Kurian Joseph (Head, Kochi DC, TCS) and Mr. Arlin Varghese (Associate Director-Projects, CTS).

LAURELS STUDENTS

CO-CURRICULAR

Mr. Devander Gupta (2013-'17 batch) won third prize for FIFA in Abhyantriki 2K14, a National level tech fest at RSET, Kochi on 19th and 20th September 2014.

Mr. Nithin Syriac and Mr. Abraham Solomon (2013-'17 batch) won second prize for TELETRIX in Abhyantriki 2K14, a National level tech fest at RSET, Kochi on 19th & 20th September 2014.

Mr. R Aditya Naik and Ms. Meenakshi Suresh (2012-'16 batch) won second prize and Mr. Abraham Solomon (2013-'17 batch) won third prize for Seminar competition conducted during the celebration of Good Governance Day organised at TIST.



Mr. Akhil Ashok (2013-'17 batch) won second prize for Oratory Skills competition conducted during the celebration of Good Governance Day organised at TIST.

Mr. R Aditya Naik and Mr. Vishnu Shenoy (2012-'16 batch) bagged first prize for C-Debugging in NAKSHATRA 2015, a National level techno-cultural fest at Saintgits, Kottayam on 22nd January 2015.

Mr. Jithu Thampi, Mr. Joyal Jose and Mr. Samuel T Thomas (2011-'15 batch) won first prize for Mobile App Contest in Tech FOSS 2015.



Ms. Ann Shirley Varghese, Ms. Grishma C Mohan and Mr. Jerin Daniel Mathew (2011-'15 batch) won second prize for Mobile App Contest in Tech FOSS conducted on 26th & 27th February at TIST.

Ms. Hashmy Hassan, Ms. Sereena Sabu, Ms. Shilpa Jacob and Ms. Veena Suresh (2011-'15 batch) won first prize for App Idea Contest in Tech FOSS conducted on 26th & 27th February at TIST.

Mr. Abraham Alexander, Mr. Anuj K Sajan and Mr. Bibin Thomas (2011-'15 batch) won second prize for Open Source Hardware Project Competition in Tech FOSS conducted on 26th and 27th February at TIST.

Mr. Ranjith R Bhat and Mr. Abhijith S (2014-'16 M.Tech) won second prize for Quiz competition conducted during National Technological Day Celebration at TIST on 7th May 2015.

ARTS & SPORTS

Ms. Ann Shirley Varghese, Ms. Lekshmi L Reghu (2011-'15 batch) and Mr. Amal Santhosh (2013-'17 batch) secured first prize for **Dance Competition** in various College Cultural Fests all over Kerala.

Ms. Meera Kuriakose (2011-'15) secured third prize in 200m race at the CUSAT athletic meet in Jan 2015.



Mr. Mithun Sathyan (2011-'15) and Mr. Shoukath Ali (2012-'16) were the members of College Football Team which won CUSAT football Tournament, 2015.

TEAM CSE



PROFESSOR DR N VISHWANATH	MR. ANURAJ C K MR. GOKUL KISHAN
ASSOCIATE PROFESSORS MS. SREELA SREEDHAR (HOD) MS. JESNA ANVER	SYSTEM ADMINISTRATOR MR. RITESH P
ASSISTANT PROFESSORS MS. SAIRA VARGHESE MS. LEDA KAMAL MS. ELSABA JACOB MS. PANCHAMI V MR. ABIN OOMMEN PHILIP MS. MIMA MANUAL MS. CEIRA SARA CHERIAN MS. ASHLY JOSEPH MS. RINU ROSE GEORGE MS. MITHU MARY GEORGE MS. ANJU KURIAKOSE MS. MINTU PHILIP	LAB INSTRUCTORS MS. JISHA RAJEEV MS. MANJU C N MR. JOBY VARGHESE MS. SMITHA P K MS. FAREEDA BEGUM MR. REMYA TOMY SYSTEM TECHNICIAN MR. BABIN BABU LAB ASSISTANT MS. LIZZY K M

HAPPY AND COLORFUL MOMENTS

- Ms. Elsaba Jacob was blessed with a baby girl on 21st October 2014.
- Ms. Rinu Rose George was blessed with a baby girl on 21st November 2014.
- Ms. Manju C N was blessed with a baby boy on 27th November 2014.
- Ms. Anju Kuriakose got married to Capt. Aji P Mathew on 26th April 2015.
- Ms. Leda Kamal was blessed with twin baby boys on 25th May 2015.

HEARTY WELCOME

- Mr. Anuraj C K (Assistant Professor)
- Ms. Mintu Philip (Assistant Professor)
- Mr. Gokul Kishan (Assistant Professor)
- Ms. Remya Tomy (Lab Instructor)
- Mr. Babin Babu (System Technician)

BID FAREWELL

- Ms. Bonny B Raj (Assistant Professor)

ANNUAL REPORT 2014-'15

CSAT & CSI STUDENT BRANCH ACTIVITIES

LAUNCH OF CSI & CSAT ACTIVITIES 2014-'15: The launch of activities of CSI Student Branch and CSAT-Computer Science and Engineering Students' Association of Toc H Institute of Science & Technology for the academic year 2014-'15 was inaugurated on 24th July 2014, by **Mr. Arjun Pillai, Co Founder & CEO, Profoundis, Steering Committee member-IEEE SIGHT**. Mr. Arjun urged the students to work with the problems around them and try solving them. He asked them to be passionate about their ideas and to enjoy following their dreams. The function was presided over by Er. C S Varghese, President, Toc H Public School Society. CSAT-CSI Annual newsletter-'**DARPAN 2014**' was released during the event.



