

INSIGHT

Computer Engineering Department's Newsletter

Volume 01, Issue 01, July- December 2016

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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 programs 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.

STUDENTS CORNER

COUNCIL OF COMPUTER DEPARTMENT ENGINEERING STUDENTS (C-CODES) 2016-2017



The installation of the new Council of Computer Department Engineering students (C-CODES) for the academic year 2016-17 was inaugurated on 19th August 2016, in the esteemed presence of the Chief Guest Mr. Nilesh Fal Dessai, M.D., Info Tech Corporation of Goa, Director Rev Fr. Kinley D'Cruz, Principal Dr. Neena S. P. Panandikar, H.O.D. Computer Engg. Dept. Prof. Gaurang Patkar, C-Codes Coordinator Prof. Merwyn D'Souza and C-Codes chairman Mr. Kai Da Costa.

The new council members were introduced at the gathering and took an oath to uphold the rules of the college and discharge their duties sincerely. Speaking on the occasion, Chief Guest Mr. Nilesh Fal Dessai congratulated the newly elected Council and motivated students to never give up their dreams and ambitions, and extended his help for any industrial visits in future.



The installation programme concluded with the vote of thanks given by C-CODES Chairman Kai Da Costa. The second half of the day had various events held for the students such as Dubsmash, Code Breakers, Type MasterMind, Tech Talk and Gaming. There was an active participation of the all the computer engineering department students.

INAUGURATION OF GAUG (Goa Android Users Group) - STUDENTS CHAPTER

The Inaugural of the student chapter for Goa Android Users Group, commonly known as GAUG took place in Don Bosco College of Engineering on 21st September 2016. The Chief Guest on this occasion was Mr. Prajyot Mainkar, Director of Androcid - an app engineering company based out of Panjim also a manager of GAUG. GAUG is run by people who are passionate about Android. They share their knowledge with the people of Goa and teach them how to develop applications in android.



In his address, Chief Guest Mr. Prajyot Mainkar spoke about the functioning of GAUG and its theme. He mentioned that in GAUG, they have sessions of latest technology, developing android apps, and participation by students. He advised the students to take part and actively participate to make the student chapter a success.

The ceremony was followed by a technical presentation. Mr. Yogesh Raut, a member of GAUG explained the various threats to Android users. He made the students aware of the techniques used by hackers and also advised them to be cautious while installing apps on their phones. A demonstration was given to show how an Android device can be hacked. Mr. Prajyot Mainkar interacted with the students and threw some light on the latest technologies being used.



On 15th October 2016, First meet up of GAUG (Goa android users group) Students Chapter was held in Don Bosco Collage of Engineering. Council members Mr Rahul Naik (Chairman), Mr Akshay Saraf (Secretary), Miss Swizel Rodrigues (Treasurer) and 38 students from computer department were present along with faculty in-charge Prof. Christina Barretto.

Mr Shubham Jha & Mr Caesar D'Silva, Computer Students of DBCE gave a quick explanation on Google forms and showed how they are to be used. This was followed by a presentation on History of Android. Council members of the Students Chapter Mr Rahul Naik, Mr Akshay Saraf along with Mr Piyush. Fernandes and Mr Rohit Sankpal of TE Comp introduced the students to MIT app inventor, a cloud based tool used to create android apps. The students were given a demonstration on creating apps, testing the app in real time on an Android device and getting the app installed on their phones.

ENGINEER'S DAY CELEBRATION



On the 15th September 2016, the Department of Computer Engineering, Don Bosco College of Engineering along with C-CODES) celebrated Engineers' Day. The Chief Guest for the event was Dr. Santonu Sarkar, Professor of Computer Science and Information Systems BITS Pilani, K.K.Birla Goa Campus. The seminar was organized for faculty as well as students from second year, third year and final year of the Computer Engineering Department. Increasing computing power with evolving hardware architectures has led to change in programming paradigm from serial to parallel. Unlike the sequential counterpart, application building for High Performance Computing (HPC) is extremely challenging for developers. In order to improve the programmer's productivity, the talk addressed on issues such as abstracting the hardware and low level complexities to make programming easier, identifying features needed to design assistance tool in simplifying application development, techniques to enhance programming languages for HPC, determining the prediction techniques to assist programmers to predict potential speedup and the use of refactoring techniques to solve issues of parallelizing existing serial code. In this talk, an attempt was made to present a landscape of the existing approaches to assist Software building process in HPC from a developer's point of view, and highlight some important research questions. The seminar concluded with a vote of thanks.

