

## REFLECTARE

Newsletter by the Department of Science

February 2018

SFS/BCA-BSC 02/ Feb 18

### Principal's Message

**Dear Desalites,**

Month of February is famous for Valentine's Day. I m sure all the young hearts wait for this month to express one's love for the beloved. It was so apt that we began our pencil campaign on 14th February 2018 to mark our love towards MAMMA EARTH. Free distribution of pencils to all Desalites and banning BALLPEN was a great thought and event that would change the course of our thought and deed. It's a constant challenge to all Desalites to keep avoiding the temptation of using ballpens which is used and thrown to the lap of mother earth. Let's join hands and hearts together to carry this campaign forward to the ends of the earth just to say "we love MAMMA EARTH".

Hail **Desalites**.



**Fr. Dr. Herold Christopher MSFS**  
Principal

Special points of interest:

- The department of Science has organized her first international Conference.
- Teachers on Wheels from Australia planned to take certificate courses on networking (Cisco) for the faculty members of the department of science.
- Students are encouraged to participate in intercollegiate IT festivals, seminars and technical workshops of which most of our students are now actively

### International Conference IC-ACT '18

The Department of Science organized **International Conference on Advances in Computer Science and Technology "IC-ACT'18"** on **24th Jan 2018** in association with IJET Journal for an intellectual growth and learning.

The conference aims at providing a platform for academia and industry to showcase their new advancement and findings in research and development in Computer Science, Information Technology and Information System. The conference also provides great opportunities for participants to exchange new ideas and experiences as well as to establish research and business relations with global partners for future collaborations. The conference was inaugurated by Prof. George Zajko from Australia, delivered the inaugural address and unveiled the conference proceeding. Around 25 papers had been received. Short listed participants had presented their papers under their respective topics and published in IJET journal.



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## Faculty Achievement



**Prof. Sailaja Mulakaluri** has delivered a guest lecture on 2nd February 2018 on the topic of *"Data Science and Machine Learning"* at Indo Asian Women's College. It was an interactive session. Students were interested in case study on Facebook, Face Learning and self driven course from Google.



**Dr. Nandan K.R** pursued his Ph.D on *"Investigation on Structural, Electrical and Magnetic Properties of Manganites with Rare Earth Doped Various Metal Oxides Synthesized by Sol-Gel Method"* from VIT University, Vellore.



**Prof. Annie Christila** has presented a paper on *"Dynamic Enablement of LSO (Largesend Offload in Network Virtualized Environment for Better Network Throughput)"* in the International Conference on "Recent Advances in Computing and Communication" organized by Shri Shankarlal Sundarbai Shasun Jain College for Women, Chennai.



**Prof. Roshini Anne Koshy and Prof. Rashmi** have attended a one day workshop on "Mathematics Pacticals using Foss at Jnanajyoti auditorium Central College Bangalore University, Bengaluru.





## Student Achievement

### Workshop on PYTHON– for future advanced coding

A workshop was conducted based on the topic PYTHON for future advanced coding which is currently needed by the MNC's. The speaker was Sandhya who took the workshop 2 hours of theory and there-

fore practical was conducted where they had python coding questions which are complicated where they explained in easy way to get the solution to the coding and displayed the outputs with the coding tricks.



### Attended National Workshop on Web Application Testing



St Francis de Sales College emphasizes on Excellence in Education. As part of the curriculum, we encourage students to participate in various inter collegiate programs in and around Bengaluru.

One such participation was from the Final Year BCA students who have participated in National level workshop on “web application testing using selenium” organised in Jyoti Nivas College Autonomous, Bengaluru.

### WordPress and Website Design Workshop

On the 23rd February, 2018, a few students of the Department of BCA attended a Wordpress Web Design Workshop at Oxford College of Engineering.

Students were geared knowledgeably by web design experts about the necessities of Wordpress web design.

They were also oriented towards delivering up to 5 exquisite websites with pages within a specified time and monetizing these websites designed for expanded income.

The seminar lasted a whole day, and our students who attended gave positive and impressive feedback.

WordPress is a free and open-source content management system (CMS) based on PHP and MySQL.



To function, WordPress has to be installed on a web server, which would either be part of an Internet hosting service or a network host in its own right.

WordPress is reportedly the most popular website management or blogging system in use on the Web, supporting more than 60 million websites.

WordPress was released on May 27, 2003, by its founders, Matt Mullenweg and Mike Little,

## Student Corner

### CYBER MALWARES

In this cyber age, millions of information is sent across the globe, through the internet. These information come with varying degree of privacy and therefore needs to be secured or protected with respect to their confidentiality metrics. These data are liable to be attacked or manipulated by some external unwanted/unauthorized sources or interferences. These attacks are assault on data security, derived from intelligent threat.

Ensuring a viable solution, big firm adopt

different cryptography algorithms to maintain the confidentiality of these data. The most prominent attacks today are caused by malicious software programs (malwares). These harmful, intrusive programs invade and infect your personal information either actively or passively.

To name a few, below are five of the most actively destructive malwares-



- **Ransomware**

This type of malware encrypts your data and holds it hostage until a ransom has been paid.

- **Spyware**

This malware continues to spy on you while gathering your information without your knowledge.



- **Security Bugs**

Bypasses the employed security to gain access to information.

- **Viruses**

This is capable of replicating and spreading itself while infecting other data.



- **Trojan**

Disguises itself as a legitimate program, thereby gaining access and infiltrating the system. It is also capable of installing other malwares.

## Student Corner

Private information are constantly on the verge of being manipulated. We should employ utmost carefulness while dealing with our cyber-data and therefore, take proper measures like installing up-to-date anti-virus and anti-malware programs to ensure their confidentiality.

## Faculty Contribution

### FastLO Communication

*Prof. Annie Christila*

Applications can be physically hosted across CECs and communicate using the traditional TCP/IP stack. When one such application (client) migrates and lands on the same LPAR as the server, they should communicate using the

fastlo (Fast Loopback) communication. When it moves to different CEC it should use normal Ethernet communication through stack. The idea we discuss in this paper is how faster communication can be achieved in these cases.



### Other Use case:

On two node Power HA cluster setup, NFS server is configured as part of one resource group. This (NFS server) is exporting one/more of the file system from the shared disks. Initially this resource group is hosted on server "node1". NFS client is also running on same node. Customer moves the resource group to the second node. As a result, NFS server also got moved to second node.

(It unmounts the file system and mounts in the second node). In this paper we are going to discuss how NFS client seamlessly can be able to access the filesystem. The idea here is to move seamlessly the network communication over ethernet (virtual or physical) to fastlo (communication within the same LPAR) / Hypersockets to fastlo (communication within the

(communication happens across two different LPARs on the same CEC). The following are the advantages:

- Significant performance benefit because we are not going to use the TCPIP stack.
- Applications/Server can be migrated without any communication impact. Reduced I/O load on the CEC due to migration.

**Reflectare** is a Newsletter published from the **Department of Science - St Francis de Sales College, Electronics City, Bengaluru - 560100**. It highlights the activities of the Department and serves as a link between the Department as well as other colleges. You are welcome to send your feedback to [sfsbca.hod@gmail.com](mailto:sfsbca.hod@gmail.com)

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*Desalite* 