INTERNATIONAL CONFERENCE - ICIASET '14

Toc H Institute of Science and Technology, ECE Dept. in association with Computer Society of India organized a three day International Conference on '**Innovations and Advances in Science, Engineering and Technology**'- ICIASET '14 on 16th to 18th July, 2014. The conference was inaugurated by Dr. M C Dileep Kumar, Vice Chancellor, Sree Sankaracharya University, Kalady. Prof. Dr. Sudath Rohan Munasinghe, University of Moratuwa, Srilanka was the keynote speaker. The inaugural session was followed by technical sessions by invited speakers.



- 'Telerobotics' by Prof. Dr. Sudath Rohan Munasinghe, University of Moratuwa, Srilanka
- 'Soft Computing for Intelligent Image Processing' by Dr. Lajish V I, NIT, Calicut
- 'Nano Photonics' by Prof. Dr. V P N Nampoori, CUSAT
- 'Flexural Shear and Tension Stiffening Characteristics of Hybrid Fibre Reinforced High Performance Concrete' by Dr. N Ganesan, Professor & Head, NIT, Calicut
- 'Laser for Communication' by Prof. S K Sreenivasan Nair, TIST

INTERCOLLEGIATE EVENT: TECH FOSS @ TIST

Department of CSE, in association with the Computer Society of India, organized a two day National level technical event '**TECH FOSS 2K15**', an open source promotion initiative, on 26th & 27th February 2015. The chief guests were **Dr. K C Chandrasekharan Nair** (Associate Principal Consultant, KITCO Ltd.), **Prof. M B Santhosh Kumar** (Hon. Secretary of CSI Cochin Chapter, Professor, Dept. of IT, SOE, CUSAT). The major highlight of the inaugural ceremony was an **Entrepreneur's Meet**, where TIST CSE alumni who have succeeded as promising entrepreneurs interacted with the students. Mr. Sabarish Prakash of 2007-'11 batch, CEO of SectorQube TechnoLabs along with his team mates Mr. Biniyas V L (CTO) and Mr. Midhun Skaria (CTO), and Mr. Jibin Jose of 2010-'14 batch, CEO of Flip Technologies, shared their experiences with students. CSI award winners and office bearers were honoured during the event.



As an initiative to promote open source usage among students, three free workshops were conducted.

- 🌿 **Workshop on Python:** One day workshop conducted by **Mr. M V Sankaran Namboodiri** (CSE Alumni) (Python Developer, Turbolab and ICFOSS, Student Ambassador), and **Mr. Jerin Mathews** (S6 CSE TIST, IEEE Student Ambassador).
- 🌿 **Mozilla Webmaker Workshop:** Conducted by the resource persons from Mozilla. Stream 1 focussed on basic web aspects like html and css for a beginner and Stream 2 focussed on advanced web concepts - firefox OS app development.
- 🌿 **How to be a Maker?:** An interactive and motivational workshop providing information on how to create new useful gadgets and connected devices using Arduino and other open source alternatives. **Mr. Arvind Sanjeev** (Serial Innovator, DIY Hacking, Chief Inventor & Founder A.R.S.Devices, SVsquare-Rajeev Circle Fellow) interacted with students & urged them to strive for gaining technical knowledge by taking a pragmatic approach with respect to technology.

Three contests and a game zone were also organized.

- 🌿 **Open Source Olympiad** (Code Debugging and Open Source Quiz) in association with Edumitra Intellectual Services.
- 🌿 **Open Source Hardware project competition** - showcased innovative projects built on open source tools and platform.
- 🌿 **Mobile App Contest and App Idea contest** - showcased the implemented mobile/system applications as well as implementable ideas that can be built on open source platforms.



🌿 SOCIAL COMMITMENT ACTIVITY

OLD AGE HOME VISIT: B.Tech 2011-'15 batch students along with faculty members, Asst. Prof. Rinu Rose George and Asst. Prof. Mintu Philip visited 'Karunalayam', an old age home at Mamalakavala, Piravom on 21st March 2015. 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. The students interacted with the elders, distributed daily use stationery kits for them and they returned with the satisfaction of brightening up at least a day for the elders.



WOMEN EMPOWERMENT ACTIVITIES

EMPOWERING HOUSEWIVES IN COMPUTER EDUCATION:

DEPARTMENTS OF CSE AND IT IN ASSOCIATION WITH NSS UNIT, WOMEN'S CELL, AND CSI COCHIN CHAPTER, CONDUCTED A FREE TWO WEEK COMPUTER TRAINING WORKSHOP FOR THE HOUSEWIVES FROM 15TH TO 26TH JUNE 2015.



QUALITY IMPROVEMENT PROGRAMS

The MoU with '**Information and Communication Technology Academy of Kerala (ICTAK)**' was signed on 22nd January 2015 with the aim to provide Industry focused enablement programs for Faculty members, Industry focused ICT Skills development program for Students, Industry collaborated Research and Projects assistance to academic institutions. **Ms. Jesna Anver** (Associate Professor, CSE) and **Mr. Anuraj C K** (Asst. Professor, CSE) serves as the coordinators. Several **Webinars** were arranged for the benefit of faculty and students by Oracle Academy and ICTAK.

