NARAYANA ENGINEERING COLLEGE :: NELLORE

(AUTONOMOUS)

Permanently affiliated to JNTUA Ananthapuramu, Approved by AICTE, Accorded 'A' grade by Govt. of AP, Recognized by UGC 2(f) & 12(B), ISO 9001:2015 certified Institution, Approved with 'A+' Grade by NAAC

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Report of FDP on "Machine Learning for Computer Vision and Image Processing Applications"

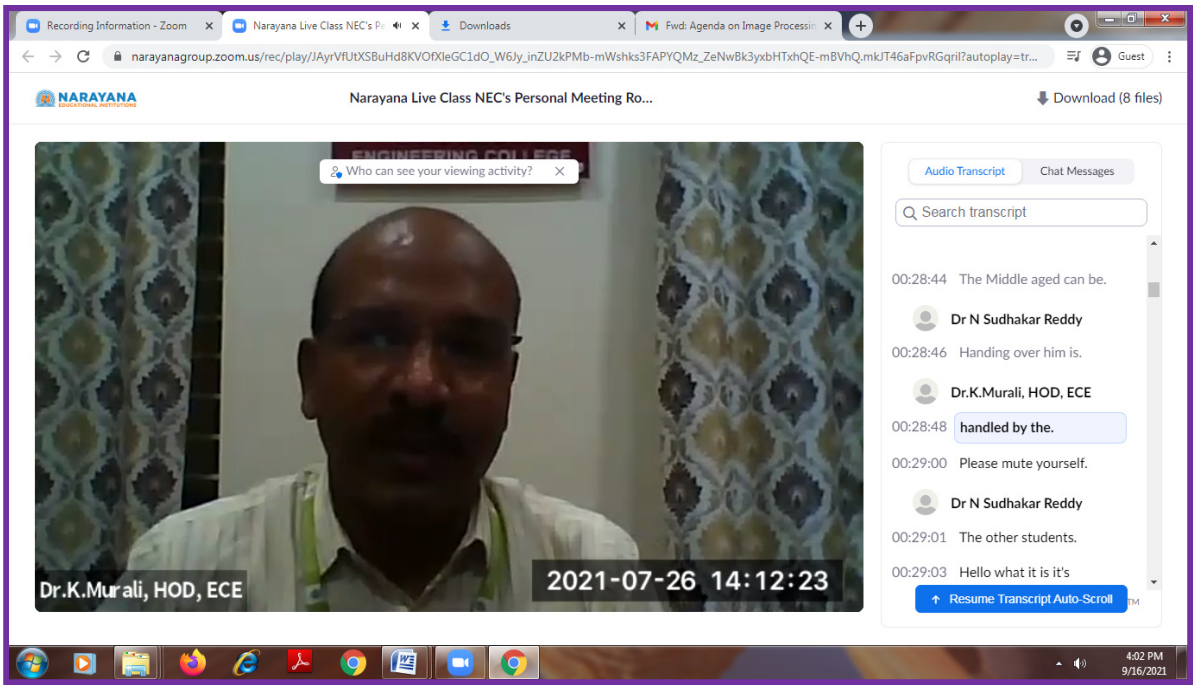
Department of Electronics & Communication Engineering, Narayana Engineering College, Nellore, organized a five day online FDP on **"Machine Learning for Computer Vision and Image Processing Applications" from 26th to 30th July 2021.** In this FDP, a total of **120 faculty members have participated**. The following members are the resource person for the programme.

