NOVEMBER 2022

SAKSHIN

MONTHLY NEWSLETTER OF DEPARTMENT OF CSE/CSE(AI)

VISION

- *Nurturing globally competent Computer Science and Engineering graduates capable of taking challenges in the Industry and Research& Development activities*

MISSION

- *Imparting quality education to meet the needs of industry, and to achieve excellence in teaching and learning*
- *Inculcating value-based,socially committed professionalism for development of society*
- *Providing support to promote quality research*

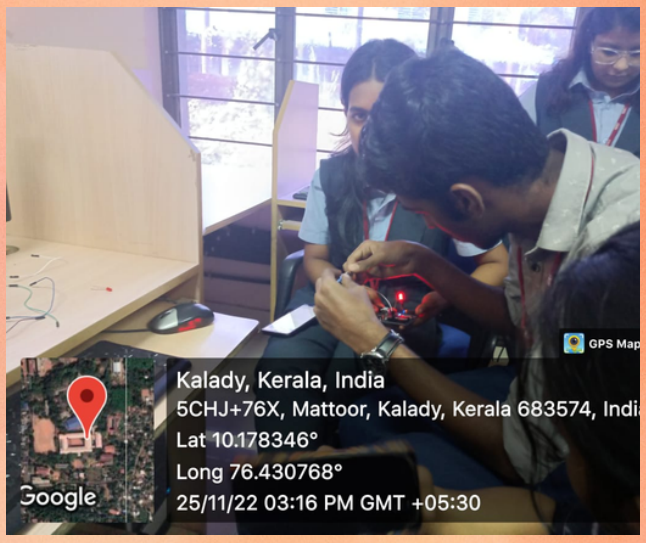
We are happy to announce that **uFarms** incubated at Adi Shankara TBI has received the **second runner-up award** with a cash prize of **Rs. 2 Lakh** at the Climathon event. This was a 2-day hackathon to identify solutions to the challenges posed by climate change, organized by Kerala Startup Mission in collaboration with EY Global Delivery Services, UNDP, Startup India, Global Shapers Kochi, NASSCOM & TiE Kerala.

Prof. Ajay Basil Varghese was the mentor of this team consisting of Joseph George Padayatty (S7 CSE), Royal Babu (S7 CSE), Sanath Savio Nelson (S7 CSE), Sidharth K Ajith (S7 CSE).

A group of 50 students and faculty members from **MES College Marampilly** visited the ASIET campus to learn about the Startup environment created by our TBI, Fab Lab, and IEDC, coordinated by Prof.Ajay Basil Varghese.

A **Faculty Development Programme (FDP) on "Artificial Intelligence Algorithm lab**" was held on 14-15 November 2023. This FDP provided a hands-on training on the most recent Artificial Intelligence programming tools, in accordance with the newest KTU syllabus for the B. Tech Artificial Intelligence program. Dr. Shailesh Sivan from CUSAT led various sessions during this FDP.

CSE Hack-club conducted a **workshop on "ARDUINO"**. This workshop provided a hands-on experience for the students on Arduino microcontroller boards and software, thereby developing technical abilities in designing projects in the field of the Internet of Things (IoT) and robotics. All the students participated with great enthusiasm and enriched their knowledge and confidence in handling industry oriented projects.



CODING COMPETITION

CSI SB ASIET conducted a program named KODEX ARTE, a one-day offline coding competition on the 28th of November 2022. Aaron Vincent (Technical Lead-CSI SB ASIET) and Sanjay Gireeshan (Coordinator-CSI SB ASIET) guided the participants. This competition lasted for 2 hours. Judges Dr.Sanaj and Prof. Asha Rose Thomas evaluated the program output of the contestants.

WINNERS

Welcome Aboard

Prof. Manesh T
Head of the Department
Department of Computer Science and Engineering,
ASIET

Profile: Prof. Manesh T is a senior member of IEEE. He received a full-bright research fellowship from the Spanish Government and the European Commission to complete his PhD in Cybersecurity at the University of Catalunya in Barcelona, Spain. He has been associating with the Barcelona Smart City Project and the Center for Cybersecurity Research of Catalunya (CYBERCAT) to trace contemporary cyber security issues in the field of the Internet of Things and wireless networks. He received his M.Tech. in Computer Science and Engineering with a specialization in Information Security from the National Institute of Technology, Karnataka, Surathkal. He received his B. Tech. in Computer Science and Engineering from MG University. He is a Certified Information Security Manager (CISM). He is also a Certified Network Security Specialist from the International Cybersecurity Institute, United Kingdom. Prior to his full-time doctoral research, he worked as an Assistant Professor (tenured track) in the Department of Computer Science at the Prince Sattam bin Abdulaziz University (PSAU), Riyadh, Saudi Arabia from 2012 to 2018. Before that, he was with the Faculty of Computer Science and Engineering at the Adi Shankara Institute of Engineering and Technology (ASIET) from 2006 to 2012. His research interests include cybersecurity and digital forensics, with a special focus on the security of wireless networks in smart homes and smart cities, the Internet of Things(IoT), and cyber-physical systems(CPS). He has taken part in several funded projects from the European Commission and other government enterprises. In terms of scientific production, he has authored several publications in Q1 journals and has also published numerous articles in international conferences. He also participates as a reviewer for several scientific journals (Elsevier Journal of Expert Systems with Applications, IEEE Journal of the Internet of Things) and has also served on the program committee of several conferences. He has served as a resource person for the last five editions of the COCON-Security and Hacking Conference organized by the Kerala Police Cyberdome.