- Webinar on '**Oracle Analytics**' by Mr. Geet Singh on 21st January 2015 for M.Tech Students.
 - Webinar on '**Cloud Computing**' by Mr. Geet Singh on 2nd February 2015 for M.Tech and B.Tech S8 students.
 - Webinar on '**Big Data Analytics**' on 19th February 2015 for M.Tech students.
 - Webinar on '**Information Security**' by Mr. Asish Kumar, Senior Manager, Global Information Security, on 17th March 2015 for M.Tech students.
- Mr. Nandakumar Menon of International Business School and Information Technology talked regarding '**Higher education avenues in Management and Information Technology**'



SESSIONS ORGANIZED FOR B.TECH STUDENTS

Inspirational Talk on Self Motivation - 'Looking To Horizon': Mr. Siju C B, Facility Manager, Reliance Jio Infocom Ltd., addressed the S7 students regarding the ways to improve the quality of one's personal and professional life, on 25th June 2014.

Technical Talk on Big Data and Hadoop: Mr. Eldhose V V and Mr. Vinu Varghese from

CyberPrism Ltd. delivered the session on Big Data, Hadoop and Java on 30th June 2014.

Motivational Session on Entrepreneurship and Innovation: Mr. Jibin Jose, CEO, FLIP Technologies (CSE Alumni) interacted with S3 students regarding the importance of innovation and entrepreneurship and shared his experiences as an entrepreneur, on 7th July 2014.

Technical Talk on Soft Computing: Dr. Lajish V L, HOD, Dept of CSE, Calicut University delivered a talk on 'Soft computing for Intelligent Image Processing' for S5 students on 16th July 2014.



Talk on Entrepreneurship:

Mr. Jibin Jose, CEO, Flip Technologies (CSE Alumni) gave an inspirational talk to S7, S5 and S3 students on 'Success story of an entrepreneur' and gave guidelines on how to become an entrepreneur, on 16th July 2014.

Workshop on Java:

CSE Dept. organized a two day workshop on Java and JEE applications for S7 students on 17th -18th July 2014. Mr. Anil Kumar of Think Force handled the sessions.

Awareness session on Yahoo Innovation Jockey:

Mr. Farish C V of DevCommunity conducted an awareness session on Yahoo Innovation Jockey contest, the quest to find 'India's Most Innovative Minds across Campuses, on 25th July 2014.

Session on 'Facing the Technical Board':

Session organized for S7 Students on 29th September 2014 by Syntax Soft Tech India Pvt. Ltd., to prepare them for placement drives.

Motivational Session on Positive Thinking:

Mr. Reena Madhu, Assistant Professor, Dept. of Psychology handled a session on Positive thinking to S3 students on 15th Oct 2014.

Session on 'How to tackle interviews?':

Mr. Pramod C Menon, Technical Lead, Wipro Technologies, addressed the S7 students regarding the tips and tricks to tackle interviews, on 17th Oct 2014.

**Session on Employability Enhancement:**

Mr. Sudheevan K J of Indian Institute of Job Training conducted a session on employability enhancement for S6 CSE on 4th December 2014.

Talk on SDLC: A session on SDLC was organised for S6 CSE by Mr. Dennis Mathew of CMC Academy on 5th December 2014.

IBM Industry Connect Program Awareness:

Mr. Bobby Paul from Electro MechGlobal.com (IBM Partner) addressed S6 students regarding IBM Industry-Campus Connect Program on 10th December 2014.

Workshop on JAVA: Two day workshop was organised for S4 CSE students on 11th and 12th December by Mr. Emil Kuriakose of Cyber Prism.

Technical Talk on Java: Mr. Anil Kumar of Think Force conducted the session on basics of Java and its significance, for S6 students on 17th December 2014.

**Session on Open Source Promotion:**

Mr. Hrishikesh K B and Mr. Praveen A addressed the B.Tech S6 and M.Tech students regarding Swathantra Malayalam Computing - Diaspora Privacy and Social Media, on 12th February 2015. A road show on 'Google Summer of the Code contest' was also done.

Technical Session on Android:

A session on Android application development was organized for S4 students by Mr. Nishil K S and Majo Mathew of Focus Infotech on 20th March 2015.

1 Week Android Workshop:

Workshop on Android App Development was conducted by Brain Bitz in association with CSI Student Chapter TIST, on 28th May 2015 to 5th June 2015. The sessions were handled by Mr. Rakesh Ramanadhan and Mr. Sam V George, which included basics of Java Programming and Android App development for various applications used widely.



SESSIONS ORGANIZED FOR M.TECH STUDENTS

Technical Session on INFORMATION SECURITY & CYBER CRIME AWARENESS: CSI organised a one day technical session on Information Security and Cyber Crime Awareness on 6th May 2015. **Mr. Jayakumar P P, an expert Senior Civil Police Officer of Cyber Cell, Alappuzha** was the resource person. He detailed on 'Cyber Crime and Information Technology Act 2008' in the morning session and 'Citizen Centric Services through eGovernance and Information Security' in the afternoon session. The event aimed to create a general awareness among the participants to safeguard themselves from falling victims to cyber crimes and IT frauds.



Talk on Recent Advances in Multicore Interconnection Networks: Prof. John Jose, Dept. of CSE, RSET briefed on various multicore/ multiprocessor interconnection networks and its present technological advances, on 23rd September 2014.



Talk on Research Methodology: Dr. N. Krishnan (Professor, Centre for Information Technology & Engineering Manonmaniam Sudaranar University, Tirunelveli) delivered a talk on 'Research Methodology & How to Prepare Research Paper: A Guide for New Authors' for M.Tech students on 10th October 2014.

