CHRIST
(DEEMED TO BE UNIVERSITY)
BANGALORE · INDIA

NEUROFLUENCE

DESIGNING FUTURE WITH EXCELLENCE

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THE OFFICIAL NEWSLETTER OF
THE DEPARTMENT OF COMPUTER
SCIENCE AND ENGINEERING

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DEPARTMENT OF CSE

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.

MESSAGE FROM HOD

"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. At present, the department has 58 faculty with doctorate degree and 10 faculty members on the verge of completing PhD in various verticals of CSE. The vision of achieving excellence through service is the key factor that unites the department.

Dr Mary Anita EA
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LETTER FROM THE EDITOR

The Department of Computer Science and Engineering is thrilled to announce the imminent release of the sixth volume, issue one of its official newsletter, "Neurofluence," for the academic year 2023-24. This edition will spotlight the latest industry trends, faculty publications, successful placements, and other noteworthy departmental activities. Readers can anticipate a deep dive into cutting-edge topics, providing technical insights that align with the current market demands and showcasing the academic excellence and research contributions of the department's esteemed faculty.

"Neurofluence" stands out by weaving together technical depth and departmental vibrancy in a unique blend. In this issue, the spotlight on faculty publications and student achievements will offer readers a glimpse into the dynamic landscape of computer science and engineering, making it a compelling read for students, faculty, and industry professionals alike.

ELEVATE YOUR PROFESSIONAL NETWORK AND INSIGHTS IN IMPACTFUL EVENTS

L&T FDP

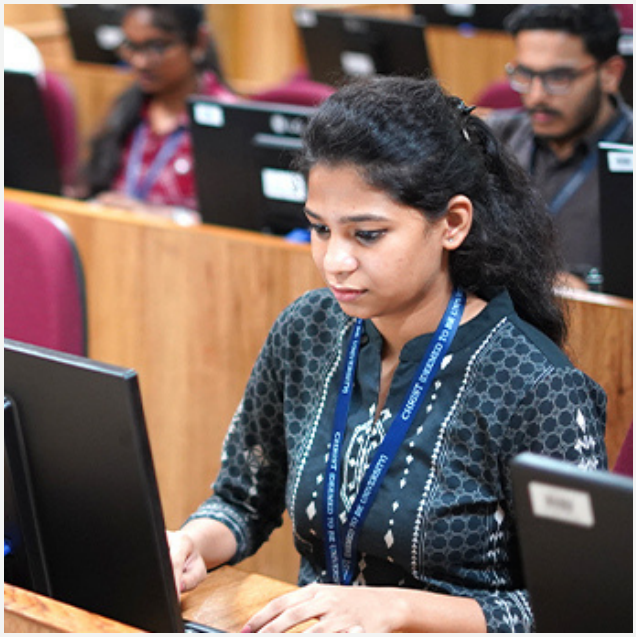
L&T Edutech conducted a "Full Stack Development" FDP from June 13th to 15th, attended by 64 faculty members.

STRATEGIC PLANNING

Institute and department-level strategic plan deliberations took place from June 26th to July 1st, 2023.

STUDENT ORIENTATION

Student Orientation for the 3rd, 5th, and 7th semester students occurred on June 19th and 20th.



MATHWORKS WORKSHOP

460 students from the 3rd semester participated in the MathWorks workshop on June 27, 2023.

KARNATAKA SCHOOL INNOVATION PROGRAM

CHRIST (Deemed to be University) along with Seventh Sense hosted the final round of the state level school innovation program. Dr. Rakoth Kandan Sambandam, Dr. Divya Vetriveeran, Dr. Mithun B N, and Dr. Mausumi Goswami joined in as the faculty mentors from the Department of Computer Science and Engineering.

FACULTY PUBLICATIONS

Exploring Osteoporosis Classification Using Transfer Learning with Simple Radiographs

Dodamani, Pooja S., and Ajit Danti. "Transfer Learning-Based Osteoporosis Classification Using Simple Radiographs." International Journal of Online & Biomedical Engineering 19, no. 8 (2023).

Machine Learning and Artificial Intelligence Techniques for Detecting Driver Drowsiness

Prathap, Boppuru Rudra, Kukatlapalli Pradeep Kumar, Javid Hussain, and Cherukuri Ravindranath Chowdary. "Machine Learning and Artificial Intelligence Techniques for Detecting Driver Drowsiness." Journal of Automation, Mobile Robotics and Intelligent Systems 16, no. 2 (2022): 64-73.

Analyzing Political Retweets Using Machine Learning Algorithms to Understand Human Behavior

Patel, Het, Aditya Kansara, Boppuru Rudra Prathap, and Kukatlapalli Pradeep Kumar. "Human behavior analysis on political retweets using machine learning algorithms." Measurement: Sensors 27 (2023): 100768.

