



COMPUTER NEWS

Volume 1 Issue 4 July 2019

From the Editor's Desk

Dear all,
It gives me immense pleasure to present this issue of the Newsletter. Firstly, I would like to congratulate everyone who has contributed to the welfare and development of the Computer Engineering Department and for the successful session (January 2019 - June 2019).

In this newsletter, the team has tried to collate different activities conducted in the department like guest lectures, workshops through reports and images. This newsletter aims to acknowledge the efforts of all the people working towards the success of the Department. I extend my acknowledgement to our students for their Academic success. A special mention of the Flagship event of ACM student chapter, "Inter-College Game Development Program" which covered game development from training to the deployment. It saw participation from various colleges across India. It was a wonderful learning experience for all participants.

Under ACM Student Chapter a Student Exchange program Refractus was organized. Students from Edith Cowan University, Australia participated in this exchange program under which an Industrial Visit and a One day Workshop was conducted. Also, under ACM, workshops for PC Assembly and Arduino were organized for second year students.

The Computer Engineering Department has been very active throughout this session. Department organized an STTP on "Machine Learning Applications for Spatio Temporal Data Analytics" which had a great response from the participants from colleges across Mumbai. Connaisance: A Computer Department initiative for final year students for series of workshops and guest lectures for two days was organized. Experts from various domains were invited for delivering the sessions in Connaisance. Department Research team organized Critical Thinking and Creative Thinking Session for faculties. A Design thinking workshop was organized for third year students. Counseling sessions were organized for all classes by the Counseling Department.

From the Editor's Desk

An orientation of subject Data Warehousing and Mining at University level was organized by the Department which saw participation from all colleges in Mumbai.

Versatility and vibrancy are two inherent features of the Computer Engineering Department, which were further got enhanced under the visionary leadership of Our Director Fr. Colbert da Silva, Principal Dr. Prasanna Nambiar and Advisor Dr. S. Krishnamoorthy. Our sincere thanks to the Head of the Department Ms. Sana Shaikh for her able leadership in all the activities. A special gratitude to Mr. Thomas Lobo and Dr. S. Biswas, our mentors for their guidance and support on the SEAD Journey. A special thanks to our departmental faculty and students for their collaborative teamwork.

I would appreciate the suggestions from our readers to help us improve. I hope you enjoy reading this issue!

*Thanks and Regards,
Ms. Shafaque Fatma Syed*



Bridging the Innovation Gap b/w Academia and Industry

“Knowledge becomes wisdom only after it has been put it practical use.”

And this is no different in this very vibrant stream of engineering too. Keeping this in mind, the Computer Engineering Department of Don Bosco Institute of Technology organized “Connaissance- Bridging the Innovation Gap Between Academia and Industry “ for the B.E students from 10th January 2019 to 11th January 2019. This two day program included the following experts from industry and academia, like Fr (Dr). John Rose S.J. (Director, Xavier Institute of Engineering), Mr.Gaurav Gelan(TCS), Prof. Biswas (IIT Bombay), Mr. Gary Mendonca (Hansa Cequity), Abdurrab Khan, Founder (CEO at Surge AI lab). The students were given deeper insights about the trending fields of this computer world like Human Machine Interaction, AI and application, Parallel and Distributed System and Machine Learning.

Connaissance - 2019

10 th - 11 th January 2019



Bridging the Innovation Gap w/ w Academia and Industry

It's all about securing our systems.

A SESSION ON NETWORK SECURITY APPLICATIONS was conducted on 22nd February, 2019 by Mr. Pratik Chotaliya a Certified ethical hacker and Security Expert. This interactive session focused on topic like Network Security, Denial of Service(DOS) and Internet Security Protocol. Emphasizing the importance of Confidentiality, Integrity and Availability in area of Security and also how Vulnerability is the weakness of a Secured System was explained.

This session aimed to provide an opportunity for students to connect the theoretical knowledge of CSS with a practical application of how it's actually works for better understanding of Security within System. 60 students got the benefits of the workshop.



Bridging the Innovation Gap w/ Academia and Industry

IT'S ARDUINO TIME!!!!

