
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Report on One Week SDP on "Unveiling Embedded Essentials" from 10/06/2024 to 15/06/2024

The Research Group NEIoN of Department of ECE successfully conducted one week workshop on "Unveiling Embedded Essentials" for II B.Tech students from 10th June 2024 to 15th June 2024. The aim of this workshop is to provide an insight on importance of Embedded Systems & IoT for student development in the field of microcontrollers, PROTEUS, ARDUINO IDE, IoT cloud, Raspberrypi Modules and so on. The workshop comprises of theoretical lectures and demonstration of the software and various toolboxes by department faculties.

The students got an exposure to ARDUINO coding, PROTEUS Simulation, Python programming, sensors, actuators interfacing, Raspberry pi and IoT toolboxes. As an outcome of the workshop, the students are able to develop program code, process of Making Embedded Real time projects and IoT .

Totally 50 students were participated in the workshop. The workshop is organized in association with **IETE student forum (ISF)**.

Mr. B SAIDULU and **Mr. NITESH GAIKWAD** worked as Faculty Coordinators for the One week workshop.



NEIoN Research group with Director, Dean and HoD



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

Day-1 INAUGURATION (9:45 am to 11 am):

The workshop was inaugurated by Director, Dean-School of Engineering and ECE-Head at the ECE seminar hall from 9:45 am to 11 am.



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CM23+M6Q, Majarguda, Hyderabad, Telangana 500088, India
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Long 78.652728°
10/06/24 10:35 AM GMT +05:30



Majarguda, Telangana, India
CM23+V38, Majarguda, Telangana 500088, India
Lat 17.402177°
Long 78.653575°
Plus Code : 7J9WCM23+VC



Majarguda, Telangana, India
CM23+M6Q, Majarguda, Telangana 500088, India
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Plus Code : 7J9WCM23+Q6
10/06/24 10:45 AM GMT +05:30



Majarguda, Telangana, India
CM23+M6Q, Majarguda, Hyderabad, Telangana 500088, India
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Long 78.652861°
Plus Code : 7J9WCM23+Q4
10/06/24 10:41 AM GMT +05:30



Majarguda, Telangana, India
CM23+M6Q, Majarguda, Telangana 500088, India
Lat 17.401931°
Long 78.65304°
Plus Code : 7J9WCM23+Q6
10/06/24 10:39 AM GMT +05:30

Dr C.V. Krishna Reddy-Director, NNRG., Dr G Janardhana Raju-Dean SoE, NNRG.,

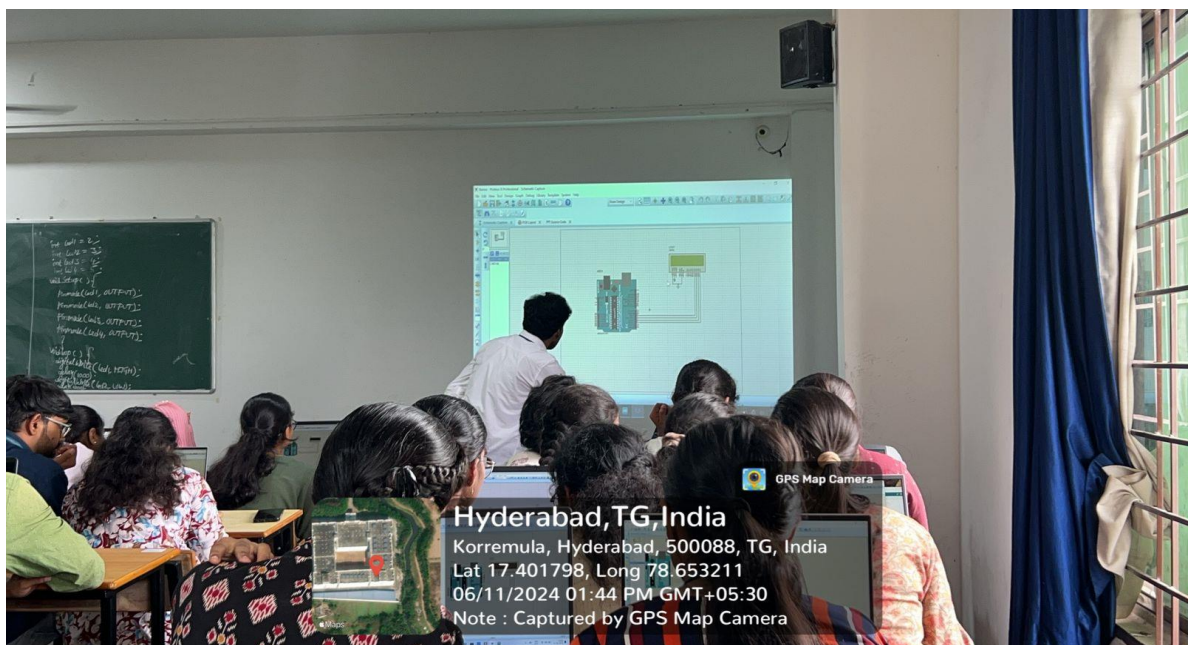
Dr S Ravichand-HoD-ECE, NNRG addressing the gathering

