NEUROFLUENCE

- DESIGNING FUTURE WITH EXCELLENCE -

THE OFFICIAL NEWSLETTER OF THE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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. At present, the department has 46 Faculty with Doctorates and 12 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.

Editor's Note

The department of computer science and engineering is launching the 1st 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.

Dr Fr ABRAHAM V M
Vice Chancellor

Dr Fr JOSEPH CC
Pro-Vice Chancellor

Dr ANIL JOSEPH PINTO
Registrar

Dr Fr BENNY THOMAS
Director

Dr 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 (Data Science)
- Master of Technology Computer Science and Engineering
- Master of Technology Information Technology (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
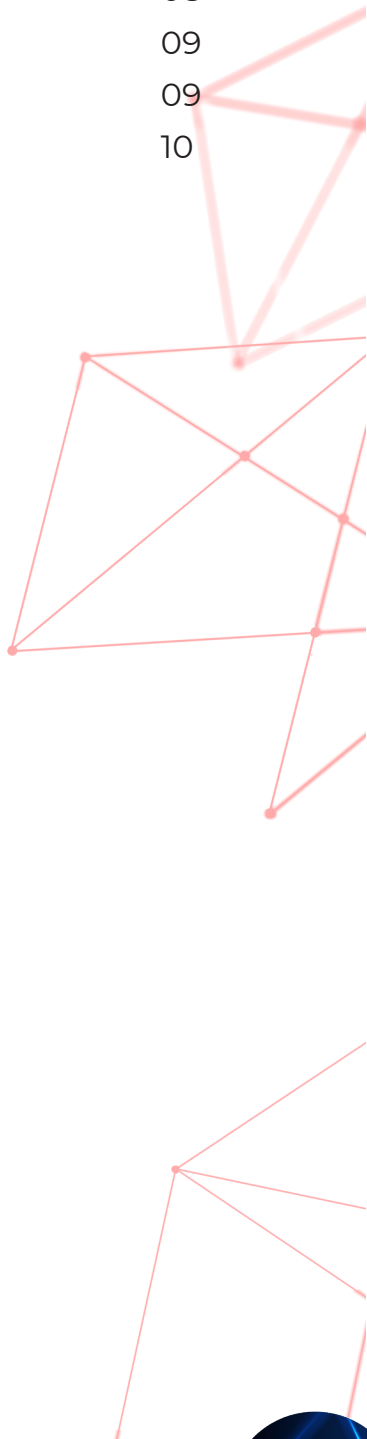- Honors in Data Science
- Honors in Cybersecurity

Minors

- Minors in Computer Science and Engineering

CONTENTS

STUDENT INNOVATIONS

Tomato is one of the major crops in the Kolar District. In this region, around 10,000 acres of the farming area are used for tomato plant cultivation and 80% of the farming population purely depends on tomato plant cultivation. But this crop is prone to various bacterial and fungal diseases like late blight, early blight, tomato mosaic virus and so on.

Through our project, we aim to aid the farmers in detecting diseases and finding suitable steps for mitigation. This project results from the Service Learning Initiative, where we apply our technical and classroom knowledge to solve real-time problems for a community. It is funded by Unnat Bharath Abhyaan and brought to life by the Computer Science engineering students pursuing their 4th year at CHRIST University.

The application has been developed using flutter and uses the Machine Learning algorithm - Deep Convolutional Neural Network for detecting the disease in the tomato plant. It takes images of the tomato plant leaf as input and gives the name of the disease detected and suggests suitable remedies as well.

Team members :
S MD K N H AFFAN AHAMED - 7BTIT
KHYATI M - 7BTIT
PRATHIKSHA GM - 7BTIT
ANASHWARA R - 7BTIT

MENTORS :
Dr J THOMAS
Dr MARY ANITHA

ಕ್ರೈಸ್ಟ್ ಯೂನಿವರ್ ಸಿಟಿ ವತಿಯಿಂದ ಸುಮಾರು 4ಲಕ್ಷ ವೆಚ್ಚದಲ್ಲಿ ಶುದ್ಧ ಕುಡಿಯುವ ನೀರಿನ ಘಟಕ ಸ್ಥಾಪನೆ

ಶ್ರೀನಿವಾಸಪುರ ತಾಲ್ಲೂಕು ಕನ್ನಂಪಲ್ಲಿ ಗ್ರಾಮದಲ್ಲಿ ಕ್ರೈಸ್ಟ್ ಯೂನಿವರ್ ಸಿಟಿ ಬೆಂಗಳೂರು ಹಾಗೂ ಐಇಇಇ ಕ್ರೈಸ್ಟ್ ಸ್ಟೆಟ್ ಗ್ರೂಪ್ ವತಿಯಿಂದ ಸುಮಾರು 4 ಲಕ್ಷ ವೆಚ್ಚದಲ್ಲಿ ಶುದ್ಧ ಕುಡಿಯುವ ನೀರಿನ ಘಟಕವನ್ನು ನಿರ್ಮಿಸಲಾಯಿತ್ತು.

