



# Insight

Computer Engineering Department, DBCE Newsletter, June - December 2015 Issue 1

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#### VISION

To create an environment that promotes research, creativity and learning, internationally acknowledged in the field of Computer Engineering.

#### MISSION

To encourage students to become upright and responsible citizens with the ability to face challenges. We aim to create a teaching environment that focuses cutting edge research and innovative technology in Computer Science and Engineering.

#### DEPARTMENTAL DETAILS

The Department of Computer Engineering at the Don Bosco College of Engineering was formed in the year 2011 with an aim to make contributions towards student community in particular and society as a whole by providing a stimulating research environment complemented by quality teaching.

The department strives to enable students to acquire knowledge and skills in subjects of Computer Science, to enrich their personal, cognitive, social development, and to equip them for a challenging future.

The department is also actively involved in organizing workshops, seminars, training programmes and conferences for the benefit of students and faculty members. Invited eminent experts from academia and industries create further opportunities to share knowledge and work on collaborative projects. The department strives to emulate an academic culture that is on par with the best institutions in the state.

## Laboratories & Departmental Library



Basic Computing Lab  
Open Technology Lab  
Computer Network Lab



Computer Graphics Lab  
Database Lab  
Web Technology Lab



Image Processing Lab  
Software System Lab  
Machine Learning Lab



Department Library  
More than 300 plus  
books

## Placement News / Highlights

Computer Engineering Department has overall 80% plus placement for the students of Batch 2011-2015 till December 2015.

**State Level Seminar on  
"Recent Trends and Research Avenues in Geographical Information Systems"  
by Computer Engineering Department - 17<sup>th</sup> October 2015**

The Computer Department of Don Bosco College of Engineering successfully organized a state level seminar on "Recent Trends and Research Avenues in Geographical Information Systems" on 17<sup>th</sup> October 2015. The resource



persons for the day were, Captain TP Mahato, Officer in charge at National Institute of Hydrography, Vasco and Dr. Madhubala Talaulikar, Senior Research Fellow at National Institute of Oceanography, Panaji.

Geographical Information Systems play a very important role in making some important decisions. In fact GIS, finds its applications in various fields, ranging from Agriculture, Archeology, Business, Education, Engineering, Environmental

studies and so on. Captain TP Mahato stressed on the importance of how GIS is used in the Indian Navy. He illustrated with maps, videos and pictures.

Dr. Madhubala Talaulikar continued on the topic of GIS after a short tea break. She explained that a geographic information system (GIS) lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends. She also gave a hands-on training on Q-GIS an Open Source Geographical Information System. Both resource persons answered queries put forth by the participants.

The participants for the seminar included faculty and students from various fields of Engineering. The seminar ended with a small valedictory function.

## **C- Codes Events**

### **C-Codes 3<sup>rd</sup> Installation Ceremony**

The student association of Computer Department: C-Codes had their 3<sup>rd</sup> Installation ceremony of the new council on 12<sup>th</sup> September 2015 in the new auditorium of Don Bosco College of Engineering, Fatorda - Goa.

The Chief Guest for the function, Mr. Milind Prabhu is the CEO of Genora Infotech, a young entrepreneur who has made it big in Goa. Other dignitaries present for the function included the Director, Rev. Fr. Kinley D'Cruz, Mr. Hillary D'Souza, member of Governing Council, and Mr. Gaurang Patkar, Head of Computer Department along with C-Codes Staff coordinators. Installation program started off with a welcome song. Welcome address was delivered by Mr. Hillary D'Souza who in his speech motivated the students to be better engineers.





The traditional lighting of the lamp was followed by the presentation of the annual report by the Ex C-Codes Chairman, Mr. Vishwas BS. He recounted all the activities of the C-Codes for the last year, which totaled to 10 workshops and 2 field trips.

The council members of C-Codes simultaneously conducted 4 events for FE, SE, TE & BE COMPUTER Students in celebration of the 3<sup>rd</sup> Installation Ceremony. The events were as follows: Quiz, Minutes to Speak, Treasure Hunt and Code Break.

### **Felicitation Program (For Batch 2011- 2015 Students)**

The C-Codes Student Council took great pride in felicitating the first batch of Computer Engineering students (B.E. Comp 2011 - 2015), who excelled in the university exams by achieving a distinction. The students were invited for the event along with their parents. Each student received a medal and a certificate of merit for the performance in the university exam.

Rev. Fr. Kinley D'Cruz welcomed the students in his speech to work in harmony with the department to bring out good results and also congratulated the computer department for obtaining 100% passing percentage for B.E. Comp batch 2011-2015.

The chief guest for the event Mr. Milind Prabhu, gave an inspirational talk, encouraging the students to find their passion in life. He said that once we have found a passion, working towards that passion becomes much easy and enjoyable.

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The memorable part of the ceremony was the testimonies given by some students of B.E Comp 2015. They both heartily thanked the management and faculty for the successful completion of their Engineering degree and mentioned that Don Bosco College of engineering helped immensely to fulfill their educational dream and giving them placement opportunities.

