INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956

SCHOOL OF ELECTRICAL ENGINEERING

Value Added Courses (2021 -2022)

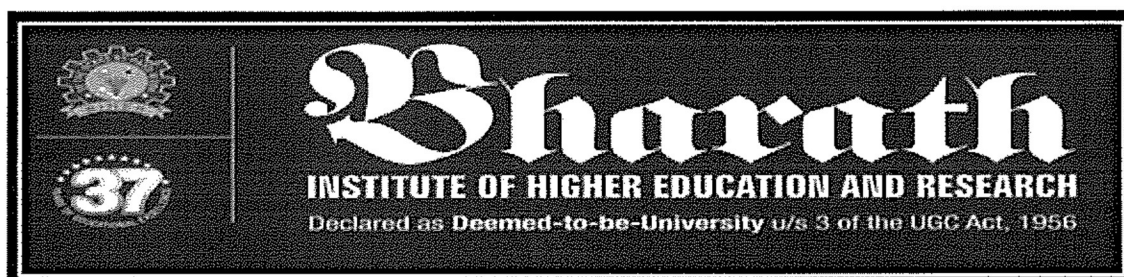## Hands on Training "Embedded System Design Using Arduino"

Course Objective

An embedded system is one kind of a computer system mainly designed to perform several tasks like to access, process, storeand also control the data in various electronics-based systems. Embedded systems are a combination of hardware and software where software is usually known as firmware that is embedded into the hardware. One of its most important characteristics of these systems is, it gives the o/p within the time limits. Embedded systems support to make the work more perfect and convenient. Arduino is an open-source, single-board, microcontroller for building devices that can sense and control objects in the physical world. So, we frequently use embedded systems in simple and complex devices too. By providing Hands-on workshop to students, they will get idea on hardware components. By using this knowledge they can develop simple real time problems. In this workshop we will use Embedded C for microcontroller programming .This Workshop aims at imparting job-oriented training on Microcontroller architectures and concepts of Embedded C language from an industry perspective. More emphasis shall be given to hands-on (practical) sessions for better understanding.

Resource Persons :

1.Ms.S. Arulselvi

2.Ms.K. Subbulakshmi

3.Ms.BeulahHemalatha

Convener
Dr.M.Sundararajan
HOD/ECE
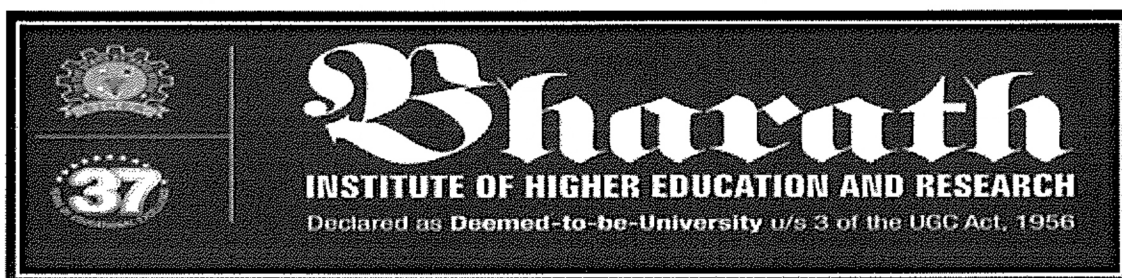
CIRCULAR

SCHOOL OF ELECTRICAL ENGINEERING

Date: 20.12.2021

The course on Hands on Training "Embedded System Design Using Arduino"is planned by School of Electrical Engineering which commences on 16-01-2022. In this regard the students are requested to give their willingness to Course Coordinator.It is instructed to actively participate and get benefitted for the certified course.