Spatio-Temporal Analysis and Prediction of Crime Trends on Twitter Data Using Machine Learning Algorithms

Vivek, Meghashyam, and Boppuru Rudra Prathap. "Spatio-temporal Crime Analysis and Forecasting on Twitter Data Using Machine Learning Algorithms." SN Computer Science 4, no. 4 (2023): 383.

A Model for Identifying Cybersecurity Threats in IoT Using Machine Learning Techniques

Lal, Bechoo, Shoba Ravichandran, R. Kavin, Neeraj Kumar, Dibyahash Bordoloi, and R. Ganesh Kumar. 2023. "IOT-Based Cyber Security Identification Model through Machine Learning Technique." Measurement: Sensors 27 (June): 100791. https://doi.org/10.1016/j.measen.2023.100791.

An Efficient Load Balancing in Cloud Computing Using Hybrid Harris Hawks Optimization and Cuckoo Search Algorithm

Pani, Alok Kumar, M. Manohar, Thomas Merin, and Pankaj Kumar. "An efficient load balancing in cloud computing using hybrid Harris hawks optimization and cuckoo search algorithm." International Journal of Advanced Technology and Engineering Exploration 10, no. 105 (2023): 1050.

Enhancing Sustainable Urban Energy Management through Short-Term

Strategic Planning Discussions

Wind Power Forecasting Using LSTM Neural Network.

Kanagarathinam, Karthick, S. K. Aruna, S. Ravivarman, Mejdl Safran, Sultan Alfarhood, and Waleed Alrajhi. "Enhancing Sustainable Urban Energy Management through Short-Term Wind Power Forecasting Using LSTM Neural Network." Sustainability 15, no. 18 (2023): 13424.

Human Behavior Analysis on Political Retweets Using Machine Learning Algorithms

Patel, Het, Aditya Kansara, Boppuru Rudra Prathap, and Kukatlapalli Pradeep Kumar. "Human behavior analysis on political retweets using machine learning algorithms." Measurement: Sensors 27 (2023): 100768.

Comprehensive Study of the Relationship Between Multiverse and Big Data.

Agarwal, Vedant, Kukatlapalli Pradeep Kumar, Kavalayil Philip CyrusManoj, and Boppuru Rudra Prathap. "Comprehensive study of the relationship between multiverse and big data." Measurement: Sensors 27 (2023): 100763.

Visiting Indian Hospitals Before, During and After COVID

Pavithra, E., B. Janakiramaiah, LV Narasimha Prasad, D. Deepa, N. Jayapandian, and V. E. Sathishkumar. "Visiting Indian Hospitals Before, During and After Covid." International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems 30, no. Supp01 (2022): 111-123.

Secure IBS Scheme for Vehicular Ad Hoc Networks

Jenefa, J., S. Sajini, and EA Mary Anita. "Secure IBS Scheme for Vehicular Ad Hoc Networks." In International Conference on Soft Computing and Signal Processing, pp. 577-585. Singapore: Springer Nature Singapore, 2022.

A Hybrid Approach Against Black Hole Attackers Using Dynamic Threshold Value and Node Credibility

Lakshmi, S., EA Mary Anita, and J. Jenefa. "A Hybrid Approach Against Black Hole Attackers Using Dynamic Threshold Value and Node Credibility." IEEE Access (2023).

Artificial Neural Network with Firefly Algorithm-Based Collaborative Spectrum Sensing in Cognitive Radio Networks

Ezhumalai, P., and E. A. Anita. "Artificial Neural Network with Firefly Algorithm-Based Collaborative Spectrum Sensing in Cognitive Radio Networks." KSII

Departmental Meeting

Transactions on Internet & Information Systems 17, no. 7 (2023).

A Review of Deep Learning Methods in Automatic Facial Micro-expression Recognition

Mukku, Lalasa, and Jyothi Thomas. "A Review of Deep Learning Methods in Automatic Facial Micro-expression Recognition." In International Conference on Computational Intelligence and Data Engineering, pp. 1-16. Singapore: Springer Nature Singapore, 2022.

Sensitive Crop Leaf Disease Prediction Based on Computer Vision Techniques with Handcrafted Features

Patil, Manoj A., and Manohar Manur. "Sensitive crop leaf disease prediction based on computer vision techniques with handcrafted features." International Journal of System Assurance Engineering and Management (2023): 1-32.

An Efficient Deep Learning Framework for Detecting and Classifying Depression Using Electroencephalogram Signals

Aswathy, S. U., Bibin Vincent, Pramod Mathew Jacob, Nisha Aniyan, Doney Daniel, and Jyothi Thomas. "An Efficient Deep Learning Framework FPR Detecting and Classifying Depression Using Electroencephalogram Signals." In International Conference on Hybrid Intelligent Systems, pp. 1179-1188. Cham: Springer Nature Switzerland, 2022.