An Arduino Workshop was organized on 11 January, 2019 for the second year students of the department. This workshop was conducted by a team of Third year computer engineering students. The workshop aimed at enhancing the knowledge of the SE students with the knowledge of Arduino and getting them equipped for their mini project of the semester. The students were divided into smaller groups and were given hands-on practice. A total of 60 SE comps students were imparted with the knowledge of arduino.



The Arduino Workshop

Befriending the Glamorous C.P.U

To quench the thirst of young curious minds as to what is inside the computer and how does it function and to inculcate some more curiosity to touch deeper waters of thoughts and understanding, a 'PC Assembly Workshop' was held on 8th January 2019. This was a workshop, wherein some detailed insight was given about the CPU. It explored most of the internal parts of the CPU. It was basically a hands-on session which helped improve and strengthen practical knowledge of students, not forgetting that theory about various components were also looked onto. 61 SE students in total were let into the beautiful world of hardware through this workshop.



PC Assembly Workshop

Bridging the Innovation Gap b/w Academia and Industry



***A Design Thinking Workshop was held for the Third Year Students
on 7th January, 2019***



A Critical Thinking Workshop was held on 8th January, 2019, a session by Dr. Biswas S.

Bridging the Innovation Gap b/w Academia and Industry



A five day workshop was conducted on Machine Learning Applications for Spatio Temporal Data Analytics held from 7th to 11th January, 2019.



A DWM Orientation was organized on 8th January 2019, which was attended by 30 faculties from various engineering colleges.

Soft Skill Sessions

Goals and How to Achieve Them

Goals are the fuel that drives us ahead on the path to improvement and helps us by motivating to step up every time we fail. Hardwork combined with a strong sense of determination and well set goal is a deadly combination that can move mountains. To imbibe this into young minds and to help them get their progress on track, a session 'Goals and how to achieve them' was arranged on 14 Jan, 2019 for the second year students.

Dealing with failures and stress.

Stepping on to the final year brings along a lot of anxiety ,tensions and worries due to studies, submissions, application for further studies and failure to get through the campus placements. The nearing end of a beautiful four year journey, marking the beginning of another one with a lot of new challenges and new opportunities kicks off a series of worries in the minds of many.

Disappointments coupled with pressure, gets too much for the students to handle and further hampers their spirit and enthusiasm to do well and deal with failures. To equip the students with the better ways to handle stress and failures, this workshop was conducted with the help of Kuntal Teli (Counselor) on 7th Jan 2019, providing a new sense of relief and releasing jets of optimism and self confidence in their hearts.



The Counselling Session

ACM, Leaders of Time!!

“A leader is the one who knows the way, shows the way and goes the way.”

To create such leaders ‘ Refractus ‘-A Leadership Program was organized by ACM from 20th January to 22nd January, a span of three days. 22 students From the Edith Cowan University, Australia were a part of this Leadership program. The program aimed at imparting leadership skills and problem solving skills onto the young by practical experiences.

In one of the three days, students from ECU paid a visit to Dharavi under the guidance of the tour guide-Mr Raju Anappa wherein The participants received an opportunity to witness the various problems faced by the people in the locality to have deeper knowledge and understanding of the problems and thereby get the brainwork done to find apt solutions to those problems. They also got to witness the functioning of various small scale industries and get deeper insights about business and the market.

This was followed by a session on roles of an entrepreneur.

On the third day a visit to the Reliance Corporate Park, Ghansoli was held, which comprised of a guided tour of various products and services offered by Reliance Jio ending with a presentation of all the work the Reliance group has done.



TEKNACK

“All work and no play makes Jill a dull girl”

The seed planted for the game development workshop in the month of October 2018 saw the plant growing and blossoming during Teknack 2019. The lovely fruits of the workshop and the efforts taken after that blossomed into 9 amazing games by dbitians ,1 game from a participant from our sister college BITS Pillani, Hyderabad and 1 by a participant from our sister college Shah & Anchor, Kutchhi Engineering College . The birthing of ideas for the games was completed by 18th of Jan 2019 which was followed by gaming sessions in the month of March.

