



SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
Kaikkurichi, Pudukkottai -622 303

www.sbec.edu.in

NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

IQAC

Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2019-2020

ELECTRONICS AND COMMUNICATION ENGINEERING

PARTICIPATIVE LEARNING

Activity	Number of Students attended	Page No.
Value Added Course (VAC)	92	3
Seminar, Symposium and Workshop	15	54
TOTAL STUDENTS ATTENDED	107	-



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2019-2020

**ELECTRONICS AND
COMMUNICATION ENGINEERING**

PARTICIPATIVE LEARNING

VALUE ADDED COURSE



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/ODD SEMESTER

DEPARTMENT CIRCULAR

Date: 17.06.2019

This is to inform that Value Added Course offered by the Department of ECE will be conducted for Second, Third and Final year students on “**PCB Manufacturing and Designing of Basic Circuits**” in association with Galwin Technology from 24.06.2019 to 28.06.2019. Certificates will be issued to the eligible participants at the end of the course.

S.No	Name of the Course	Resource Person
1	PCB Manufacturing and Designing of Basic Circuits	Er.V.VEERAPANDIYAN, PCB Deloevper, Galwin Technology, 12A, Periyasamy Towers, 3rd floor, Chathiram Bus Stand, Trichy- 620 002. Tamil Nadu . Mail.Id: info@galwintech.in

Cc:

- Principal's Office
- IQAC Coordinator
- Class In charges- II ,III &IV Year
- II ,III & IV Year ECE Students
- Notice Board



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PUDUKKOTTAI - 622 303



Dr. S.THILAGAVATHI M.E., Ph.D.,
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/ODD SEMESTER

Value Added Course on “PCB Manufacturing And Designing of Basic Circuits”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to Printed circuit board & Design rules for PCB	3	24.6.2019
2	Understand the electrical parameters & Creating the schematic.	3	24.6.2019
3	Electronic design automation(EDA) tools for PCB designing	3	25.6.2019
4	Component Introduction and their categories	3	25.6.2019
5	Detailed Description about labels and identifiers	3	26.6.2019
6	Creations of PCB layout & Designing of PCB stackup	3	26.6.2019
7	PCB design for EMI/EMC	3	27.6.2019
8	High-Density Interconnection (HDI) Technology	3	27.6.2019
9	PCB Technology Trends & concepts of Packaging	3	28.6.2019
10	Advance techniques, skills and modern tools for designing and fabrication of PCBs	3	28.6.2019
Total Hours		30	


VAC Coordinator


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DEPARTMENT OF ELECTRONICS AN COMMUNICATIONENGINEERING
ACADEMIC YEAR ODD SEMESTER (2019-2020)

STUDENT PARTICIPATION LIST FOR VALUE ADDED PROGRAM

PCB Manufacturing and Designing of Basic Circuits

S.NO	REG.NO	NAME	YEAR & BRANCH
1	912618106001	ANUSHAA.S	II & ECE
2	912618106002	ARIVARASI .A	II & ECE
3	912618106003	ASMATH HAZEENA.N	II & ECE
4	912618106004	ATCHAYA. R	II & ECE
5	912618106005	JAYAPRIYA .T	II & ECE
6	912618106006	JAYASRI. M	II & ECE
7	912618106007	NAGALAKSHMI. P	II & ECE
8	912618106008	NAVITHRA. D	II & ECE
9	912618106009	ROHINI. K	II & ECE
10	912618106010	SOUNTHARYA. P	II & ECE
11	912618106012	THAIYAL NAYAGI .K	II & ECE
12	912618106701	JANANI.R	II & ECE
13	912617106001	ABIRAMI .S	III & ECE
14	912617106002	ABISHEKA .S	III & ECE
15	912617106003	ATSHAYA .R	III & ECE
16	912617106004	BAVADHARANI. A	III & ECE
17	912617106005	BHUVANESHWARI. B	III & ECE
18	912617106006	DHIVYA .L	III & ECE
19	912617106007	GOWSALYA .D	III & ECE
20	912617106009	INDHUMATHI. S	III & ECE
21	912617106010	KANIMOZHI. D	III & ECE
22	912617106011	KAVYA .C	III & ECE
23	912617106012	KEERTHANA .G	III & ECE
24	912617106013	MAHESHWARI. G	III & ECE