STUDENT PUBLICATIONS

Identification of Phishing URLs Using Machine Learning Models

Meghashyam Vivek, Ashutosh Kumar Maurya and Nithin Premjith presented a paper with the title "Identification of Phishing URLs Using Machine Learning Models" at the 4th Congress on Intelligent Systems (CIS 2023).

Decentralised Artificial Intelligence and its Applications

Anju E George presented a systematic review on "Decentralised Artificial Intelligence and its Applications" at the International Conference on Innovative Data Communication Technologies and Application (ICIDCA 2023).

Rescue Operation with RF Pose Enabled Drones in Earthquake Zones

Aleena Saji, Akhila Restine Thomas, Aleena Mary Benny, N. Jayapandian presented this paper at the 2023 8th International Conference on Communication and Electronics Systems (ICCES) (pp. 1425-1430). IEEE. Conference Paper: Rescue Operation with RF Pose Enabled Drones in Earthquake Zones

OTHER ACHIEVEMENTS

Eby Tom participated in "THE 9 ASIA-PACIFIC REGIONAL CONFERENCE ON SERVICE-LEARNING" at CHRIST (Deemed to be University), Central Campus on 19th July 2023

Haritha T H participated in the "Escalade 12.0, Hackathon" at IIT, Guwahati in July 2023.

NITHISH PU participated in the "PSG-I-TECH HACKATHON" at PSG INSTITUTE on July 4, 2023.

LABH CHANDRA BOTHRA also participated in the "PSG-I-TECH HACKATHON" at PSG INSTITUTE on July 4, 2023.

Itikela Chiranmai successfully completed the "AWS Cloud Practitioner Essentials" certification from AWS Training.

Itikela Chiranmai also completed the "AWS Cloud Practitioner Essentials" certification on Coursera on July 8, 2022.

Thomas T George completed the "Industrial Automation" certification at Christ (Deemed to be University) on July 30, 2022.

Jerin Joy finished the "Introduction to Cybersecurity Fundamentals" certification from Infosec (Coursera) on June 30, 2023.

Akash Shakthi R T achieved the "PCAP: Programming Essentials in Python" certification from Cisco Network Academy on June 30, 2023.

K Manjunath secured 1st PLACE in "Tiger 5(Kabaddi)" at Christ University on August 25, 2023.

Trinadh also secured 1st PLACE in "Tiger 5(Kabaddi)" at Christ University on August 25, 2023.

Mahi Dixit received a Leadership certificate from IIIC - CHRIST (Deemed to be University), Kengeri Campus in August 2023.

Jaivanth Melanaturu, with registration number 2062023, participated in the "SecureHack: A Cyber Security Hackathon" organized by the IEEE Computer Society Bangalore Chapter on July 1-2, 2023. Jaivanth Melanaturu was recognized as a participant in the event.

ZAIKA

Pasta with Tomato Sauce and Vegetables

Enjoy the delicious enjoyment of Pasta with Tomato Sauce and Vegetables, a vivid and cosy culinary masterpiece. Picture yourself with a fork full of al dente pasta and a powerful tomato sauce that has been perfectly cooked with a colourful blend of bell peppers, onions, and garlic. Each bite is enhanced by the aromatic symphony of basil and oregano, while the sweetness of the peas or corn provides a lovely counterpoint. It's a delicious mixture that leaves a long-lasting, lovely taste on your palette. The textures and flavours merge harmoniously.

Ingredients

Pasta (e.g., spaghetti or penne)

A can of cut tomatoes

A small, finely chopped onion

Two cloves of garlic that are minced

Half bell pepper, diced (any colour you like)

Half a cup of frozen peas or corn

A tablespoon of olive oil

Half a teaspoon of dried oregano

Half a teaspoon of dried basil

Salt and pepper to taste

Grated Parmesan cheese (optional)

Fresh basil leaves (optional)

Instructions

1. As directed on the package, cook the pasta until it achieves the ideal al dente texture. After cooking, drain and reserve.

2. In a medium saucepan, heat the olive oil over medium heat to make the delicious sauce. Add the minced garlic and chopped onions and sauté until fragrant and transparent.

3. Add frozen peas or corn to the skillet and sliced bell peppers for a colourful and nutritious pop. The veggies should begin to soften after a few more minutes of sautéing.

4. Add a can of chopped tomatoes and their juices to the meal to give it a burst of tomato deliciousness. Add some dried oregano, dry basil, salt, and pepper to enhance the taste profile. After thoroughly mixing the ingredients, boil the sauce for ten to fifteen minutes or until it reaches a delicious thickness.

5. Add the pasta to the tomato sauce to bring everything together once the pasta is done. To ensure the pasta is cooked, toss the mixture well and simmer for a few more minutes.

