

From the Editor's Desk



Greetings from the Department of Computer Engineering, DBIT.

The year 2020 looks to be a bumpy ride with the covid-19, throwing challenges around and opening up a lot of disruptive learning and teaching opportunities.

Faculty have developed an active research agenda in several leading areas in collaboration with colleagues at department and interdepartmental level.

Department faculty have played a leadership role in defining department's strategic plan in line with the management's vision of SEAD journey.

During the past academic year, the department completed several minor grants projects and the annual B.E projects are appreciated.

The department underwent an external review of its graduate program, by the eminent panel of the Academic advisory board, and is also gearing up for the NBA accreditation. The review panel put on record the progress of the department.

With the array of students in the 9 pointer range, I am pleased to state that the academic programs of the department are in excellent shape, thanks to our dedicated faculty and staff.

We would like to put on record the achievement of the faculty and students of the department in securing a project with the DRDO in the smart India hackathon, finally after screening an array of projects at the institute level.

We are also proud of our alumni, many of whom have made a mark in the field. I hope you enjoy reading this newsletter, and i look forward to hearing from you.

We hope you find this newsletter informative and useful. If you ever have suggestions or comments, you can reach me at shainila.dbit@dbclmumbai.org.

We appreciate the hard and relentless effort put up by the student community, Alumni and the faculty in bringing this newsletter in time.

I express my deep sense of gratitude to the Newsletter team ably led by Ms. Cynthia Mascarenhas and the student community including Mr. Hariharan Iyer and Mr. Grejo Joby.

I thank the head of the department Ms. Sana Shaikh and the faculty members of the department for their inputs to this newsletter.

With best wishes,
Ms. Shainila Mulla

MAKING STUDENTS APP DEVELOPMENT READY!



A 30 hours Android Development Certification Course was conducted by Ms. Kalpita Wagaskar and Ms. Mayura Gavhane from 17th August 2019 to 2nd October 2019 for the second and third year students. The course took off with establishing an objective to develop essential android programming skills to solve real life problems. The course covered topics right from Android Installation, Application Structure, SQLite Database and was even inclusive of developing a music app. 09 Students enrolled in this course as well as completed the App Design Test at the end of the course making them App Development ready!

Learning Machines, the Python way!

A 4 day VAC course on Machine Learning using Python was conducted by Monkfox expert trainer Mr. Siddhesh Gunjal on 5th September, 14th September, 28th September and 10th October 2019. Machine learning algorithms and concepts like linear regression, classification models, neural network etc were explained to students in a practical setting using real time data sets. It was a hands-on experience for all our 32 machine learning enthusiasts who had enrolled in this programme.



THE MONGO DB WORKSHOP



“A workshop on the basics of Mongo DB was conducted on 13th September 2019 by Ms. Sana Shaikh for the third year students”

WORKSHOPS

Acquire, Authenticate & Analyze



A workshop on Digital Forensic was conducted on 4th October 2019 by Ms. Mayura Ghavane. The workshop focused on the term “digital forensics” meaning the methodologically examining computer media (basically computer keeping a record of all activities which can later be used as evidence in case of cybercrime) and the main three things under methodology: Acquire (acquire evidence without damage/alter in original), Authenticate (to check if same as original), Analyze (if evidence useful or not). Topics like computer incident (unlawful behavior performed through the computer or computer network), CSIRT (Computer Security Incident Response Team) for handling incident, Stages of CSIR (Pre-Incident Preparation, Detection of Incident, Initial Response, Formulating Response strategy, investigating incident, Data collect/analysis, Report) were covered. Hands-on on who logged a system, date, recording file modification access, open ports and apps associated with the ports, running processes, MD5 or SHA512 for storing cryptographic hash of files and recording checksum was shown.

TABLEAU WORKSHOP



A workshop on Tableau was conducted on 6th September 2019 for teaching faculty of DBIT by Ms. Sana Shaikh, Ms. Ditty Varghese and Ms. Priya Kaul. Tableau Basics, Aggregation, Filters, Dashboard, Data Preparation were all covered in a thorough hands-on session. It was a delightful sight to see all the participants being engaged and engrossed in exploring the tool and trying to use various features. All the participants appreciated the real world examples used for explaining each topic. They could relate the visualization results generated by tableau and realized that this tool can be very handy for solving their everyday problems in a much effective way.