ಕ್ರೈಸ್ಟ್ ಇಂಜಿನಿಯರ್ ವಿಭಾಗದ ಪ್ರಾಧ್ಯಾಪಕರಾದ ಶ್ರೀಮತಿ ಜ್ಯೋತಿ ಥಾಮಸ್ ಮತ್ತು ಬಿಜೊಥಾಮಸ್ ರವರು ಶುದ್ಧ ಕುಡಿಯುವ ನೀರಿನ ಘಟಕವನ್ನು ಉದ್ಘಾಟಿಸಿದರು.

ಈ ಸಂದರ್ಭದಲ್ಲಿ ಯಲ್ದೂರು ಕ್ರೈಸ್ಟ್ ಸಂಸ್ಥೆಯ ಪ್ರೊಜೆಕ್ಟರ್ ಕೋ ಆರ್ಡಿನೇಟರ್ ಎಂ. ನಾಗರಾಜ್, ಪ್ರಗತಿ ಮಹಿಳಾ ಸಂಸ್ಥೆಯ ಅಧ್ಯಕ್ಷರಾದ ಅರುಣಮ್ಮ ಹಾಗೂ ಮಹಿಳಾ ಸಂಘದ ಸದಸ್ಯರು ಹಾಗೂ ಗ್ರಾಮಸ್ಥರು ಭಾಗವಹಿಸಿದ್ದರು.

Service Learning project funded by IEEE. Solar powered water purifier is designed and installed in 4 villages of Kolar district.

Team members :
Dolly Jain - 7BTIT
Saniya Jain - 7BTIT

MENTORS :
Dr J THOMAS
Dr BEJOY BJ

PLACEMENTS

Total number of students placed from the department were 85 and the total number of offers received were 107.

SYMPHONY RETAIL

OSMOSYS

HCLTech

mobileum
Action driven by intelligence

EPSILON®

comviva
A TECH MAHINDRA COMPANY
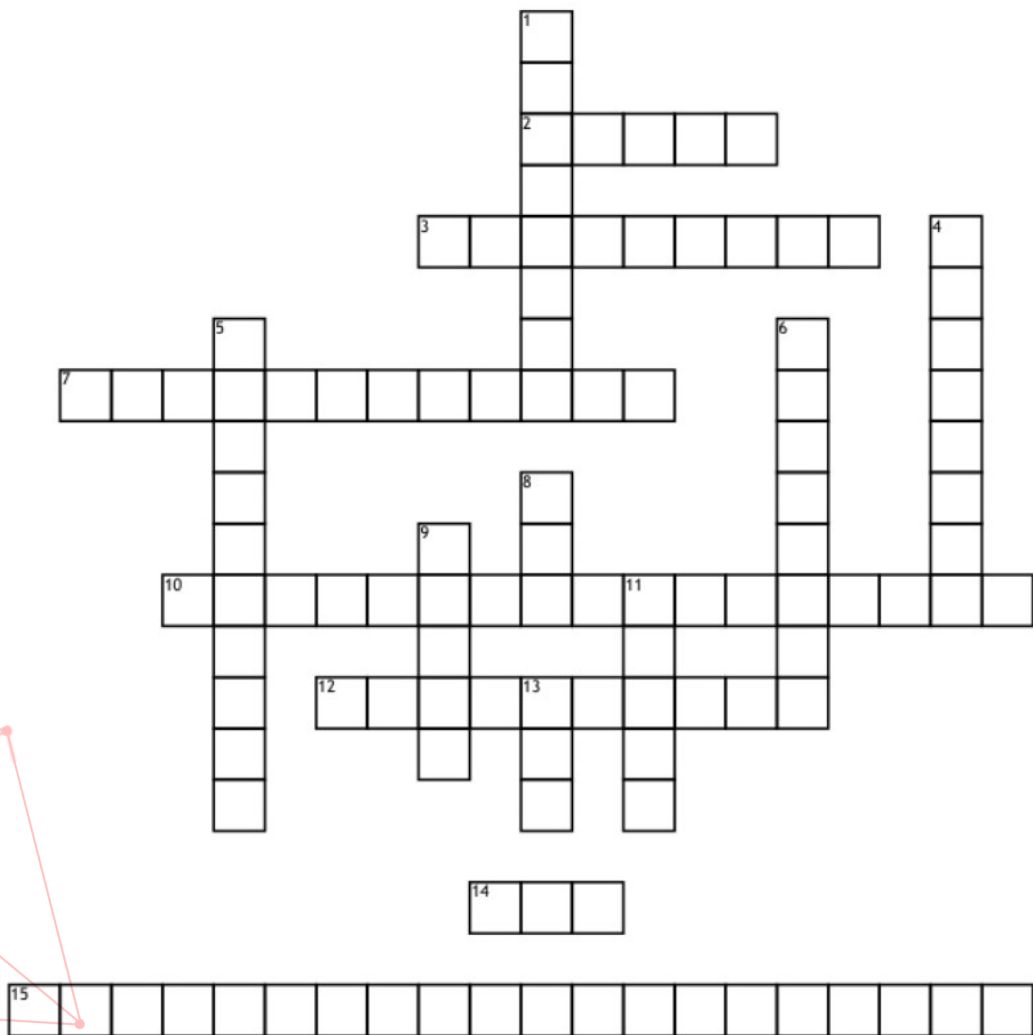
STUDENT QUOTES

