CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

NEUROFLUENCE

- DESIGNING FUTURE WITH EXCELLENCE -

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November & December, 2022

THE OFFICIAL NEWSLETTER OF THE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INTRODUCTION

HoD's Message

The Department of Computer Science and Engineering (CSE) is a centre of excellence providing comprehensive technical knowledge and inspiring students in innovation and research.

The Department of Computer Science and Engineering has created an intensive teaching and learning experience through industry driven Curriculum. The Department strives hard to inculcate among students a passion for innovation through research and product development in niche areas of Data science, Artificial Intelligence, Computer vision, Internet of Things and Network Security. The Department indulges in creating workable solutions for issues faced by society through Service-Learning Modules. The vision of achieving excellence through service is the key factor that unites the department.

Editor's Note

The Department of Computer Science and Engineering is launching the 5th issue of it's official newsletter "Neurofluence" for the academic year 2022-23. This issue of the newsletter focuses on the trending topics, faculty publications, placements and many more. The readers are assured of technical insights on present market and departmental activities which is a combination of unique and parallel realms on the same platter.

THE DEPARTMENT

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Vice Chancellor

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Pro-Vice Chancellor

Dr ANIL JOSEPH PINTO
Registrar

Dr Fr BENNY THOMAS
Director

Dr Fr IVEN JOSE
Dean

Dr BALACHANDRAN K
HoD

Vision

To fortify Ethical Computational Excellence

Mission

- Imparts core and contemporary knowledge in the areas of Computation and Information Technology.
- Promotes the culture of research and facilitates higher studies.
- Acquaints the students with the latest industrial practices, team building and entrepreneurship.
- Sensitizes the students to serve for environmental, social & ethical needs of society through lifelong learning.

Programs Offered

Undergraduate

- Bachelor of Technology Computer Science and Engineering
- Bachelor of Technology Information Technology
- Bachelor of Technology (Computer Science and Engineering - Artificial Intelligence and Machine Learning)
- Bachelor of Technology (Computer Science and Engineering - Data Science)
- Bachelor of Technology (Computer Science and Engineering - IoT)
- Bachelor of Technology Information Technology (Lateral Entry)
- Bachelor of Technology Computer Science and Engineering (Lateral Entry)
- Bachelor of Technology (Computer Science and Engineering - Artificial Intelligence and Machine Learning) - (Lateral Entry)
- Bachelor of Technology (Computer Science and Engineering - IoT) - (Lateral Entry)
- Bachelor of Technology (Computer Science and Engineering - Data Science) - (Lateral Entry)

Postgraduate

- Master of Technology in Data Science
- Master of Technology in Computer Science and Engineering
- Master of Technology in Data Analytics
- Post Graduate Diploma in Research Methodology (PGDR)

Doctoral (PhD)

- Doctor of Philosophy (PhD) in Computer Science
- Doctor of Philosophy (PhD) in Computer Science and Engineering
- Doctor of Philosophy (PhD) in Information Technology

Honors

- Honors in Artificial Intelligence and Machine Learning
- Honors in Data Science
- Honors in Cybersecurity

Minors

- Minors in Computer Science and Engineering
- Minors in Artificial Intelligence

CONTENTS

ALUMNI INTERACTION

The session started with an alum interaction experience with Mr Jithin Joseph (Alumni of CHRIST [Deemed to be University]) conducted by the Alumni Interaction Cell. The event commenced with an address from Dr K Pradeep Kumar, who addressed the Students in the seminar hall. The Mr Pawanjeet Singh introduced the Alumni

This was followed by Mr Jithin recounting his experiences at our college, which provided a pleasant opening to the event. He then briefly introduced college life, professional life and work-life balance. While addressing the gathering on the “Lineage of Academics to Industry” he emphasised the importance of the rules and regulations that the college had in making him industry ready. He shared instances of how the college’s mandate for wearing formals made him look much more presentable than his other colleagues at work. On addressing the requirements that companies were looking for in hiring freshers, he emphasised the need to go out of the classroom and try applying the bookish knowledge in real life.

Along the same lines, he recollected his visit to Christ Lavasa campus and how interaction with people is very important for inspiration to be able to be productive. At the end of his presentation, his advice to the students was to harness their soft skills, as that helps them in their professional life and in setting themselves apart from the crowd. After that, he conducted a Q/A session where he discussed higher studies, professional growth, time management and how much the campus has changed after he graduated. The event concluded with the vote of thanks speech was given by Dr Boppuru Rudra Prathap (Alumni interaction in charge), followed by a group picture of Mr Jithin with all the Students in the seminar hall. This interaction was surely instrumental in shaping the students’ mentality to be driven towards more professional standards. 3BTCS-DS & 3BTCS-IOT are the audiences for the Event.

