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ANNUAL NEWSLETTER

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VISION

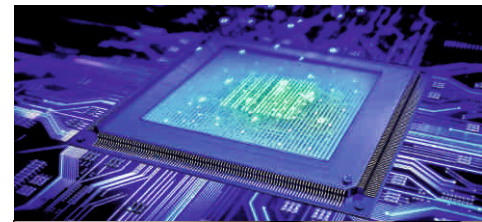
- To become a centre of knowledge in information technology, inspiring young professionals into becoming updated, innovative contributors to society.

MISSION

- To foster a curiosity driven approach towards learning, making creative use of knowledge resources.
- To provide value based insights towards moulding technocrats with social commitment and leadership.

At a Glance...

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Federal Institute of Science and Technology (FISAT)[®]

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ICEFOSS 2017-National Level Conference

ICEFOSS (ICEFOSS is a Conference for Enthusiasts of Free and Open Source Software) is a national level Free Software Conference organized jointly by FISAT Free Software Cell (FFSC) and Department of Computer Science. ICEFOSS 2017 was conducted as a two day conference on October 6,7 2017. ICEFOSS was inaugurated by Dr. Jayasankar Prasad C, Director ICFOSS.

ICEFOSS 2017 had Workshops covering different aspects of Free Software. It also had a project exhibition by Computer Science students. ICEFOSS is one of the longest standing technical conference in FISAT. 230 free software enthusiasts from different parts of Kerala attended the event.

Six workshops were conducted as part of the event. They are

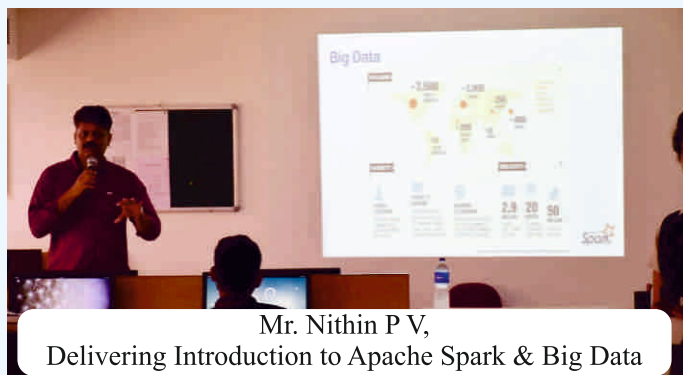
1. From Neural Network to Deep Learning
2. Learning Rust by Programming Embedded Linux Systems
3. Miles to Go : GoLang Workshop
4. Introduction to Docker
5. Introduction to ReactJS
6. Introduction to Apache Spark



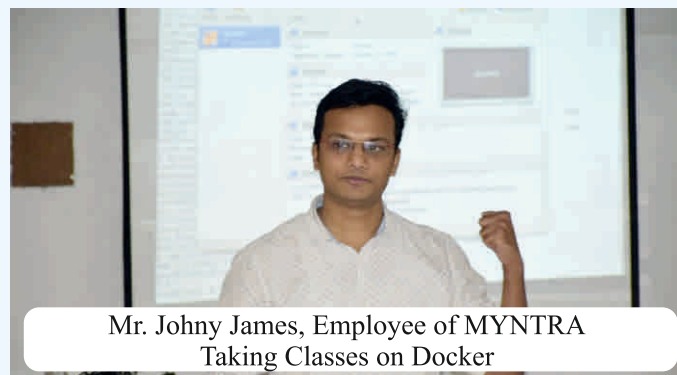
National Level Free Software Conference ICEFOSS-17