Day-1 Forenoon and Afternoon Session:

The workshop started from forenoon session 2 in which **Dr. S Ravichand** delivered the lecture on “**The ARDUINO life**” and related concepts. The afternoon session is followed by hands-on training using Arduino IDE by **Mr K Rambabu**.



Dr.S.Ravichand, Professor & HoD as resource person delivered the concepts of “Arduino life”.



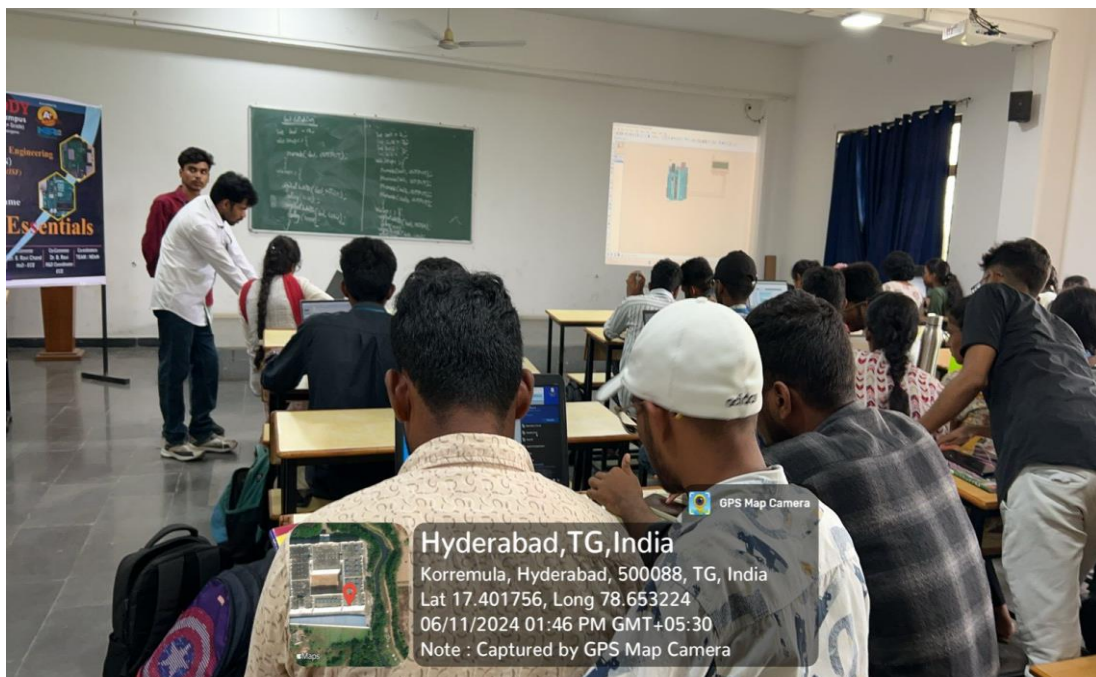
Mr K Rambabu, Assistant Professor of ECE -Hands on session.