WORKSHOPS

Resume Building ft. Dr.Google

A two hour session on creating your own website using the google site was conducted by the Department website co-ordinator Ms. Deepali Kayande for the faculties. Features like adding tabs, multiple pages and linking them were explained during the session. The faculties chose their own theme and layout for resume design. All the relevant information from their current resume was reflected on the website. By end of the session all the faculties were ready with their URL which later got linked in the faculty profile tab by Ms. Deepali on the official webiste.



MU Big Data Analytics Orientation Program



The orientation program for Big Data Analytics was held at Don Bosco Institute of Technology (DBIT), Mumbai in Computer Engineering Dept. on behalf of University of Mumbai on 15th July 2019 which was attended by 41 faculties from different colleges. Dr. Amiya Tripathy began with the introduction of the subject. Dr. Amiya and Prof. Sana Shaikh discussed the Course objectives and Outcomes as specified in the syllabus followed by the implementation strategies in terms of case studies and Lab experiments have were also discussed. Dr. Amiya Tripathy and Prof. Sana Shaikh then discussed in detail, the module wise marks weightage for the subject. The subject experts mutually conversed making ready reference sheet mapping every subtopic with appropriate references as well as discussed the university tentative question paper pattern for the subject.

WORKSHOPS

MIS Orientation



“A MIS Orientation was conducted for the faculty during November 2019 and January 2020.”

Adaption of Enjoyment in Learning

“An Expert session on Adaption of Enjoyment in Learning through Gamification and Visual aids was conducted by Dr. Fakhru Hazman Yusoff, faculty of Computer and Mathematical Science (FSKM) from Universiti Teknologi MARA (UiTM) (Malaysia) on 16th October 2019.”



EXPERT TALKS

Big Data Analytics: Looking through the lens of Information Security



To get insights about data security in Big Data Analytics environment, a session was conducted by Dr. Amiya Kumar Tripathy on 10th September 2019. In the recent boom in the generation of data and the drop in the cost of storing data, it has become imperative that all the data that is generated, has to be protected too. All methods of information security that are used currently may turn out obsolete due the exponential increment in the generation and storage of data. The session taught a very valuable insight on how Big-data can be secured. A major reason for the very requirement of the protection of data privacy that was emphasized on in the session was that the data ultimately is valuable. A lot of applications, research and development and analysis is done on the aforementioned data. It could be someone's location, or someone else's parent's flight ticket to a secret meeting in a covert country, whatever be it, all data must be treated with equal priority to be secured against cyber criminals who waste no chance in finding vulnerabilities. The BE Project mentioned was about finding insights from student behaviour in class. The data used would be the CCTV footage of the class which is huge in volume as well as essential to secure. Anyone who's not supposed to view the footage can misuse it in multiple ways like finding the shortcomings of the CCTV and execute a malicious plan in class. This thread doesn't directly involve the video footage but indirectly is derived from it. The above example was very informative in emphasizing the need of Information security of Big data.

COUNSELLING SESSIONS



“A Session on Peer Pressure and Addiction was organised on 29th July 2019 for the second year students.”

“A Session on Goal Setting and Motivation was organised on 1st August 2019 for the third year students”.



“A Session on Professional Skills was organised on 31st July 2019 for the final year students”.

GUEST SESSIONS

ANALYZING RANDOMIZED & PROBABILISTIC ANALYSIS



A comprehensive session on Amortized and Probabilistic Analysis and Randomized Algorithm was conducted over 2 days for 4 hours on 26th August & 11th September 2019 by Dr. Supratim Biswas, IIT Bombay.

The main topics focused upon was Randomized Algorithm and Probability Analysis. Many real time applications and computational problems were taken as case study to explain the details and the real time applications of it. Computational & Algorithmic problems like Hiring Problem, Programmatic insights about probability distribution and indicator random variables. A very interesting problem known as "Birthday Paradox" was also discussed, which simply implies the total number of people present in the same room should be such that atleast 2 people will have their birthday on the same day.

Dr. Biswas explained every problem in a very analytical manner and very critical observations were drawn from it. It was all-in-all a very informative session which increased the knowledge among the students and sparked a keen sense of interest in statistics and probability using algorithms.

GUEST SESSIONS



"A session on Relationship between RE and compiler design and use of tools to implement FA was conducted by Dr S. Biswas on 21st August 2019".

"A session on AI and its Applications and Opportunities in the Industry was conducted by Mr. Ganesh Bhaskaran on 19th July 2019".