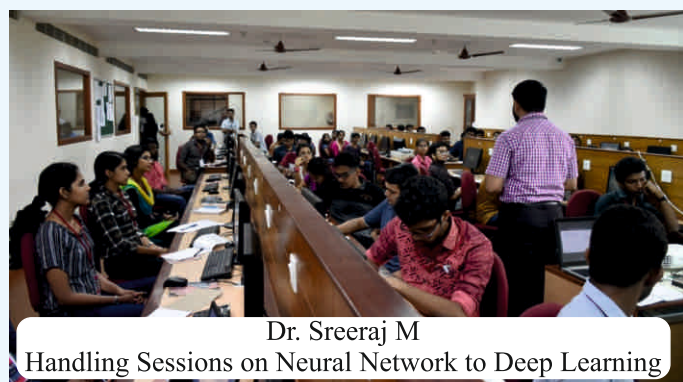
ICEFOSS 2017 inauguration by Dr. Jayasankar Prasad C



Mr. Nithin P V,
Delivering Introduction to Apache Spark & Big Data



Mr. Johny James, Employee of MYNTRA
Taking Classes on Docker



Dr. Sreeraj M
Handling Sessions on Neural Network to Deep Learning



Our Students Listening to the Sessions of workshops

MESSAGES



Mr. Paul Mundadan

Chairman,
Governing Body FISAT

I am glad to know that the Department of Computer Science and Engineering is releasing its their newsletter ICON-2017. I am sure that the newsletter will be a repository of news and information regarding the innovative events and programs organized by the department for the year 2017. I wish them all the best!!!



Dr. George Issac

Principal, FISAT

The Department of CSE has been releasing the newsletter showcasing the various events and programmes organized by them. They use this platform to encourage the meritorious students for their contributions in curricular and co-curricular achievements. I wish all the success to the Department and editorial team for the release of upcoming newsletter ICON-2017.



Dr. C Sheela

Vice-Principal

2017 has been a great year for the CSE Department. Students and faculty actively participated and organized various events in association with THYRA, Mozilla Club, FFSC. Students of CSE were offered placements in well-reputed companies. I take this opportunity to congratulate the CSE department for their achievements and initiatives. ICON 2017 will give an overview of the Department activities in the past year and I wish ICON 2017 and CSE department all success.



Dr. K S M Panicker

Director (Academics)

I am happy to hear that the Department of CSE is releasing their annual newsletter ICON for the year 2017. Department of Computer Science has always given importance to co-curricular activities along with their academics. The technical cells like FFSC and Mozilla club are active in conducting workshops, technical talks and introducing novel technologies to the students. The initiatives taken by the faculty and students in the department deserve appreciation. I wish all the success for their newsletter ICON -2017.



Dr. Sunny Kuriakkose

Dean (Student Affairs)

FISAT has emerged as a prestigious institution and accredited by NAAC with 'A' grade. All the departments, including the Department of CSE, has contributed a lot by moulding the students excellently with social commitment. Now are heading towards NBA accreditation. It's time for the department to organize programs and introduce healthy practices by keeping an eye on the accreditation process. ICON, released in the previous year is a comprehensive newsletter which is a detailed documentation of programmes organized by CSE, achievements of CSE students and staff fraternity, placements, etc. I wish all the success in their endeavour to release ICON 2017.

**Dr. Prasad J C**

Professor & Head CSE Dept.

HOD'S Desk

The department of Computer Science and Engineering is one of the pioneering departments of this institution. We offer our students good educational experience that combines intellectual rigor and cross-disciplinary breadth in an organized, student centered environment. I am happy to note that various initiatives are taken by the faculty to disseminate knowledge by organizing conferences, training programs and workshops. Expert lectures are also organized by various departments time to time to keep abreast with the latest developments in the field of science and technology.

Apart from providing the quality education, we crave to provide our students a holistic learning experience for life. Academic excellence along with curricular and extra co-curricular activities completes the process of education, and it gives me great satisfaction that FISAT is making progress in all its endeavours towards the overall development of the students.

One of the major events of 2017 was that Computer Science and Engineering Department in association with Federal Bank CSR department conducted 40 workshops on cashless transactions in different locations. As part of social service activity of students, we conducted classes on various technologies like Unified payment Interface, SMS Banking, *99# banking, missed call banking, credit cards, debit card, mobile banking, etc to make confidence and understanding of digital technologies among general public. This has greatly helped to improve the social commitment, leadership skills and overall development of the students. It is true that demonetisation has paved the way for digital banking trend in India. The volume of people who use digital banking services has shot up sharply past demonetisation.

