South Indian Education Society's GRADUATE
SCHOOL OF TECHNOLOGY, Navi Mumbai.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Workshop on Embedded System Design Using Arduino Uno

2nd January 2023 to 7th January 2023Click here to register

Arduino is an open-source platform used for building electronics projects. Arduino consists ofboth a physical programmable circuit board (often referred to as a microcontroller) and a piece of software, or IDE (Integrated Development Environment) that runs on your computer, used to write and upload computer code to the physical board.

The Arduino platform has become quite popular with people just starting out with electronics,and for good reason. Unlike most previous programmable circuit boards, the Arduino does not needa separate piece of hardware (called a programmer) in order to load new code onto the board -- you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, makingit easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of the micro-controller into a more accessible package.

In this course students will learn Basics of Microcontroller, Arduino, Sensors, Display Devices, Interfacing and Programming.

About Instructors:

This course will be taught by a team of expert from SIESGST faculty- Electronics and Telecommunication Department.

Faculty Members:

1. Prof. Vishal Gaikwad
2. Prof. Vaishali Mangrulkar

Course Objectives:

CO
Understand the basics of Microcontroller and Embedded System
Understand the Arduino board, GPIO pins and programming.
Understand the importance of different peripheral devices and their interfacing with Arduino
Write programs for Arduino Uno Board.
Apply the knowledge of interfacing and programming to read sensor data.
Design embedded system using different peripheral devices Arduino Uno Board

Course Outcomes:

Students will be able to

- Understand basics of Microcontroller and Arduino Uno Board
- Understand working of sensors
- Program the Arduino Uno Board
- Design Embedded System projects based on Arduino Uno Board.

Course Content:

Module	Contents	Hours
1.	Introduction to basics of Microcontroller	3 hrs
2.	Basics of Arduino Uno board and GPIO pin description	2 hrs
3.	Introduction to Arduino IDE and Programming	3 hrs
4	Basics of LED, Display devices, Wireless Modules and Sensors	4 hrs
5	Interfacing of Display Devices, Sensors, Wireless Modules andprogramming	12 hrs
6	Designing of Projects based on interfacing and programming.	15 hrs

Assessment:

1. Module wise assignments and quizzes will be taken.
2. Mini Projects will be assigned in a group of 4 students.

Course Coordinators:

Prof. Vishal Gaikwad

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9665779359

Prof.Vaishali Mangrulkar
vaishalim@sies.edu.in

SIES Graduate School of Technology
Sri Chandrasekarendra Saraswati Vidyapuram
Sector 5, Nerul, Navimumbai-400706

Department of Electronics & Telecommunication Engineering

Event Report

Workshop on Embedded System Design Using Arduino Uno

(2/1/2023 to 7/1/2023)

Event Information
Event Type: Workshop
Event title: Workshop on Embedded system design using Arduino Uno
Resource Person: Prof. Vishal Gaikwad, Prof. Vaishali Mangrulkar
Event date: 2/1/2023 to 7/1/2023
Organized for: ■ Student ☐ Faculty
Organized by Department : Electronics & Telecommunication Engineering
Target audience : SE students **Branch: EXTC / ECS** **Number of students registered: 29** **Number of students joined on first day: 14** **Number of students completed the course: 14** **Number of students completed the internship projects: 14**
Attachments: **1. List of internship Projects completed by the students** **2. List of students** **3. Attendance report** **3. Feedback** **4. Certificate, Photographs (in JPEG/PNG)**

