NARAYANA ENGINEERING COLLEGE::NELLORE

AUTONOMOUS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Three Day Tech Boot-camp on Arduino

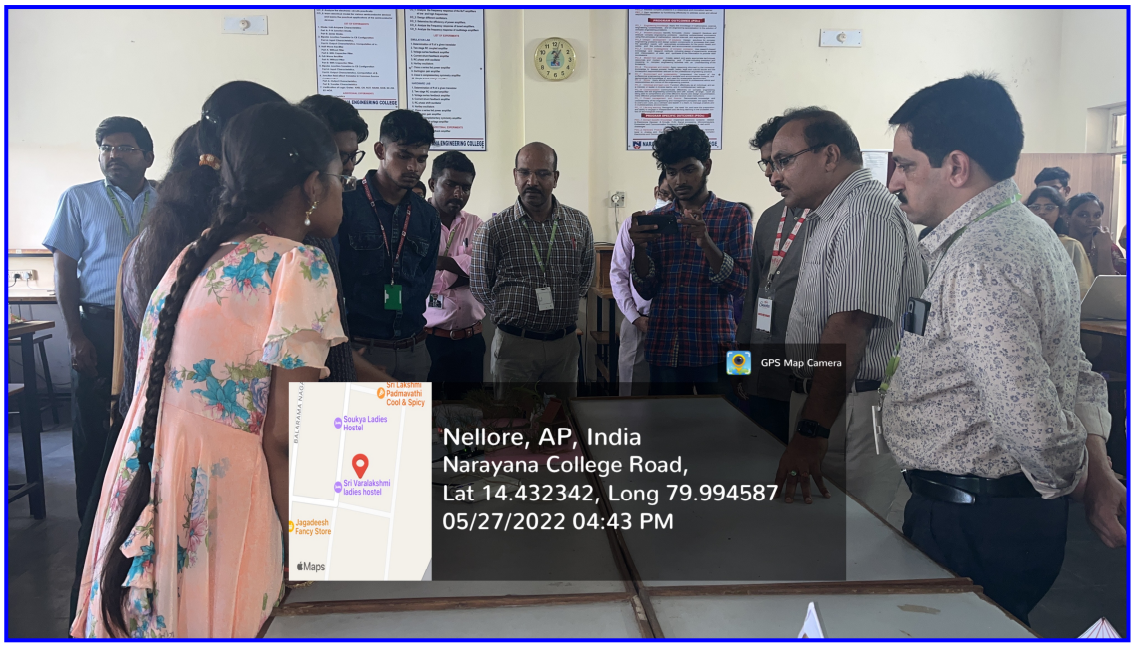
1	Name of the Activity/Event	Three Day Tech Boot-camp on Arduino		
2	Date of Activity/Event	25.05.2022 to 27.05.2022		
3	Organized by/Name of the committee	Dept. of Electronics & Communication Engineering, IETE Students Forum (ISF)		
4	Place of Activity/event	Visvesvaraya Auditorium , Narayana Engineering College, Nellore		
5	Resource person/guest/organization	1) Sripath Roy, Asst. Prof. ECE, Executive Committee, Swecha AP 2) Lakshman M, Data Science Developer, Flipkart 3) Bharat P, Full Stack Developer, Mphasis 4) Selva Raj, Volunteer, Swecha AP		
6	Type of activity/Event	Workshop		
7	Activity/Event objectives	This is a hands-on, projects-based approach to learning the Arduino platform catered to all levels of experience		
8	Participation	Students	Faculty	Total Participation
		75	00	75
9	General remarks	The session was conducted smoothly		
10	Suggested Improvements	No		
11	Enclosures	1. Request letter 2. Circulars 3. Report 4. Attendance 5. Feed Back form		
12	Zoom video link:	Offline		
13	Signature of In charge/convener			

Bootcamp training is increasingly an option for learners who want to enter or advance in technical fields such as Internet of things, cyber security, data analysis, and software development.

One strategy to overcome the perceived and actual difficulties undergraduate students encounter in an introductory programming course is to participate in a Technical Boot Camp. The bootcamp took place during 25-5-2022 to 27-5-2022. The number of attendees was 75.

The objective of the three day of this bootcamp was to bring together the different technologies that have been developed by the participants and explains the way they work. Experts presented tutorials for their projects.

The bootcamp was composed of two parts of activities. The first part was devoted to technical presentations and hands-on tutorials on arduino board. This allowed the participants to acquire a broad overview of the key principles that support implement to real time applications. During the part of the programme , the students visited nearby village from college Nelatur and interacted with rural people and found real time problems faced by them. Then started implement solutions problems observed their visit.



Students explaining about the working models to the director and principal

This is a hands-on, projects-based approach to learning the Arduino platform catered to all levels of experience. In this course, you will build projects such as:

- An Arduino car that can be remotely driven using a smart phone app
- Your very own Arduino phone that you can make/receive phone calls with and send/receive text messages
- Your own Universal Arduino Remote that can copy and playback IR signals from any electronic device

- An Arduino Online Weather Station that connects to the internet to retrieve and display weather information based on your location
- Arduino game projects using light, sound and joysticks

You will quickly learn and become proficient with Arduino in this bootcamp by building complete projects from scratch. Here is the approach that is taken for each project:

- A detailed background of all the **electronics principles** and operation of the electrical components for each project will first be discussed
- The **wiring of components** and layout of the project will then be covered in the **circuit diagram.**
- Detailed **step-by-step videos** will then show how you how to **wire up and assemble the components** for the project.
- The **code will be uploaded** to demo the project and how it works.
- A **detailed line-by-line code review** will then describe how the **software and hardware components** play together.
- You will **get the complete picture** and it is a much better way to learn Arduino by **creating full working projects from scratch**!

Students explaining about the working models to the director and principal

We have always believed that **project-based learning** is the best approach where you actually learn by doing and building something that actually works. This is the approach which we are following in this course.