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S.NO	REG.NO	NAME	YEAR & BRANCH
25	912617106014	MANOHARI .M	III & ECE
26	912617106015	MARAGATHALAKSHMI. S	III & ECE
27	912617106017	SAFRIN NISHA. S	III & ECE
28	912617106018	SUBASHINI .M	III & ECE
29	912617106019	SUBASHINI. T	III & ECE
30	912617106020	VINTHIYA. R	III & ECE
31	912616106001	ABINAYA. R	IV & ECE
32	912616106002	AGALYA .A	IV & ECE
33	912616106003	ATCHAYA. G	IV & ECE
34	912616106004	DEEPA .N	IV & ECE
35	912616106005	DHARANIYA. A	IV & ECE
36	912616106006	JEEVITHA .U	IV & ECE
37	912616106007	MAHESWARI .V	IV & ECE
38	912616106008	PAZHANIYAMMAL .R	IV & ECE
39	912616106009	PRIYANKA. E	IV & ECE
40	912616106010	ROJA .A	IV & ECE
41	912616106011	SHANMUGAPRIYA. R	IV & ECE
42	912616106012	SHIYAMALA. E	IV & ECE
43	912616106013	SIVABHARATHI .P	IV & ECE
44	912616106014	SIVARUBINI. S	IV & ECE
45	912616106016	VINCY .A	IV & ECE
46	912616106302	SANKAVI .M	IV & ECE


VAC Coordinator


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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ACADEMIC YEAR ODD SEMESTER (2019-2020)

ATTENDANCE SHEET FOR VALUE ADDED COURSE-PCB MANUFACTURING AND DESIGNING OF BASIC CIRCUITS

S. No	REG. NO	NAME	YEAR/ BRANCH	24.06.2019		25.06.2019		26.06.2019		27.06.2019		28.06.2019		NO. OF SESSIONS ATTENDED	SIGN OF STUDENT
				F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N		
1	912618106001	ANUSHAA S	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>[Signature]</i>
2	912618106002	ARIVARASI A	II/ECE	a	/	/	/	/	/	/	/	/	/	9	<i>Arivarasi. A</i>
3	912618106003	ASMATH HAZEENA N	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>[Signature]</i>
4	912618106004	ATCHAYA R	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>ATCHAYA R</i>
5	912618106005	JAYAPRIYA T	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Jayapriya</i>
6	912618106006	JAYASRI M	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Jayasri</i>
7	912618106007	NAGALAKSHMI P	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Nagla</i>
8	912618106008	NAVITHRA D	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Navithra</i>
9	912618106009	ROHINI K	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Rohini</i>
10	912618106010	SOUNTHARYA P	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Sountharya</i>
11	912618106012	THAIYAL NAYAGI. K	II/ECE	/	/	/	/	/	/	a	/	/	/	9	<i>Thiyal Nayagi</i>
12	912618106701	JANANI.R	II/ECE	/	/	/	/	/	/	/	/	/	/	10	<i>Janani. R</i>

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13	912617106001	ABIRAMI S	III /ECE	/	/	/	/	/	/	/	/	/	/	10	S. Abirami
14	912617106002	ABISHEKA S	III /ECE	/	/	/	/	/	/	/	/	/	/	10	
15	912617106003	ATSHAYA R	III /ECE	/	/	/	/	/	/	/	/	/	/	10	R. Atchya
16	912617106004	BAVADHARANI A	III /ECE	/	/	/	/	/	/	/	/	/	/	10	A. Bavadharani
17	912617106005	BHUVANESHWARI B	III /ECE	/	/	/	/	/	/	/	/	/	/	10	B. Bhuvaneshwari
18	912617106006	DHIVYA L	III /ECE	/	/	/	/	/	/	/	/	/	/	10	L. Divya
19	912617106007	GOWSALYA D	III /ECE	a	/	/	/	/	/	/	/	/	/	9	D. Gowsalya
20	912617106009	INDHUMATHI S	III /ECE	/	/	/	/	/	/	/	/	/	/	10	S. Indhumathi
21	912617106010	KANIMOZHI D	III /ECE	/	/	/	/	/	/	/	/	/	/	10	D. Kanimozhi
22	912617106011	KAVYA C	III /ECE	/	/	/	/	/	/	a	a	/	/	8	C. Kavya
23	912617106012	KEERTHANA G	III /ECE	/	/	/	/	/	/	/	/	/	/	10	G. Keerthana
24	912617106013	MAHESHWARI G	III /ECE	/	/	/	/	/	/	/	/	/	/	10	G. Maheshwari
25	912617106014	MANOHARI M	III /ECE	/	/	/	/	/	/	/	/	/	/	10	M. Mani
26	912617106015	MARAGATHA LAKSHMI. S	III /ECE	/	/	/	/	/	/	/	/	/	/	10	S. Maragatha Lakshmi
27	912617106017	SAFRIN NISHA S	III /ECE	/	/	a	/	/	/	/	/	/	/	9	S. Safin Nisha
28	912617106018	SUBASHINI M	III /ECE	/	/	/	/	/	/	/	/	/	/	10	M. Subashini
29	912617106019	SUBASHINI T	III /ECE	/	/	/	/	/	/	/	/	/	/	10	T. Subini
30	912617106020	VINTHIYA R	III /ECE	/	/	/	/	/	/	/	/	/	/	10	R. Vinthya
31	912616106001	ABINAYA R	IV/ECE	/	/	/	/	/	/	/	/	/	/	10	R. Abinaya
32	912616106002	AGALYA A	IV/ECE	/	/	/	/	/	/	/	/	/	/	10	A. Agalya