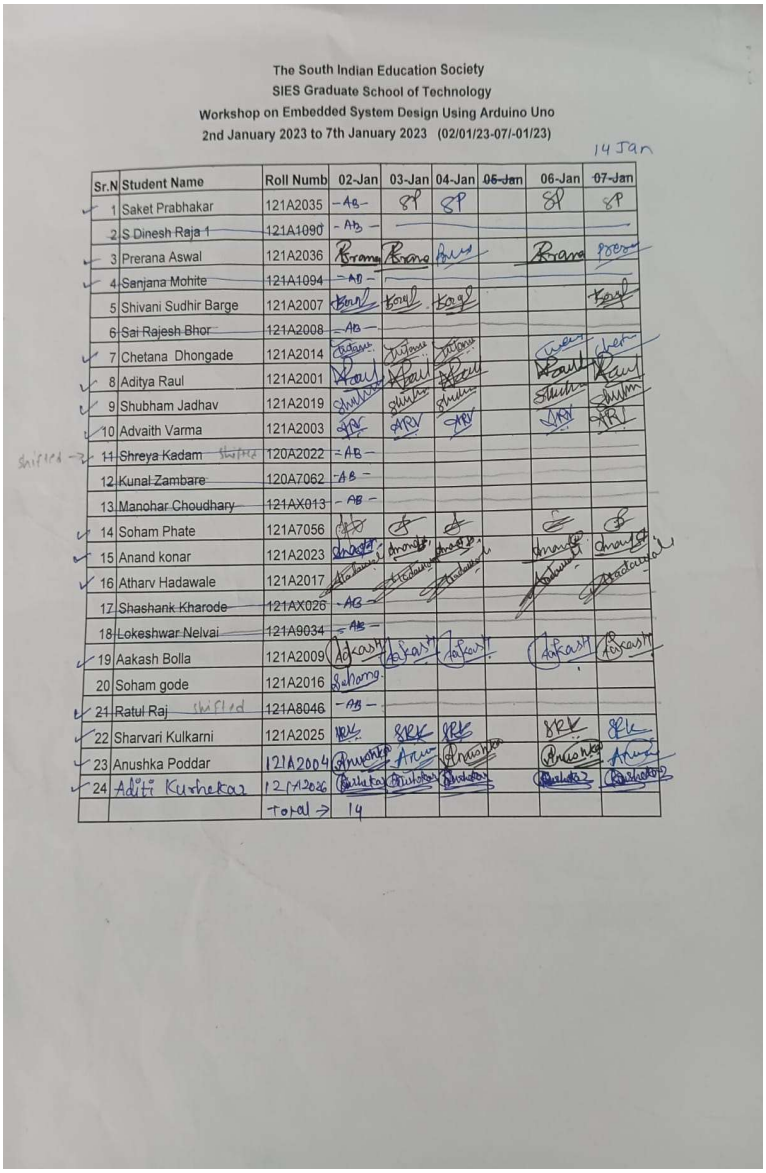
Event Description

SDP on Workshop on Embedded System Design Using Arduino started with session by Prof. Vishal Gaikwad. During these six days of program students were introduced about Basics of Arduino board, sensor interfacing, programming introduction . After completion of program, students successfully attempted the quiz and finalized their mini project.

1. List of Students :

Sr No.	Roll Number	Name	Year	Branch	Mobile Number	Email-Id
1	121A2035	Saket Prabhakar	SE	EXTC	9870346877	saketp1111@gmail.com
2	121A2025	Sharvari Raghuraj Kulkarni	SE	EXTC	8928264614	Sharvarisrk@gmail.com
3	121A2003	Advaith Rajeev Varma	SE	EXTC	9769939237	advaithvarma1803@gmail.com
4	121A2019	Shubham Arvind Jadhav	SE	EXTC	8779495289	shubhamjadhav410@gmail.com
5	121A2023	Anand Konar	SE	EXTC	9324738780	anandkonar06@gmail.com
6	121A2009	Aakash Bolla	SE	EXTC	9004341017	aakashshreelata@gmail.com
7	121A2017	Atharv Ashok Hadawale	SE	EXTC	8097821966	atharv.hadawale@gmail.com
8	121A2004	Anushka Poddar	SE	EXTC	8828210504	anushkapextc121@siesgst.ac.in
9	121A7056	Soham Phate	SE	ECS	9.19988E+11	sohampecs121@siesgst.ac.in
10	121A2007	Shivani Sudhir Barge	SE	EXTC	9356777231	shivanibextc121@gst.sies.edu.in
11	121A2026	Kurhekar Aditi Anil	SE	EXTC	9082416366	kurhekaraditi@gmail.com
12	121A2001	Aditya Kashinath Raul	SE	EXTC	9326171557	adityarextc121@gst.sies.edu.in
13	121A2014	Chetana Sudam Dhongade	SE	EXTC	9920159780	chetanasdhongade@gmail.com
14	121A2036	Prerna Aswal	SE	EXTC	7715938298	preranaaextc121@siesgst.ac.in

2. Attendance report :



The South Indian Education Society
SIES Graduate School of Technology
Workshop on Embedded System Design Using Arduino Uno
2nd January 2023 to 7th January 2023 (02/01/23-07/-01/23)