It is indeed my great pleasure that our department is publishing newsletter etching every aspect of activities and events held in academic session 2017. The newsletter aims to bring into view about various proceeding, functions and happenings in the department. I congratulate the team who has taken initiative for producing this newsletter.

**Jyothish K John**

Asst. Professor, Senior Grade

EDITORIAL NOTE

Greetings!!!

"The measure of intelligence is the ability to change"

-Albert Einstein-

Engineering education in Kerala has gone through a transition by bringing all the engineering colleges under Kerala Technological University (KTU). The stringent quality measures initiated by the university give a positive hope to the engineering education in the state. The syllabuses, as well as the evaluation criteria framed by the university, will definitely fit to rapidly changing requirements and expectation.

At the same time, the colleges can be rated using a few common criteria put forward by the university like academic pass percentage, placements, quality of staff, accreditation or any other, since all the institutes are brought under the same university. The university can evaluate the performance of the institute and even display comparative grading in their portal. The performance of students and faculty will thus directly contribute to the overall grade of the institute. The students should be therefore cautiously adapt to the new circumstances and contribute to the institute.

The newsletter ICON 2017 like past volumes will reflect the activities organized by the professional bodies and clubs. It is a platform to highlight the contributions made by our students and appreciating their success in academics and co-curricular and extracurricular activities.

THE NEW FACE OF BANKING -“DIGITAL TRANSACTIONS”

CSE Department in association with Federal Bank CSR Department conducted 40 workshops on cashless (digital) transactions in different locations. As part of social service activity of students, we conducted classes on various technologies like Unified payment Interface (UPI Technologies), SMS Banking, *99# banking, missed call banking, credit cards, debit card, mobile banking, etc to make confidence and understanding of digital technologies among general public. Central Minister Piyush Goyal, District Collector K.Mohammed Y.Safirulla, and many organizations congratulated and wrote appreciation letters to FISAT for the effort.

As the country moves towards a cashless environment after demonetisation, the initial awe and confusion have given way to a flurry of concerns. To incentivise the move towards a cashless economy, the government has come up with a rash of discounts and freebies on digital transactions.

Central Minister Piyush Goyal & District Collector K.Mohammed Y.Safirulla Congratulates Fisat for promoting Digital Transactions



Inauguration of 'Cashless Transactions' By Mr. Paul Mundadan, Chairman Of Fisat



SESSIONS ON 'DIGITAL TRANSACTION'



CSE DAY - 'MANTRA 2017'

The Annual CSE Day – Mantra 2017, was conducted in a grand manner on March 30th 2017, in association with THYRA – the association of computer engineering students. The chief guest for the event was Sri Sunny N V, Deputy General Manager and Zonal Head of Federal Bank. Smt Sumy Kuriakose, Academic Relationship Manager of Tata Consultancy Services, also graced the occasion with her valuable presence.

The event was also embellished with 3 innovative products from TCS. The one which apprehended rapt attention was the digital nose, which is capable of identifying different smells.

A workshop on Arduino was conducted for S4 and S6 CSE students by TechJeeva, in association with CSI, as part of the Mantra 2017. Nearly 50 students participated and got hands on experience.

A quiz competition was held, Celestia '17, in association with ACM Chapter of CSE Dept. It was an intercollegiate quiz competition in which numerous teams from various colleges participated. The finalists of Celestia '17 were selected after rigorous prelims and eliminations. The winners of THYRA Quiz were the final participants of Celestia '17 from FISAT.

The winners of both academic and non-academic ventures were awarded with cash prizes, mementos and certificates.

Inaugural Address by

Sri Sunny N V, Deputy General Manager and Zonal Head of Federal Bank.



Dr. George Issac, Principal FISAT, Mr. Paul Mundadan Chairman Governing Body FISAT, Mr. P.I.Bose, Treasurer of the Governing Body, FISAT, Dr.C Sheela Vice Principal, Ms. Nisha Rajeev, Staff-coordinator of THYRA and the other dignitaries graced the occasion with their presence.

