



**LOYOLA-ICAM**  
**COLLEGE OF ENGINEERING AND TECHNOLOGY (LICET)**  
Loyola Campus, Nungambakkam, Chennai-600034  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



May 2018  
**Volume 3, Issue 1**

# TEHCZAR

## VISION

*To form competent computing engineers to serve the ever changing needs of the society*

## MISSION

*The Department of Computer Science and Engineering is committed to*

- 1. Inculcate learnability skills in the student to acquire knowledge in the fundamentals of Computer Science and Engineering*
- 2. Bring out creativity in the mind of the student, thereby leading to innovation and research*
- 3. Develop professional skills and adaptability through collaborative activities*
- 4. Create awareness on ethical values and generate involvement*

## Inside this issue

### Department Activities

- Workshops
- Provincial's visit
- PTA for Lateral Entries
- Seminar - Deep Learning

### Student Achievements

- Sports
- Co - Curricular
- University Results

### Placement

### Staff Corner

### Student Articles

### Entertainment Section

### Editorial Team

### Smart India Hackathon

Dr. Anitha Julian, Prof.CSE and 20 students from II year and III year attended the Awareness Workshop on Smart India Hackathon 2018 at Sairam Engineering College on 10th Jan 2018.

About 30 students from CSE have registered their project solutions to MyGov.



*Officials seated on the rostrum at the Smart India Hackathon'18*

---

*“A Ship in Harbor Is Safe, But that Is Not What Ships Are Built For”*

---

### Provincials' Visit

Rev Fr Dennis Ponnaiah, Provincial, Jesuit Madurai Province, and Rev Fr Jebamalai Raja, Mission Superior, Jesuit Madurai Province, visited LICET and addressed all the teaching and non - teaching faculty members in G01. They also welcomed suggestions and recommendations for the effective implementation of working towards the Jesuit Mission.



## PTA Meeting for the Lateral Entries

A meeting with the parents of II and III year students admitted via lateral entry took place on 20th February, 2018 in F11. Rev. Fr. Director, the Principal, the Vice Principal and the HODs interacted with the parents. During this meeting, student performance was briefed and student issues were clarified.



## Seminar on Deep Learning



A guest lecture on “Deep Learning in Computer Vision” was conducted on 19th January 2018. Mr. Gowdhaman Sadhasivam, a Full-Stack Data Scientist at University of Illinois at Chicago orchestrated the event. It involved an insight into AI vs. Machine Learning vs. Deep Learning, Why Deep Learning, Computer Vision Problems and its applications. Attendees also learnt how to create their own computer vision model and were enlightened on the opportunities for startups. 75 students from the Department of CSE and 60 students from other departments took part in this seminar.

## Sports Achievements

### CRICKET

Vignesh Umamaheswaran (IV year), Harish Ranganathan K S (IV year), Rishikumar (III year), Arjun Krishnan (III year) and Hemanth Kumar G (I year)

- won the first prize in the State level Inter-University Cricket Tournament held at Sathyabama University
- were runners-up in the LICET cricket tournament.
- were selected for the Inter Engineering tournament



### TABLE TENNIS

Abhishek Sudhakar (II year.) represented the University for Table Tennis

- won the Table Tennis tournament held at KL University and at VNR college, Hyderabad
- secured 4th place in the All India Inter University Tournament held in Orissa
- was the runner-up in Table Tennis in the LICET Tournament

### SWIMMING

Arjun Krishnan (III year) won 3 silver medals and 1 bronze medal at Jain University, won 3 bronze and 2 silver in Decathlon and won 4 silver, 3 bronze and 1 gold medal in the Inter University Zone Competition

### FOOTBALL

Samson Santharaj (III year), Adrian Jonathan (I year) and Hammesh Immanuel (III year) participated in the SSN Football Tournament and are selected for the next round

## Technical Events

- The Student Chapter of ISTE and CSI conducted technical contests including Web Designing, Debugging in C, C++ and Python, Certificate Design, App development, Bring Your Own Technology and Technical Quiz on 30th January 2018. The event saw enthusiastic participation by almost all the students in the department. Around 25 students have been selected as winners in the events held.



## University Results - First Semester

The first-year students of the Department of CSE 17' have topped in the Anna University First Semester exams with an overall pass percentage of 87.01

Rank	Register No.	Name of Student	GPA
1	311117104037	NANCY MATHEW	9.72
2	311117104010	ALEX EZHIL ARASU	9.56
3	311117104040	POOJA KRISHAN	9.52
4	311117104039	PABLO ANTONIO PHILIP	9.28
5	311117104052	SARAH PRAKRITI PETERS	9.20
6	311117104048	SABAREESH P	9.00

## Technical Events –Cont.

- 26 students from the Department of CSE participated in the Symposium held at Sastra University on 23rd, 24th and 25th February and were selected for the final round in the event “Extreme Coding”.
- Agnes Jennifer A (IV year), Reetu Scicilly Maria R (IV year), Daniel Rodney Xavier (III year), Vineeth S (III year) and Rahul K Johnny (III year) were shortlisted for the quarter finals in the India Innovation Challenge 2017 organized by DST and Texas Instruments.