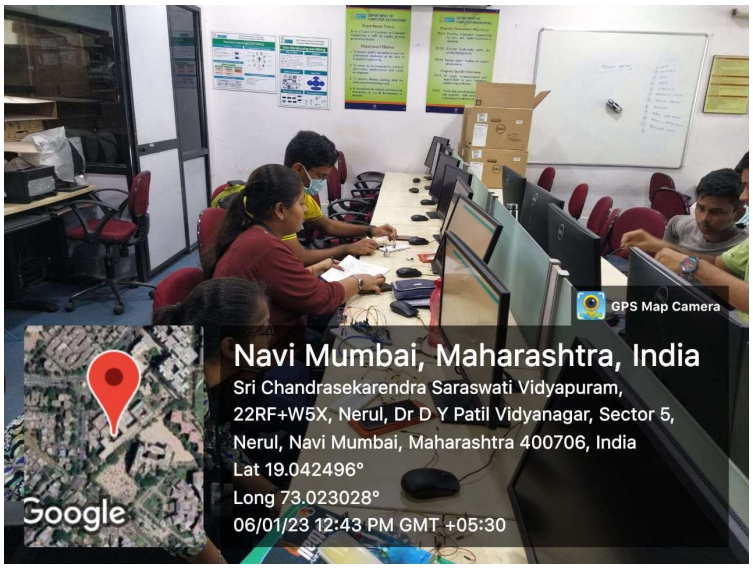
14 Jan

Sr.N	Student Name	Roll Numb	02-Jan	03-Jan	04-Jan	05-Jan	06-Jan	07-Jan
1	Saket Prabhakar	121A2035	AB	SP	SP		SP	SP
2	S Dinesh Raja 1	121A1090	AB					
3	Prerana Aswal	121A2036	Prana	Prana	Prana		Prana	Prana
4	Sanjana Mohite	121A1094	AB					
5	Shivani Sudhir Barge	121A2007	Barge	Barge	Barge			Barge
6	Sai Rajesh Bhor	121A2008	AB					
7	Chetana Dhongade	121A2014	Chetana	Chetana	Chetana		Chetana	Chetana
8	Aditya Raul	121A2001	Raul	Raul	Raul		Raul	Raul
9	Shubham Jadhav	121A2019	Shubham	Shubham	Shubham		Shubham	Shubham
10	Advaith Varma	121A2003	ARV	ARV	ARV		ARV	ARV
11	Shreya Kadam shifted	120A2022	AB					
12	Kunal Zambare	120A7062	AB					
13	Manohar Choudhary	121AX013	AB					
14	Soham Phate	121A7056	Soham	Soham	Soham		Soham	Soham
15	Anand konar	121A2023	Anand	Anand	Anand		Anand	Anand
16	Atharv Hadawale	121A2017	Atharv	Atharv	Atharv		Atharv	Atharv
17	Shashank Kharode	121AX026	AB					
18	Lokeshwar Nelvai	121A9034	AB					
19	Aakash Bolla	121A2009	Aakash	Aakash	Aakash		Aakash	Aakash
20	Soham gode	121A2016	Soham					
21	Ratul Raj shifted	121A8046	AB					
22	Sharvari Kulkarni	121A2025	SRK	SRK	SRK		SRK	SRK
23	Anushka Poddar	121A2004	Anushka	Anushka	Anushka		Anushka	Anushka
24	Aditi Kurhekar	121A2026	Aditi	Aditi	Aditi		Aditi	Aditi
		Total →	14					

3. Feedback

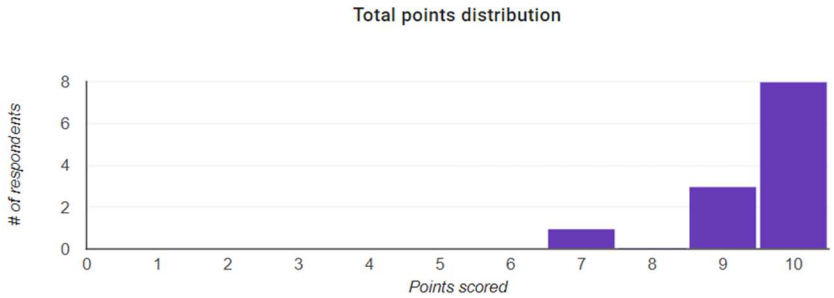
Full Name Printed on Certificate	How satisfied were you with the SDP?	How relevant do you think it was for your academics	Effectiveness of the SDP	Content delivery by speakers	Remarks
Saket Prabhakar	5	5	5	5	
Sharvari Raghuraj Kulkarni	5	5	4	5	This workshop was indeed a very good opportunity for me to learn arduino uno.This workshop has helped me making my projects and have good command on arduino uno.I thank my mentors for teaching and guiding us throughout.
Advaith Rajeev Varma	5	5	4	4	It was a very nice session....Sir taught us Arduino in such a way tha we felt it was like nothing hard to make a project on Arduino.....sensors and code were very well explained
Shubham Arvind Jadhav	5	5	5	5	
Anand Konar	4	5	5	5	
Aakash Bolla	5	5	5	5	
Atharv Ashok Hadawale	4	4	4	4	
Anushka Poddar	4	4	4	4	It was a great learning experience.
Soham Phate	5	5	5	5	
Shivani Sudhir Barge	4	4	4	4	
Kurhekar Aditi Anil	4	4	4	5	It was a very good session.
Aditya Kashinath Raul	4	5	4	5	There was issue with wires. Apart from that the workshop wa
Chetana Sudam Dhongade	4	4	3	4	

4. **Certificate, Photographs (in JPEG/PNG) :**



Quiz Result:

Average	Median	Range
9.5 / 10 points	10 / 10 points	7 - 10 points



Certificate :

SIES Graduate School of Technology
RISE WITH EDUCATION

CERTIFICATE
OF COMPLETION

CR No. EXTC/GDP/0123/457

this is to certify that

Saket Prabhakar

has successfully completed the value-added course on
Embedded System Design Using Arduino Uno
from 2nd Jan, 2023 to 7th Jan, 2023,
organized by **Electronics and Telecommunication** department, SIES GST.

Prof.Vaishali M
Course Co-ordinator

Mr.Vishal Gaikwad
Course Co-ordinator

Dr.Preeti Hemnani
HOD EXTC Dept.

Dr. Atul Kemkar
Principal