WORKSHOPS/ SEMINARS/ IN-HOUSE TRAININGS

“Advanced Programming Languages” INTERNSHIP WORKSHOP



A workshop on “Advanced Programming Languages” was conducted from 29th June 2015 to 10th July 2016 for the Final Year Computer Students as part of Internship Programme. This workshop covered a wide range of latest developments in trending computer programming languages. Resource Faculty was Mr. Sachin Kale, a young entrepreneur and director of his own company, “Stanza InfoTech” based in Ponda Goa. Other resource faculty included professors from the Computer Department of Don Bosco College of Engineering. Students attending the workshop were introduced to concepts of various programming languages like C# and Java, scripting languages like php and jquery. Web technologies included HTML5, CSS3 & Bootstrap. Database concepts covered were Oracle and MySQL.

The sessions were interactive as well as hands on, with simultaneous practical sessions conducted by resource persons. The aim of this workshop was to convey important



programming skills which would be beneficial to students with regards to their placements in their final year. Students were encouraged to create their own websites & come up with innovative programming ideas.

The workshop ended with a quiz & distribution of certificates to the students.

CCNA Basics Internship WORKSHOP

The students of Third year Computer Engineering attended a workshop from the 11th July 2016 to the 15th of July 2016 as a part of their internship program through C-CODES computer students association. A total of 62 students attended the workshop. The workshop was based on the topic of CCNA

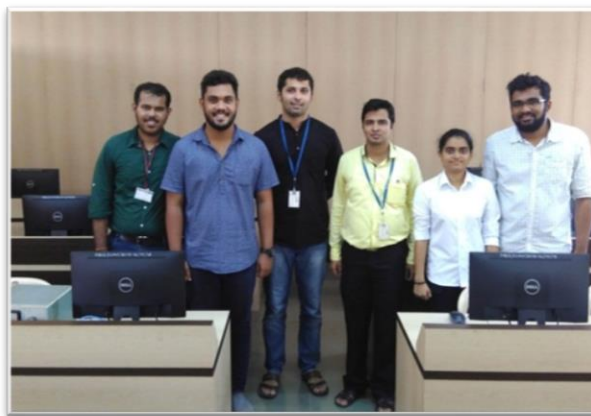


(Cisco Certified Network Associate) and its applications. The workshop was conducted by Miss. Synora Rodrigues and Mr. Sarvesh Naik Dalal, from IP – GATES, Margao.

IP-GATES is an organization that provides most comprehensive and cost effective training in various IT products and technologies. Through intense Certification Training they provide individuals and organizations with cutting edge boot camp training and certifications for various IT vendors like CISCO, MICROSOFT, COMPTIA.

The workshop aimed at training our students in the basics of networking. The workshop was conducted over a period of 5 days at the college campus, which involved theory lectures as well as practical sessions on various networking devices, IP addressing subnetting and configuring networking devices. Last three days were primarily practical sessions, wherein the students performed practical's using simulation software to learn the techniques of configuring Switches and Routers. The students also learned about various techniques related to configuring networks such as VLAN, VTP, and Routing. On last day of Workshop students were awarded certificates.

HTML Basics WORKSHOP



Second Year Computer Engineering Students attended a Workshop on “**HTML Basics**” on 23rd July 2016 in Don Bosco College of Engineering, Fatorda – Goa. The workshop was organized by C-

CODES Computer students association. A total of 58 students participated in the workshop. The workshop started at 9.00 am with a hands-on session in the Computer Department laboratories. Mr. Joshua Salema, Mr. Pranoy Paes, Mr. Akeel Phaldessai and Miss Vaishnavi Kamat were the resource faculty for the day.

