Vol - 1
Issue - 3

PIXELS

News Letter

APRIL
2021

vega
CSE Students Teachers Association

Department of Computer Science and Engineering

FROM PRINCIPAL'S DESK

Prof. Dr. C. P. Sunilkumar FIE
Principal
SNGIST

Efficacious engineers move along with fast growing technology and the changing requirements of the society. They adhere to lifelong learning and retain student mind-set. SNGIST envisages the student fraternity to remain updated to match the requirements of the changing world and to serve the mankind.

As you know, the technology marches towards computers performing similar to humans, learning from data and using learning algorithm. To mention a few,

- Supervised, unsupervised and reinforcement learning
- Concepts of maths for Machine Learning (ML)
- Neural networks
- Cross validation and resampling methods
- Optimization techniques
- ML application using tensor flow

Let us take a quick glance on the application of ML.

1. Social media has become integral part of our life these platforms use ML algorithms. ML learns from your experience.
2. Product recommendation: web site track your behaviour, based on your previous purchase, searching patterns, cart history and make product recommendation
3. Image recognition: face detection, pattern recognition, face recognition
4. Sentimental analysis: is a real time ML application. It determines the emotion or opinion of speaker or writer. It will find actual thought and tone.
5. Health care: ML predict the waiting times of patients,detecting a disease, therapy planning or predict potential heart failure.
6. Banking: protect account from hackers, prevent fraud
7. Language translation: One language to another, gives contextual meaning
8. Self driving cars
9. Filtering of email spam and malware
10. Speech recognition and traffic recognition
11. Virtual personal assistant

We know Natural Language Processing (NLP) is a sub field of linguistics, Computer Science and Artificial Intelligence (AI) concerned with the interactions between computers and human language. The possibilities include learning technologies from Python, NLP, advanced deep learning etc.

PROUD MOMENT

The Faculties and Students of CSE Department whole-heartedly congratulated **Silpa P S** , CSE (2017-2021) for securing the highest Grade ('O') in all subjects of B.Tech Sixth Semester APJ AKTU Examination May 2020.

PLACEMENTS

Rohith Gopinath, Student of 2016-2020 batch got placed as a Business Development Trainee in Byju's App.

Rohith Gopinath
Business Development Trainee

BYJU'S
The Learning App

ACHIEVEMENTS

In the placement drive conducted by Infosys Limited, Four students from CSE department have been selected for interview.

Silpa P S
S8 CSE

Revathy A S
S8 CSE

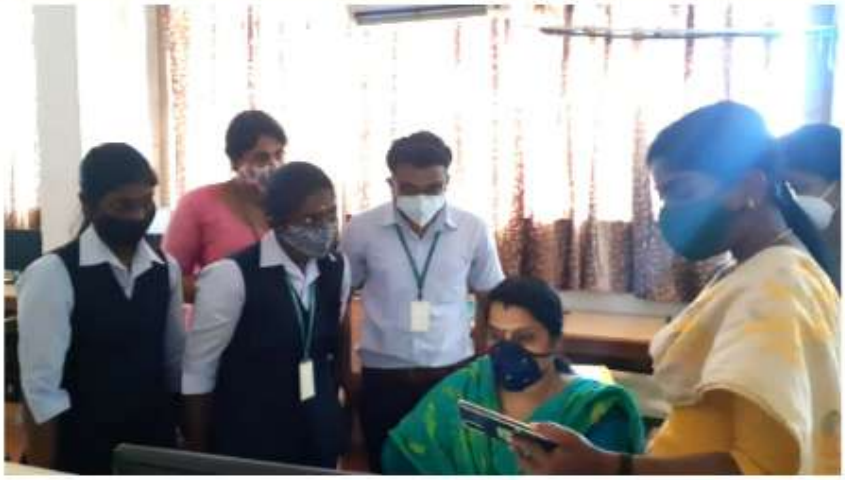
Neeraj P S
S8 CSE

Asmath Khalid
S8 CSE

INDUSTRIAL INTERACTION

Idatalytics, Cochin conducted a session on "Rounded Professional Program (RP2)" for S7 CSE students of 2017-2021 Batch from 2 pm to 4 pm on 23 March about latest trends in IT industry and on how to get placement. The session was handled by Mr. Sarath M Nair , Talent Acquisition Manager at Infopark.

BEST DESIGN PROJECT



The project on "Blood Bank Management System" by Martin Paul, Malika Joshi, Rakendhu Ravi and Devika A. L. of S5 CSE (2018-2022) was selected as Best Design Project for the Academic year 2020-2021. Faculty team of CSE congratulated the students for their conspicuous effort.

BEST SEMINAR

2019 IEEE paper presented by **Ananthu M A** (S7 CSE (2017-2021)) on "Proposed System for Criminal Detection and Recognition on CCTV Data Using Cloud and Machine Learning" was selected as Best Seminar for the Academic year 2020-2021.

WORKSHOP

Ms. Anju Raveendran, Head of the CSE Department attended one day webinar on "Outcome Based Education and Accreditation" conducted jointly by APJ Abdul Kalam Technological University and National Board of Accreditation on 09 March 2021.

PAPER PUBLICATION

Ms. Reshmi G Nair, Associate Professor of CSE Dept. has published a Paper on "Energy Efficient-DSR Protocol Using Multi-Hop Routing Based Cluster Formation in MANET" in the Journal of Advanced Research in Dynamical and Control System (JARDCS-ISSN:1943-023X) DOI: 10.5373/JARDCS/V12SP5/20201773 ISSN 1943-023X on Vol. 12.