IICDC 2017 – Team 126149 - Quarterfinal Submission – Part 2

**Loyola-ICAM College Of Engineering and Technology**

Team ID: 126149

**Accident Prevention through decision support system using vital body parameters**

**Members :** B Reetu Scicilly Maria  
A Agnes Jenifer  
S Daniel Rodney Xavier  
T Vineeth  
Rahul K Johnny

**Mentor:** Ms Limsa Joshi J

MORE VIDEOS



## Placements

Mary Betty (IV year.) is placed in DevCare Solutions.



## Tech Decadence - THE ARTIFICIAL INTELLIGENCE THAT CAN SEE THROUGH WALLS

- This precise technology allows for one to observe the movement of people behind walls. Instead of just a visible blob you can now see a skeletal figure move behind the wall.
- The neural network can be trained by AI researchers to deduce its own rules from data provided to it.
- This new technology is most efficiently used to monitor Parkinson's patients.



For further information, visit our e-Newsletter via QR Code

- SARAH PRAKRITI PETERS (1<sup>ST</sup> year CSE )

## Not The Motivational Section !!

Ma Yun a.k.a. **Jack Ma** is one of those self-made billionaires with unexpected beginnings. Jack Ma was born in Hangzhou, located in China. As a kid he was passionate about learning English, hence after graduating with a Bachelor's degree in English, worked as an English teacher at Hangzhou Dianzi University with a pay of just \$12 a month. During and after his Bachelor's degree Jack tried and failed to get a job at a variety of places. He once said in his interview, "When KFC came to China, 24 people went for the job. *Twenty-three people were accepted. I was the only guy who wasn't.*"



Even after repeated failures he was persistent and tried to get into the Police force and was the only one who got rejected out of the 5 applicants, because they thought he was unfit. In spite of all the failures he faced in life, he was dedicated and sincere in the pursuit of seeking new opportunities. This is the time when, Alibaba an ecommerce startup company was launched with the help of 17 of his friends. Initially, Alibaba didn't get any money

from outside investors, but they later raised around \$20 Million. This was the turning point in Jack Ma's life. The company which was then in his apartment turned out to be one of the biggest E-commerce networks in the world. He is now officially the richest man in China with an estimated net worth of \$25 Billion. He is a living example and served right to his quote

**"Don't complain, you can find opportunities".**

- REAH IMMACULATE (1<sup>ST</sup> year CSE)

## WHO GUARDS THE GUARDIAN?

Whether we like it or not digital security, or cyber security in specific, cannot be an afterthought and be addressed with just traditional ad hoc and limited point solutions. Cyber security has become a key strategic priority for digital businesses and is a topic that we need to be open about if we want to succeed in digital transformation, or in the government's words, 'Digital India'.

We speak a lot about IoT and are eager to develop and construct projects as well as products. But are we aware that 'Internet of Things', among others, escapes from the traditional building and design of complex systems with a 'safety first' principle which has become clear in the estimation of multiple vulnerabilities and challenges? Gartner estimates that more than 20%<sup>[1]</sup> of enterprise security attacks will involve IoT connections by 2020, and threat growth is expected to outstrip security spending.

We, the punters of this digital market, seem to get involved into weird things, causing us to be mentally disconnected in many ways. One wonders what happened to the predictions on how social media would connect us more and - thus - help make the world a better place.

Are we aware that this digital reality is slowly advancing to affect the physical one? It's not something to take lightly. Computers as cars have already killed. On May 8, 2018,<sup>[2]</sup> two 18-year-olds died in a fire in Fort Lauderdale, Florida that ensued after crashing a Tesla Model S into a wall. The car was limited to a top speed of 85 mph. The cause has not been identified yet.

Organizations must close the gaps between reality and security capabilities in holistic ways.

Bruce Schneier a renowned American Cryptographer and writer once said, "*We're sleep-walking towards digital disaster and are too dumb to stop*".

Are we going take a step or stay dumb?



