**NALLA NARASIMHA REDDY**
**Education Society's Group of Institutions–Integrated Campus**
(Approved by AICTE & PCI, New Delhi & Affiliated to JNTUH, Accredited by NAAC with A+ Grade)
Near Narapally, Chowdariguda (V), Korremula 'X' Road, Ghatkesar (M), Medchal-Malkajgiri (D), Hyderabad - 500088, Telangana.
(UGC AUTONOMOUS INSTITUTION)
*School of Engineering*

**Department of**
**ELECTRONICS AND COMMUNICATION ENGINEERING**

Report
On
**A One Week Student Development Program**
**On**
**"Image Processing Applications using Python & MATLAB"**

**(10th June 2024 to 15th June 2024)**

The Department of ECE, NESIP Team successfully conducted six days student development program (SDP) on **"Image Processing Applications using Python & MATLAB"** for II B.Tech students on **10th June 2024 to 15th June 2024**. The aim of this workshop is to provide an insight on importance of MATLAB and Python for digital image processing and speech processing applications. The workshop comprises of theoretical lectures delivered by department faculties and also live demonstration of the software and various toolboxes. Total 47 students were registered for the workshop.

The students got an exposure to MATLAB coding, Python coding, signal processing and image processing toolboxes. As an outcome of the workshop, the students were able to implement a programming code, design automotive models using MATLAB and Python, process image, audio and speech.
Dr. V. Sravan Kumar, Mrs.K.MADHAVI, Dr. S.Karthick, Mrs.E.Suneetha, Mr.N.Suresh Reddy, Mr.Ch.Phanidra and Mr. Abraham Thomas acted as Faculty Coordinators for the six day SDP. J. Venu Prasad Reddy (227Z1A0467), M. Sravika (227Z1A0498) and V. Ankith Kumar (227Z1A04I3) acted as Student Coordinators for this SDP.

**Day-1:**
The workshop was inaugurated by Director of NNRG, Dean-School of Engineering and Head of the Department, ECE in the ECE seminar hall at 9:30am.

Dr. C.V. Krishna Reddy, Director, NNRG, Dr.G.Janardhana Raju, Dean-SoE, Dr. S Ravi Chand, HoD-ECE addressed the gathering

In the morning session after the inauguration Dr. V. Sravan Kumar as resource person delivered the "Introduction to Image processing". Afternoon session is "Hands On Training on MATLAB Software"



Dr.V.Sravan Kumar, Assoc.Prof. Delivering Introduction to Image processing as resource person

**Day-2:**

In the morning session Mrs.K.Madhavi as resource person delivered the "Loading and Displaying Images Using GUI" a theoretical and hands on session with MATLAB. In afternoon session Mrs.K.Madhavi as resource person delivered the "Image Manipulation Using GUI" a theoretical and hands on session with MATLAB.
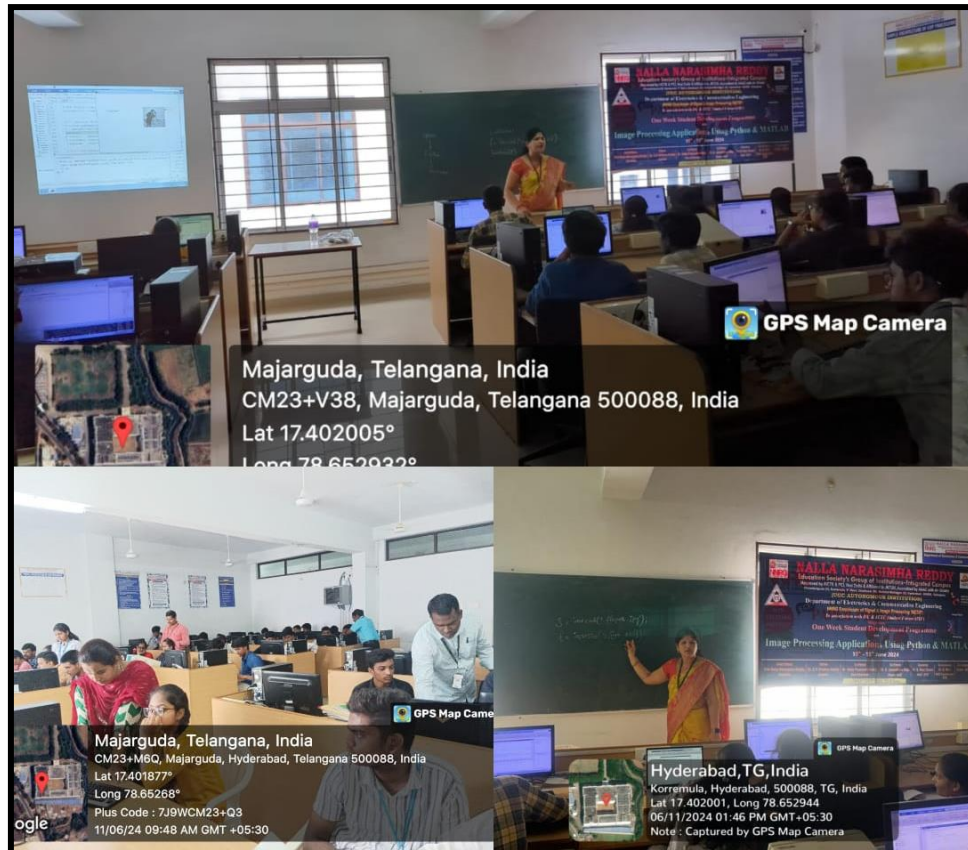


Mrs.K.Madhavi , Asst. Prof. Delivering a theoretical and hands on session with MATLAB GUI for Image Processing

**Day-3:**

In the morning session Mr. Abraham Thomas as resource person delivered the "Introduction to Speech Processing and  Analysis" a theoretical and hands on session with MATLAB. In afternoon session Mrs.K.Madhavi as resource person delivered the "Loading and Displaying Images Using Python" a theoretical and hands on session with Python (Google Colab).