Sojourn

I still love reminiscing
But when I picture it all in my mind
There's always one thing missing
Always one thing that isn't quite right
Cause I've been high and I've been low
All the way up to Rajouri
Seen mountainsides and rivers wide
And Delhi lights
Been to Bangalore in the pouring rain
But I know all these memories I hold onto
Would have been better with you guys
Better with you guys

Aabha Shekhawat
1960405
7BTCS-A

PUZZLES

Across
2. Tiny integrated circuits etched into block of silicon

3. Translating a source program into a machine language

7. What is the Base 2 number system used by computers. Uses only 2 digits.

10. Number system used by computers. Uses sixteen digits

12. A program written in a high level language

14. Part of the CPU that handles math operations

15. Commercially produced programs written to perform specific task such a word processing

Down
1. Another name for a file

4. Physical devices which make up the computer and its peripherals

5. A billionth of a second.

14. Part of the CPU that handles math operations

6. Measurement of memory capacity, 1024 bytes

8. An operating system that uses pictures to communicate

9. Removing errors from computer program

11. Code used for representing characters in the computer

13. The device which electronically controls the functions of the computer.

Rebecca Nasya Robinson Jena
2260419
1BTCHE B

S Y Sudharsshan
2260831
1BTPHY M

ZAIKA

Rolled Omelette

Gyeran-mari or rolled omelette is a Korean savory banchan (side dish) made with beaten eggs mixed with several finely diced ingredients. Common ingredients include vegetables, processed meat, salt or salted seafood, and cheese.

Everyone has their own ways to make this dish. But here we have shared the authentic recipe from a YouTuber "Seonkykung Longest". The recipe goes as,

- In a mixing bowl, crack 4 eggs, add salt, and beat until smooth.

- Add in green onion, chili, carrot and spam to the beaten egg and mix well.

- Heat a skillet over medium high heat, add oil and swipe with a paper towel to apply oil as thinly as possible.

- When skillet is hot, pour 1/4 of egg mixture and scramble; push and place on a side that is closer to you. So you will have room to roll it.

- Reduce heat to medium low and add another 1/4 of the egg mixture swirl to spread evenly. Make sure the uncooked egg mixture's attached to the first batch of the cooked egg mixture.

- Lift up the end nearest to you and tuck over, rolling upwards tightly using a spatula or chopsticks. Push and place on the side that is closer to you again and repeat twice more with the rest of the uncooked egg mixture.

- Remove from heat and let the egg roll rest in the skillet about 1 to 2 minutes.

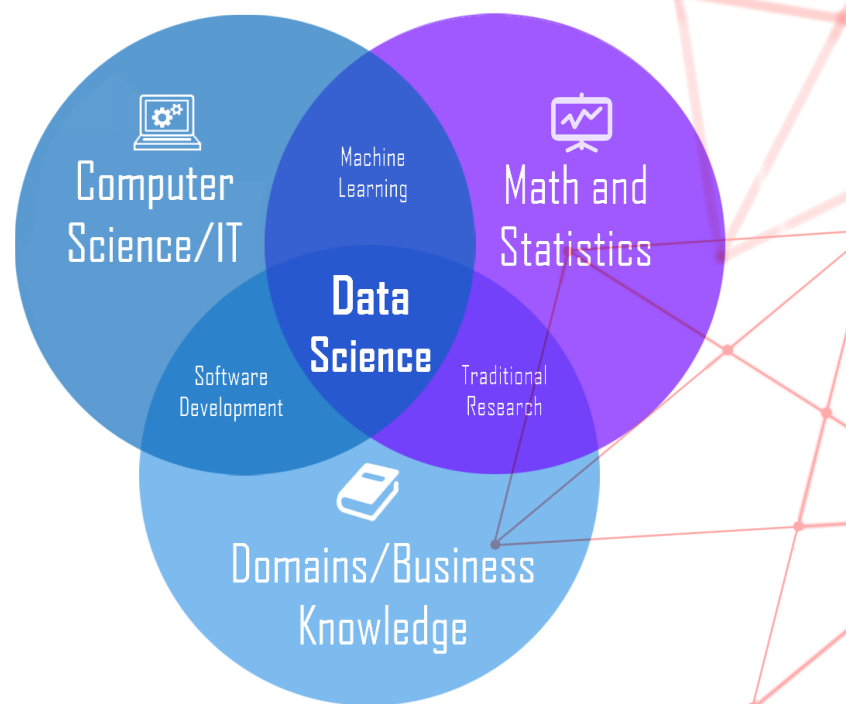- Slice the roll into bite size pieces and serve.