6. Spoon the spaghetti into plates or into bowls to present your dish. Add some added flair by covering it with grated Parmesan cheese and, if you'd like, some fresh basil leaves.

TECHMANIA

In the dynamic months of June and July 2023, the tech industry witnessed a sequence of transformative events and groundbreaking unveilings. Reflecting on this timeline provides a chronological journey through these noteworthy moments:

The momentum began with the Google I/O 2023 Keynote in June, where Google set the tone for the evolving tech landscape, unveiling its vision for the digital future. This was quickly followed by Nvidia's introduction of the DGX GH200, a next-gen supercomputer designed specifically for generative AI workloads, marking a significant leap forward in artificial intelligence and deep learning.

As July unfolded, Lenovo introduced the Yoga Book 9i, a device seamlessly

blending innovation with practicality, redefining portability and productivity in the world of laptops and tablets. The Indian smartphone market then experienced a revolution, with iQOO and Realme targeting the mid-range segment, and Samsung and Motorola introducing groundbreaking foldable devices like the Samsung Galaxy Z Fold 5 and Z Flip 5, intensifying competition.

Nothing continued the journey of minimalistic innovation by unveiling the Nothing Phone (2), aiming to redefine the user experience through simplicity and elegance. Apple took the stage at WWDC2023, announcing a cascade of new products that captivated tech enthusiasts worldwide, showcasing a commitment to pushing the boundaries of technology and user experience.

Meta entered the scene with Quest 3, the latest iteration of its virtual reality headset, promising users an even more immersive experience and solidifying its position as a leader in creating transformative and interactive digital worlds. The period concluded with IBM's strategic move, announcing its intention to acquire Apptio for a staggering $4.6 billion, underscoring a commitment to strengthening capabilities in the ever-evolving landscape of technology and business solutions. These months were undeniably transformative, offering a chronological narrative of innovation, strategic acquisitions, and the relentless pursuit of pushing technological boundaries. As these developments continue to unfold, they collectively shape the trajectory of the tech industry into an exciting and dynamic future.

BROWSING HISTORY

Embark on a fascinating journey through the annals of technological evolution, where the months of June and July have played host to some of the most remarkable events across the decades. Let's unravel these interconnected milestones in a captivating narrative:

Picture the early 20th century in Berlin, Germany, where on June 22, 1910, Konrad Zuse was born. This civil engineer and computer pioneer were destined to create the Z3, the world's first functional program-controlled Turing-complete computer, which came to life in May 1941. Simultaneously, as World War II raged on, 1943 witnessed the birth of the Colossus Mark 1, the inaugural electronic digital computer that reshaped the art of codebreaking at Bletchley Park.

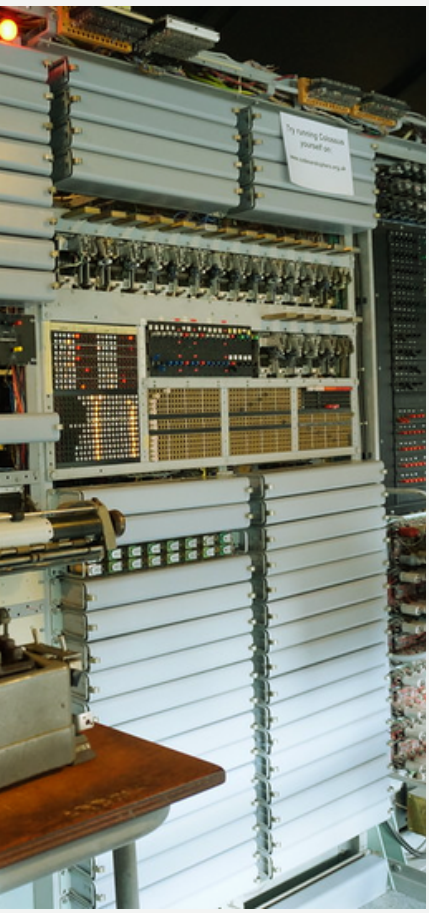
Fast forward six months to 1944, and the upgraded Colossus Mark 2 took center stage, pushing the boundaries of electronic computing.

Transport yourself to the summer of '69, when on July 19, Apollo 11 gracefully orbited the Moon, etching a historic moment in space exploration. A decade later, on July 1, 1979, a cultural revolution began with the first Sony Walkman hitting the shelves in Japan, forever changing how we experienced personal music.

Imagine the excitement of 1993 as Adobe Acrobat/Reader pirouetted onto Apple Macintosh computers, revolutionizing document viewing with its uneditable PDF format. Now, fast forward to June 2009, when Microsoft unleashed Bing, a visually enchanting search engine challenging the Google giant.

In June 2010, Apple introduced the iPhone 4, a touchscreen marvel that not only redefined smartphones but also set the stage for a new era of mobile technology.

The story is far from over; it continues to unfold, promising even more wonders in the ever-evolving digital age.



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