ALUMNI INTERACTION

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SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPT OF COMPUTER SCIENCE AND ENGINEERING

Alumni Interaction

(Lineage of Academics to Industry)

Mr Jithin Joseph is a 2016 pass out of department of Computer Science and Engineering, Christ University. He is currently working in ALI BIN ALI, **Qatar** as an Analyst Programmer. Experienced Software Engineer with a demonstrated history of working in the retail and supply chain industry. Public speaker and OCI (Oracle Cloud platform) certified.

Date-Time & Venue
08-Nov-2022
11 AM– 12 Noon
Mini Seminar Hall, Block II
CHRIST Kengeri Campus

Warm Regards
Alumni Cell
Computer Science and Engineering
CHRIST (Deemed to be University)
Bangalore-560074

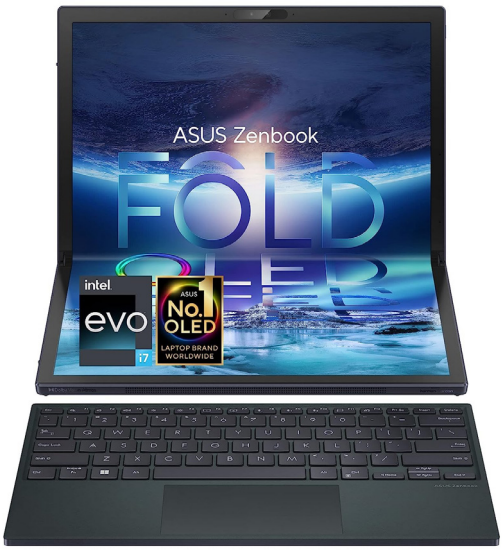
TECH MANIA

November and December were a few months compared to how packed techtober was. DJI Mavic 3 classic drone was released on the 2nd of November 2022. This drone took the market by surprise, with the DJI marketing department keeping it a secret until they released the improved drone.

Continuing with the camera releases in November, we move to the whopping $999 50th Anniversary edition camera. The Polaroid 50th Anniversary Edition SX-70, released on the 11th of November 2022, is a refurbished vintage camera. This camera is limited to 50 models to pay homage to the camera's history and impact on pop culture.

November also saw the release of the Bose Music Amplifier—a straight-up competitor to the Sonos Amp. The main difference with the other versions was the design used to integrate them with the multi-room audio system with other wireless speakers and soundbars.

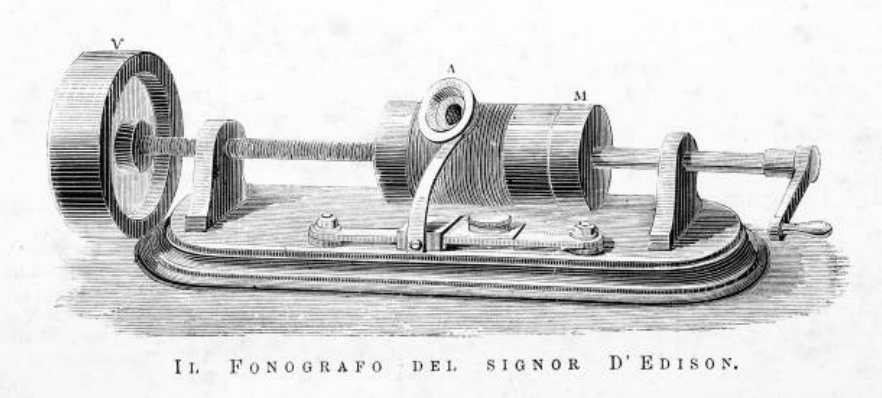
Asus Zenbook, 17 fold OLED, entered the Indian market in November. This concept laptop by Asus, which has an unconventional form factor, raised many questions about practicality and usability. The 17.3-inch laptop has a folding display; it allows the user to have a user experience like never before. Despite being a concept laptop, it has all the latest features and internals that any other flagship laptop has.



ChatGPT came out on the 30th of November, 2022. The unique open software initially came out free to the public. On the 4th of December, over a million users were there on ChatGPT. The entire year saw a buildup in many openAI software, with ChatGPT being one of the last to release.

It is coming to the end of the year, while most were focusing on the tech for 2023 and winding down with all the innovations in 2022. December saw the adaptive force innovative airbag safety system implemented in road vehicles. The airbag helps reduce the impact forces that affect the people in the crash. This is a revolutionary discovery as it helps improve passengers' safety and minimises the damages caused by the sudden stop during impact.