INAUGURATION OF 'MANTRA 2017'

by **Sri Sunny N V**, Deputy General Manager and Zonal Head of Federal Bank.



Winners collecting Prizes from **Dr. KSM Panicker**, Director of Academics



Details of Winners of Various Events of 'MANTRA'

Best Main project

Reinforcement Learning – Checkers Game by Amal Shaju, Anandakrishnan, Jiss Raphel and Henna Mechery of S8 CSA.

Best Second Main project

Sentiment Analysis of Movie Reviews using Contextual Polarity by K J Gopika, Neenu Shaji, and Rahmath Nisa V.A. of S8 CS B.

Best Mini project

Adaptive Talking Tom by Greeshma Babu, Amrutha K.S. and Akhila Susan Babu of S8 CSA.

Best Second Mini project

Media Bias Monitoring by Mohammed Farhan, Kiran Varghese and S.Vaisakh of S8 CS B.

Winners of Essay Writing Competition on Digital India Revolution, in association with 70th year of Indian Independence.

First

Sneha Anna Joshy of S2 CS B

Second

Diya Merin Sunny of S2 CSA

THYRA QUIZ Winners

First

Arjun R Nath and Abraham J Roy of S6 CS A

Second

K J Gopika and Saumya Shenoy of S8 CS B

ACM Celestia '17 Quiz Winners

Arjun R Nath and Abraham J Roy of S6 CS A

Project Exhibition Pics as part of 'CSE Day' Organized by 'THYRA'



BEST B TECH FINAL YEAR PROJECTS

1. SENTIMENT ANALYSIS OF MOVIE REVIEWS USING CONTEXTUAL POLARITY

Team members: K.J GOPIKA, NEENU SHAJI, RAHMATH NISA V.A

Sentiment analysis from natural language texts is a multifaceted and multidisciplinary problem. The project is about identifying the correct sentiments that are being conveyed, by analysing the textual data in a context, here, movie reviews. Identifying strength of sentiment in figurative texts or aspects and categories from the reviews, detecting stance from the tweet data, identifying the psychological condition of persons from chat even detecting sentiment in clinical texts and the moods from music etc. are the recent trends in the field of sentiment analysis. The aim of the project is to experiment with different machine learning algorithms to predict the sentiment of unseen reviews from the improved corpus that has the additional sentiment information of all sub-phrases. Here Rotten Tomatoes movie review corpus. The

random forest classifier was used to classify the unseen reviews into positive and negative sentiments. Sentiment Analysis of movie reviews using Contextual Polarity can be done in a variety of methods which includes a combination of different technologies for parsing, vectorization and classification of the given data. The project was done in three stages. The first stage was understanding the problem statement and brainstorming for possible ways to solve it. The second stage included implementing and finalising of different techniques. The third stage was training the data set and setting up a user interface for the project.



Team members:
K.J.GOPIKA, RAHMATH NISA V.A., NEENU SHAJI

2. DEEP REINFORCEMENT LEARNING IN CHECKERS WITH DQN

Team Members : AMAL SHAJU, ANANTHAKRISHNAN M, HENNA MECHERY, JISS RAPHEL

In this project, deep learning concepts are used to build an agent that can play checkers. A convolutional network was trained on with 20k+ expert games. But the convolutional neural network showed average results since there was no reinforcement learning involved. Then DQN, a policy based reinforcement learning method was used to make the checkers playing agent which continuously updated the policy based on each action and corresponding outcome. DQN gave outstanding results as compared to the CNN, as it maintained a policy based on the feedback rather than being blindly trained on a dataset.