Congratulations and warm welcome!

We are delighted to welcome you as the Head of the Department. We strongly believe that your experience and knowledge will be a great value addition to the department.

PTA meetings for the S3, S5, S7 semesters

We organized batch wise PTA meetings during the last week of November 2022 to discuss the performance of students in their first internal examinations. We observed a participation rate of more than 90%. These PTA meetings offered a forum for parents, guardians, and teachers of students to gather, debate, carefully evaluate difficulties, and give suggestions for approaching various engineering subjects in an efficient manner. Several learning techniques to enhance student performance were also presented, especially in university examinations.

PTA Meetings of S3 CSE & CSE(AI)

PTA Meetings of S5 CSE & CSE(AI)

PTA Meetings of S7 CSE

STUDENT'S CORNER

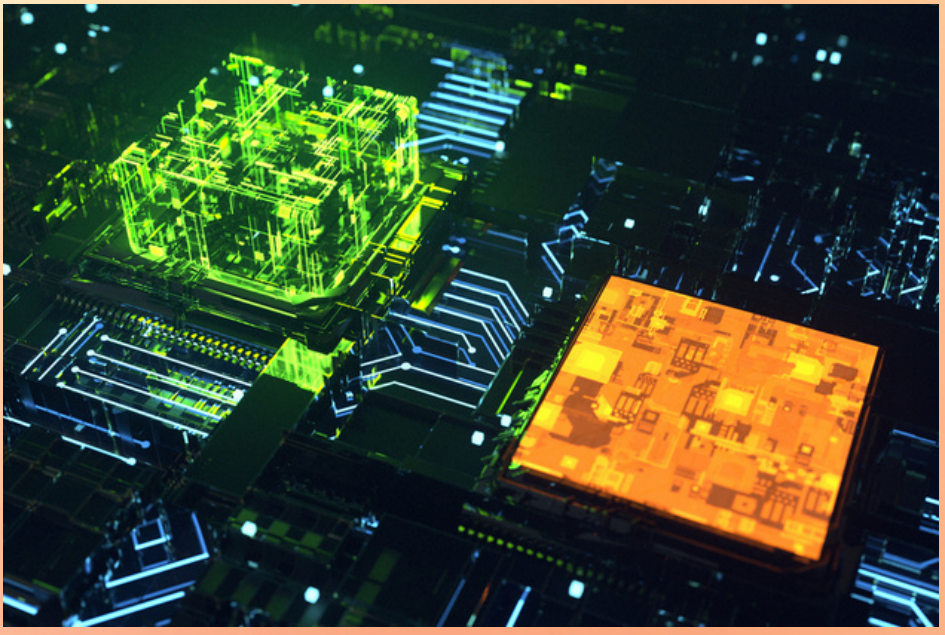
- Ameesh Mohammed PV, M S Arjun, Devika Padmanabhan, Abhijith AK from S1 CS(AI) - 2022-26 Batch attended 5-day internship on Android App Development from 15-11-22 to 19-11-22
- Niranjana P from S1 CS(AI) - 2022-26 Batch attended a one day Workshop on AR filter making on 3-12-2022
- Kevin Paul Babu from S7 CSE - 2019 - 23 Batch participated in Hack-away Pre-Event at KMEA on 23rd November 2021 with "Open Source Contribution session.
- Dona Antony from S7 CSE - 2019 - 23 Batch attended Software Testing Tutorial course on 06-09-2022.
- Ajay Antu from S7 CSE - 2019 - 23 Batch attended TCS i-ON remote Internship on 20-09-2022.

FACULTY CORNER

- Prof. Simi M. S. published a book chapter, "Predictive Analytics on Female Infertility," in IGI Global-Computer Vision and Image Processing in the Deep Learning Era, September 2022.

The Tech-News

Busy GPUs: Sampling and pipelining method speeds up deep learning on large graphs



New technique significantly reduces training and inference time on extensive datasets to keep pace with fast-moving data in finance, social networks, and fraud detection in cryptocurrency.

Graphs, a potentially extensive web of nodes connected by edges, can be used to express and interrogate relationships between data, like social connections, financial transactions, traffic, energy grids, and molecular interactions. As researchers collect more data and build out these graphical pictures, researchers will need faster and more efficient methods, as well as more computational power, to conduct deep learning on them, in the way of graph neural networks (GNN).

Now, a new method, called SALIENT (SAmpling, sLIcing, and data movemeNT), developed by researchers at MIT and IBM Research, improves the training and inference performance by addressing three key bottlenecks in computation. This dramatically cuts down on the runtime of GNNs on large datasets, which, for example, contain on the scale of 100 million nodes and 1 billion edges. Further, the team found that the technique scales well when computational power is added from one to 16 graphical processing units (GPUs). The work was presented at the Fifth Conference on Machine Learning and Systems.