BROWSING HISTORY



Il Fonografo del signor D' Edison.

On the 21st of November 1877, Thomas Alva Edison announced the plans for his phonograph invention. The phonograph was able to record sounds that could be played back. A revolutionary design that radically shaped the tech world in the way it is. Over a hundred years later, Lenovo was founded on the 1st of November 1984 in Beijing. Initially, they started by specialising in televisions; they slowly transitioned to manufacturing computers. By the 1990's they diversified and proliferated. A few years later, on the 20th of November 1985, Microsoft released their ground-breaking operating system, Windows 1.0.

The gaming world was introduced to the PlayStation 1 on the 3rd of December 1994; The Sony-developed console mainly aimed to compete against Nintendo 64 and Sega Saturn in the gaming markets. Nearly 30 years later, with five models of PlayStations being released, it is still one of the most popular gaming consoles in the world. Japanese companies built and dominated this market for a long time.

Sixteen years later, on the 15th of November 2001, Microsoft launched their home video game console, the Xbox. The boxy console became a worldwide success and rapidly punched through the gaming market. This was Microsoft's response to the PlayStation; having a similar design, both have been competing fiercely and have pushed the market to new heights.

The 6th of December is one of the most defining moments in the tech field. In 1877, Thomas Edison recorded his voice on the phonograph for the first time, reciting 'Mary Had a Little Lamb'. 1867 the US Department of Defence issued a four-month contract to Stanford Research Institute (SRI). The study later resulted in the creation of the ARPANET, the internet's forerunner.

FACULTY ACHIEVEMENTS

- Dr Mithun B N has been appointed as a selected VTU Translator & Reviewer member for the technical book writing in Regional Language Kannada.
- Flag Officer Michael Mossess successfully defended his PhD thesis on the 10th of December 2022.
- Dr Shrikant Tangade has received "The IEEE Computer Society Bangalore Chapter Outstanding Volunteer 2022 Award" for his contributions.

FACULTY PUBLICATIONS

- Dr K Pradeep Kumar & Dr Rudra Prathap published a book chapter (Bentham Science) on the 15th of November, 2022.
- Ms Chintureena completed her open viva voce PhD defence on the 25th of November 2022 from the Dept of CSE, under the supervision of Dr Ganesh Kumar R.
- Dr Santanu Roy presented an article at the International Conference on Machine Vision on the 28th of November, 2022.
- Dr Julian Benedict published an article in a reputed IF 13.3, Q1 journal, on the 24th of November 2022.
- Dr Srikanth presented an article at an International Conference on the 22nd of November, 2022
- Dr Sandeep Kumar received the Best Paper Award from the Journal "Big Data Mining and Analytics" on the 21st of November, 2022.

FACULTY INTERACTION

For this month's issue of faculty interaction, we have **Dr Fr Benny Thomas,** the Director of the School of Engineering and Technology. The exchange was fruitful and is an eye-opener for all those who wish to get some advice before surfing through all the new tech booming and changing the world.

To how one should approach going after new technologies, by either learning all the fundamentals or by directly venturing into all the latest tech, Fr Benny replied, "I would say always start with the basics as that is what my experience taught me. By learning the basics of every problem I get in any different language, I can understand what needs to be done to the root level and then approach that problem.

The first computer I learned was BASIC, which is almost like writing an algorithm; even to this day, I still like that language as it taught me the fundamentals and made all the new languages easier to understand. Many new languages have a lot of advanced features like functions. So, suppose we want to find a number's modules or square root. In that case, we can use the function, but by learning the basic languages like C, which is considered the basic language nowadays, we can understand what is happening behind the screen."

He added, "Though I am continuously upgrading and updating my knowledge, my fundamental knowledge has been strong and helped me understand things better. So, whatever language we learn after learning the fundamentals and understanding the logic behind different things, we can quickly pick up any technology and language."

"Learning the fundamentals alone is not enough; learning new technologies is also important to keep up with change. Let it be ChatGPT or any other new tech; we need to learn how to use these technologies and evolve with the world.

But, it is also essential to not solely rely on these new technologies as we may become lazy and issues start coming up with the new technologies. We have to experiment so that we can learn and understand better. But when we all explore, we must always keep our ethics and morals in our mind." He responded when he was asked what he thinks about learning new technologies. He also shared a bit of advice on how to ensure we don't misuse these technologies that we have.