Workshop on Data Security: Two days workshop on Data Security was organized for M.Tech students by Mr. Arun R Krishnan of BlueShell Security on 13th & 14th November 2014.



TRAINING SESSIONS FOR FACULTY

Corporate Interaction with Sri. S D Shibulal, CEO, Infosys Technologies Ltd.: Asso. Prof. Sreela Sreedhar, Asst. Prof. Saira Varghese, Asst. Prof. Abin Oommen Philip along with Mr. Asher Peter Babu and Mr. Mohammed Haseeb of S7 CSE attended the Corporate Interface with Sri S D Shibulal, CEO of Infosys, on 'Modern Trends In IT Sector' at BTH, Ernakulam on 27th June 2014.

Technical Talk on Recent Advances in Multicore Interconnection Networks: Dept. of CSE organized a technical session on 23rd September 2014 for faculty and lab instructors of TIST. **Prof. John Jose, Department of CSE, RSET** briefed various multicore and multiprocessor interconnection networks and its present technological advances.

One Week ISTE Main Workshop on Computer Networking: All CSE faculty attended a one week ISTE workshop conducted in IIT remote centre - TIST, sponsored by National Mission on Education through ICT, MHRD, Govt. of India, from 30th June to 5th July, 2014.

Two week ISTE workshop on Cyber Security: Selected faculty members and lab instructors of CSE attended the workshop conducted by IIT Bombay at IIT remote centre through distance education mode during 10th to 20th July 2014. The workshop was sponsored by the National Mission on Education through ICT, MHRD, Govt. of India.

FDP on Advanced Trends in Computing and Programming: Department of CSE in association with Computer Society of India organised a **five days** faculty development programme on Advanced Trends in Computing and Programming from 17th to 22nd June 2015. The programme was inaugurated by Prof. Dr. Ajith Abraham, Director, Machine Intelligence Research Lab, USA. Various expert sessions included the following:

- 'Cloud security challenges' - Prof. Dr. Ajith Abraham, Director, Machine Intelligence Research Lab, USA.
- 'Python Programming' - Asst. Prof. Jestin Joy, FISAT.

- 'Database Design and Programming with SQL' - Asst. Prof. Anuraj C K and Asst. Prof. Abin Oommen Philip, TIST
- 'Research Trends in Informatics, Computing and Communication' - Asst. Prof. Mima Manual and Asst. Prof. Mithu Mary George, TIST.
- 'Android Application Development' - Asst. Prof. Panchami V, TIST



QIP/TRAININGS ATTENDED

1 week Coordinator workshop at IIT Mumbai: Asso. Prof. Jesna Anver attended one week co-ordinators training for Cyber Security workshop at IIT Bombay from 17th - 21st May 2014.

Refresher course on Effective Classroom Communication: Asst. Prof. Anuraj C K and Asst. Prof. Mintu Philip attended the session conducted by Dr. D Vincent H Wilson, Principal, TIST on 12th January 2015.

FDP on Concepts Coaching: Asst. Prof. Anuraj C K, Asst. Prof. Anju Kuriakose, and Asso. Prof. Jesna Anwar attended a 3 day FDP from 7th - 10th April 2015.

Short term training programme on Research Trends in Informatics, Computing & Communication: Asst. Prof. Mima Manual & Asst. Prof. Mithu Mary George attended a short term training program from 16th - 25th April 2015 at RSET.

1 week FDP on Database Design and Programming with SQL: Asst. Prof. Anuraj C K and Asst. Prof. Abin Oommen Philip attended a short term training program on Database Design and Programming with SQL, jointly organized by Oracle Academy and ICTAK from 4th to 8th May 2015 at Saintgits College of Engineering, Kottayam.

International Workshop on Big Data Science: Asso. Prof. Sreela Sreedhar, Asst. Prof. Rinu Rose George, Asst. Prof. Mintu Philip, Asst. Prof. Anju Kuriakose and Asst. Prof. Anuraj C K attended an International workshop on Big Data

Science on 8th June 2015 at Kochi Marriot Hotel. The workshop shared the state of the art data science perspectives, relating to the new opportunities and challenges brought forth by the big data movement.

FDP on Computer Networks: All faculty from the Department of CSE attended 5 days FDP on Computer Networks organized by the Dept. of IT in association with ISTE TIST student chapter from 23rd to 27th June 2015. Dr. Janet Light, University of New Brunswick, USA was the resource person.

FACULTY LEADS TRAININGS INSIDE/OUTSIDE TIST CAMPUS

- CSE Department conducted **Infosys Campus Connect Foundation Program 3.1** for CSE S7 & ECE S4 students of TIST. Mr. Abin Philip, Ms. Saira Varghese, Ms. Ceira Sara Cherian, Ms. Rinu Rose George, Ms. Anju Kuriakose, Ms. Mima Manual (Assistant Professors of CSE) handled different sessions.
- **Asst. Prof. Panchami V**, conducted a one day workshop on **Android** at College of Engineering, Kidangoor on 19th October 2014.

STUDENT PARTICIPATION- B.TECH & M.TECH

Mr. Jishnu Vijayan (2012-'16 batch) attended managerial workshop in Impulse 2K14 hosted by IEEE Student Branch, FISAT on 5th July 2014.

Mr. Nithin Syriac, Mr. Akhil Ashok, Mr. Amal Santhosh and Mr. Abraham Solomon of CSE participated in GOOGLER and CODE SCRAMBLE in Abhiyantriki 2K14, at RSET, Kochi on 19th and 20th September 2014.