Mr.Shubham Sapkal, Ms.Sherin Palamattom, Mr.Mihir Chitra, Mr.Yogesh Patil, Mr. Sai Charan Kommana (BITS, Pilani -Hyderabad), Mr.Afi Adhikari, Mr. Srijan Ramavat, Ms.Welisa Lewis,Mr. Jovin Nicholas, Ms.Sasha Pias, Mr.David Varghese, Ms.Priyanka Puranik, Mr. Vignesh Sundaram, Mr.Dheeraj James ,Mr. Reuben Crasto and Mr. Deep Karia, Mr. Rushabh Shah and Mr. Abhishek Shah from Shah & Anchor, Kutchhi Engineering College were the drivers of the event.

The launch of the amazing games took place on 4th April 2019. One Fine Night ,Pack hunt, Space Breaker, Coconut Rescue, Get me Out, Battle Tank, Cardshian, Stack It, Upside Down and Survival were the games put up.

‘Upside Down’ developed by Mihir Chitra and Yogesh Patil bagged off the first place and ‘Stack It’ developed by Dheeraj James and Reuben Crasto bagged off the second place for their creative game development. Survival developed by Sai Charan Komman (BITS, Pilani -Hyderabad) was the most played game.



Achievements

Student Achievements:

INNOVEX

Rank	Name	Project Title	Project Guide
1	Princeley Dsouza Amey Gorde Gipson Nadar	Smart Surveillance Software For Photovoltaic Modules Monitoring Sys- tem	Dr. Phiroj Shaikh
2	Aarish Iyer Haramrit Singh Khurana Ivan Maria	Resource Efficient Approach For Distributed ML Training Over A Cluster	Dr. Amiya Kumar Tripathy
3	Chaitanya Pradhan Sonali Vaidya	Mobile Device Verification And Reporting System for Prohibited Region	Ms. Nilakshi Josh

Faculty Achievements:

Sr. no	Name Of Faculty	Title of Paper	Conference
1	Ms. Nilakshi Joshi, Ms. Sana Shaikh, Dr. Amiya Tripathy	Crime Anatomization us- ing QGIS	5th International Conference for Convergence in Technology 2019
2	Ms. Sana Shaikh	AgroVita using Blockchain	5th International Conference for Convergence in Technology 2019
3	Ms. Nilakshi Joshi	NFC based Mobile Device Verification and Reporting System for Prohibited Re- gion	International Con- ference on Data Science, Machine Learning and Ap- plications

Achievements

Faculty Achievements:

Sr. no	Name Of Faculty	Title of Paper	Conference
4	Dipti Jadhav	Gesture Aided Speech for Deaf and Mute	Conference: 2018 3rd International Conference for Convergence in Technology (I2CT)
5	Dipti Jadhav	Gesture Aided Voice for Voiceless	Gesture Aided Voice for Voiceless: 10th International Conference, IHCI 2018, Allahabad, India, December 7-9, 2018, Proceedings
6	Dipti Jadhav, Mayura Gavhane	INTERACTIVE TACTILE GRAPHICS FOR THE BLIND	International Journal of Advanced Research 6(10):901-906
7	Dipti Jadhav	"Cost Optimized Navigation System for Multimodal Routes."	5th International Conference for Convergence in Technology 2019
8	Priya Kaul	Wireless Adhoc in Distributed Systems	"International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC)"
9	Priya Kaul	" V - L E A R N I N G : Virtual Reality based games for Dyslexia improvement "	"International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC)"
10	Shainila M	Early Detection of Parkinson's Disease by Applying Supervised Learning	International Conference on Intelligent Computing and Sustainable System (ICICSS 2018)