## **Field Trip**

### **C-Codes Student Association Field Trip to NIO – Dona Paula on 1<sup>st</sup> October 2015**

The students of Second Year, Computer Engineering were privileged to visit as part of their field trip, The National Institute of Oceanography (NIO), Dona Paula, Goa. The coordinators for the field trip were Miss Christina Barretto and Mr. Merwyn D'Souza. The event which was a half day venture, witnessed amazing participation and enthusiasm on the part of the SE Comp students. Laughter and joy filled the air as the 50 odd students boarded the bus. Accompanying faculty members were Miss Chinnu George, Mrs. Amrita Naik and Mr. Amey Kerkar.

On arriving, the students were welcomed by Ms. Sharon and then directed towards the display room, where a variety of marine archaeological artifacts were exhibited. Some of the interesting exhibits included some primitive species of coral life forms, preserved elephant tusks and an array of rock and stones. Also on display was equipment for underwater investigation like the underwater scooter. The students were then led to the Audio Visual room, where Ms. Sharon presented before the students a brief overview of NIO. The NIO is one among 30 major institutions under the Centre of Scientific and Industrial Research having its headquarters at Goa and 3 regional centers at Kochi, Mumbai and Vishakhapatnam. The NIO's field of research is extensive, explained Ms. Sharon and is divided into physical oceanography that includes research in the fields of Tsunami warning systems and deep sea mining, biochemical oceanography that undertakes study in the fields of marine pollution and the like. All in all the NIO aims at an in-depth understanding of the ocean and the usage of this knowledge and information for the betterment of humankind.

Mr. Narverkar, of the IT department attached to NIO also enlightened the students on the IT infrastructure used at the institute. Two documentaries were then screened, further explaining and unraveling the mysteries and marvels of the ocean. The field trip ended with the solemn group photo taken at the front gate of NIO.

### **C-Codes Student Association Field Trip to Smartlink Network Systems Ltd – Verna On 1<sup>st</sup> October 2015**

A field trip was organized under C-Codes Student Association on the 1st of October 2015 for the students of Final Year Computer Engineering to "Smartlink Network Systems ltd" at Verna Goa. The coordinators for the field trip were Miss Christina Barretto and Mr. Merwyn D'Souza. The students were accompanied by Prof. Manisha Faldessai, Prof. Lilavati Samant, Prof. Mithil Parab and Prof. Madhukar Achar for the field trip.

Smartlink Network Systems Ltd. is among India's leading networking companies. At the venue the students were divided into groups and shown around. A detailed overview of the company's functioning was given by Mr. Vishal Haldankar. He gave a detailed explanation about the 5 stages of manufacturing:

- SMT (Surface-Mount Technology)
- PTH (Plated Through Hole)
- Touch Up and Inspection
- Testing
- Packing



The students were shown and explained different machinery used at the assembly line such as Screen Printer, Component Mounter, IC Placer, and Reflow Oven for SMT stage. At the PTH stage manual insertions of connectors onto the PCB is done using Wave Soldering Machine Technology. At the touchup stage the 8 port switch PCB is checked for quality and excess soldering is cleaned with IPA. At the next stage, testing is done. All the PCB's are tested for strength and functionality. Next stage of the

manufacturing is packaging, a warranty seal is put on the box after QA and it is distributed to the distributors. The software used in the company is Fujiflex, and the operations are carried out in C or C++ programming languages. Mr. Vishal Haldankar was kind enough to answer all the queries put forward by the students. And as all good things come to an end, the field trip ended with a group picture.

### **JFLAP Workshop**



The B.E Computer students, Semester VIII successfully organized a workshop on **JFLAP** in association with **C-codes Student Association** of Computer Engineering Department for the benefit of the Third Year Computer students - semester V on 31<sup>st</sup> August and 1<sup>st</sup> September 2015. JFLAP is software for experimenting with formal language topics including nondeterministic finite automata, nondeterministic pushdown automata, Turing machines, several

types of grammars etc. The workshop was attended by all the students of TE Computer Class. The session was hands - on demonstration of the use of JFLAP for the design of automata.

The B. E Computer Students, Miss Tulsi Acharya, Miss Vaishnavi Kamat, Miss Aqsa Nadaf and Mr. Joshua Salema helped the T.E Computer Students with the installation of JFLAP on their laptops. Several examples were solved for the benefit of the T.E Computer Students. Miss Tulsi and Miss Aqsa explained simple examples involving non deterministic automata. On the 2<sup>nd</sup> day of the workshop, Miss Vaishnavi Kamat explained the concept of Pushdown Automata and its application in solving palindromes. A palindrome is a word or sequence that reads the same backward as well



as forward, explained Miss Vaishnavi. She also explained how the pushdown automata is a finite automata with an auxiliary memory called as stack, which can remember the previous input. Mr Joshua Salema also explained the concept of a Turing Machine, a device that manipulates symbols on a strip of tape according to rules. He also explained its simplicity and adaptive nature that can be used to simulate the logic of any computer algorithm. He explained the concept by designing a Turing machine to accept a palindrome string.