"When a teacher gives an objective test, and you have your phone, laptop and all your gadgets on your table, if you are morally strong, though the system provides you with the answer, you will not look into that and will use your brain and write the answer. A lot of AI software is there nowadays, but by strengthening one's integrity, one can set limits to the extent one uses these new technologies. As students, there is no harm in using things like ChatGPT for references, but using it to cheat and unthinkingly take what this software give is not good. So, if you have integrity and keep your values proper, there is no harm in using these technologies; that is what CHRIST aims to do with things like Holistic Education classes."

On being asked what he would look for in an alumnus if they came back to CHRIST to share their knowledge and develop new talents, he responded with, "Of course, your academics matters; that is the basic criteria, but if there are two candidates who have similar qualifications, I may not select the Christite maybe because his values may not align with my expectations. That is why it is if you have the aptitude for the job and integrity in what you do and the culture. The person must be able to merge with the CHRIST culture.

You may be a rank holder, but it is also important to know if you can merge with the people around you and help bring the best out of people. But, in an interview, how do we judge it? Apart from what you present in paper and person, our judgement based on our experience does help us figure things out and make the right call."

FACULTY INTERACTION

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FACULTY INTERACTION

The interaction wrapped up with a message to encourage interdisciplinary work and interaction. "We know that the future is interdisciplinary, so we have to start working like that for the future. When there is a project, it is a multidisciplinary project; rather than dividing the work into modules and dividing the results among different people, I feel that all the people involved should discuss it together. By people from other departments coming together to find a solution, other ideas can be shared, and innovative solutions can be developed. That is why this campus, even though it was initially planned to be exclusively for engineering students, to encourage healthy interaction and prevent isolation of students, we also decided to include BBA and Psychology courses on this campus. Our learning should always be in tune with reality and interacting with different types of people will encourage for the better and well-prepared person for the future."

RIDDLES

1. * is always in front of you but cannot be seen?
2. What has to be broken before you can use it?
3. What has a neck but no head?

1. Future
2. An Egg
3. A Bottle

FUN FACTS

1. Google's first tweet was in 2009, which was gibberish to most. Translated from binary to English, it reads, "I'm feeling lucky".

   "I'm 01100110 01100101 01100101 01101100 01101001 01101110 01100111 00100000 01101100 01110101 01100011 01101011 01111001 00001010 "

2. Before the original design for the iPhone, Apple patented a phone design in the shape of an actual apple. It was a flip phone that, when closed, would look like the Apple logo.People read 10% faster from paper than from a screen.

3. When typewriters were introduced, typing too quickly would jam the keys. To prevent this from happening, QWERTY was introduced, which placed standard alphabets at a distance from each other and slowed typists down.

ZAIKA

Homemade Falafels

For the Falafels

Ingredients:

- 1 (15 Oz.) can chickpeas, drained
- 4 cloves , garlic, roughly chopped
- 1 shallot, roughly chopped
- 2 tbsp. freshly chopped parsley
- 1 tbsp ground cumin
- 1 tbsp. ground coriander
- 3 tbsp. all-purpose flour
- Kosher salt
- Freshly fround black pepper
- Vegetable Oil (for frying)

ZAIKA

Homemade Falafels

For Yoghurt Sauce

Ingredients:

- 1/2 cup Greek yoghurt
- Juice of 1 lemon
- 1 tbsp. extra-virgin olive oil
- 1 tbsp. freshly chopped dill
- kosher salt
- freshly ground black pepper

For Tahini Sauce

Ingredients:

- 1/2 cup Tahini
- 1 Garlic clove, minced
- 1 tbsp. lemon juice
- 2 tbsp. warm water (plus more as needed)
- kosher salt

ZAIKA

Homemade Falafels

Preparation:

- In a food processor fitted with a metal blade, combine chickpeas, garlic, shallot, parsley, cumin, coriander, and flour and season with salt and pepper. Pulse until the mixture is coarse and mealy—do not over-blend
- In a food processor fitted with a metal blade, combine chickpeas, garlic, shallot, parsley, cumin, coriander, and flour and season with salt and pepper. Pulse until the mixture is coarse and mealy—do not over-blend
- In a pot, heat 1" vegetable oil until a drop of water added to the oil sizzles and pops.
- Fry falafels until golden, then transfer to a paper towel-lined plate and season immediately with salt.
- To make the yoghurt sauce: In a medium bowl, whisk together yoghurt, lemon juice, oil, and dill. Season with salt and pepper.
- To make tahini sauce: In a medium bowl, whisk together tahini, garlic, lemon juice, and warm water. Season with salt. (If you prefer a thinner sauce, whisk in more warm water, one tablespoon at a time.)
- Serve falafels in a pita with lettuce, tomatoes, and cucumber and drizzle with either sauce.

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