Mr. Abraham Alexander and Mr. Asher Peter (2011-'15 batch) participated in 'All Terrain Race' in Abhiyantriki 2K14, at RSET, Kochi on 19th and 20th September 2014.

Mr. Mohammed Shafeeq, Mr. Muthasa Moosa, Mr. R. Unnikrishnan, Mr. Adil Monu, Mr. Ashwin Prakash, Mr. Bibin K. B and Mr. Jishnu. G (2013-'17 batch) attended MAKER PARTY, organized by CITTIC (CUSAT) and MOZILLA Kerala, at CUSAT on 21st and 22nd September 2014.

Mr. Eby Cloudins and Mr. Vishnu Shenoy (2012-'16 batch) attended a workshop on Wikimedia on 26th and 28th September 2014 as part of Free Knowledge Fest held at CUSAT.

Mr. R Aditya Naik and Mr. Vishnu Shenoy (2012-'16 batch) participated for Network Gaming in Nakshatra 2015, a National Techno cultural fest held at Saintgits College of Engineering, Kottayam on 22nd January 2015.

Mr. Nithish Albin and Mr. Sarath Mohan attended a workshop on Android Application Development, organized by the Department of IT, TIST on 23rd and 24th January 2015.

Mr. Devender Gupta, Mr. Akhil Ashok and Mr. Ashok B (2013-'17 batch) participated in Gaming competition held as part of XPLENDOR '15 held at SOE, CUSAT on 23rd and 24th January 2015.

M.Tech CSD Students attended workshops on 'Swathanthra ERP Case Studies' and 'Wikimedia' on 26th and 28th September 2014 as part of Free Knowledge Fest held at CUSAT.

M.Tech CSD Students attended workshop on Computer Networking, organized by the Dept. of IT on 26th September 2014.

M.Tech CSD Students attended NS2 workshop, organized by the Dept. of ECE on 6th & 7th November 2014.

M.Tech CSD Students attended LATEX workshop, organized by the Dept. of CSE on 19th November 2014.

M.Tech CSD Students attended a technical Session on 'Research Opportunities in Computer Networks', by Mr. Suresh Kumar CUSAT organized by the Dept. of IT on 28th April 2015.

PAPER PRESENTATIONS/PUBLICATIONS

STUDENTS (M.TECH CSD 2013-'15 BATCH):

Presented in the **International Conference on Recent Innovations in Engineering and Technology** on 26th and 27th February 2015 at Travancore Engineering College, Kollam:

- Amal P S - Image Tampering Detection Based on Contrast Enhancements in Digital Images
- Harisankar R - Relationship Learning based Super Resolution for At-A- Distance Iris Recognition
- Shyama Nair V S - A Secure Image Transmission Technique via Mosaic Images using Image Features for Key Generation

Presented in the **1st International Conference on Futuristic Trends in Computational Analysis and Knowledge Management** on 25th to 27th February 2015 at Amity University, Noida

Published in **International Journal of Science, Engineering and Technology (IJSETR)**:

- Susan Basil - A Secure Data Transfer Mechanism for Identifying the Attacker without false Aquisition using Cryptographic Operations

Presented in the **IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT)** 2015 on 19th and 20th March 2015 at Noorul Islam University:

- Anusree P - A Security Framework for Brokerless Publish Subscribe System using Identity based Signcryption
- Anju Paul - Distortionless Watermarking of Relational Databases based on Circular Histogram Modulation
- Minta Thomas - An Encryption Protocol for end to end Secure Transmission of SMS
- Sruthi Das N - Large Scale Steganalysis using Outlier Detection Method for Image Sharing Application
- Antu Mary Kuruvilla - A Detection System to Counter Identity Deception in Social Media Applications

Presented in the **2nd International Conference on Emerging Trends in Technology and Applied Sciences (ICETTAS'15)** on 30th April - 2nd May 2015 at Saint Gits College of Engineering:

- Keerthy J - Energy Efficient and Secure Genetic Clustering in Wireless Sensor Network
- Liya Antony - Detecting Clone Attacks in Mobile Sensor Network using Localized Algorithms and Clustering

Published in **International Journal of Computer Science and Mobile Computing**:

- Shruthy V C - An Efficient Self Embedding Watermarking Scheme for Color Image Tamper Detection and Recovery

Published in **International Journal of Engineering Research and Technology**:

- Jyothi Kannan - Enhanced Technique for Privacy Preserving Public Auditing for Shared Data in Cloud

Presented in the **International Conference on Advances in Computer and Electronics World 2015** on 26th and 27th March 2015 at TKM Institute of Technology, Kollam:

- Amal P S - Image Tampering Detection Based on Contrast Enhancements in Digital Images
- Harisankar R - At a Distance Iris Recognition Problem
- Shyam Mohan - A Novel Swift Userfriendly Fake Detection System for Multiple Biometrics based on Image Quality Assessment
- Shyama Nair V S - A Novel Joint Datahiding and Secure Image Transmission via Mosaic Image Steganography using Image Features for Key Generation

Presented in the **National Conference on Innovations in Computing and Networks** on 10th and 11th April 2015 at Younus College of Engineering and Technology, Kollam:

Published in **International Journal of Emerging Trends and Technology** in Computer Science:

- Swathy G S - A Bio capsule based Authentication System with Secured Intrusive User Authentication

