GOVERNMENT POLYTECHNIC COLLEGE VALSAD

Electrical Engineering Department

ONE DAY WORKSHOP REPORT

Event Name	**Arduino Programming and Sensor Interfacing**
Date of Event	17/01/2025
Venue	Seminar Hall and Computer LAB, Government Engineering College, Valsad
Audience	Students of SEM 4 and SEM 6, Electrical Engineering and IT Engineering departments
Course	Project I (Code: 435904), MPCA (Code: 4360902), Project II (Code: 4360906)
Organized by	Mr. K.H. Tandel (Lecturer, EC Engineering), Mr. S.D. Choksi (Lecturer, Electrical Engineering), Mr. M.B.Gavit (Lecturer, Electrical Engineering)
Experts	Mr. Devendra Tandel (Assistant Professor, Government Engineering College, Valsad),Mr. K.H. Tandel (Lecturer, EC Engineering), Mr. S.D.Choksi(Lecturer, Electrical Engineering),

- Objective of the Workshop:

The workshop aimed to provide students with hands-on experience in Arduino programming and sensor interfacing, with a focus on embedded systems. The objective was to enhance students' understanding of Arduino hardware and software, as well as sensor integration techniques, preparing them for project-based applications in embedded systems.

- Overview of the Workshop:

The workshop was structured into four sessions, each designed to build on the students' knowledge of Arduino programming and sensor interfacing:

- Session 1: Introduction to Arduino hardware and basics of programming

The first session introduced students to Arduino boards, components, and the basics of programming required for embedded system projects.

- Session 2: Exploration of Arduino IDE and sensor interfacing techniques

Students explored the Arduino IDE and learned how to interface various sensors with the Arduino, understanding the principles of data collection and processing.

- Session 3: Practical session on Arduino installation and programming

Students installed the Arduino IDE and created simple programs. The session also included an introduction to online simulation tools for Arduino.

- Session 4: Development of sample projects using various sensors

In the final session, students applied their learning to build sample projects, utilizing sensors with Arduino to collect and process data, solidifying their understanding of embedded systems.

The expert speakers guided students through both theoretical and practical aspects of Arduino programming, sensor interfacing, and embedded systems, ensuring all participants gained valuable hands-on experience.

Feedback:

The workshop concluded with an engaging feedback session. Students appreciated the interactive approach and the practical, hands-on nature of the workshop. They expressed satisfaction with the sessions, highlighting how the skills gained would benefit them in their future projects and academic work.

Conclusion:

The workshop on Arduino Programming and Sensor Interfacing successfully met its objectives by providing students with practical knowledge and experience in embedded systems. The students from the Electrical Engineering and IT Engineering departments gained valuable insights into Arduino programming and sensor integration, preparing them for future project work and research. The event was highly appreciated by the participants, and the skills learned will undoubtedly contribute to their academic growth and future endeavors.

Name of Course	**Code**	**SEMESTER**	**CO Covered**
Microprocessor and Controller Application	4360902	6	**1. CO3: Apply knowledge of microprocessors and microcontrollers in various applications.**
Electrical Engineering Project I	4350904	5	**1. CO.2 Select the best suitable solution to solve the defined problem along with budget.** **2. CO.3 Design methodology to reach final solution.** **3. CO.4 Initiate to assemble project after purchasing the component.**
Electrical Engineering Project II	4360906	6	**4. CO2: Troubleshoot the faults during the assembling procedure.** **2. CO3: Execute testing of the project after assembling the final hardware to verify the result.** **3. CO4: Modify the components of the project if required.**

- **Session Photos**
- **Theory Session**

➢ PRACTICAL Session

Attendance

GOVERNMENT POLYTECHNIC VALSAD

ELECTRICAL ENGINEERING DEPARTMENT

One Day Workshop on "Arduino Programming and Sensor Interfacing" 6th sem & 4th sem **DATE: 17.01.2025**