REMEDIAL CLASS

Remedial Classes were conducted for B.Tech Semester 3 (2019-2023) students on 25 March 2021.

QUIZ WINNER

Ms. Gayathri Dili, Asst.Prof. won the title 'Grand Champion' in the Auto quiz organized by Department of Automobile Engineering, SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY, KARUKUTTY in association with SAEINDIA collegiate club of SCMS.

WOMEN'S DAY CELEBRATION

The Faculty and staff of CSE department celebrated Women's Day on 8 March 2021. On this occasion, HOD **Ms. Anju Raveendran** shared a motivating message to women.

ADVISORY COMMITTEE MEETING

ACM was conducted for B.Tech semester 3 (2019-2023) on 23 March 2021. The main agenda was postponement of University exams and conduct of remedial classes. All students, subject handling faculties and parents attended the session. Each faculty gave general feedback. Each parent was given an opportunity to discuss their feedback on academic activities.

WE ARE NOT JOB SEEKERS, WE ARE JOB PROVIDERS

Sreeharsh, Labeeb Shereef and Akshay Thomas of 2014 - 2018 batch students have started Technology Business Incubator "KAPREIGN" in our college on 08 March 2021 with support of IEDC (Innovation and Entrepreneurship Development centre) SNGIST and Kerala start up mission.

The Faculty and Students of CSE Department wholeheartedly congratulate and wish for upcoming ventures.

STUDENTS CORNER

Students of CSE Department released a YouTube cover song "Aakashadeep angal". **Vishal Raju** (2015-19) alumni played on-screen vocal for the song, **Anand Nandakumar** (2017-21) did DOP & Editing and Design by **Rahul Ramachandran** (2018-22). We the faculty members and students of CSE department in all sincerity congratulated them.

TECH-SAVVY

DATA SCIENCE IN 2021

Adith K D
S8 CSE (2017-21)

Data Science is a process, not an event. It is the process of using data to understand different things, to understand the world. Data science is the art of uncovering the insights and trends that are hiding behind data. It's when you translate data into a story. So use storytelling to generate insight. And with these insights, you can make strategic choices for a company or an institution. Data science is a field about processes and systems to extract data from various forms of whether it is unstructured or structured form. Data science is the study of data. Data Science involves data and some science.

Data Scientist Job in the 21st Century

In the data-driven world, data scientists have emerged as a hot commodity. The chase is on to find the best talent in data science. Already, experts estimate that millions of jobs in data science might remain vacant for the lack of readily available talent. The global search for skilled data scientists is not merely a search for statisticians or computer scientists. In fact, the firms are searching for well-rounded individuals who possess the subject matter expertise, some experience in software programming and analytics, and exceptional communication skills.

Our digital footprint has expanded rapidly over the past 10 years. The size of the digital universe was roughly 130 billion gigabytes in 1995. By 2021, this number will swell to 40 trillion gigabytes. Companies will compete for hundreds of thousands, if not millions, of new workers needed to navigate the digital world. Data science has become relevant to every company ... There's a war for this type of talent. No wonder the prestigious Harvard Business Review called data science 'the sexiest job in the 21st century'. In the 2020 emerging jobs report, LinkedIn listed data scientists as the #3 jobs with an annual growth rate of 37 percent. The excessive demand for data skills will drive a need to further refine the specific positions within data science.

Data Science Trends in 2021

When COVID-19 hit, organizations using traditional analytics techniques that rely heavily on large amounts of historical data realized one important thing: Many of these models are no longer relevant. Essentially, the pandemic changed everything, rendering a lot of data useless.

Trend No. 1: Smarter, more responsible, scalable AI

Smarter, more responsible, scalable AI will enable better learning algorithms, interpretable systems and shorter time to value. Organizations will begin to require a lot more from AI systems, and they'll need to figure out how to scale the technologies — something that up to this point has been challenging. Although traditional AI techniques may rely heavily on historical data, given how COVID-19 has changed the business landscape, historical data may no longer be relevant. This means that AI technology must be able to operate with less data via "small data" techniques and adaptive machine learning. These AI systems must also protect privacy, comply with federal regulations and minimize bias to support an ethical AI.

Trend No. 2: From big to small and wide data

Small and wide data, as opposed to big data, solves a number of problems for organizations dealing with increasingly complex questions on AI and challenges with scarce data use cases. Wide data — leveraging "X analytics" techniques — enables the analysis and synergy of a variety of small and varied (wide), unstructured and structured data sources to enhance contextual awareness and decisions. Small data, as the name implies, is able to use data models that require less data but still offer useful insights.

Trend No. 3: Natural Language Processing

Natural Language Processing (NLP) has made its way firmly into Data Science after huge breakthroughs in Deep Learning research. Huge advancements in NLP through Deep Learning are fueling the full-on integration of NLP into our regular Data Analysis. Neural Networks can now extract information from large bodies of text incredibly quickly. They're able to classify text into different categories, determine sentiment about text, and perform analysis on the similarity of text data. In the end, all of that information can be stored in a single feature vector of numbers. As a result, NLP becomes a powerful tool in Data Science. Huge datastores of text, not just one-word answers but full-on paragraphs, can be transformed into numerical data for standard analysis. We're now able to explore datasets that are far more complex.