Amal Shaju



Ananthakrishnan M



Henna Mechery



Jiss Raphael

DAY TO REMEMBER-2017

A day of cheer, joy and fun for differently abled children was conducted on 7th October 2017 at Aeli hills, Aluva. The scintillating performance by FISATians for the differently abled students of special schools in and around Aluva was a memorable one. The day of fun and entertainment was organized by NSS members of FISAT in association with Stallions international, an NGO working among children. Forty NSS Volunteers under the leadership of Mr. Jiby Varghese, Asst. Professor and Mr. Tom Anto, Asst. Professor engaged the children with dance, music, games, workshops and group activities. Students from Computer Science department were actively involved. Around hundred special children and twenty five regular students in the age group of five and fifteen, their family members and Stallions volunteers participated in the day long programme. The programme was inaugurated by Mr. Paul Mundadan, Chairman, FISAT Governing body. Mr. E A Aboo Baker and Mr. M P Abdul Nazer spoke on the occasion.

Our students cheering up the differently abled students of special schools



FIRST YEAR INDUCTION PROGRAMME

The students need a proper orientation for evolving an integrated approach towards Engineering Studies and development of their overall personality. A One day Orientation programme for the 1st year B.Tech students was organized based on the following objectives :

- (1) An insight into Engineering
- (2) Evolving a competent student
- (3) Mould the students as a team
- (4) Grooming them into FISAT culture(Manners, Discipline etc).

The sessions were handled by Mr. Vincent Joseph, Mr.P R Chandramohan, Mr. Prakash C Chandy and Mr. Jiby Varghese.

FOSSHACK

FISAT Free Software Cell (FFSC) conducted a 24 hour open source hackathon, FOSSHACK on 18/4/2017 at FISAT. It was conducted in association with Ignitho Technologies and Redpanthers. FOSSHACK is an open source hackathon for college students across the state where they can build innovate solutions to problem statements.

Winners were awarded cash prizes worth 15k and job offers from Ignitho Technologies and Redpanthers.

Winners

1. Team ENBITREE - FISAT
2. Team COAX TECH - Adi Sankara
3. Team PACMEN - VJCET

Based on the performance, job offers were given by Ignitho Technologies to

Kiran Vargheese - FISAT
George J Padayatti - VJCET
Jose Thomas Dominic - VJCET
Paul Johny - VJCET

Event was conceived and organized by a team led by Mr. Adam Shamsudeen (Alumni FISAT 2013-2017 batch).

Industrial Visit cum Tour Programme

The students of computer science department organised an Industrial Visit to Kannan Devan Tea Museum, located at Munnar, in the district of Idukki on 1st April 2017. Head of the department Dr. Prasad J.C. and group advisors Ms Chetana Joy and Ms Hema Krishnan accompanied the students in the visit. There were a total of 59 students. Students visited the Tea Museum, Factory and other places. This greatly helped to enhance their knowledge on different parts of the tea tree, different types of tea, processes through which tea powder is made and the machinery used.



HOD Interacting with Students Participating in open source 'Hackathon'



Students actively involved in work



Assessment phase of 'Hackathon'



Special Services of CSE Faculty Outside the College



Dr. Prasad J C

Reviewer member of GRD International Journal

Advisory Board Member, RJCET, CSE Dept, Kakkanad.



Mr. Pankaj Kumar G

Resource person for FDP on “Administration and Networking in Linux” as a part of STTP organized by Dept. Of Computer Application, RIT Kottayam on 15-07-2016 and 16-07-2016.

Resource person for FDP on “Python Programming in Image processing and machine learning” as a part of FDP organized by Dept. Of ECE, Vidya Academy of Science and Technology on 02-03-2017 and 04-03-2017.

Conducted a Workshop on “R Programming” organized by MCA, FISAT held from 13-07-2017 to 14-07-2017.

Resource person for FDP on “Virtualization and Cloud computing” as a part of FDP on Secure Cloud Computing organized by Dept. Of IT, ToCH held from 13-07-2016 to 17-07-2016.

Resource person for FDP on "Research Directions in Cloud" organized by SNGCE from 20-01-2017 to 21-01-2017.



Mr. Paul P. Mathai

Mr. Paul P. Mathai published a paper entitled "A New Approach for Information Mining of Item sets Using Utility and Frequency Methods", in the 7th International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESM-2017).