Tharaniha L
2260459
1BTCHE B

Data Science

A recent technology in computer science is Data Science. For much of the initial part of the 21st century, data science was the next big thing. Data science has been around for much longer than just the past twenty months. For centuries, data analysis has been an essential task for companies, governments, institutions, and departments. Analysing data helps understand the efficiency of processes, conduct surveys of the workforce, and gauge people's general mood. However, as of today, much of data analysis has turned digital. Data analysis is among the first jobs for which people turn to computers. In the early 2000s, data analysis was so prevalent that students were being taught introductory courses on the subject in school. In the 2022s, data analysis is likely to blow up more than ever. With computational technology growing at a more excellent pace than ever, the data analysis capabilities in people's hands are likely to increase. Newer, faster data analysis algorithms and methods are likely to come up and be put into practice. The benefit of having a career in data science, regardless of the domain your company works in, is that you are an essential part of the firm's overall business. The data that you produce and the interpretations that you provide are likely to be a necessary part of the business strategy of any company that you serve. In retail and e-commerce, data science is widely used to determine a campaigns' success and the general trend of various products' growth. This, in turn, helps develop strategies for the promotion of particular products or types of products. In health care, data informatics can be essential in recommending low-cost options and packages to patients and allowing doctors to choose the safest yet most effective treatments for them.

FACULTY RESEARCH

Dr Boppuru Rudra Prathap, along with **Javid Hussain** and **Arpit Sharma** as co-authors, published an article in research journal on "An Improved and Efficient YOLOv4 Method for Object Detection in Video Streaming". Springer published the article in 'Data Science and Security volume 462' as a book chapter from pages 305 to 316 in both the print and online formats. The article was published was on the 1 st of August, 2022.

Dr Jyothi Mandala, along with **J Granty Regina Elwin, Balajee Manram** and **R Ramesh Kumar** as co-authors, published an article in research journal on "Ar-HGSO: Autoregressive-Henry Gas Sailfish Optimization Enabled Deep Learning Model for Diabetic Retinopathy Detection and Severity Level Classification". Elsevier published the article in 'Biomedical Signal Processing and Control journal's volume 77' in both the print and online formats, on the 1st of August, 2022.
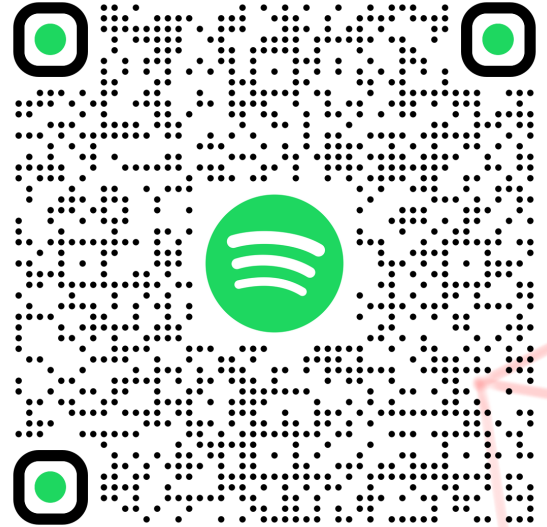
BIOGRAPHY

Dr XAVIER CHELLADURAI

Dr. Xavier Chelladurai

Director, Human Resource Development Center and Professor, Dept. of Computer Science and Engineering CHRIST (Deemed to be University), Bengaluru, India.

Dr. Xavier Chelladurai is currently Professor, Computer Science and Engineering. CHRIST University. His research interest includes Artificial Intelligence Technologies and Parallel Computer Algorithms. He is the author of more than 20 Computer Science Technical books, most of them prescribed in the syllabus of various Indian and foreign universities. He was the Vice President and Global Head of Artificial Intelligence in Capgemini before joining CHRIST. His expertise includes Artificial Intelligence and Machine Learning practitioner with 19 years of industry experience and 18 years of education and research.

MONTHLY MUSIC RECAP

Here we have prepared a playlist with the top and most loved songs of the previous month.