Course Coordinator: Ms. S. Saravana
Contact No: 9952947458
Email id : selvidurai1975@gmail.com

Dr.M.Sundararajan
HOD/ECE

To,
Copy to ECE Department,
Copy to EEE Department,
Department Notice Board

SCHOOL OF ELECTRICAL ENGINEERING

Hands on Training "Embedded System Design Using Arduino"

SCHEDULE

Contact Hours : 30hrs

DATE	SESSION	Contact Hours	TOPICS	Resource person
16-01-2022	FN	9.00 am to 12.30 pm	Introduction: Microcontroller vs Microprocessor Arduino vs Rasberry Pi	Ms. S. Arulselvi
	AN	1.30 pm to 4 pm	Overview of Embedded systems	Ms.K. Subbulakshmi
17-01-2022	FN	9.00 am to 12.30 pm	Selecting the Right Arduino Board for your Project	Ms.BeulahHemalatha
	AN	1.30 pm to 4 pm	The mindset for learning Arduino Fundamentals of Arduino Electronics	Ms.BeulahHemalatha
18-01-2022	FN	9.00 am to 12.30 pm	Understanding a circuit Diagram Using a Digital Voltmeter How t not Blow up GPIO pins and other safety Precautions	Ms. S. Arulselvi
	AN	1.30 pm to 4 pm	Software and Hardware Tools for Arduino Exploring the Arduino IDE	Ms.K. Subbulakshmi
19-01-2022	FN	9.00 am to 12.30 pm	Programming the Arduino Writing your first program: A Blinking light Programming fundamentals: Loops, conditionals, variables, functions and parameters	Ms.BeulahHemalatha
	AN	1.30 pm to 4 pm	Overview of Input/ Output Interface Configuring the input sensors LEDs, Switches, Buzzers, and Display devices	Ms. S. Arulselvi

			Programming Sensor to Output Device Control	
20-01-2022	FN	9.00 am to 12.30 pm	Project: Automatic Light Adjustment System Analog to Digital Conversion Serial Communication and UART Programming Sensor sticks, motors and audio devices	Ms.K. Subbulakshmi
	AN	1.30 pm to 4 pm	Project TBD Testing and Debugging Extending Arduinos Capabilities Joining the Arduino Community Troubleshooting	Ms.BeulahHemalatha

VALUE ADDED COURSE

SCHOOL OF ELECTRICAL ENGINEERING

Hands on Training "Embedded System Design Using Arduino"
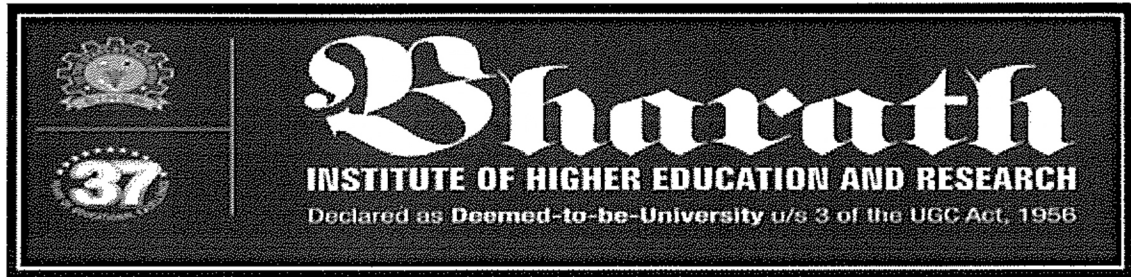
List Of Participants

Date:16.01.2022

Sl.no	REG. NO	NAME OF THE CANDIDATE
1	U12EC001	ABHISHEK KUMAR
2	U12EC002	AMARAVATHI S
3	U12EC004	ANKUR PANDEY
4	U12EC006	AVANI RANJAN
5	U12EC008	BLESSNI VASANTHA N S
6	U12EC011	CHINNA ANKANNAGARI ARUNA
7	U12EC014	DINESH KUMAR P
8	U12EC017	JANAKI RAMAN S
9	U12EC028	MANIRATNAM KUMAR
10	U12EC031	MONISHA M
11	U12EC038	RAJ
12	U12EC049	SOLOMON RAJA K
13	U12EC053	SRIVIDHYA S
14	U12EC056	SUGANDHAN S
15	U12EC060	SURESH J
16	U12EC063	VAISHALI SINGH
17	U12EC065	VIGNESH KUMAR S