HTML is a cornerstone technology used to create web pages. HTML is a markup language for describing web documents (web pages). HTML stands for Hyper Text Markup Language. The workshop covered the basics of HTML like creating and personalizing a web page that included inserting images, creating basic hyperlinks and email links, adding photos and graphics to a page, creating paragraphs on webpages, HTML formatting and styles, frames in HTML etc. The students learnt to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. The students designed their own HTML forms and webpages as part of their practicals during the workshop.

Seminar on “Higher Studies After Engineering In Goa and MBA in Goa”



The B.E. Computer students attended the seminar on the topic “HIGHER STUDIES AFTER ENGINEERING IN GOA and MBA IN GOA” held at the DON BOSCO COLLEGE OF ENGINEERING on 6th August 2016.

The speakers for the seminar were professors Roseline Fernandes and

Diana Miranda. The session initiated with the focus on the possible course opportunities after completion of the bachelor degree which are 1)Master Of Business Administration, 2)Master of Engineering, 3)Master Of Technology which was brought to notice of students by Prof. Diana Miranda. She focused on the topics such as why higher education is needed for the variety of the career opportunities, Intellectual development etc. and also the essential requirements to pursue an admission i.e. Basic aptitude knowledge, Basic technical knowledge and confidence to answer an interview. The requirement for the different colleges, about the different entrance exams available. The syllabus for GATE, Pattern of GATE and how to prepare for GATE were some questions answered by the speaker.



The Resource person on the topic “MBA IN GOA” was Prof. Roseline Fernandes. She was able to answer the different question that would

arise in the minds of the students such as Why to do MBA? When to start? How to start? and the different fields in MBA such as 1) Accounting 2) Corporate Finance 3) Information System 4) Financial Institution 5) Marketing 6) Consulting 7) Personnel 8) General Management. She also spoke about the full time program and part time program and the different entrance exams such as GMAT, CAT, XAT, CMAT, and SNAP.

The aim of the seminar was to focus on the different opportunities available for higher studies after the Bachelor Degree and the different colleges that provide courses in Goa. The section was very knowledgeable as it made students aware of the different opportunities in Goa. The seminar concluded with the question answer session.

EXPERT TALKS

“What employers want in a rapidly changing world - Industry Institute Interaction (Seminar)” By Sanjay Jog

The B.E Computer students attended an industry-student interaction on 27th September 2016 on the topic “What employers want in a rapidly changing world”. The speaker for the video conferencing session was Mr. Sanjay Jog, the Chief Human Resources Officer of Reliance Jio. Mr. Jog is a post graduate from the Pune University and has spent two decades in the services sector in India as well as outside the country.

The session initiated with highlighting the big gap between the industry and student perceptions. Mr. Jog spoke on the types of skills and knowledge in which the students are not well prepared like applying knowledge and skills in real-world settings, critical thinking skills, and written and oral communication skills — areas in which fewer than three in 10 employers think that recent college graduates are well prepared.



In the next part of the session, Mr. Jog advised the students to acquire the following kind of skills before joining an industry, such as: the right attitude, a professional demeanor, the ability to communicate on a professional level, being a team player, proper etiquette, and much more. He said nearly all skills can be developed during broader college experiences, such as extra-curricular activities or can be learned through internships.

The session concluded with a question answer session in which the students wanted to know the about the following:

- What role do grades really play in the recruitment process?
- Do extracurricular activities, varsity sports and jobs really matter — and if so, how are they factored in?
- How much leeway is given for students who may have a lower grades, but a rich resume?
- What's the magic formula to get on the interview list — and to get asked to go on a second interview?
- Are different criteria required to land an interview versus ultimately landing a job?

“Are you industry ready – Current Technology Trends in Industry” (Industry Institute Interaction)” By Mangirish Salelkar

The B.E and T.E. Computer students attended a talk on 20th October 2016 on the topic “Are you industry ready – Current Technology Trends in Industry”. The speaker for the video conferencing session was Mr. Mangirish Salelkar, CEO & CoFounder at Umang Software Technologies. It was a good opportunity for the students to interact with Mr. Mangirish and understand the technology requirements of the Goan IT industry.