Presented at the **DRDO sponsored IEEE International Conference on Innovations and Information Embedded and Communication Systems (ICIIECS '15)** on 19th and 20th March, 2015 at Karpagam College of Engineering, Combatores:

- Asha Kurian - A refinement to the Single Sign on Authentication for Distributed Computer Networks
- Elmy Raju - Pollution Attack Prevention in Personalized Web Search
- Limy Sebastian - Security & Privacy of Relational Data using Access Control and Privacy Protection Mechanism
- Navya Noble - NVSS Scheme for Digital Image Sharing
- Jithimol P S - Enhanced Security Approach on Social Networks by K Anonymization
- Shruthy V C - Self Embedding Watermarking Scheme for Tamper Detection and Recovery of Color Images
- Sangeetha N Kumar - Efficient Revocation and Key Management for Cipher Text Policy Attribute based Data Sharing System

Published in **International Journal of Modern Trends in Engineering and Research (IJMTER)**:

- Antu Mary Kuruvilla - A Survey on Identity Deception detection in Social Media Applications
- Sruthi Das N - A Survey on Different Image Steganalysis Techniques

Published in **ARNP journal for Engineering and Applied Sciences**:

- Limy Sebastian - Security and Privacy of relational data using access control and privacy protection mechanism

Published in **International Journal of Science, Engineering and Technology Research**:

- Anju Paul - Watermarking of Relational Databases using Video

FACULTY PAPER PRESENTATIONS/PUBLICATIONS

Asso. Prof. Sreela Sreedhar published a paper on "Efficient revocation and Key Management for Cipher text Policy Attribute Based Data Sharing System" in the International Journal of Applied Engineering and Research, IJAER (paper presented in DRDO sponsored IEEE International Conference on Innovations in Information, Embedded and Communication Systems ICIECS-'15 on 19th and 20th March, 2015, organized at Karpagam College of Engineering, Coimbatore, India.)

Asso. Prof. Sreela Sreedhar presented a paper on "A Security Framework for Brokerless publish subscribe system using identity based signcryption" in IEEE International Conference, held at Noorul Islam Centre for Higher Education, Kanyakumari, on 19th and 20th March 2015.

Asst. Prof. Panchami V presented a paper on "A fast color authentication algorithm for secure mobile computing" in DRDO sponsored IEEE International Conference on Innovations in Information, Embedded and Communication Systems, held at Karpagam College of Engineering, Coimbatore, on March 20th 2015.

Asst. Prof. Saira Varghese has participated and presented a paper entitled "A Comparative Analysis on Cloud Data Security" in the Global Conference on Communication Technologies (GCCT-2015) organized by Noorul Islam University on 23rd and 24th April 2015.

Asst. Prof. Panchami V, Asst. Prof. Bonny V Raj published a paper titled "DNA Based Cryptography using Permutation and Random Key generation Method" in the International Journal of Innovative Research in Science, Engineering and Technology (ICIASET), Volume 3, Special Issue 5, ISSN (Print): 2347-6710, ISSN (Online):2319-8753, July 2014.

INDUSTRIAL VISITS

Carmatec IT Solutions, Bangalore & Mpower Global on August 2nd 2014 by S7 students: Students of S7, accompanied by Asst. Prof. Abin Philip & Asst. Prof. Ceira Sara Cherian visited Carmatec. The students were introduced to different company brands namely Insta Carma, Rails Carma, Color Cuboid, Server Mascot and CLIMB Education. There were technical sessions on Ruby on Rails and PHP.



HAL, Bangalore on August 7th 2014 by S5 students: The students of S5 visited Hindustan Aeronautics Ltd. (HAL), Bangalore. 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. Asst. Prof. Anju Kuriakose and Mr. Ritesh P accompanied the students.



Infosys, Trivandrum on 7th February 2015 by S3 students: S3 students visited Infosys, Trivandrum on 7th February 2015 to pertain the knowledge about the inner atmosphere and industrial acquaintances of the finest company in the country. They were accompanied by Asst. Prof. Anuraj C K and Asst. Prof. Anju Kuriakose. 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.



CLASS COMMITTEE MEETING

Class committee meetings are conducted twice in a semester for all the batches of B.Tech & M.Tech students. This is an interaction forum for the student representatives and faculty, so that feedbacks can be assessed regularly and action plans can be taken up.



STUDENT INTERNSHIPS

All students of 3rd year B.Tech and 2nd year M.Tech undergo internship trainings in reputed companies during their semester break.

STUDENT STARTUPS: (2011-'15 BATCH)

- Mr. Samuel T Thomas - Freelance Web Developer
- Mr. Abraham Alexander - Flip Technologies

PROJECT EXPO 2011-'15 BATCH

Final year B.Tech students showcased their projects in the Project Expo conducted by Department of CSE at TIST on 19th March 2015. The projects won appreciation from the audience. Some of the best projects are mentioned below.