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33	912616106003	ATCHAYA G	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	G. Atchaya
34	912616106004	DEEPA N	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	N. Deepa
35	912616106005	DHARANIYA A	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	A. Dhanya
36	912616106006	JEEVITHA U	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	U. Jeevitha
37	912616106007	MAHESWARI V	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	M. Maheswari
38	912616106008	PAZHANIYAMMAL .R	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	P. Pammal
39	912616106009	PRIYANKA E	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	P. Priyanka
40	912616106010	ROJA A	IV/ECE	a	a	/	/	/	/	/	/	/	/	/	8	R. Roja
41	912616106011	SHANMUGAPRIYA .R	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	S. Shanmuga
42	912616106012	SHIYAMALA E	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	E. Shyamala
43	912616106013	SIVABHARATHI P	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	P. Sivabharathi
44	912616106014	SIVARUBINI S	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	S. Sivarubini
45	912616106016	VINCY A	IV/ECE	/	/	a	a	/	/	/	/	/	/	/	8	V. Vincy
46	912616106302	SANKAVI M	IV/ECE	/	/	/	/	/	/	/	/	/	/	/	10	M. Sankavi


VAC Coordinator


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title:	PCB Manufacturing and Designing of Basic Circuits				
Resource Person:	Er.V.VEERAPANDIYAN, PCB Developer, Galwin Technology, Trichy-620 002.				
Date of conduct from :	24.06.2019	To:	28.06.2019	Duration:	30 Hours
Organized Department :	Electronics and Communication Engineering				
Participant Year:	2/ 3 /4	Semester:	ODD	No. of Students Registered :	46
Venue:	Seminar Hall, ,Ground Floor,SBECW				

Outcome of Value Added Course (VAC) :At the end of Course ,Students can able to

- Understand basics of PCB designing.
- Design PCB layout of their design.
- Produce PCB of their own circuit.
- Apply advance techniques, skills and modern tools for designing and fabrication of PCBs.
- Apply the knowledge and techniques to fabricate Multilayer, SMT and HDI PCB.
- Understand concepts of Packaging.
- Recognize the technologies used in electronic industry through the practical experience gained in the course.

No. of students successfully completed the VAC course is **46 Students** based on the following Assessment process.

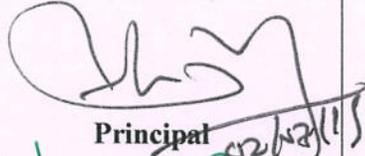
Assessment Process

- Students securing **more than 60% on total score** and secured more than **75%** in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = (0.5 *Attendance in VAC out of 100 percentage + 0.5 *Test mark in VAC out of 100 marks)


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Principal

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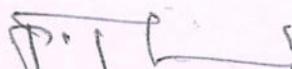
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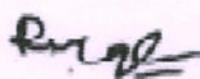


Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms.**ASMATH HAZEENA.N** of **II ECE** has successfully completed Value Added Course on "PCB Manufacturing and Designing of Basic Circuits" organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 24.06.2019 to 28.06.2019 during the academic year 2019-2020.