The session initiated with Mr. Mangirish highlighting the big gap between the IT industry skills needed in Goa and the prescribed syllabus. He spoke how many students fail to enter in to the job market due to lack of skill requirement and mismatch for Goan IT industry. He then explained the meaning of “industry ready”. In the next part of the session Mr. Mangirish advised the students to bridge the gap between the education we have and the education we need. He spoke about the need to acquire knowledge in technologies and programming

Languages like C, C++, Core Java, Advanced Java, HTML5, CSS3, C#, XML, Oracle, MySql, Android & IOS. The session concluded with question answer session.

“Computer Forensic and Cryptography” By Dr. Thomas Schwarz S.J.



B.E. (Computers) students of Don Bosco College of Engineering, along with their faculty Prof. Manisha Fal Dessai, attended One Day Seminar on “Computer Forensic and Cryptography” at PCCE, Verna – Goa on 22nd July 2016. The speaker for the session was Dr. Thomas Schwarz S.J., Associate Professor, Dept. of Mathematics, Statistics, and Computer Science, Marquette University.

The session was initiated with the definition of “Computer Forensic”. Computer forensic is an act of gathering digital data in a way that is admissible. The speaker also spoke about the different categories of computer forensic, i.e. Storage Forensic- which is the evidence of hard drive. Network Forensic- which is setting up logging at crucial points and Malware Analysis in which he spoke about Ollydbg and IDA pro. The difference between “Non digital Forensic and Digital Forensic was explained to us. He also discussed some topics like Locard’s Exchange Principle, how to protect integrity of the evidence, Hardware mirroring, Drive acquisition, Dynamic analysis etc.

In the Latter section the topic highlighted were Cryptography, Kerchoff’s Principle, Symmetric Cryptography, Flow codes, technique for defining block codes, Feistel rounds. Hash Algorithms were also covered. The whole aim was to prove that confidentiality is different from integrity.

The whole aim of the talk was to make aware about the importance of” COMPUTER FORENSIC” in today’s world, how important are evidence and to collect the evidence when there is cybercrime. The session was very interactive and very much informative. The session concluded with question and answer session.

FIELD VISITS

➤ For Second Year Computer Engineering Students

Second Year Civil Engineering Students visited BSNL Telephone Exchange, Altinho, Panjim and Goa State Central Library, Panjim on 30th September 2016. Forenoon, Students visited Bharat Sanchar Nigam Limited, where they were divided into groups of four for ease of explanation. The students were shown four sections in the telephone exchange: the OCB-283 section, where phone calls get diverted to each district, the battery and power section, where the powerhouse of the exchange lies and that power supplied is stepped down from the 220V AC to a range of 48-54V DC for the easy working of phones, the data communication section where they showed the process of

providing internet services to the public, i.e. the MDF or Main Distribution Frame section, where the processed data is sent out.



Post lunch, the students were taken to the Krishnadas Shama “Goa State Central Library”, Patto. Here the students were shown the oldest book written in Latin, the first of several Goan newspapers like oHeraldo, Navhind Times, etc. Books of every subject are present in the library. It is the first public library to be set up across India, in the early 1830s.

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➤ **For Third Year Computer Engineering Students**



Mr. Ryan Vaz, owner of Infynyt 3D explained briefly, the concept of 3D printing. 3D printed models were shown; also various materials, methods and problems related to 3D printing were discussed. Students were made aware about the scope, requirements and applications of 3D printing. Mr. Vaz presented software which can be used to construct a 3D model of the desired object to be printed. A 3D printer was shown to the students and a demonstration was given to show how the printer works. Mr. Vaz explained to the students, the various properties of a 3D printer, cost of the printer and also factors affecting the cost and properties of a 3D printed object. He spoke about various finishing techniques that are performed after completion of a print by a 3D printer.