- **Head Mouse Controller for Disability Aid**
Team: Abraham Alexander, Anuj K Sajan, Bibin Thomas Guide: Asst. Prof. Bonny B Raj
- **Guide Me - A walking assistance for the visually challenged**
Team: Jackey Yacub Roy, Soumi Ravindran, Vidhu Vijayan Guide: Asst. Prof. Ceira Sara Cherman
- **OTRON - Object Tracking Robot One**
Team: Govind Raj, Livin Raphael Polakatt, Mithun Sathyan
Guide: Asso. Prof. Jesna Anver
- **TubeCaster - Online Broadcasting Platform**
Team: Jithu Thampi, Joyal Jose, Samuel T Thomas
Guide: Asst. Prof. Anuraj C K
- **Sign Language Recognition System**
Team: Mohamed Haseeb, Sarat V, Sarath K S
Guide: Asst. Prof. Mithu Mary George
- **Virtual Mouse using Accelerometer**
Team: P Abhijit, Sanjay Babu
Guide: Asst. Prof. Leda Kamal
- **AugCity - an augmented reality based mobile app**
Team: Ann Shirley Varghese, Grishma C Mohan, Jerin Daniel Mathew
Guide: Asst. Prof. Mintu Philip



PROFICIENCY PRIZE: M.TECH FINAL YEAR - MS. ANUSREE P

PROFICIENCY PRIZE: B.TECH FINAL YEAR - MS. VEENA SURESH

STUDENT STARTUP RECOGNITION

Flip Technologies - Mr. Jibin Jose (2010-'14 batch): The startup innovation team earned global acclaim and a free trip to Canada for their Skateboard tracker mobile application designed to improve the skills of skateboarders, 'The Smart Riser'. It was ranked among the top five in the Next Big Idea Contest 2014, organised jointly by the Bombay Stock Exchange Institute; Govt. of Ontario, Canada; IBM Global and Ryerson Futures Inc. It was also been rated as one of the most interesting products by Intel, which will provide its latest Edison board for prototyping and for development support. Jibin was one of the five students who went to Silicon Valley from Startup Village as part of the SV Square programme. Flip was also picked as the best emerging startup in Kerala of 2014 by the Startup Village.



CSAT-CSI STUDENT COORDINATORS 2015-'16

- Mr. R Aditya Naik (CSI TIST - Secretary)
- Ms. Meenakshi Suresh (CSI TIST-Joint Secretary)
- Mr. Akhil Ashok (CSAT - Secretary)
- Ms. Sahana (CSAT - Joint Secretary)

CSE @ TIST STUDENT COUNCIL 2015

- Ms. Ann Shirley Varghese (College Captain)
- Mr. Mithun Sathyan (Sports Captain)
- Ms. Dreshya Ramesh (House Captain)

GEORGEKUTTY P THATTIL MEMORIAL ENDOWMENT

Ms. Veena Suresh – CSE Topper 2015 (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.)

CSE @ TIST ALUMNI MEET

CSE faculty who are our alumni were very active in coordinating TIST Alumni Meet in January 2015 and many alumni members from CSE department participated in the event.



EVENTS 2015-'16

- JUNE 16-22, 2015 FDP ON ADVANCES IN COMPUTING AND PROGRAMMING
- JUNE 22-26, 2015 WORKSHOP ON PHONEGAP
- JULY 1-3, 2015 BRIDGE COURSE ON NETWORK AND OS PROGRAMMING
- JULY 9, 2015 TECHNICAL SESSION ON SDL
- JULY 16, 2015 SESSION ON CAREER GUIDANCE
- JULY 17, 2015 WORKSHOP ON COMPUTER HARDWARE & NETWORKING
- JULY 3RD WEEK, 2015 1ST CLASS COMMITTEE MEETINGS – ALL SEMESTERS
- AUG 12, 2015 TALK ON CYBER SECURITY AUG 3RD WEEK, 2015 PTI MEETINGS
- AUG 20, 2015 TECHNICAL TALK ON CLOUD COMPUTING
- SEPT 2ND WEEK, 2015 2ND CLASS COMMITTEE MEETINGS – ALL SEMESTERS
- DEC 1-2, 2015 JAVA AUDIT COURSE
- DEC 3, 2015 EMPLOYABILITY ENHANCEMENT WORKSHOP
- DEC 5, 2015 PLACEMENT TRAINING - FACING TECHNICAL INTERVIEW
- DEC 14-15, 2015 PLACEMENT TRAINING – APTITUDE
- DEC 16-18, 2015 INTERNATIONAL CONFERENCE ON BIO INSPIRED COMPUTING
- DEC 2ND WEEK, 2015 1ST CLASS COMMITTEE MEETINGS – ALL SEMESTERS
- JAN 14, 2016 ORACLE ACADEMY – ICTAK WEBINAR



- JAN 27, 2016 GATE- MOCK TEST
- JAN 28, 2016 WORKSHOP DATA SECURITY TOOLS
- FEB 1, 2016, TECHNICAL SESSIONS ON J2ME
- FEB 4-5, 2016 TECH FOSS 2K16 – CSI INTER COLLEGIATE EVENT
- FEB 2ND WEEK, 2015 2ND CLASS COMMITTEE MEETINGS
- FEB 3RD WEEK, 2015 PTI MEETINGS – ALL SEMESTERS
- MARCH 11, 2016 PROJECT EXPO
- APRIL 15 2016 ORACLE ACADEMY – ICTAK WEBINAR
- MAY 9-21, 2016 EMPOWERING HOUSEWIVES IN COMPUTER EDUCATION
- MAY 9-13, 2016 TECHNICAL QIP (CLOUD COMPUTING AND SECURITY)
- MAY 20-27, 2016 ANDROID WORKSHOP

OUTGOING STUDENTS



B.TECH COMPUTER SCIENCE AND ENGINEERING (2011-'15 BATCH)



M.TECH COMPUTER SCIENCE (DATA SECURITY) (2013-'15 BATCH)

