COMMUNICODE CLUB MEETUP: REPORT

An event cum meetup was held by communicode club at Seminar hall on 31st August, 2022. Following are the most notable takeaways from the meetup.

- Mr. Ayush Srivastava introduced our club to all new members. The team had a solid introduction by posing an digitally created image on the screen of a female and a male side by side and we discussed with other club members about differences that we can point out between them and we named a few distinguishable traits like facial hair, hair size, etc.
- The aim of above demonstration was to introduce everyone to the world of Machine Learning. The way we differenciate them is:- we have fed our minds with millions of pictures of traits of male and female since childhood due to which we are able to tell them apart. A computer system can be taught to do the same by giving it different types, angles of inputs and making a logic out of it that computer can follow and use that pattern to identify certain things using previously fed data.
- We were presented with a set of different letters and numbers that were handwritten which were distinctively different than the digitally written ones but even with such distinct characteristics, we can still make the computer read them perfectly finely by building appropriate data feeding and proper logic.
- We then saw the image recognizer application developed by Stanford University first hand that how is it able to tell using image recognition technique that only with a glance of camera it can differentiate people from table, chairs, etc. using pre-existing data

- DEEP LEARNING CARS:-
  We were demonstrated with a system of stimulated 2-D cars models that make use of deep learning technique to have several sensors around each car that's moving on a fixed track to keep track of the distance of car itself from the boundary so as to avoid crashing.
- Actually, the track is unpredictably non linear so that real life situations could be properly picturised in framework and deep learning methodologies follow the path with possibility of least errors.
- It continuously runs simulations where in each scenario if car crashes, we re-loop the simulation and take data of previous failure and avoid that this time. These phenomenon of taking input of failure and ability to avoid it in any future circumstances is kind of an intelligence in itself.

- These simulations in their entire sequence are generations and with each subsequent generations, the car follows a better path each time, compared to the previous time. This can even be replicated in real life "Automated Cars".

- Mr. Aryan Mahakur now introduces us with C++ game engine simulations with a mini mario like game. That modern generation is fascinated by world of games.

- We were subtly immersed in how game development takes input from real life and tries to apply real life physics inside the game. So as to make game development immersive.

- We realised that C++ is a preferred language over others like Java because of less memory consumption and fast executions and it has many more applications such as: -

  a) Operating System Development
  b) Game Development
  c) Web-Browser development
  d) Database build-up
  And many more.

- We were shown the website to our club's framework:- https://bruno-simon.com where, the website had well received game like environment where a car was to be stimulated remotely using keyboard to traverse to different part of virtual setup to reach at different destination blocks like projects, club leaders, etc. where, after our car has reached, on pressing enter, we'll get into that specific domain.

- Mr Mayank Chaturvedi and Rishabh Yadav then set up working principle of our club that is currently having 3 programs i.e., Python, C++ and Web-Development
- We were informed that our club will have atleast 2 meetups per week: -
  a)Assignment meetup
  b)Assessment meetup

- We'll be divided into groups in order to complete the assignments and for each members to keep track of group we'll use GitHub whose introduction was given to us by Mayank and Rishabh, we can use VS code and git commands to access to each other's part of codes and then copy them to our VS code, make required changes and re-use git commands to display same changes on github.
- We can access each other's project progresses using leader's git profile and make changes from leader's git profile as well.

Last but not the least, we interacted with students, motivated everyone to take a stand for themselves, get highly involved in different levels of club activities and many students actively participated and are trying to be integral part of this club and all activities.