➤ **For Final Year Computer Engineering Students**



Final Year Students visited National Centre for Antarctic & Ocean Research, Headland Sada, Goa and Naval Aviation Museum, Bogmalo, Marmugao, Goa on 23rd September 2016.

Forenoon, students visited Naval Aviation Museum only of its kind in the entire continent of Asia where they were given warm welcome by the Naval officer-Incharge. Students were divided into three batches, for ease of explanation. This museum exhibits the evolution of the Indian Naval Air Arm over decades.

The museum is divided into two main parts, an outdoor exhibit and a two-storeyed indoor gallery. The Indoor gallery is divided into special rooms designated for military weapons that are attached to submarines and ships, uniforms worn by the members of the Indian air and naval forces, many rare and vintage photographs and documents. One gallery also holds massive replicas of the INS Vikrant and INS Viraat. Another gallery holds a variety of bombs, torpedoes, sensors and cannons used by the Indian Navy. The outdoor exhibit is a huge park that visitors can walk through and see a total of 13 aircraft on display. The officer also gave brief idea about the various aircraft engines displayed.



After the lunch students visited National Centre for Antarctic and Ocean Research where they were highlighted on the activities of NCAOR in brief by Dr. M. V. Ramesh (Research Associate). In his PowerPoint presentation and videos he explained Bathymetry survey of EEZ (Exclusive Economic Zone of India) in the deeper waters, Legal continental Shelf, Southern Ocean Oceanography which is supposed to control the monsoon of India as well as other South Asian countries, bipolar microbiological activities, Ice core analysis of Antarctica, Polar Remote sensing studies, Cryospheric studies in Arctic as well as Himalayas etc. these was followed by visits to laboratories, Satellite communication system (Antenna), library etc. Refreshments were provided to the students at the beginning and end of the journey.

CULTURAL

- Miss. Yash Prabhu Gaonkar was awarded 2nd place in Solo event for All Goa Inter-Collegiate Patriotic Singing Competition organized by the Cultural council of VVM's Shree Damodar College of Commerce and Economics on 22nd August 2016.
- Miss Riya Sinai Sambari & Mast. Ronan Ramdas Revadker was awarded 1st place for All Goa Inter-Collegiate Quiz Competition organized by Goa College of Engineering on 20th September 2016.

SPORTS

- Jude L Baptista, Cardozo Deston, Jonathan Cardozo participated in football organized by Goa University from 23rd August to 23rd Sept. 2016 and Qualified till Quarter Finals.
- Miss De Noronha Kezia Rhea from F.E COMP participated in Table Tennis held at Goa University on 26th to 28th July 2016.

TECHNICAL

- Mast. Kapil kattale and Akshay Shirodkar, students of Final Year Computer Engineering Secured 1st place in Weave the Web (under TECHYON 2016) conducted by PCCE, Verna-Goa on 7th October 2016.

MERITORIOUS STUDENTS FELICITATION



The Second batch of the Computer Engineering students was felicitated on 19th August 2016. The Chief Guest for the function was Mr. Nilesh Fal Dessai, M.D., Info Tech Corporation of Goa. All the distinction holders were felicitated and were awarded a gold medal with a certificate in the hands of Chief Guest, for their meritorious performance. The department had total 11 distinction holders out of 68 students. The University Topper Miss Vaishnavi Kamat, was given a Trophy in the hands of Fr. Kinley D'Cruz, Director, Don Bosco College of Engineering, Fatorda-Goa.

TRAINING & PLACEMENT

The Computer Engineering Department maintains a vibrant industry-academia relationship and the suggestions of the experts are taken as tools for its continuous improvement. The third year students undergo a 2 week Internship Program under the guidance of experience professionals. This is to bridge the gap between education and Industry. As a part of the educational process the department also organizes an outstation industrial visit.

A number of past students of the college are now occupying highly responsible positions in various reputed and prestigious organizations including Persistent Systems, IBM technologies, Anant Infotech, OS3 Pvt Ltd, ICICI Prudential, Genora, Amazon, Umang Technologies, Kaavay Pvt Ltd, etc. A total no of 50 students were placed from the June 2016 batch. The Highest Salary Package offered was 3.6 lakhs p.a.