List of Faculty with 100% Result

B.Tech

1. Nisha Rajeev (Artificial Intelligence – S8 CSEB (2013 Ad. Year)
2. Siyamol Chirakkarottu (Data Base Management Systems – S6 ECEA 2014 Ad. Year)
3. Anuranj P (Software Architecture – S8 CSEA 2013 Ad. Year)
4. Merin Cherian (E-commerce – S8 CSEA 2013 Ad. Year)
5. Siyamol Chirakkarottu (Data Communications – S6 CS B 2015 Admn Yr)
6. Reshmi R (Graph Theory – S6 CS B 2015 Admn Yr)

M.Tech Adm. Year (2015)

II Semester

Dr. Arun Kumar M N- Algorithm Analysis and Design
Pankaj Kumar G - Advanced Computer Networks
Hema Krishnan - Advanced Database Concepts

III Semester

Dr. Arun Kumar M N - Data Compression
Meera Treesa Mathews - Advanced Information Security Concepts

M.Tech Adm. Year (2016)

I Semester

Meenu Mathew - Advanced Data Structures
Hema Krishnan - Operating System Design
Pankaj Kumar G - Computer System Design and Architecture
Lakshmi S - Data Mining Concepts

II Semester

Dr. Arun Kumar M N- Algorithm Analysis and Design
Pankaj Kumar G - Advanced Computer Networks
Chethna Joy - Computer Security and Applied Cryptography
Jestin Joy - Natural Language Processing
Shimy Joseph - Advanced Database Concepts



STUDENT ACHIEVEMENTS

Sreelakshmi C of S8 CSE B secured A GRADE for BHARATHANATYAM and FOLK DANCE.

Anjana Radhakrishnan of S6 CSE A secured A GRADE for LIGHT MUSIC.

Nadish Shajahan & Mohammed Farhan K N of S8 CSE B won the National Ethical Hacking contest, "HackQuest 2017" held at Kalinga park, TCS campus, Bhuvanesar.

Mr. Adam Shamsudeen, Mr. Goutham Krishna V.S and Mr. Aqib Siraj of S8 CSE A have won first prize under the spot event contest category 'Hackathon' conducted as part of TECHFEST-2017 of KSCSTE (Kerala State Council for Science, Technology and Environment) organized jointly by KSCSTE and APJ Abdul Kalam Technological University hosted by MA College of Engineering, Kothamangalam.

Mr. Adam Shamsudeen, Mr. Goutham Krishna V.S and Mr. Jiss Raphael of S8 CSE A are awarded second prize in BEST IT TEAM competition held in connection with 'Laqshya 5.0', an inter-collegiate management fest, conducted by Naipunya Institute of Management and Information Technology.

Mr. Mufeed Patel achieved Third prize in the Innovation Challenge'17 event conducted as part of DRISHTI'17 -the technical fest of College of Engineering, Trivandrum.

Mr. Mufeed Patel of S4 CSE B has won third prize under the spot event contest category 'Maker Summit' conducted as part of TECHFEST-2017 of KSCSTE (Kerala State Council for Science, Technology and Environment) organized jointly by KSCSTE and APJ Abdul Kalam Technological University hosted by MA College of Engineering, Kothamangalam.

Mr. Jiyadh K Salim and Gokul Babu of S2 CSE A have won first prize in PENTATHLON event conducted as part of DRISHTI'17 -the technical fest of College of Engineering, Trivandrum.

Mr. Sreedhar P K and Nadish Shajahan of S7 CSE B have won second prize in CODE XTREME, event of PALMARIUS, National level technical fest organized by Sahridaya College of Engineering and technology.

Ms. Nandini Menon of S2 CSE B has secured First position in team championship in Mixed Doubles, Second Position in team championship for women's team event, Second Position in team championship for women's Doubles event, Second Position in team championship for Youth Girls team event and Third Position in team championship for Youth Girls team event in the 46th inter district & 65th Kerala state table Tennis championship 2016 held at Kasaragod from 9th to 13th November 2016.