Managing Director
Galwin Technology


HoD/ECE
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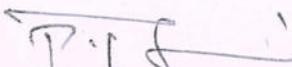
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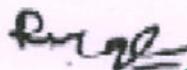


Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. **ABISHEKA.S** of III ECE has successfully completed Value Added Course on "PCB Manufacturing and Designing of Basic Circuits" organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 24.06.2019 to 28.06.2019 during the academic year 2019-2020.


Managing Director
Galwin Technology


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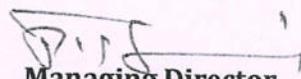
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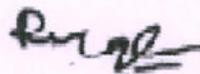


Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. **SHANMUGAPRIYA.R** of **IV ECE** has successfully completed Value Added Course on "PCB Manufacturing and Designing of Basic Circuits" organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 24.06.2019 to 28.06.2019 during the academic year 2019-2020.


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Galwin Technology


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on “PCB Manufacturing and Designing of Basic Circuits”

MCQ QUESTIONS (25X1 = 25 Marks)

1. High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

- a) Removal of heat
- b) Isolation of stray current
- c) Reduction of path length
- d) All of the above

2. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

- a) Iron Soldering
- b) Furnace Soldering
- c) Torch Soldering
- d) Electrical Soldering

3. Which among the below mentioned approaches belongs to the category of In-circuit Testing?

- a) Impedance Testing
- b) Component Testing
- c) Apply Signal and check output
- d) All of the above

4. Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?

- a) Coupling capacitor
- b) Decoupling capacitor
- c) Snubber circuits
- d) All of the above

5. Which terminology of PCB represents a thin photo-sensitive polymer by supporting photographic pattern of single traces or IC pads for etching?

- a) Prepreg
- b) Etching
- c) Photo-resist
- d) Solder mask

6. The actual cost of PCB can be evaluated on the basis of _____

- a) PCB size & material
- b) Number of layers
- c) Vias on PCB
- d) All of the above

7. Which type of PCB requires minimum soldering on component side in order to avoid replacement oriented difficulties?

- a) Single-sided PCB
- b) Double-sided PCB
- c) Both a and b
- d) None of the above

8. Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

- a) SO
- b) SOP
- c) SOT
- d) SON


Dr. S. THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai, Dt.

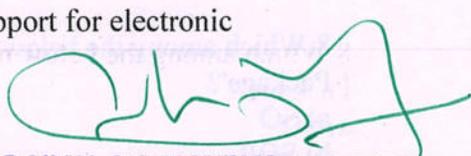


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18. Which of the following is an Etching Chemical?

- a) Sodium chloride
- b) Hydro chloride
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- a) $(R \times t) / A$
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/ODD SEMESTER

Value Added Course on “PCB Manufacturing And Designing of Basic Circuits”

MCQ ANSWER KEY

1	A	6	D	11	A	16	C	21	B
2	D	7	B	12	B	17	C	22	A
3	D	8	D	13	A	18	C	23	B
4	B	9	B	14	C	19	D	24	D
5	C	10	D	15	A	20	D	25	A


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Name of the Student : ARIVARASI.A Year/Sem: II / III

AU Register Number: 912618106002

Value Added Course on "PCB Manufacturing and Designing of Basic Circuits"

MCQ QUESTIONS (25X1 = 25 Marks)

1. High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for _____

- a) Removal of heat
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 c) Reduction of path length
 d) All of the above

2. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?

- a) Iron Soldering
 b) Furnace Soldering
 c) Torch Soldering
 d) Electrical Soldering

3. Which among the below mentioned approaches belongs to the category of In-circuit Testing?

- a) Impedance Testing
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4. Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?

- a) Coupling capacitor
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5. Which terminology of PCB represents a thin photo-sensitive polymer by supporting photographic pattern of single traces or IC pads for etching?

- a) Prepreg
 b) Etching
 c) Photo-resist
 d) Solder mask

6. The actual cost of PCB can be evaluated on the basis of _____

- a) PCB size & material
 b) Number of layers
 c) Vias on PCB
 d) All of the above

7. Which type of PCB requires minimum soldering on component side in order to avoid replacement oriented difficulties?

- a) Single-sided PCB
 b) Double-sided PCB
 c) Both a and b
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8. Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?