From batch 2016 – 2017, 16 Students got placed in OS3 Private Limited, Mumbai and 01 student got placed in ICICI Prudential, Goa.

FACULTY INITIATIVES

PAPER/ JOURNAL PUBLICATIONS

- Diana Miranda, presented a paper on “A Study of Opinion Mining in Indian Languages” in 4th International Conference on Advanced Computing, Networking, and Informatics (ICACNI 2016) organized by Centre for Computer Vision and Pattern Recognition, National Institute of Technology Rourkela, Faculty of Engineering and Technology, Liverpool John Moore’s University, College of Engineering, Mathematics and Physical Sciences, University of Exeter, and Faculty of Science, Liverpool Hope University.
- Amrita Naik published a paper on “Correlation review of classification algorithm using data mining tool: WEKA, Rapidminer, Tanagra, Orange and Knime” Procedia Computer Science (2016) pp. 662-668 Elsevier International Conference on Computational Modeling and Security (CMS 2016) in RLJIT.
- Kiran Waghmare presented a paper on “Analysis of Accuracy of Differential Count of White Blood Cells using Support Vector Machine” at the INTERNATIONAL CONFERENCE ON Emerging Trends in Computing–2016 (ETC-2016) Published in International Journal of Computer Applications (0975 – 8887)

WORKSHOPS/SEMINARS/EXPERT TALKS CONDUCTED

Various Technical Workshops were conducted by the faculties of Computer Engineering Department Faculties as follows:

1. Advanced Programming Languages” INTERNSHIP WORKSHOP
2. Seminar on “Higher Studies After Engineering In Goa and MBA in Goa”
3. Workshop on Web Designing (for T.E – ETC Students).

WORKSHOPS/SEMINARS/EXPERT TALKS ATTENDED

Seminar/Workshop/Short Term Courses etc. Attended	Date	Duration	Organization	Name of the Faculty Participated
2 day workshop “Android App Development”	29 th -30 th June 2016	2 day	Comp Dept, DBCE	All Computer Faculties
1 day seminar on “ Computer Forensic & Cryptography ”	22 nd July 2016	1 day	PCCE, Verna Goa	Prof Manisha Fal Dessai
1 day seminar on “Challenges in Software Engineering”	15 th September 2016	1 day	Comp Dept, DBCE	All Computer Faculties
National Teacher’s Conference	23 rd – 25 th September 2016	3 days	MIT- Pune	Prof. Christina Barretto
1 day “Spoken Tutorial Awareness Program”	12 th October 2016	1 day	Comp dept,DBCE	Prof Lilavati Samant
1 week TEQIP-II ISTE workshop on “Industrial Automation and Virtual Instrumentation”	7 th -11 th November 2016	1 week	ETC dept,DBCE	Prof.Gaurang Patkar, Amrita Naik, Merwyn D’souza , Kiran Waghmare

CONSULTANCY

The Department offers its service to IT industry & Institutions to conduct their recruitment drive. Our clients are Reserve Bank of India, Indian Railways, LIC, State Bank of India, IIT Goa etc. We also conduct online exams like CAT, GATE etc. The department has generated revenue of around 1 Lakh between June to December 2016 and total 4 Lakhs of revenue till date.

UPCOMING EVENTS

- 1 week TEQIP II - ISTE workshop on “**Internet of Things** “for faculties from 2nd January to 7th January 2017.
- One Day Workshop on “**Blender Spoken Tutorial** “on 28th January 2017.
- Seminar on “**Computer Related Project Domains**” on February 10th, 2017.
- One Day Workshop on “**Python 3.4**” on 10th February 2017.
- Hands-On Session on **PHP /MYSQL** on 10th & 25th March 2017.

- “**Cloud Computing**” Workshop on 10th & 25th March 2017.
- “**Drupal**” Workshop on 25th March & April 8th, 2017.
- One Day Workshop on “**GUI Discovery Using Java**” on 29th April 2017.
- Seminar on “**Data Science for KDD**” in March 2017.