### **Android Workshop**

On the 15<sup>th</sup> and 16<sup>th</sup> of September 2015, C-Codes in association with the Computer Department of Don Bosco College of Engineering successfully held a two day workshop covering the basics of Android. The workshop was conducted by final year BE students, Miss Pritiva D'Silva, Miss Alinda Fernandes and Miss Preksha Talekar. Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google, with a user interface based on direct manipulation, Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers, with specialized user interfaces for televisions (Android TV), cars (Android Auto), and wrist watches (Android Wear).



Miss Pritiva and her team explained that applications ("apps") in android, which extend the functionality of devices, are written using the Android software development kit (SDK) and Java programming language that has complete access to the Android APIs. Java may be combined with C/C++, together with a choice of non-default runtimes that allow better C++ support. The Software Development Kit includes a comprehensive set of development tools, including a debugger, software libraries, a handset emulator, documentation, sample code, and tutorials. Initially, Google's supported integrated development environment (IDE) was Eclipse using the Android Development Tools (ADT) plugin, but in December 2014, Google released Android Studio, as its primary IDE

for Android application development.

On 16<sup>th</sup> September 2015, Miss Pritiva and her team demonstrated the creating of a simple application using Android Studio. Miss Alinda explained that there is a big reason android development is better: anyone can do it, you can download the Android SDK (Software Development Kit) and tools for Eclipse (a very popular IDE, or Integrated Development Environment) for any Operation System: Windows, Mac OS, or Linux. Everything is completely free, and with a little bit of elbow grease, you can get up and running in about an hour. Also with Android, testing your app on multiple devices is easy. Simply send your friend the APK, which he can open on right on his/her phone and your app, is up and running. The session concluded by Miss Pritiva explaining that for developers looking to maximize their chances of success, be it from a mobile game or business app, one only has to get started with Android development and eventually get better.

### **Report of Summer Internship 2015 - Department of Computer Engineering**

Internship education is the cooperation between industry and the university to provide the student with a supervised technical work experience which strengthens the student's educational experience and technical skills. The internship experience offers many rewards and can be used for undergraduate to improve technical skills. This document describes the Summer Internship status for the Computer Engineering Students of Don Bosco College of Engineering.

Computer Engineering students are required to complete a Summer Internship in any industry before they enroll in the final year engineering courses. The internship must consists of atleast 2 weeks of full-time employment. Students who wish to participate in an Internship program should work with their Supervisor at Industry to execute the assigned task.

After completion, the students is required to prepare a student Internship Report and Feedback from Supervisor for the Curriculum. The purpose of the report is to aid the the internship program evaluation. Specifically, to analyze, how well the students was prepared with their technical skills for their future placement.

In the Summer Internship 2015 among 65 students 51 students undergo for Summer Internship in various Industries like, Sandbox Solutions, Vibrant Software, Graffitisys, Imagine works, Parinati Solutions, Imagine works etc., The statics are as follows:

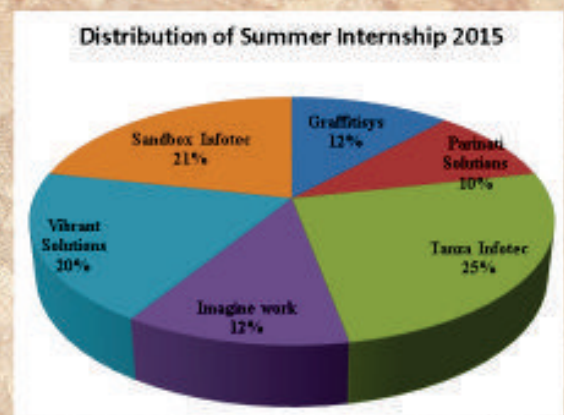


Fig. Distribution of Summer Internship 2015 for TE Computer Engineering Students

## Placement Report of BE Computer Engineering 2015 Batch

Computer Engineering is most popular and in demand study. It involves jobs in software development, web designing, software testing and much more. Programming in today's world has been stretched even further into other fields like Mechanical and Electronics and hence its demands have been increasing. Robotics is the most fascinating and difficult to achieve field with a lot of creativity and programming study involved in it.

In Don Bosco College of Engineering, Fatorda, Margao, Goa, the TPO team placed around 37 students from the first Computer Engineering 2015 batch. Companies like Persistent Systems, Hectranet Infotech, Infosys, IBM, etc visited DBCE campus for recruiting the students. A total of 17 companies visited the campus and made 37 offers. Even though it was tough Computer Engineering had a good placement season for 2015 batch.

Training and Placement has made the placement process quite efficient and smooth. They collaborated with computer department and started training the students for Aptitude test, Interview training skills and handling the resumes. Many external personalities visit DBCE campus every year to fulfill their need for high caliber human resources. The average salary for first batch of 2015 was 3.5 lacs per annum. Overall 80% plus students of Computer Engineering of batch 2015 were placed till December 2015.

### Photo Gallery