"Cyber Security and Demonstration of Cyber Security Tools was conducted by Mr. Vicky Fernandes from QRC Consulting and Pvt. Ltd. On 10th September 2019"

ALUMNI CORNER



"A session on Building a machine learning project was conducted by Mr. Aarish Iyer for the second year students on 7th August 2019."

"A session on AI and its Applications and Opportunities in the Industry was conducted by Mr. Ganesh Bhaskaran on 19th July 2019".



"A group of alumni were included as panel members for the Mock Presentation-I of B.E. Major Projects on 16th August 2019."

"Mr. Jeff chandy conducted a session on Website building for the second year student on 19th August 2019."



OUTREACH ACTIVITIES



“A workshop on Google Forms was conducted by Ms. Sana Shaikh, Ms. Sejal Chopra and Ms. Shafaque Syed for the 8th grade students of Al Salam English School, Powai on 2nd December 2019.”

“A new initiative called “DBIT-SEVAT-ECH was initiated where students of the Department got App and Web Development internship opportunities”



ACM ACTIVITIES



"A coding competition was organized on 17th July 2019 for selection of the Technical Team."

"A photoshop workshop followed by a small competition was conducted on 24th July 2019 for selction of the Design Team."



"A Content Management System workshop was conducted on 26th July 2019 for the third year students."

ACM ACTIVITIES

VIDEO EDITING WORKSHOP



A Video Editing Workshop was organized on 2nd August 2019 to help students develop video editing skills. This workshop was conducted on Adobe Premiere Pro and by Mr. Calvin Crasto. He kicked started the workshop with basic tools and their uses. The operation of audio and video was also taught. At the end, a short animated video was made by all the 16 attendees of the workshop.

ACM ACTIVITIES



"A Java Applet Workshop was organized for the second year students on 21st August 2019."

"A Web Development Workshop was conducted on 3rd August, 4th August and 11th August 2019."



"A Flutter Workshop was conducted in association with Vlink on 24th, 25th, 26th & 27th September 2019."

ACM ACTIVITIES

SOUND ENGINEERING WORKSHOP



A Sound Engineering Workshop was conducted on 27th august 2019 by Mr. Wayne Fernandes. The purpose of this workshop was to give a hands on practise for mixing songs and basics of Djing. The basics of Wavepad like trim, spilt were explained. Making EDM music using loops and gain were also explained. To conclude a small task was given to the 13 students to use all the features and edit while mixing several songs. This workshop was a good experience for the students and gave a good learning opportunity in the field of Sound Engineering.

UNITY WORKSHOP

A Unity Workshop was organized where students the learned the basics for developing 2D & 3D games on 30th September 2019 and 1st October 2019. 92 students participated in the workshop.



ACM ACTIVITIES

Wall of Kindness



ACM had organized a 3 day social drive, "Wall of Kindness" from the 18th September 2019 to the 20th September 2019. With a small decor team the Wall of Kindness was made using old shoe boxes where students could donate old clothes and old stuff to the underprivileged. Students from each branch of engineering donated generously. The collected clothes, books and other stuff was given to Grace Harvest Ministry, a NGO which was then given to the less fortunate kids.

Small Action with lots of people results in a big change. This Social drive was a small action, one step to a make a difference.

PROGRAMMING CLUB ACTIVITIES

DEBUG



The Programming Club of the Computer Department organized a debugging competition for the students of TE COMPS which took place on 29th August 2019. 59 students took part in this competition. The competition consisted of 4 problems/code consisting of multiple errors, namely Syntax, Semantic, Logical, Runtime and Compile time errors. After the contestant debugged the code, they had to call a volunteer to note down the time of completion. The correctness of the solution was checked after the commencement of the competition. Additionally, the noted down time had to match the last accessed time of the file and the solution to the problem should be in accordance with the problem.

BATTLE CODE

The Programming Club of the Computer Department organized a coding competition for the students of SE COMPS which took place on the 23rd of August 2019. 25 students took part in the Competition. The Competition comprised of 5 problems, contestants solved the problems in either C or Java.