1. Mr. NARESH BABU
2. Dr. K. MURALI

   Professor & HOD-ECE, Narayana Engineering College, Nellore.
3. K.SELVAKUMARASAMY

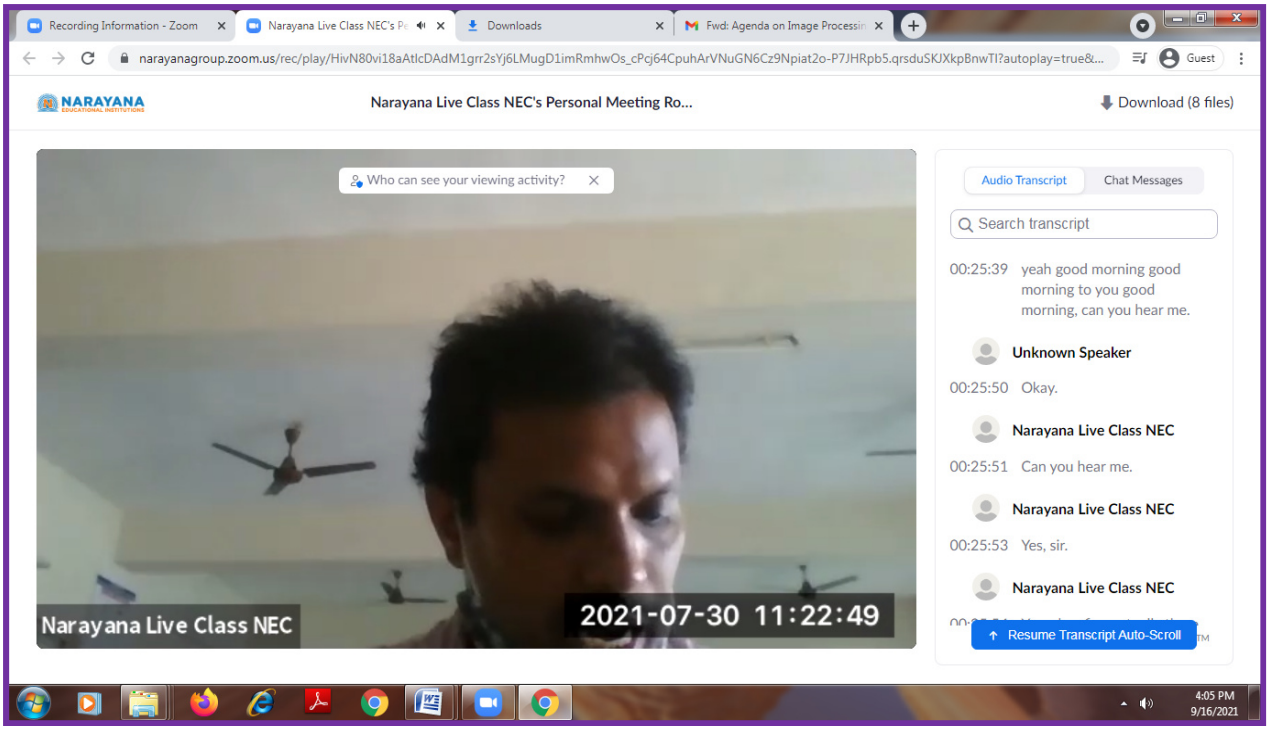
   Associate Professor – ECE , Narayana Engineering College, Nellore.
4. Dr. R.MURUGAN

   Assistant Professor – ECE, NIT Silchar, Assam.



Dr. K. Murali, HOD of ECE addressing the participants

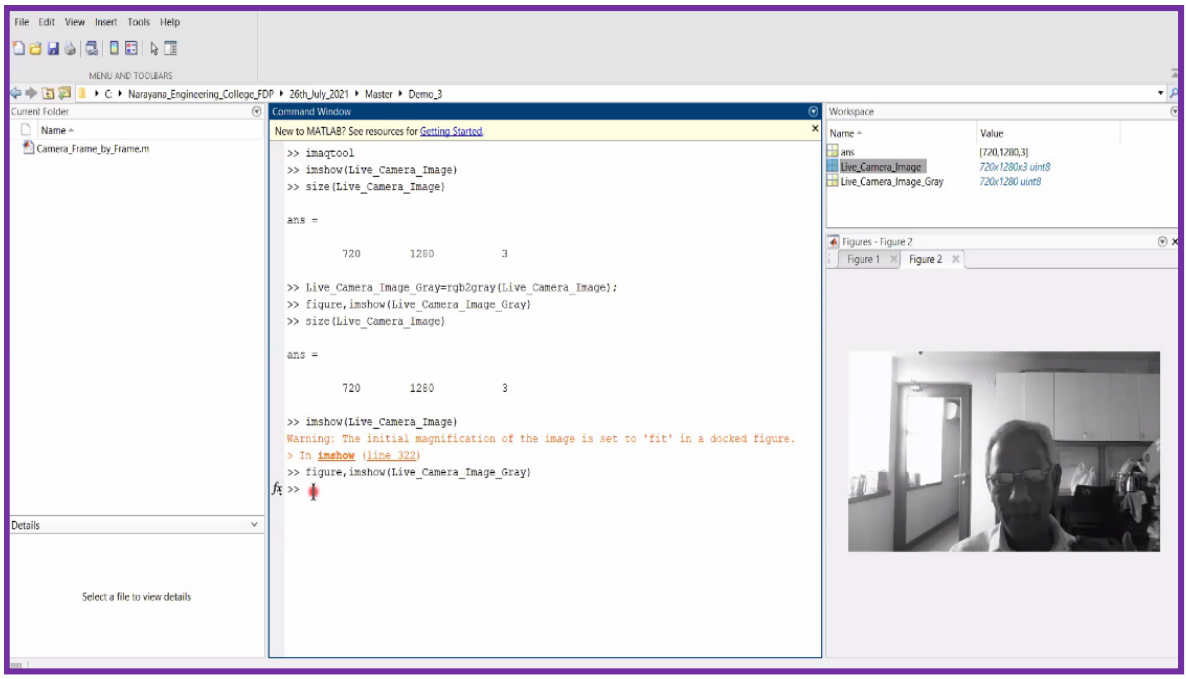
The inaugural function of the FDP started with a welcome address by Dr. K Murali, HOD-ECE and he presented the theme of the FDP and said that Machine Learning is playing an important role in various applications like Computer vision, image processing etc. Later, the Principal of NECN addressed the staff members and said that FDPs will help for the growth of the faculty in all facets of their professional lives. FDPs will provide resources which will help the faculty to develop as scholars, to publish and share at professional conferences, and to improve their performance in the class room.



