

NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

APPROVED BY AICTE, NEW DELHI AND DEPT OF SCIENCE & TECHNOLOGY, GOVT. OF BIHAR
AFFILIATED TO BIHAR ENGINEERING UNIVERSITY, PATNA
AMHARA, BIHTA, PATNA-801106

Date:-02/01/2024

Notice

All the students of B.Tech 1st Year are hereby informed that the department of EEE and IQAC Cell in association with Power Integrated Solutions is organizing a workshop on **Embedded Systems on Arduino** from 09/01/2024 to 12/01/2024. The registration fee is Rs.300/-. All students that are going to participate in the workshop must report to the coordinators on or before 05th Jan, 2024.

Name of the Coordinator:-

1. Mr. Nishant Kumar, HOD, Dept of EEE.
2. Mr. Priyaranjan Kumar, Dept of EEE.

J Dalei

Dean Academics

Dean (Academics)
Netaji Subhas Institute of Technology
Amhara, Bihta, Patna.

[Signature]
Director

Netaji Subhas Institute of Technology
Amhara, Bihta, Patna, Bihar
PIN-801106

Organizing Committee

Patron

Mr. M. M. Singh, Founder Secretary, NSIT
Mr. Krishna Murari, Registrar, NSIT
Dr. S. Singh, Director, NSIT

Convener

Dr. J. Dalei, Dean Academic, NSIT

Coordinators

Mr. Nishant Kumar, NSIT Patna
Mr. Priyaranjan Kumar, NSIT Patna

Organizing Members

Mr. Ritesh Kumar.
Mrs. Kiran Singh
Mr. Amarjeet Kumar
Mr. Agam Kumar

Objective of Workshop

An embedded system is a combination of hardware and software provided that both should be synchronized with each other. Some examples are as follows: industrial machines, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines etc. The Arduino is an open-source computer hardware/software platform for building digital devices and interactive objects that can sense and control the physical world around them. In this course students will learn how the Arduino platform works in terms of the physical board and libraries and the IDE (Integrated Development Environment). The course will also cover programming the Arduino using C code and accessing the pins on the board via the software to control external devices.

About the Institute

Netaji Subhas Institute of Technology established in 2007, with first batch started in 2008 has its magnificent campus at Amhara in the district of Patna, Bihar. The nearest railway station is Bihta about 2 kilometres from the institute campus and about 25 KM from Patna A railway junction the state capital and major business and Educational hub of the state. Bihta is the industrial hub and blessings nerve centre of the entire state of Bihar. NSIT, A Degree level Engineering Institute has become a "An effective source of Technocrats to the nation". with its unique infrastructural facilities of 4,00,000 Sq.Ft. of built up area on approximately 18 acres of green lustre land at Amhara, Bihta, Patna, Ambience at the campus serve and Ashram like. The college offers 4 years B.Tech courses in CSE, ECE, EEE, ME and CE.

About the Department

The Department of EEE has a team of well qualified, experienced and dedicated faculty members with rich academic, industrial and research background. The department is fully equipped with modern electronics equipment systems with latest software. The EEE has the intake of 120 students and approved by AICTE and affiliated to AKU, Patna.

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One Week-Workshop

ON

EMBEDDED SYSTEM USING ARDUINO



Date: 09th Jan to 12th Jan, 2024

**Organized by:
Department of EEE & IQAC Cell
NSIT Bihta Patna**



Vision of Department

To produce Electrical Engineers with energetic well rounded personalities flexible to cope escalating demands of budding technologies concerning analytical and practical skills.

Mission of Department

- ❖ To extend the department as a prominent academic centre of learning in the discipline of electrical engineering.
- ❖ To set up research and development hub of status so as to promote active participation with industry by staff and students to take on practical problems of industry and to provide feasible solutions.
- ❖ To develop simple, suitable technologies, this will be helpful in the up-liftment of rural society.

Resource Persons

Mathan Kumar M, Director
Power Intergrated Solutions, Trichy

REGISTRATION

The participation fees Rs 350/- only
Mode of registration: - Spot
For More Information Contact us on:-
7781020361, 7781020349, 9102403262

REGISTRATION FORM

Name: _____
Designation: _____
Organization: _____
Gender: M/F
Area of Work: _____
Email: _____
Contact no: _____
Address: _____
Date: _____
Signature: _____

Director
Nellore Institute of Technology
Amhara, Birta, Palur, Nellore
PIN-531108

Course Contents

DAY-1	EMBEDDES SYSTEMS DESIGN: BASIC
	INTRODUCTION TO ARDUINO & ARCHITECTURE OF ARDUINO
	THEORY AND PRACTICAL IDEA OF LED & SWITCHES WITH ARDUINO
DAY-2	THEORY AND PRACTICAL IDEA OF RELAY INTERFACE WITH ARDUINO
	THEORY AND PRACTICAL IDEA OF LCD APPLICATION WITH ARDUINO
	THEORY AND PRACTICAL IDEA OF DHT11 SENSOR WITH ARDUINO.
DAY-3	THEORY AND PRACTICAL IDEA OF SERVO MOTOR WITH ARDUINO
	THEORY AND PRACTICAL IDEA OF ULTRASONIC SENSOR INTERFACE WITH ARDUINO.
	BLUETOOTH INTERFACE LOAD CONTROL
	THEORY AND PRACTICAL IDEA FLAME, IR SENSOR AND GAS SENSOR WITH ARDUINO.