Mr. Abraham Thomas , Asst. Prof. Delivering a theoretical and hands on session on Introduction to Speech Processing and  Analysis using MATLAB



Mrs.K.Madhavi , Asst. Prof. Delivering a theoretical and hands on session with Python for Image Processing

**Day-4:**

In the morning session Mrs. E. Suneetha as resource person delivered the "Image Enhancement/Salt Pepper Noise/Bit Plane Slicing" a theoretical and hands on session using MATLAB. In afternoon session Mrs. E. Suneetha as resource person delivered the "Image Segmentation and Color Image Processing" a theoretical and hands on session using MATLAB and Python (Google Colab).

Mrs. E. Suneetha , Assoc. Prof.. Delivering a theoretical and hands on session on DIP algoriths using MATLAB and Python

**Day-5:**

In the morning session and afternoon session "Hands on Session using MATLAB & PYTHON" by NESIP Team.
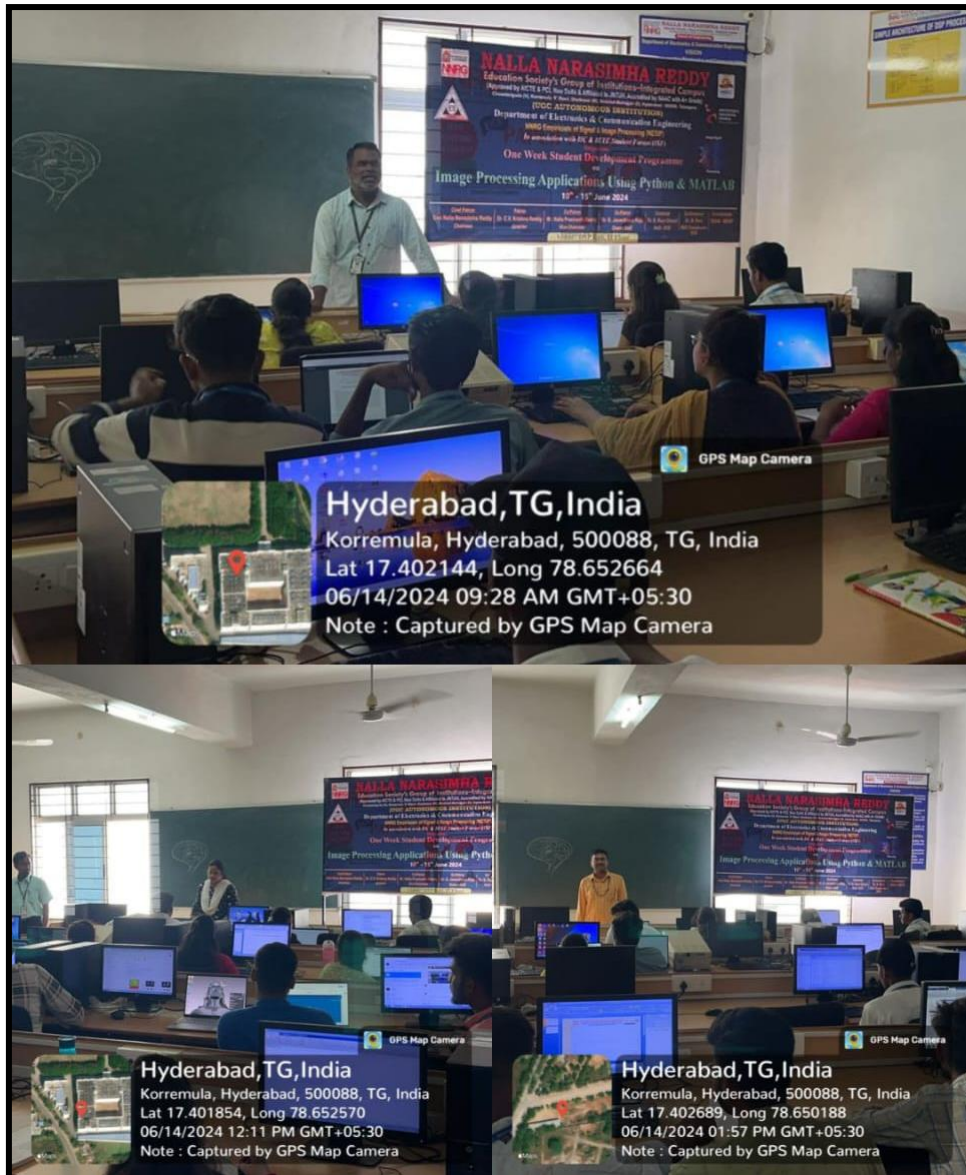
Hands on Session using MATLAB & PYTHON by NESIP Team

**Day-6:**

In the morning session "Hands on Session using MATLAB & PYTHON" by NESIP Team.

Finally, the workshop ended with a valedictory session, in the presence of Dr. G. Janardhana Raju, Dean School of Engineering and Dr. S.Ravi Chand, Head of ECE Department. NESIP Team members and Student participants received their certificates from the Dean.

**Outcomes of the Workshop:**

After the completion of workshop, the students were able to

- Understand Basics of MATLAB coding.
- Write the program for a given problem in MATLAB coding.
- Simulate various electric circuits in MATLAB simulation tool.
- To know the concept of functions in Python and to know the concept of functions in Python.

Place: NNRG, Hyderabad                                      Date: 27/06/2024

Co-coordinators        Coordinator & SPoC        R&D Coordinator        HoD ECE