



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**

**(AUTONOMOUS)**

**Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)**

**Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada**

**L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

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**Report**  
**on**  
**Expert Talk on "Speech Enhancement using Machine Learning"**  
**in association with IEEE**

**Event Type:** Webinar

**Date/Duration:** 22-12-2021

**Resource Person:** Muhammed PV Shifas,  
AI/ML Engineer, Apple, Cambridge, UK  
Signal Processing Lab, University of Crete,  
Greece.

**Name of the Coordinators:** Dr.M.V. Sudhakar, Dr.K. Ravi Kumar

**Target Audience:** ECE (II and IV Year Students)

**Total No.of Participants:** 78 (67 Offline + 11 Online)

**Objective of the Event:** To provide knowledge on Neural Networks and to understand the application of Neural Networks for Speech Enhancement.

**Outcome of the Event:**

1. Students gain the knowledge on different Neural networks used for Speech Enhancement.
2. Students familiarized the methodology for noise reduction using CNN and Recurrent Neural Network.
3. Usefulness of Matrix operations and Fourier transform in real time applications are understood

**Description/Report on Event:**

The event started with the welcome address by event coordinator and Head of Department. Resource person shared the insights on neural networks and its types. CNN and RNN is discussed in detail. Later some demos on application of neural networks and loss function is discussed. Application of fourier transform and matrix operations in real time noise reduction application is discussed. At the end higher study opportunities and career opportunities in Europe is discussed.

**Feedback / Suggestions:**

1. Conduct more lectures on new technologies
2. Duration can be increased.
3. Delivery of lecture and content is good.

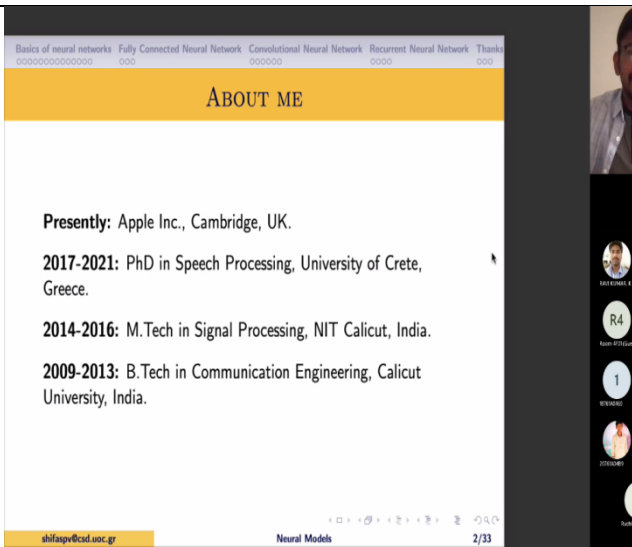
## Photographs:



**Addressing by the HoD Dr.Y.Amar Babu**



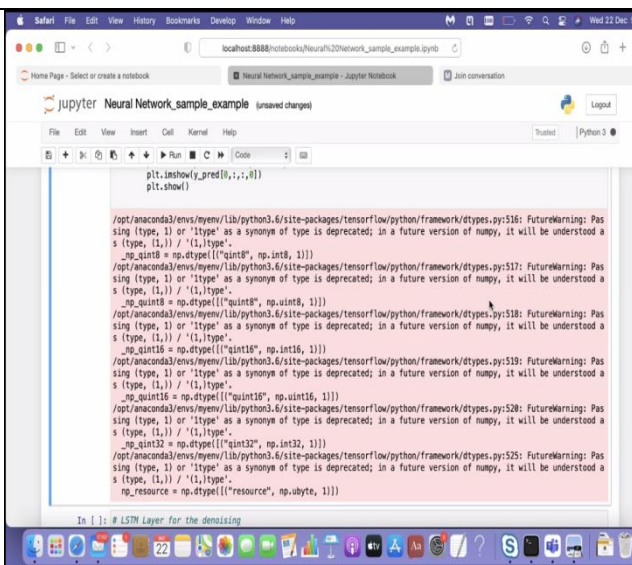
**Starting of Session by Resource Person Muhammed Shifas PV**



**Resource Person Introducing him Self**



**Resource Person Delivering Lecture**



**Demo on Noise Reduction using Jupyter Notebook**



**Participants attending Expert Lecture**