SR NO.	ENROLLMENT NO.	NAME	SIGN
1	226290309214	Pradeep S. Yadav	Pradeep
2	226290309177	Ashish T. Singh	A Singh
3	226290309079	HARSHIL V. DESAI	HVDesai
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5	226290309044	Jatin N. Lad	Jatin Lad
6	226290309049	Viral S. Patel	V.S. Patel
7	226290309150	Vrajesh S. Patel	V.S. Patel
8	226290309102	Jenish J. Patel	
9	226290309046	Vaibhav A. Lad	V. Arad.
10	226290309001	Ket H. Amin	
11	226290309170	Dhruvanshu B Rathod	D. B. Rathod
12	226290309159	Ganesh B. Patil	G. B Patil
13	226290309157	Darshan D Patil	Patil
14	226290309160	Preetik D Patil	
15	226290309161	Hartik A. Pawar	HAP.
16	226290309180	Arjun D. Gharti	A.D.Gharti
17	226290309032	RAHUL D. HARIPATI	R.D.H.
18	226290309020	Priyanshu K. Deshmukh	Deshmukh
19	226290309045	Jay A. Lad	J. A. Lad
20	226290309086	DIP N. PATEL	D. N. Patel
21	226290309027	Ronak L. Dhanejay	R.L.Dhanejay
22	236298309048	Singh Roshan Subodh	
23	226290309197	Tandel Mantik kishorbhai	M.K Tandel
24	226290309183	Tandel Arjan shaileshbhai	A.S Tandel
25	226290309206	Tandel Sachin Kumar B.	
26	226290309167	Rahul J. Rajpurohit	
27	996290309067	Patel Aneel A.	A.A.Patel
28	226290309146	Patel Tanmkal H.	T.H.Patel
29	226290309024	Priyam S. Dubey	Dubey
30	226290309089	Diya N. Patel	D.N.P
31	236290309007	Dhruvil S. Balkori	D. S. B.
32	236290309134	Tejas N. Patel	Tejas
33	236290309053	Punit K. Parmar	P. K. Parmar
34	236290309072	Dairik D. Patel	
35	236290309043	Maheta Himesh M.	Himesh M.M
36	236290309089	Patel Jainil K.	J. K. Patel
37	236290309103	Patel Manil D.	M.D. Patel
38	236290309149	Rathod Bhavya A	B.A. Rathod
39	236290309082	Patel Hardik K	Patel H. K
40	236290309127	Shreyas K Patel	S. K. Patel
41	236290309202	Patel Man M.	
42	236290309108	Mit A. Patel	M. A. Patel
43	236290309119	Patel Pritesh K.	

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46	236290309153	Manan. A. Savaliya	
47	236290316010	Jena Aditya. M.	Aditya
48	236290316062	Pate Himat S.	
49	236290316071	Shyamwala Jawwad	Jawwad
50	236290316075	Thakor Kalpesh.	Kalpesh
51	236290316020	Malli Amol Shivaram	Amol.
52	236290316070	Shinde Bhavesh Ashok	Bhavesh
53	226290309077	Daksh S. Patel	D.S.P
54	236298309028	Heet D Patel	
55	236298309029	Kalpav m Patel	
56	236298309011	Kaushik n Patel	
57	236298309016	Sujal P mistry	Sujal
58	236298309034	Parthiv H Patel	
59	236298309035	Pratham D Patel	
60	236298309052	Keni m tandel	K.M.Tandel
61	226290309026	Gremin J Tandel	G J Tandel
62	236290309210	Rishi A. Tandel	R. A. Tandel
63	236298309053	Tandel Teerth R	T.R Tandel
64	236298309049	Tundel Dwinish J.	
65	236290309097	Krish S. Patel	K.S.Patel
66	236290309063	Ank m. Patel	A.M.Patel
67	236290309286	tandel KRISHIV. R.	K.R.T
68	226298309018	Patel Piyush K.	
69	236290309201	Tandel Pratham S.	P.S.Tandel
70	236290309219	Tandel Tilak H.	
71	236290309187	Tandel Krishna m	K.M.T.
72	236290309233	Yadav Vikas H.	
73	236290309168	Tandel Chirag N	C.N.Tandel
74	216290309121	Prasad Rohit S.	
75	226290309173	Raut Paritesh N.	P.N.Raut
76	236290309230	Valvi Mansi. t.	M.T.Valvi
77	236290309200	Tandel Parthi S	P.S.Tandel
78	236290309118	Patel Pragni G	
79	236290316061	Patil Sonal G.	
80	236290316063	Prajapati Nidhi v.	
81	236290316049	Patel Rucha K.	R.K.Patel
82.	236290316022	Maurya Aryan S.	
83.	236290309078	Patel Dhyey K.	
84.	236290309075	Patel Dhruvil R.	D.R.Patel
85	226290309178	Krishna R Singh	
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88	226290309156	Sahil Pathan	

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2.	Electrical	Kaushal H. Tandel	
3.	Electrical	Hiren S. Patel	
4	Electrical	Dhaval R. Shah	
5	Electrical	Jitendra G. Pandit	
6	Electrical	Anju R Shah	
7	Electrical	N M Patel	
8	"	P D. Vachhani	
9	Electrical	A. D. Patel	
10	Electrical	V. K. Patel	
11	Electrical	J. B. Patel	
12	Electrical	H. N. Lad	
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