Mr. C. Leela Mohan, explaining the theme of the FDP

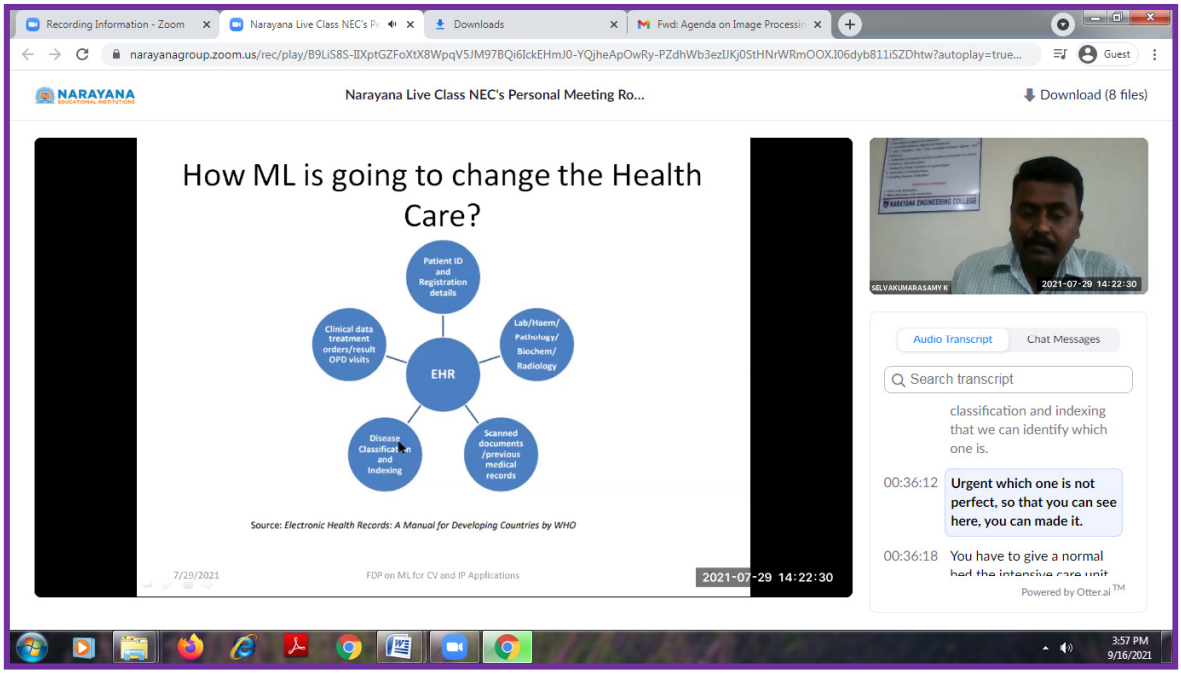
Mr. Naresh Babu addressed the participants about the image processing using MATLAB and Computer Vision using MATLAB and Simulink.