- Ms A JEEVITHA, AP/CSE

Courtesy:

[1]- <http://www.cioandleader.com/article/2018/03/21/gartner-says-20-orgs-have-observed-least-one-iot-based-attack-last-3-years>

[2] - <https://eu.usatoday.com/story/tech/2018/05/09/tesla-crash-killed-2-teens-probed-investigators/596728002/>

## YOU ARE UNDER ATTACK!

Does your computer run on Intel, Apple, AMD, ARM, IBM or VIA? Then you are most certainly susceptible to Meltdown and Spectre, two hardware vulnerabilities reported by Google's Project Zero team earlier this year.

Spectre and Meltdown allow anybody who can run code on your processor (through websites, applications, links on emails – anywhere!) to gain access to protected memory on your computer. Spectre can also trick applications on your computer into giving up sensitive data.

Both Spectre and Meltdown exploit 'Speculative Execution', a technique that was used by chip makers to increase processing speed. *Speculative Execution* means that the processor can speculate the results of a certain code and execute subsequent steps in the background. The results are stored in the main memory (low speed, large size) and the cache (extremely high speed, small size). When the result is actually needed, it is readily available. If not, it is destroyed.

The scary part is that the attack is very simple. Here's how it works (DO NOT TRY THIS AT HOME).

1. The attacker runs a piece of code that enables speculative execution – something like this:

```
if (condition that accesses of main memory, i.e takes time)
{
    stolen=single character of private data
}
```

2. While the main memory is being accessed, the processor speculatively accesses a character of private data and stores it in the computer's cache.

3. Since the cache is protected, the attacker loads a set of all possible characters, one by one.

```
character_set=['a','b','c','d', ... ]
```

4. The time taken to load these characters is noted. If it takes a very short time (say 1ms), then it is from the cache (your private data has been guessed). If it takes a relatively long time, then it is not present in the cache.

This kind of attack is called a time-based side channel attack. The attack, although seemingly simple, is an even bigger threat to clouds, because hardware is shared.

The bad news is that software patches for Spectre have been an absolute train wreck! Patches distributed by Acer, Dell, HP and Lenovo were taken back because they were buggy. The good news is that Intel is currently working on it and you're currently under low risk unless you have a personal nemesis trying to take you down.

Watch out for the next issue of *Techzar* for more on Meltdown.

Meltdown

Spectre

- Jeswin Joseph (1<sup>ST</sup> year CSE)



## CHATBOT

Under artificial intelligence, chatbots are the emerging technology. A bot is a software program that independently performs a certain operation on our behalf, whereas Chatbots are software agents that converse through a chat interface. Great chatbots can converse with humans in a natural way, within the scope of what the chatbot is designed to do. They make the user feel understood and helped. They create a certain rapport with the user, without pretending to be human.

There are chatbots for analytics, customer support, fun & social, HR, Health, Payments, Shopping and Travel. Virtual assistants like Apple Siri or Amazon Alexa are two examples of popular chatbots. Eliza, the first ever chatbot, was developed in the 60s. The development of messenger applications and cognitive computing have been key factors in the emergence of chatbots. At one-point web interfaces were revolutionary and they managed to change the world of software. Then came the era of mobile interfaces. Now it's time for conversational or chat interfaces to shine.

-AGNES SANDRA FERNANDO (IV<sup>TH</sup> year CSE)

## You Didn't Know?

- The only state that can be typed on the same line of a QWERTY keyboard is 'Alaska'
- The computers used in the Apollo 11 trip to the moon had less processing power than a modern day cell phone.
- Around the year 1500, Leonardo da Vinci sketched plans for a robot.
- When you are awake, your brain can create enough electricity to light up small bulb.
- The average person blinks 20 times per minute but computer users only blink 7 times per minute when looking at the screen.
- Email was actually invented before the internet.

- REAH IMMACULATE (I<sup>ST</sup> year CSE )

## The Editorial Team

---

**Print Newsletter :** Jeswin Joseph - I Year

**E-Mail Newsletter :** G. Deepak - I Year

**Web Newsletter :** Nancy Mathew - I Year

### **Content Writing :**

Jeswin Joseph, Sarah Prakriti Peters, J. Reah Immaculate - I Year

### **Proofreading :**

Nancy Mathew, Sarah Prakriti Peters - I Year

### **Mentored By :**

Ms. A. Jeevitha - AP (CSE)

Ms. J. Christina - AP (CSE)

Dr. K. Gopalakrishnan - HOD (CSE)

---

## To Contact us for Queries, Feedback or Suggestions:

---

### **Student Coordinators**

Jeswin Joseph - I Year (CSE)

jeswinjoseph.21cs@licet.ac.in

Nancy Mathew - I Year (CSE)

nancymathew.21cs@licet.ac.in

### **Staff Coordinator**

Ms A. Jeevitha - AP (CSE)

And No, you wont be interacting with chatbots here, these are real humans



Scan this QR Code to view the Online Version of this newsletter