Certificate Course in Arduino based Embedded System Design

Objective: An embedded system is a combination of hardware and software provided that both should be synchronized with each other. Some examples are as follows: industrial machines, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines etc. The Arduino is an open-source computer hardware/software platform for building digital devices and interactive objects that can sense and control the physical world around them. In this course students will learn how the Arduino platform works in terms of the physical board and libraries and the IDE (Integrated Development Environment). The course will also cover programming the Arduino using C code and accessing the pins on the board via the software to control external devices.

Learning Outcome: After the completion of the course, the students will be specialized in Embedded System Design using Arduino.

Duration of the Course: 3 Days

Detailed Course Syllabus

INTRODDUCTION AND BASIC IDEA ABOUT EMBEDDED YSSTEMS.
BRIEF THEORY AND APPLICATION FOR EMBEDDED SYSTEMS.
INTRODUCTION TO ARDUINO & ARCHITECTURE OF ARDUINO
COMPARISON OF ARDUINO WITH ARM, 8051 AND PIC ARCHITECTURES.
THEORY AND PRACTICAL IDEA OF SWITCHES WITH ARDUINO
THEORY AND PRACTICAL IDEA OF LED WITH ARDUINO
THEORY AND PRACTICAL IDEA OF RELAY INTERFACE WITH ARDUINO
THEORY AND PRACTICAL IDEA OF LCD APPLICATION WITH ARDUINO
THEORY AND PRACTICAL IDEA OF DHT11 SENSOR WITH ARDUINO.
THEORY AND PRACTICAL IDEA OF SERVO MOTOR WITH ARDUINO
THEORY AND PRACTICAL IDEA OF ULTRASONIC SENSOR INTERFACE WITH ARDUINO.
BLUETOOTH INTERFACE LOAD CONTROL
THEORY AND PRACTICAL IDEA FLAME, IR SENSOR AND GAS SENSOR WITH ARDUINO.

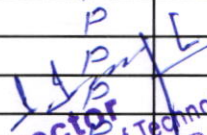

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NETAJI SUBHAS INSTITUTE OF TECHNOLOGY, BIHTA

Session 2023-24

Workshop on EMBEDDED SYSTEM USING ARDUINO

S.No	Name of Student	09th Jan	10th Jan	11th Jan	12th Jan
1	GOVIND KUMAR	P	P	P	P
2	ANJALI RANI	P	P	P	P
3	RAJ KUMAR	P	P	P	P
4	SUMAN SAURABH SINGH	P	P	P	A
5	DEVJYOTI	P	P	P	P
6	MD MEHRAJ ALAM	P	P	P	P
7	AMAN KUMAR	P	P	P	P
8	ABHISHEK KUMAR	P	P	P	P
9	ASHISH RAJ	P	P	P	P
10	SHIVAM SUNDRAM	A	P	P	P
11	KARAN KUMAR	P	P	P	P
12	RAJ KUMAR	P	P	P	P
13	MOHIT RAJ SHARMA	P	P	A	P
14	VIVEK KUMAR SINGH	P	P	P	P
15	SAHIL SIDDIQUE	P	P	P	A
16	KUNAL KUMAR	P	P	P	P
17	ABHISHEK KUMAR	P	P	P	P
18	PRIYANSHU KUMAR	P	P	P	P
19	AMAN KUMAR	P	P	P	P
20	SUDHANSHU KUMAR	P	P	P	A
21	ADITYA KUMAR	P	P	P	P
22	ANKIT TIWARI	P	P	P	P
23	MAHI KUMARI	P	P	P	P
24	VARSHA RANI	P	P	P	P
25	MISA KUMARI	P	P	P	P
26	RISHAV RAJ	P	A	P	P
27	SHREYA SINGH	P	P	P	P
28	PRACHI KUMARI	P	P	P	P
29	SURAJ KUMAR	P	P	P	P
30	MONALISA SINHA	P	P	P	P
31	KOMAL KUMARI	P	P	P	P
32	ANJALI KUMARI	P	P	P	P
33	NITISH KUMAR	P	P	P	P
34	VIVEK KUMAR	P	P	P	A
35	ANUSHKA KUMARI	P	P	P	P
36	ABHIRUCHI KUMARI	P	P	P	P
37	AYUSH KUMAR	A	P	P	P
38	MANSHI KUMARI	P	P	P	P
39	NIDHI KUMARI	P	P	P	P
40	KHUSHI KUMARI	P	P	P	P
41	ARMAN SINGH	P	P	A	P
42	RITIK RAJ	P	P	P	P
43	ABHISHEK RAJ	P	P	P	P
44	VISHAL GOSWAMI	P	P	P	P
45	AYUSH KUMAR	P	P	P	A
46	YASHWANT KUMAR GUPTA	P	P	P	P
47	HARI PRIYA	P	P	P	P
48	KISHAN KUMAR	P	P	P	A