Image Processing with MATLAB	➢ Background Subtraction for identifying objects in an Image. ➢ Background Subtraction for identifying objects in a Video. ➢ Installing Hardware Support Package for Webcam ➢ Live Image Processing using Webcam
Computer Vision with MATLAB and Simulink	➢ Computer Vision with MATLAB ➢ Computer Vision with Simulink ➢ Installing Hardware Support Package for Microsoft Kinect ➢ Point Cloud ➢ Applications of Point Cloud



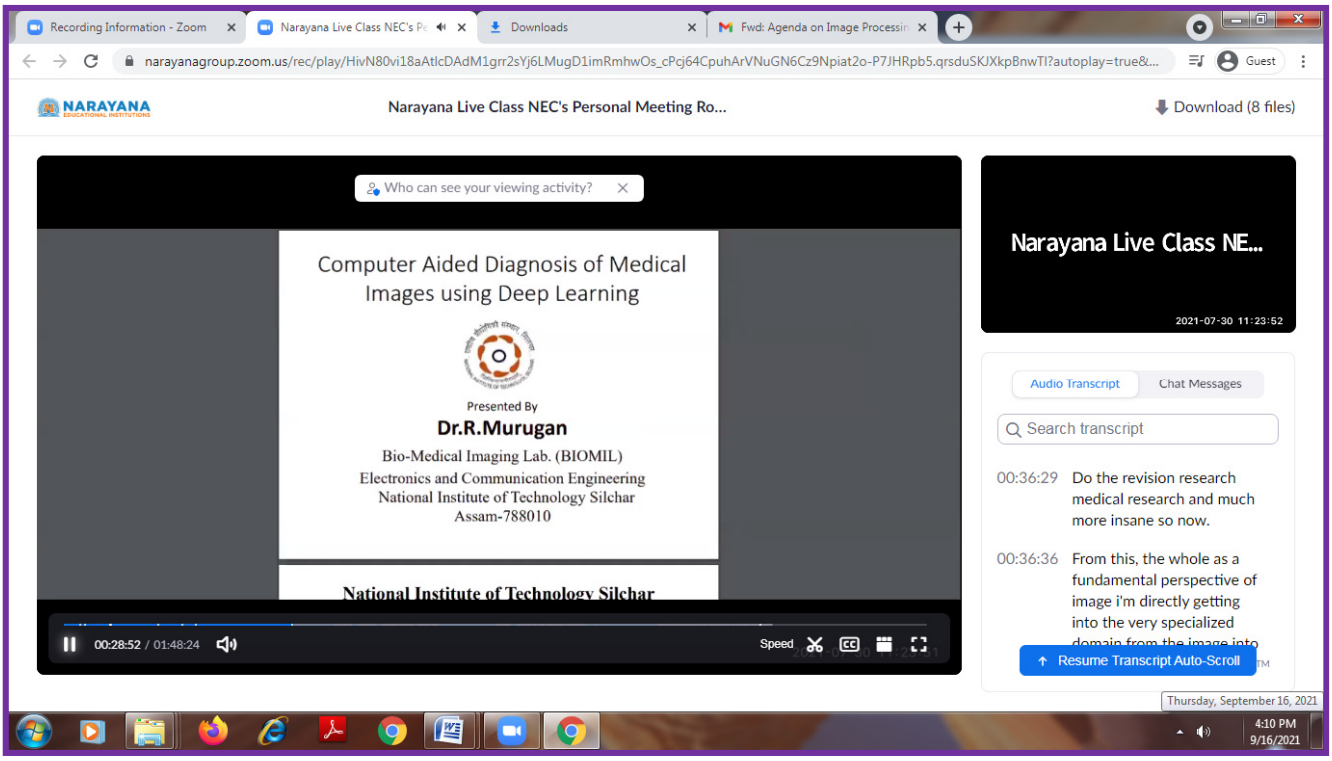
Resource Person explaining about image processing commands in matlab

Mr. K. SELVAKUMARASAMY addressed the participants about the Machine Learning in Health Care Technology such as Learning Methods, Application in Health Care Technology, Electronic Health Records and future of Health Care Technology. He discussed about the different leaning methods such as supervised learning method, unsupervised learning methods, reinforcement learning method with example. Finally, he discussed about the application of Machine Learning for ECG Signal Classification using Morphological Features.



Mr. K. Selvakumarasamy explaining about Machine Learning in health care technology

Dr. R. MURUGAN addressed the participants about the Computer Aided Diagnosis of Medical Images using Deep Learning. He explained about the medical images and its modalities, deep learning and the various research problems in medical imaging. Finally, he discusses about the computer aided diagnosis for diabetic retinopathy and shows the comparison with the state of the art methods.



Resource Person explaining about Computer Aided Diagnosis of Medical Images using Deep Learning

Expected outcomes:

- Opens new avenues for faculty members to pursue research in Machine Learning in computer vision and Image Processing applications
- Detailed knowledge of Deep Learning and Computer Aided Diagnosis.
- Importance of Machine Learning Systems in today's trends of life.