Achievements

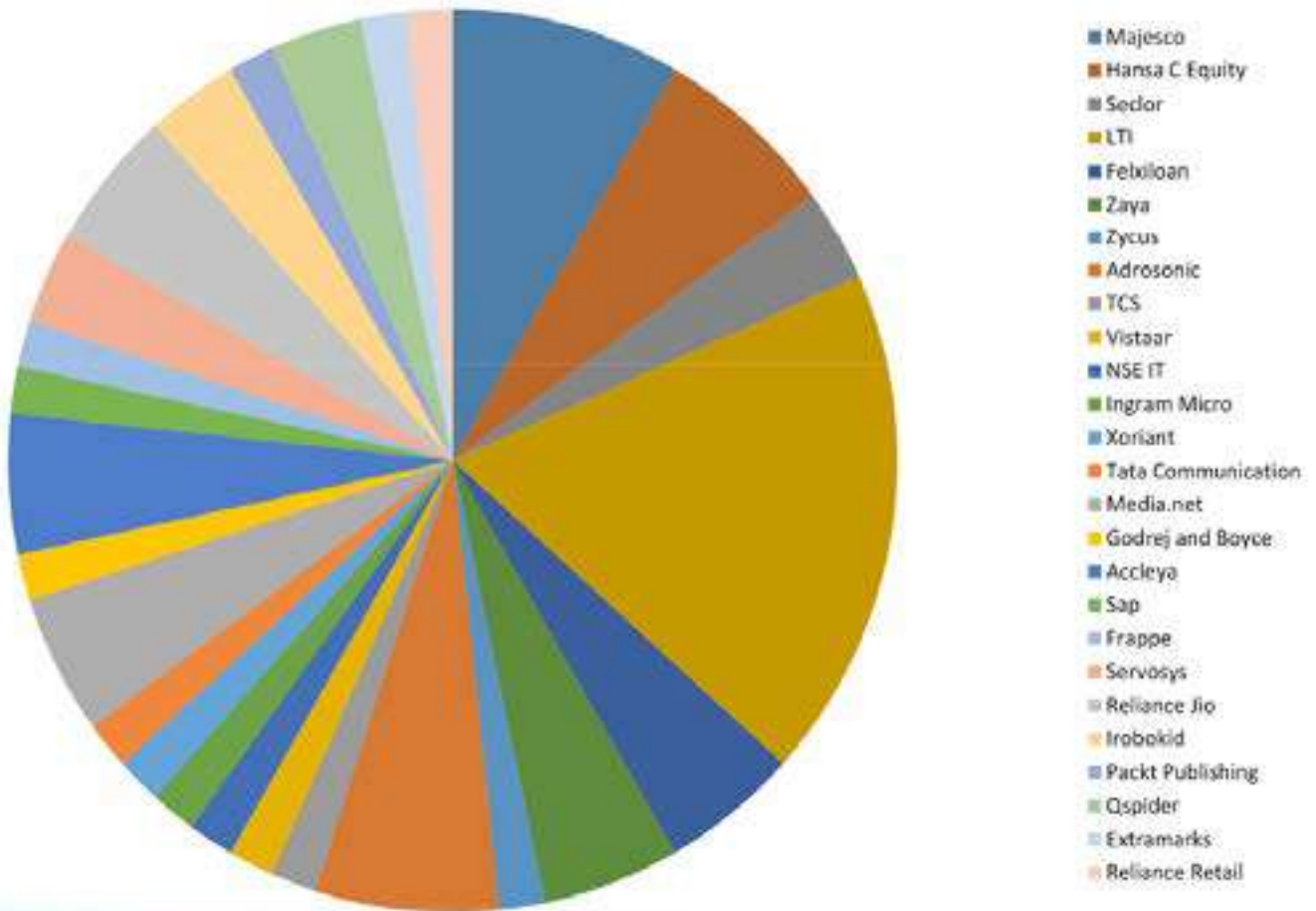
Faculty Achievements:

Sr. no	Name Of Faculty	Title of Paper	Conference
11	Shainila M	Abnormality Detection in a Mammogram using Convolution Neural Network	International Conference on Intelligent Computing and Sustainable System (ICICSS 2018)
12	Mayura Gavhane	An approach to alert the drowsy driver using combined system of IRCamera and EEG Headset	International Conference on Data Science, Machine Learning and Applications
13	Shafaque Fatma Syed, Ditty Varghese	Sensing System for Chili Crop Disease Dynamics & Prediction	AFITA/WCCA 2018 International Conference
14	Ditty Varghese	Pratibhojana: An alarm based personalized Nutrition Recommendation System	DBIT Journal of Science & Engineering Vol 6, Jan 2018
15	Shafaque Fatma Syed	A Novel Secured Approach For E-Voting Using Blockchain	International Conference on Electrical, Communication, Electronics, Instrumentation and Computing
16	Shafaque Fatma Syed	Removal of Web Application Vulnerabilities using Taint Analyser and Code Corrector	3rd Biennial International Conference on Nascent Technologies in Engineering
17	Sejal Chopra	ParaInfia-An infotainment System for semi-paralyzed using	3rd Biennial International Conference on Nascent Technologies in Engineering