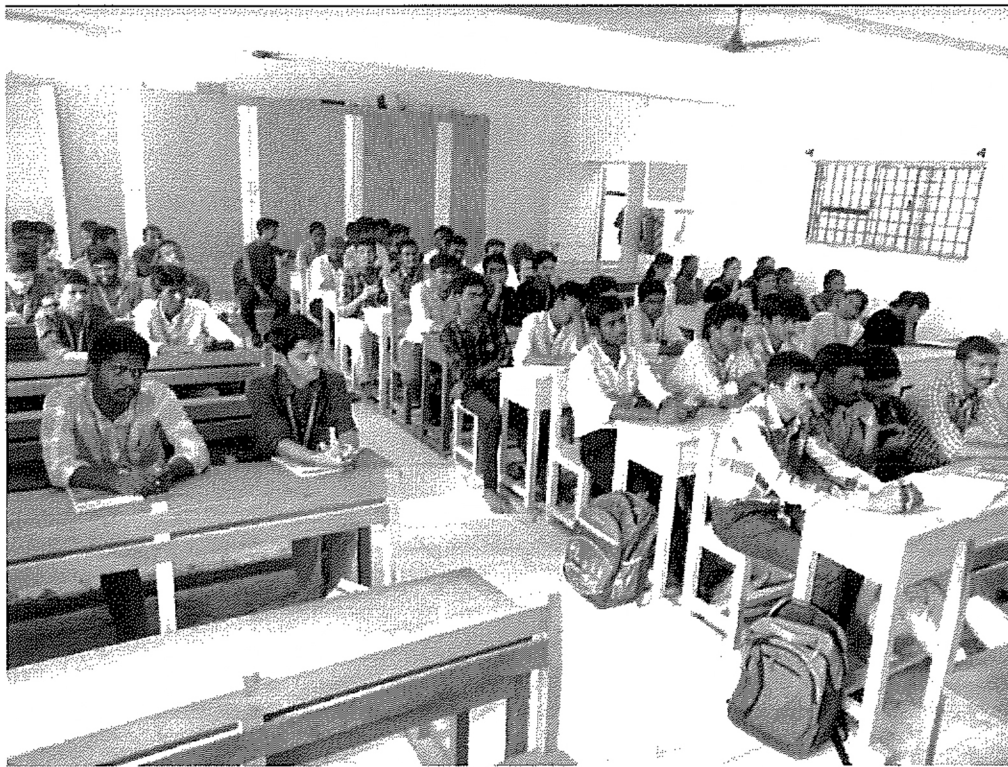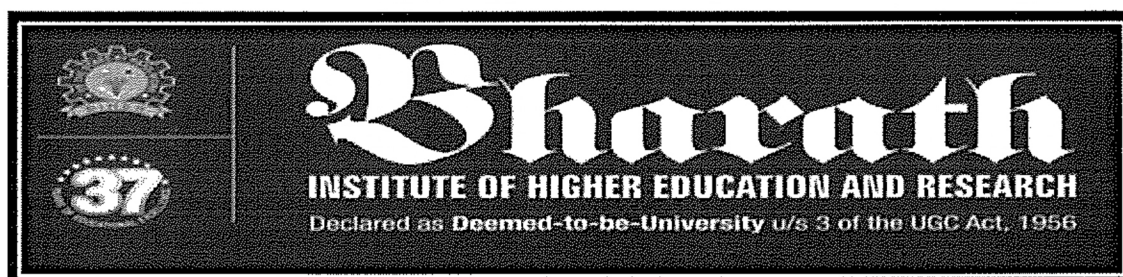| 18	U12EC068	VIJAY PRASAD R
19	U12EC073	SUNITA KUMARI
20	U12EC075	MD SOHAIL AKHTAR
21	U12EC077	PAVITHRA M
22	U12EC507	GUNDLURU DHEERAJ REDDY
23	U12EC509	VISHAL B
24	U12EC513	NIJANTHAN B
25	U12EC518	KATHIRAVAN R
26	U12EC526	BHARATHIDASAN A
27	U12EC707	SUMIT KUMAR PANDEY
28	U12EC510	BALAJI G
29	U12EE070	VINOTH SELVA KUMAR C
30	U12EE071	VISHNU SURESH