TECH UPDATES

JAVA @ 20 – CHANGING OUR WORLD SINCE 1995

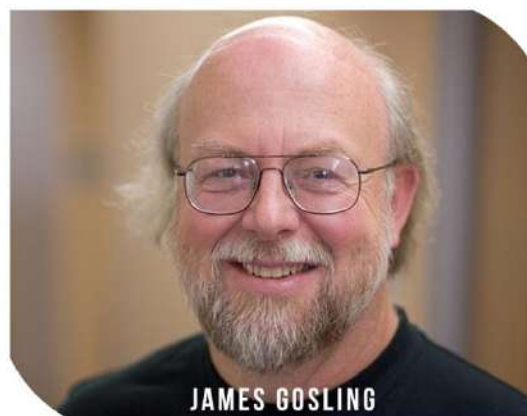
Java, one of the most popular programming languages in use now, was originally designed for small, embedded systems in electronic appliances like set-top boxes. It was developed by the '**Green Team**' - **James Gosling** with **Mike Sheridan**, and **Patrick Naughton** - at **Sun Microsystems** (acquired by Oracle Corporation in 2009-'10), with the intent of extending the power of network computing to everyday activities. Java1.0 was released in 1995 as a core component of Sun's Java platform. The language was initially called 'Oak', later, it went by the name 'Green' and was finally renamed **Java**, from Java coffee.



In 2006, Sun released much of Java as free and open-source software, (FOSS), under the terms of the GNU General Public License (GPL). Sun generated revenue through the selling of licenses for specialized products such as the Java Enterprise System. Today, Java not only permeates the Internet, but also is the invisible force behind many of the applications and devices that power our day-to-day lives. From mobile phones to handheld devices, data centers to super computers, games and navigation systems to e-business solutions, Java is everywhere!. The current version is **Java SE 8**, since March 2014. **Java9** is expected to be released in September, 2016.

JAVA9 - REPL OPTION (Read-Eval-Print-Loop)

Java developers are planning to incorporate REPL capability in java9 by introducing **jshell** that allows programmers to **get immediate feedback** instead of having to construct and compile complete, syntactically correct programs first. This allows much interactivity, enabling the programmer to enter small code snippets and receive immediate feedback. Python already has this capability. The jshell tool will be a command-line tool offering ease of interaction via features like tab completion, automatic addition of needed terminal semicolons, and configurable, predefined imports and definitions.



JAMES GOSLING

MS. ELSABA JACOB
ASSISTANT PROFESSOR, CSE

NOKIA OZO, A FUTURISTIC CAMERA FOR FILMING VIRTUAL REALITY

Nokia announced Ozo, a next-generation camera for capturing audio and video in 360 degrees. Ozo is aimed to become the default mode of shooting virtual-reality experiences for Hollywood, the media, and the advertising industry. It creates VR in real time, with a pair of key features - live monitoring (directors can view footage as it is being shot on a headset) and rapid playback. The device is expected to sell in the mid-five figures.



FACEBOOK, OCULUS AND THE FUTURE OF VIRTUAL REALITY

Rift is a virtual reality head-mounted display developed by Oculus VR. It is expected to be released in 2016, making it one of the first consumer-targeted virtual reality headsets. Facebook, on acquiring Oculus VR, is aiming to use the Rift headset to create a more immersive social experience through the company's communications tools. One example given of these 'new experiences' was an event such as a birthday party or a boy's first bike ride that could be shared on Facebook so that users in different parts of the world felt as if they were taking part.



GOOGLE BRILLO, AN OPERATING SYSTEM FOR IOT (INTERNET OF THINGS)

One of the biggest issues for IoT is the lack of interoperable standards. Google introduced its products Brillo and Weave, to provide software for IoT. Brillo is a stripped down version of Android, which will run on battery-powered connected devices. It connects any 'thing' and link in with existing Google technologies. It supports Wi-Fi, Bluetooth Low Energy, and other Android things. Android devices will auto-detect Brillo and Weave devices. The preview is planned to be released in the 3rd quarter of 2015.



WINDOWS 10 – MICROSOFT OS FOR LAPTOPS, DESKTOP AND SMARTPHONES

Microsoft launched its new operating system, Windows 10, on 29th July 2015. It has a user-friendly and feature-packed interface. Microsoft Edge lets move quickly from browsing to doing; write or type notes directly on web pages and share them with others. It has multi-doing; user can snap up to four things on one screen at the same time. The new Windows Store gives a unified shopping experience. Windows 10 comes with Xbox and built-in apps like Maps, Photos, Mail & Calendar, Music & TV.



BLACK PHOSPHORUS COULD REPLACE SILICON CHIPS

Silicon might now lose its ubiquity as a computer chip building material, as it might face some competition from a new version of an old substance called black phosphorus (BP). Researchers working at the Institute for Basic Science (IBS) have created a high-performance transistor using BP. With the BP crystal, researchers have discovered that they can change its thickness or the contact metals and that will determine if it is high performance n-type, p-type, or ambipolar material.

MR. JERIN A MATHEWS
S7, CSE

TIST CSE IN NEWS



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BEHIND THIS ISSUE: Editorial
 Asso. Prof. Sreela Sreedhar, HOD
 Asst. Prof. Elsaba Jacob
 Asst. Prof. Anju Kuriakose
 Asst. Prof. Abin Oommen Philip
 Mr. Jishnu Vijayan, S7 CSE,
 Ms. Meenakshi Suresh, S7 CSE
Design: Mr. Muhammed Shafeeque O M (S5)



COMPUTER SCIENCE AND ENGINEERING
 STUDENT'S ASSOCIATION OF TIST



CSI TIST STUDENT BRANCH