“Horror feat Comedy”



The Computer department day was held on 22nd October 2019. “ALL Go Rhythm 2019” was celebrated in full rhythm with this year's theme as “Horror Feat Comedy”. Albert Einstein rightly said “Scientist navigate what which already is; engineers create that which has never been.” A warm welcome by Ms. Briana was offered to the audience to enjoy another wonderful day with creators working in the most dynamically changing field of today-‘COMPUTERS’. . One of these beautiful memories would be the departmental day-a day when the barriers between students and teachers from the classroom atmosphere are broken down, a day when we all as a department come together forgetting our responsibilities and posts to enjoy and share happiness and live the moment. The day was inaugurated by lighting of the lamp and a prayer by Father Joe. A Welcome speech was given by the Department HOD Ms. Sana Shaikh and this followed by the felicitation of the students who had bagged achievements in various competitions. The formal event concluded with Ms. Cynthia reading the previous year's report. The informal event started off with an astounding band performance by the students. Mr. Sayantan Mahato, Mr. Soham Shinde and Mr. Manmeet Khanna presented an heart-felt rap performance dedicated to all our faculty. Not only did students of various classes but also the faculty presented an amazing dance performance. Shortfilms made by the faculty as well as the students were streamed for the audience. The day came to an end with a power-filled jam session.

ACHEIVEMENTS

INTERNSHIPS

DEPARTMENT SIGNED TWO MOUS WITH INDUSTRIES THEREBY PROVIDING STUDENTS WITH INTERNSHIPS OPPORTUNITIES:

**1. SequelString
(at Institute level)**

08 students

**2. Dial4242
(at Department level)**

15 students

DEPARTMENT INTERNSHIPS:

**1. BDA research
group (BusApp)**

03 students

**2. Cyber Security
research group**

04 students

**3. DBIT Journal and
Diet based App**

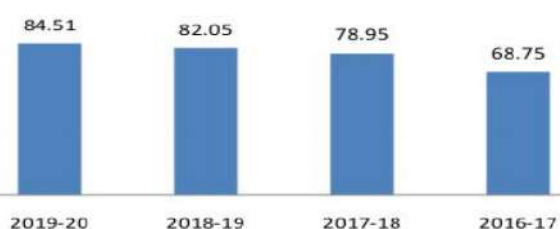
06 students

ACHIEVEMENTS

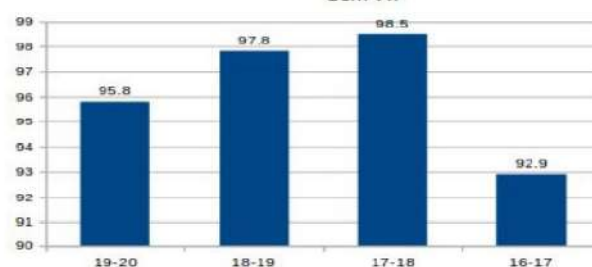
RESULTS & PLACEMENTS

Result Analysis

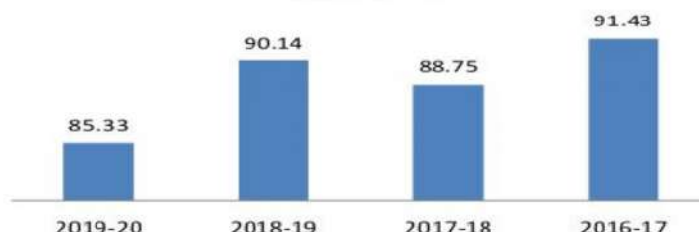
COMP III



Sem VII



COMP V



Placements

	TOTAL NUMBER OF STUDENTS PLACED	TOTAL NUMBER OF OFFER LETTERS
2018-19	43	60
2019-20	42	57 (till December 2019)

Sr No	Year	Total Students No.	Registered for Placements	Eligible Students	Eligible Placed	Non Eligible Students	Non Eligible Placed	Eligible Students Placed %	Unplaced Eligible Students
1	2018-19	81	49	41	41	8	2	100	0
2	2019-20	72	64	48	38	16	4	79	10
	Total	153	113	89	79	24	6	89	10

LOCKED IN THE HANDCUFF OF TECHNOLOGY?

**“ Humanity is acquiring all the right technology
for all the wrong reasons ”**

-R. Buckminster Fuller

Human beings are the gem of all creations because of their intellect, insight, and wisdom. Humans remained committed to inventions and discoveries. First of all, the man learned how to make himself safe and survive against the adversity of nature. He invented the greatest invention, the wheel.

As time passed, the inventions and discoveries increased. The man's progress began to reach the current zenith of technology. Even now, he is not satisfied with this remerge of technology. Now modern technology has helped man in every sphere of life. It assures comfort, safety and peace in human life. However, too much use of it makes man too dependent. Just like every coin has two sides, technology is constructive and destructive at the same time.

It is hard to argue against the fact that our circumstances, our facilities, the social and political structures that we live in and ultimately the technology we use, shape our thought processes.