(Dr.M.Sundararajan)

HOD/ECE

SCHOOL OF ELECTRICAL ENGINEERING

Course on **Hands on Training "Embedded System Design Using Arduino"** dated on **16.01.2022** conducted by School of Electrical Engineering
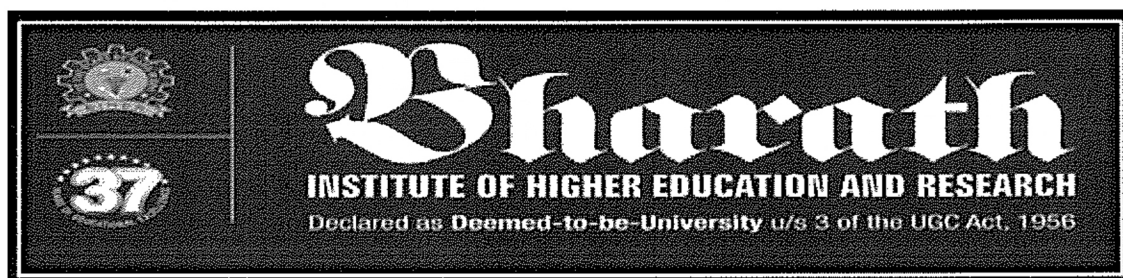
SCHOOL OF ELECTRICAL ENGINEERING

VALUE ADDED COURSE

Hands on Training "Embedded System Design Using Arduino"

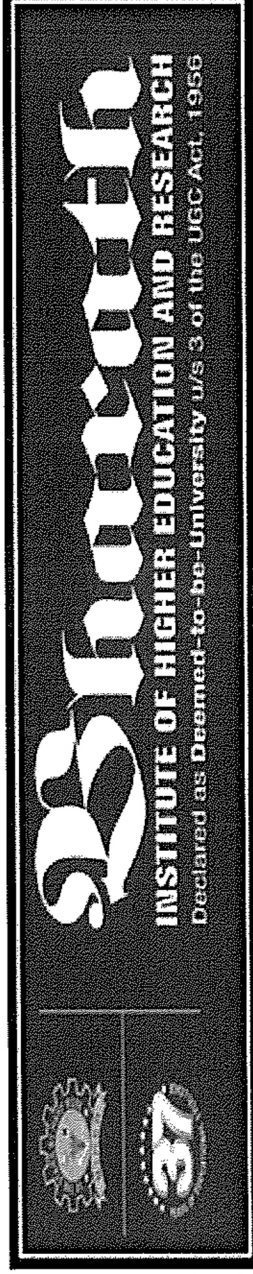| FEED BACK FORM				Date:20-01-2022	
Name	A MARAVATHI·S				
Register number	VI2EC002				
Phonenumber	9940470763				
Email address	amaravathi.s@gmail.com				
	Poor	**Fair**	**Good**	**Very Good**	**Excellent**
Overall Program					✓
TheSpeaker				✓	
Audio,Visual Aids Technology used			✓		
Presentation hand outs					✓

Amaravathi

Student Signature

SCHOOL OF ELECTRICAL ENGINEERING

VALUE ADDED COURSE

Hands on Training "Embedded System Design Using Arduino"

FEED BACK FORM				Date:20-01-2022	

Name	VISNU SURESH				
Register number	U12EE071				
Phonenumber	9500376115				
Email address					
	Poor	Fair	Good	Very Good	Excellent
Overall Program			✓		
TheSpeaker				✓	
Audio,Visual Aids Technology used					✓
Presentation hand outs			✓		

Vishusuresh

Student Signature

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SCHOOL OF ELECTRICAL ENGINEERING

CERTIFICATE OF PARTICIPATION

ANKUR PANDEY(U12EC004)

This is to certify that Mr/Ms..

has attended Value added Course on **"Embedded System Design Using**

Arduino" Organized by the school of Electrical Engineering, BIHER

conducted from 16-01-2022 to 20-01-2022.

Dr. M. SUNDARARAJAN
CONVENOR

Ms. G.KANAGAVALLI
COURSE COORDINATOR