



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR 2021-22 / ODD SEMESTER

INTERNAL SEMINAR REPORT

12.10.2021

Department of EEE has organized internal seminar on “Introduction to Artificial Neural Networks” for second, third and final year EEE students on 9.10.21.

Objective:

- To impart knowledge to students on the basics of Artificial Intelligence(AI)
- To provide adequate knowledge on different types of Artificial Neural Networks (ANN) and its applications in the field of Electrical and Electronics Engineering.
- To facilitate the use of AI techniques in their final year projects and seminar presentations.

Beneficiaries: Total: 62 (II, III & IV Year EEE Students)

Time: 6.00 P.M to 7.00 P.M

Venue: Online (Google meet) <http://meet.google.com/ukp-pnke-zus>

Resource Person (Internal): Dr.M.Meenalochani, Assistant Professor/EEE

Dr.M.Meenalochani, AP/EEE started her session with an introduction to human intelligence and the ability of human beings to provide solutions to different problems. Then, she introduced the concept of AI and how it can be applied to solve any problem. She clearly stated that AI techniques can be accomplished by studying how human brain thinks, learns, decides and works while trying to solve a problem and using the outcomes as a basis of developing intelligent software and systems. She gave examples of different social media websites which track human searches and provide recommendations based on their search using AI techniques. The students were able to recognize the recommendations they receive based on their web search activity.

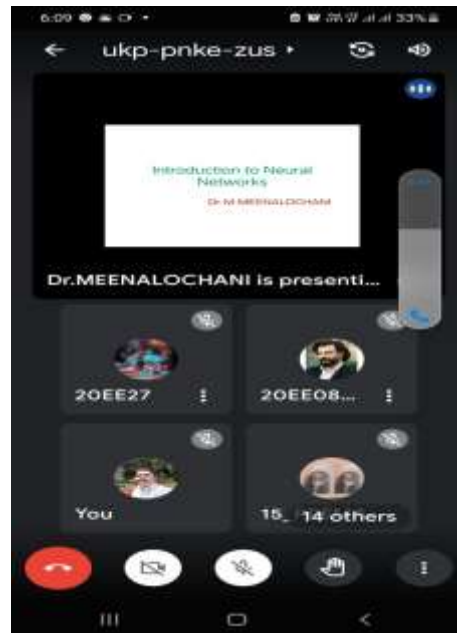
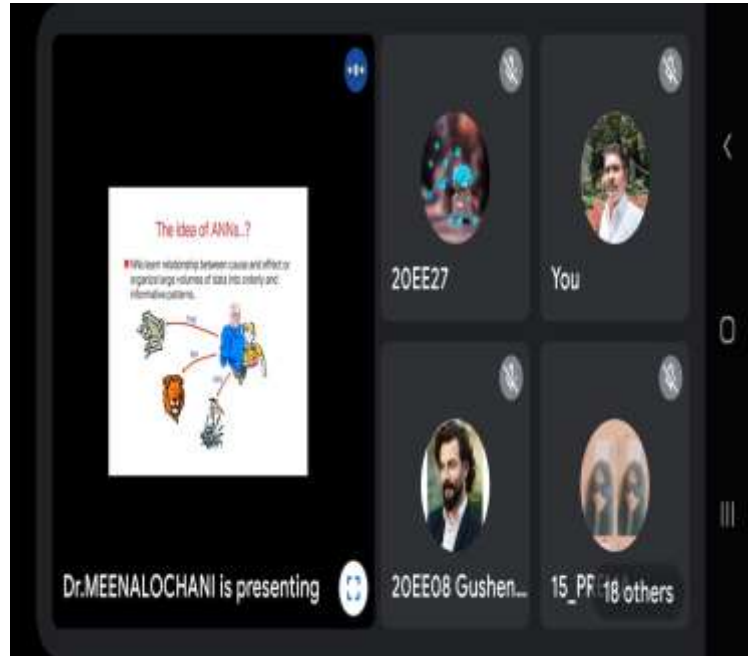
Then she explained how ANN is developed based on the operation of human nervous system. Artificial neurons are implemented based on the methodology used by biological neurons for gathering inputs, combining different inputs and producing an output if the input exceeds a threshold. An ANN usually involves a large number of processors operating in parallel and arranged in layers. The first layer receives the raw input information which is analogous to optic nerves in human visual processing. Each successive layer receives the output from the preceding layer. The last layer produces the output of the system. Different architectures of Neural Networks are formed based on the pattern of connections between neurons as Single Layer Feed Forward, Multilayer Feed Forward and Recurrent networks. She also pointed that the algorithms are classified as Supervised, Unsupervised and Reinforcement which is used for training of a Neural Network.

Finally, she briefed about Deep learning which is the recent advancement in Neural Networks. Deep Neural Networks play an important role in Machine Learning. Deep learning is used to solve complex problems that require discovering hidden patterns in the data. It involves a deep understanding of intricate relationships between large numbers of interdependent variables. At the end of the session, students from final year interacted and asked questions about the usage of AI Techniques in doing projects.

Outcome:

- Enhance the knowledge on Artificial Intelligence
- Students are able to understand the concepts and operation of Artificial Neural Networks, their advantages over conventional techniques and their applications
- Students shall select Artificial intelligence techniques for their Project work, Paper Publication, Conference presentation and PCE activities.

Snapshots:



Dr.M.Meenalochani AP/EEE delivering lecture (online mode) during Internal Seminar

Faculty In-Charge

HoD/EEE

Principal