Day-2 Forenoon and Afternoon Session:

In morning session, **Mr. Koustubh Kulakarni** handled the theoretical session on "**Embedded & IoT Key components**" and followed by practical sessions in the afternoon by **Mr K Rambabu**.



Mr. Koustubh Kulkarni, Assistant Professor of ECE, as resource person delivered the concept of Embedded & IoT Key components.



Hands on session by Mr K Rambabu, Assistant Professor of ECE.

Day-3 Forenoon and Afternoon Session:

In morning session, resource person **Mr M Sharath Chandra** delivered lecture on "**Sensors & Actuators Interfacing**". The afternoon session is followed by hands-on and Real time project implementation by **Mr K Rambabu**.



Mrs. M Sharath Chandra , Mr K Rambabu Assistant Professor of ECE, delivered concept of “Sensors & Actuators Interfacing & Hands on Session”.

Day-4

Forenoon session 1 :

In morning session 1, resource person **Mr. B SAIDULU** delivered lecture on "RASPERRY Pi Boards"

Forenoon session 2 :

In morning session 2, resource person **Dr. B RAVI** delivered lecture on "IoT"

Afternoon session:

The afternoon session is followed by hands-on and project implementation by **Mr K Rambabu**.

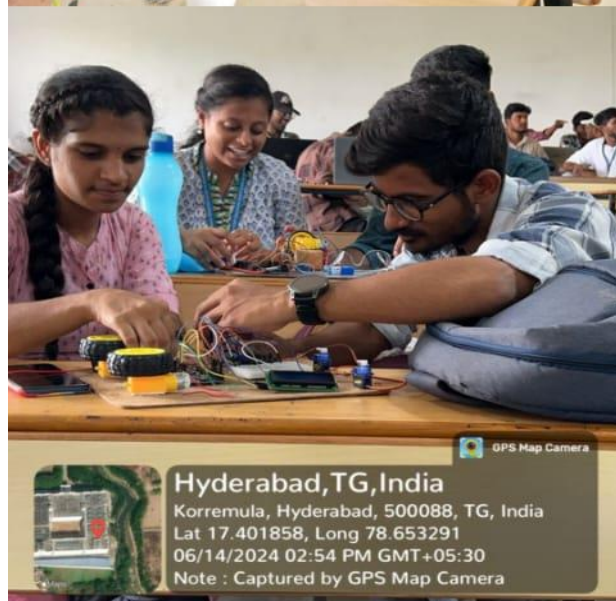


Mr. B Saidulu , Assistant Professor of ECE, **Dr B Ravi** Assistant Professor of ECE, **Mr K Rambabu**, Assistant Professor of ECE delivered lecture on Day 4.

Day-5 Forenoon and Afternoon Session:

In morning session, resource person Mr K Rambabu, hands-on training & Real time Project Implementation.

In Afternoon session student Project Implementation by students.



Mr K Rambabu , Assistant Professor of ECE, Hands on Training.

Day-6 Forenoon session:

In morning session, an assessment was conducted.



Students Assessment conducted by team NEIoN.

Day-6 Afternoon session 2 (Valedictory):

The valedictory program is organized during the afternoon session. The program is felicitated by Dean, SoE, Dr G Janardhana Raju and Hod-ECE Dr S Rvichand.



Dean, School of Engineering - NNRG addressing the students and the faculties



HoD-ECE addressing the gathering



The NEIOn team was felicitated by the Dean , School of Engineering - NNRG



NEIoN SDP Students Appreciation



Student participants receiving merit certificates.

Outcomes of the Workshop:

After the completion of workshop, the students are able to do a programming in the Arduino IDE, Raspberry Pi, and Proteus simulation to visualize Real time hardware & IoT Components.

- 1) The ARDUINO Interface & PROTEUS simulation.
- 2) The Raspberry Pi Interface & Key components of IoT.
- 3) Developing Real time Embedded Projects.

Place: Hyderabad

Date: 22/06/2024

Co-Coordinator

Coordinator &
NEIoN- SPoC

HOD-ECE