Placements

After a wonderful 4-year journey of engineering, more than 43 DBIT Computer engineering students stepped ahead to the new world of industry. This year saw the highest number of companies which being 31, in which our students got placed.

2019



Q&A With Alumni

Glen Martin a 2016 graduate, is currently working as a Software Engineer and Technical Consultant at LTI. When asked to write a letter to the college, this is what Glen Martin had to say....

Dear DBIT,

It is with great pleasure that I write to you hoping to share my journey and experience. The Don Bosco Institute of Technology is not just an institution for learning but a place for students to develop both personal and professional skills while being a part of a journey both exciting and adventurous. The years I spent at the institution would go on to shape me as an individual ready to face the corporate world with skills cultivated to expose my talents.

As a student of the computer engineering department, my journey has been one of the best times I've had in every meaning of the word be it academics, friends or cultural and social activities. The department helps at establishing one of the best platforms to go above and beyond the curriculum for students to learn and excel. The teachers and staff of the department are always helpful, working to mould students as unique individuals and professionals in the field. Every possible care is taken to ensure all round development of the students. The department provides various means to learn and explore one's talents through various programs, lectures, talks, competitions and student bodies. The department has one of the largest student bodies on campus and I may be a bit partial, being an member and ex-Chairperson, in saying that the involvement of the student bodies along with the faculty and students help in bringing a new learning scope and wider areas to test one's skills from team work to leadership qualities. Besides these, the projects and technical talks and visits help in attaining practical knowledge needed to survive in the corporate world. This is a place where ideas are nurtured and innovation is discussed and encouraged. All my experiences, all the hours spent , workshops attended, lectures taken, events managed, codes debugged and much more have always given me the upper edge be it during college or at the workplace.

I would end with a quote by Robert Downey Jr. "Dream big, work hard, be of service and yes, because you can, define a generation".

Regards,
Glen Martin



The Case against Rapid Innovation: Big Four and Algorithms

One of my favorite laws that I have come across, is Moore's law, which says

Moore's Law asserts that the number of transistors on a microchip doubles every two years, though the cost of computers is halved

In other words, we can expect that the speed and capability of our computers will increase every couple of years, and we will pay less for them. And it has major repercussions for you, me and the rest of humanity.

We as human species, took hundreds of thousands of years to reach here. To a point where I'm writing this article and you on the other side trying to comprehend the content. That's how the nature works. At any given point of time, nature has no idea which path is preferable for which species. Fortunately or not, it has to make every species go through all the possible alternatives to see if it works out or not. A very slow and daunting process indeed, but biologically each one of us has been shaped as such. Somewhere it has been biologically encoded in us for these slow transformations to seep in. That makes more sense when you consider how much humans crave stability in their lives and their repulse over sudden changes.

Likewise, that has affected our behavior as well. The morals and ethics that has came across, in the process of taming human behavior into civility stands rocksolid. We have agreed on certain rules, unchanging rules, that governs how our life works.

Considering how critical computers has come out to be, there's a rarely a branch in humanity's tree of life untouched by computers. And why wouldn't it? If it makes our lives easier. Isn't that what evolution is slowly nudging us to, as well?

The Case against Rapid Innovation: Big Four and Algorithms

Except it's happening. So fast that we probably are out of tune with it and not calibrated with the present that we have in our hands. Gone are the days when progress was a slow-and-steady process, We are in fact not in terms with the rapid changes that's happening right in front of our eyes—the rise of Global Four and Algorithms.