Mr. Mahesh P of S6 CSE B has won the first place in the Inter engineering football tournament at ASIET Kalady from 13 to 16 February 2017.

Mr. Noel Joseph Sam of S6 CSE B has secured first prize in Indian Music Group at IN-BLM 2017, the national level inter-collegiate/university cultural fest of Christ University, Bengaluru.

Mr. Noel Joseph Sam of S6 CSE B has secured first prize in music band competition organized by De Paul School Of Media & Communication, Angamaly.

Mr. Adam Shamsudheen, Mr. Goutham Krishna, Mr. Aqib Siraj, Mr. Jiss Raphael, Mr. Jibn Mathew have secured first position in the event 'DENOVO' conducted as part of the National Level Techno-Managerial cultural fest, Conjura-17, at T.K.M College of Engineering Kollam.

Mr. Nadish Shajahan, Mr. Mohammed Farhan K.N, Mr. Sreedhar P.K have participated in the Rajasthan IT Hackathon 2017 organized by Department of Information Technology & Communication, Government of Rajasthan.

Ms.Nandini Menon S3 cse B has won the KTU Table Tennis championship held at CET Trivandrum.

Visakh Ajith of S7 CSE B was selected as the facilitator for 'Google Applied CS with Android Program'.

Mr.Rohith Narayanan of S7 CSE B has won the Grand Prize in ACM Ambassadors program 2016-17 and a cash worth \$400.

Ms.Aiswarya Santhosh and Ms.Ashwini Harikumar has secured second position in the ESPARANTO event in DHISHNA conducted by Electronics and Communication Department, CUSAT.

Ms.Anjali J.A. and Sona Grace John won the college level PES Quiz competition organized by IEEE PES Kerala chapter as part of IEEE Day 2017 celebrations.

Ms. Lakshmi A S of S6 CS A was selected as the "ACM Ambassador" for the month of November 2017.

Ms. Anjali J.A. (S2 CS A) and Ms.Sona Grace John (S2 CS B) won the college level PES Quiz competition organized by IEEE PES Kerala chapter as part of IEEE Day 2017 celebrations.

Congratulations!



Gokul Babu



Sreedhar P K



Nandini Menon



Mahesh P



Noel Joseph Sam



Visakh Ajith



Rohith Narayanan



Aiswarya Santhosh



Ashwini Harikumar



Anjali J



Sona Grace John



Lakshmi A S



Sreelakshmi C



Anjana Radhakrishnan



Nadish Shajahan



Mohammed Farhan



Adam Shamsudeen



Goutham Krishna V S



Aqub Siraj



Jiss Raphael



Jiyad K Salim

**GATE
Qualified
Students**



Ananthakrishnan M A
CSE A(2013 Admission)



Heera Mahesh
CSE A(2013 Admission)



Divya Jose
CSE A(2014 Admission)



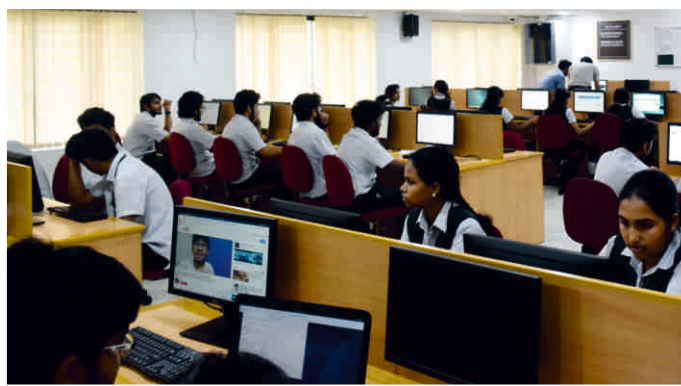
Lakshmi Priya
CSE A(2014 Admission)



V P Vishnu Prasad
CSE B(2014 Admission)



A Glimpse of 2017 Major Events



S8 CSE A



S8 CSE B





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Mr. Jyothish K John
Asst. Professor, Senior Grade

Associate Editor



Ms. Nisha Rajeev
Asst. Professor

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