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9	ANUSHKA GARG	P	P	P	A
50	DIPU KUMAR	P	P	P	P
51	SAMIT KUMAR	P	A	P	P
52	RAJA KHUSHAHAL	P	P	P	P
53	VIKASH KUMAR	P	P	P	P
54	AKSHAY KUMAR	P	P	P	A
55	SONU KUMAR	P	P	P	P
56	MAYANK RAJ	P	P	P	P
57	HARSHVARDHAN KUMAR	P	P	P	A
58	ABHINAV SINGH	P	P	A	P
59	ABHAY KUMAR	P	P	P	P
60	VIKRAM RAJ	P	P	P	P
61	PAYAL RAJ	P	P	P	P
62	DEEPAK KUMAR	P	P	P	P
63	HRITIK KUMAR	P	P	P	A
64	RAJMANI KUMARI	P	P	P	P
65	SAMEER KUMAR	P	P	P	P
66	MD KAIF	A	P	P	P
67	MOHIT KUMAR	P	P	P	P
68	TANAY PATEL	P	P	P	P
69	SHIVAM KUMAR	P	P	P	P
70	VISHAL KUMAR	P	P	P	P
71	PRAKASH KUMAR	P	P	P	A
72	VAIBHAV RAJ	P	P	P	P
73	RISHAV RAJ	P	P	P	P
74	TAYEEB AHMAD	P	P	P	P
75	ARAF ANWAR	P	P	P	P
76	MD FARHAAN SAUD	P	A	P	P
77	MD AHSAN JAMAL	P	P	P	P
78	ABHAY KUMAR	P	P	P	P
79	AMAN KUMAR	P	P	P	P
80	PRIYANSHU RAJ	P	P	P	P
81	DEEPAK KUMAR	P	P	P	P
82	SUNIL KUMAR	P	P	P	P
83	MD ALTAMAS	P	P	P	P
84	KAMLESH KUMAR	P	P	P	P
85	ANKUSH KUMAR	P	P	P	P
86	GAUTAM KUMAR	P	P	P	P
87	ALOK RAJ	P	P	P	P
88	DEVRAJ	P	P	P	A
89	MD SHAHZAD ANSARI	P	P	P	P
90	MOHAMMAD ANIS	P	P	P	P
91	ARYA SINGH	P	P	P	P
92	ANSH ACHARYA	P	P	A	P
93	VEDIKA	P	P	P	P
94	ABHISHEK KUMAR	P	P	P	P
95	RISHU RAJ	P	P	P	A
96	SUNNY KUMAR	P	P	P	P
97	SHASWAT RAJ	P	P	P	P
98	ARUSH PRAKASH	P	A	P	P
99	VIKESH KUMAR SINGH	P	P	P	P
100	ANAND KUMAR	P	P	P	P
101	KOMAL KUMARI	P	P	P	P

Director
Netaji Subhas Institute of Technology
Amnara, Bihar, Patna, Bihar
Pin-801106

Certificate of Participation



Power Integrated Solutions
#10A/3 Radhakrishna Colony,
Sastri Road, Thennur, Trichy-17.
powerintegratedsolutions@gmail.com



This is to certify that Mr/Ms..... **DEVRAJ**.....Reg No. **23110103005**.....

Has Successfully completed the workshop program on “Embedded Systems on Arduino” from 09.01.2024 to 12.01.2024 conducted by IQAC and the Department of Electrical and Electronics Engineering at **Netaji Subhas Institute of Technology, Bihta, Patna** in association with **Power Integrated Solutions, Trichy.**



MANAGING DIRECTOR
Power Integrated Solutions

Nishant Kumar

Head HOD Department
Department of Electrical & Electronics Engineering
EEE, NSIT
Netaji Subhas Institute of Technology

J. D. Jais
DIRECTOR
Netaji Subhas Institute of Technology
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Certificate of Participation



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This is to certify that Mr/Ms.....**ARMAN SINGH**.....Reg No.....**2310510304**!

Has Successfully completed the workshop program on “Embedded Systems on Arduino” from 09.01.2024 to 12.01.2024 conducted by IQAC and the Department of Electrical and Electronics Engineering at **Netaji Subhas Institute of Technology, Bihta, Patna** in association with **Power Integrated Solutions, Trichy.**



MANAGING DIRECTOR
Power Integrated Solutions

Head of Department
HOD
Department of Electrical & Electronics Engineering
Netaji Subhas Institute of Technology

J. Dalei
DIRECTOR
Department of Electrical & Electronics Engineering
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