For every industry the story is the same. There's a initial period with no major players, then competition kicks in, you get some winners and you got some losers. After that winners start accumulation more of power building up on what they achieved while increasing the gap between them and the competition.

Google, Amazon, Facebook and Apple are now inching towards being trillionaire companies. You and the entire web is directly using their services in one way or the other.

☒ Of all the major social media websites: Facebook has acquired WhatsApp and Instagram, eating away a major share of social media users.

☒ Google has 80% of search engine users. Pretty much the window to Internet goes through Google. On top of that they have YouTube which is arguably the only place people go to for consuming video content.

☒ Amazon has the largest offering capacity with millions of products available across the shelves. They have in fact started foraying into offline business which will only consolidate their position in both online and offline markets.

☒ Apple although doesn't falls in common man's kitty probably has the biggest share in controlling. Being the highest valued company with \$800 Billion value they can uproot competition straight-away with their sheer financial dominance. On top of that, being close-sourced all the information about you stays with them.

The Case against Rapid Innovation: Big Four and Algorithms

In short: For images you go to Google Images. For videos, you go to YouTube. For buying anything online if it's not available on amazon, had luck finding it anywhere else as well. Three of the most used OS: Windows, Android and Apple (Mac and iOS) are in control of 3 of these giants.

These companies have grown to a point, where they are worth more than GDP of countries. Although, there is a growing concern about these companies being so large that they dedicate a good amount of time and money on how to evade tax.

But the larger pressing issue is how much data and control over it they have a hold over.

No country or a committee has a controlling power in companies like these. It's totally autonomous and although claiming to be fueled by customer's demands, when you have so much power on your hands, it's not hard to think about the flip side.

Many-a good number of countries have legislated Right to Internet. But what people keep on forgetting is that it is more on these services like Right to Google where we are mentally pegged at. And companies like these have no reason to play it good to you .

These companies will only only go growing bigger in size with each year. How will we deal with the monopoly of their control is something that would be interesting to see with a big cost.

Making lives easier is a noble cause. Except this process of innovation sees no direction when it comes to moral. What's moral and what's not often evades innovation. It usually bulldozes over everything at a snap.

Algorithms are what power the 21st Century. Although it has been with us for centuries, its significance is exploited more readily these days. With everything being governed by them, including how you access the web, how images are processed, its importance has only jumped several folds over the past few decades.

The Case against Rapid Innovation: Big Four and Algorithms

Relationships and formed through websites powered by match-making algorithms. Be in matrimony or dating or even companies trying to find possible candidates for their company, our faith in algorithms has knowingly or unknowingly got ingrained in us. But here's where things turn bad.

When you browse online for a new pair of shoes, pick a movie to stream on Netflix or apply for a car loan, an algorithm likely has its word to say on the outcome. Algorithms are designed such that they adapt to your preference and style within few searches and navigating across the website.

Next time you buy something online, you will have no idea whether you bought it out of your own free will or whether it was the algorithm. The algorithm lurking behind your patterns and suggesting what you might buy and bombarding it across through suggestions.

For the owners it must mean more sales but on the audience's part we have reached a point where we are trading our own autonomy over our decisions. One of the reasons algorithms are so successful is because it helps one to retain readers and customers. If you provide them what they want, the closer they will be with you. When it comes to buying and selling, it doesn't pose much threat. But major threat takes shape when companies start using these same techniques on social media. Considering the number of hours people spend in social media everyday, its obvious their world view is shaped through social media.

If you add to it mechanisms of showing people what they want, they will end up getting biased towards what they know. This eradicates the sentiment of skepticism. Making people more divisive with their beliefs and sinking middle ground to have rational conversation.

~Written by Sayantan Mahato



A bijou note from the Co-Editor

Dear Readers,

I hope you relished this edition of our Newsletter. I would like to take this opportunity to thank everyone who has immensely contributed towards this edition to make it successful. It gives me colossal pleasure in introducing the

Editorial Team:



Ms. Shafaque Syed (Editor)



Mr. Dominic Miranda (Design)



Ms. Cynthia Mascarenhas (Co-Editor)



Mr. Varun Soni (Design)



Ms. Briana Rajan (Author)