It is this kind of thought hacking, which has had positive as well as negative effects on humanity over the course of time. Take the wheel for instance, that reduced travel time and led to innovation like automobiles today.

Ideologies and Beliefs are only changed under Technological Renaissance

Some time back, we in India had Sati as a holy tradition where widows took to fire and departed with their husbands, irrespective of what their choice was. That changed with the advent of education, which I consider to be the most evergreen technology in itself.

However, I would not say that all has changed for good. When one sees the impact of technology on human behaviour over time and derive scientific and psychological conclusions, he/she would be more disappointed than happy!

Let's take some examples...

- Earlier people used to remember phone numbers of their closed ones, but with the advent of mobiles and smartphones, this practice of improving human memory has become almost obsolete.
- Back then friendship used to mean emotionally enriching conversational compatibility, independent of time. Today, if your BFF ignores your WhatsApp message for 5 minutes, it makes you mad.
- Physical activity of humans overall has decreased and people spend time in stagnant positions that lead to bad body conditions like obesity and diabetes.
- The dependence on technology makes us ignore nature and natural growth. A modern mother uses distractive principles to feed their children like showing them anime on an iPad rather than indulging in the learning art of parenting.

“ All of the biggest technological inventions created by man – the air-plane, the Automobile, the computer – says little about his intelligence, but speaks volumes about his laziness. ”

-Mark Kennedy

Emotional Dependence

When you make emotional quotient quantitative rather than qualitative, you're in for mental trouble. Yes, you can use Instagram and Snapchat to connect to long lost friends but you also love it when the number of friends on your list increases giving you an empty sense of approval which when not met, in time, leads to an increased feeling of loneliness and social emptiness.

However, arguably this is what most social networks ultimately propagate intentionally or unintentionally.

But again, in the long run, it leads to emptiness and the cycle repeats itself.

Physical Dependence

The recent IoT boom has led to unprecedented technical innovation. Wearables and Virtual Reality have altered the way we conduct ourselves physically. Today you can go to the gym, hop on a treadmill with your Fitbit attached and get to know each health detail while working out. This makes your plans much more efficient. No doubt about that.

Human behavior tends to be chaotic and moves towards backwardness when technology is misused and abused. Unintentional abuse will foster even deadlier damages than those currently perceived. We have to be conscious about how we get shaped. It is high time to take this step in our evolutionary ladder and stop taking each and every ideology for granted. We are heavily spoon fed today.

But Fitbit is not all. Each day, numerous apps and tech surface that provide essential health information by monitoring our physical activities like sleep. The future of healthcare is already laced with nanobots that will transform continuous streams of information from inside our body.

One must wonder about issues like control and ownership of such information and the manner in which it might be used.

Societal Dependence

Picking up from the Social Media segment, the effect of on-line privacy, free license content and Internet as a general medium to promote enterprise is something to think about.

Let me remind you of all the data breaches that happened due to misuse of data stored by those companies that own the social media platforms on which you spent almost your whole day on. They know everything from where all you went, what all you searched, what all you browsed, watched or liked. Everything, they know literally everything! BEWARE!

Today's technologies have similar power. It depends on how they are used and regulated. The current scene, as we discussed, is full of criticalities that need all round solutions.

Personal Dependence

Our personal dependence on technology cannot be stressed enough. We search solutions to all our problems on the Internet. We buy stuff that we need/want online. We use passwords to access our most confidential information.

What happens when an entire ecosystem of systematic dependence, like this one, incurs even one-minute of malfunction. The answers are plausible – irritation, stress, frustration and anger are some of the effects.

While technology coupled with automation allows us more leisure, we fill the gap with even more technology rather than using it for human growth in terms of introspection and self-curiosity.

Finding the balance: Individuals and Groups

I'm not saying we need to outlaw technology, or deliberately limit our use of new technologies that have the potential to significantly improve our lives. But we do need to find a balance. As an individual, that means limiting the time you spend engaging with technology, and relying on your own cognitive capabilities as much as possible. In a group context, it means resisting the temptation to accept any technology as a given, or as the new norm. We need to acknowledge the destructive and limiting potential of technological dependence without demonizing technology altogether, and we need to work together to accomplish this.

Technology, both real and virtual, controls our train of thought and most of our apparently informed decisions are actually persuaded (voluntarily or involuntarily).

“The real danger is not that computers will begin to think like men, but that men will begin to think like computers.”

– Sydney J. Harris



Article By
Grejo Joby

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



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