- a) SO
 b) SOP
 c) SOT
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Name of the Student : Bhuvaneshwari. B

Year/Sem: III / V

19
25

AU Register Number: 912617106005

Value Added Course on "PCB Manufacturing and Designing of Basic Circuits"

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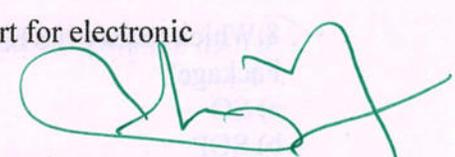


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Kaikkurichi, Pudukkottai, Tamil Nadu - 622 303, India

Name of the Student : Priyanka . E

Year/Sem: IV / VI

18
25

AU Register Number: 912616106009

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR ODD SEMESTER (2019-2020)

MARK SHEET FOR VALUE ADDED COURSE- PCB Manufacturing and Designing of Basic Circuits

S.NO	REGISTER NUMBER	NAME	YEAR & BRANCH	Attendance (A)		VAC –MCQ TEST (B)		OVERALL MARK(100) (50% of A + 50% of B)
				No.of Sessions Attended	Marks (100)	No.of Correct Answer	Marks (100)	
1	912618106001	ANUSHAA S	II /ECE	10	100	22	88	94
2	912618106002	ARIVARASI A	II /ECE	9	90	23	92	91
3	912618106003	ASMATH HAZEENA N	II /ECE	10	100	21	84	92
4	912618106004	ATCHAYA R	II /ECE	10	100	20	80	90
5	912618106005	JAYAPRIYA T	II /ECE	10	100	19	76	88
6	912618106006	JAYASRI M	II /ECE	10	100	20	80	95
7	912618106007	NAGALAKSHMI P	II /ECE	10	100	21	84	92
8	912618106008	NAVITHRA D	II /ECE	10	100	19	76	88
9	912618106009	ROHINI K	II /ECE	10	100	18	72	86
10	912618106010	SOUNTHARYA P	II /ECE	10	100	22	88	94
11	912618106012	THAIYAL NAYAGI K	II /ECE	9	90	20	80	85

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12	912618106701	JANANI.R	II /ECE	10	100	19	76	88
13	912617106001	ABIRAMI S	III /ECE	10	100	18	72	86
14	912617106002	ABISHEKA S	III /ECE	10	100	20	80	90
15	912617106003	ATSHAYA R	III /ECE	10	100	20	80	90
16	912617106004	BAVADHARANI A	III /ECE	10	100	18	72	86
17	912617106005	BHUVANESHWARI B	III /ECE	10	100	19	76	88
18	912617106006	DHIVYA L	III /ECE	10	100	22	88	94
19	912617106007	GOWSALYA D	III /ECE	9	90	19	76	83
20	912617106009	INDHUMATHI S	III /ECE	10	100	18	72	86
21	912617106010	KANIMOZHI D	III /ECE	10	100	19	76	88
22	912617106011	KAVYA C	III /ECE	8	80	22	88	84
23	912617106012	KEERTHANA G	III /ECE	10	100	18	72	91
24	912617106013	MAHESHWARI G	III /ECE	10	100	19	76	88
25	912617106014	MANOHARI M	III /ECE	10	100	21	84	92
26	912617106015	MARAGATHALAKSHMI S	III /ECE	10	100	23	92	96
27	912617106017	SAFRIN NISHA S	III /ECE	9	90	21	84	87
28	912617106018	SUBASHINI M	III /ECE	10	100	23	92	96
29	912617106019	SUBASHINI T	III /ECE	10	100	19	76	88
30	912617106020	VINTHIYA R	III /ECE	10	100	19	76	88

Dr. S.THILAGAVATHI M.E.,Ph.D.,

PRINCIPAL

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN

Kaikkurichi - 622 303, Pudukkottai Dt.



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

31	912616106001	ABINAYA R	IV/ECE	10	100	18	72	86
32	912616106002	AGALYA A	IV/ECE	10	100	23	92	96
33	912616106003	ATCHAYA G	IV/ECE	10	100	18	72	86
34	912616106004	DEEPA N	IV/ECE	10	100	18	72	86
35	912616106005	DHARANIYA A	IV/ECE	10	100	19	76	88
36	912616106006	JEEVITHA U	IV/ECE	10	100	18	72	86
37	912616106007	MAHESWARI V	IV/ECE	10	100	20	80	90
38	912616106008	PAZHANIYAMMAL R	IV/ECE	10	100	19	76	88
39	912616106009	PRIYANKA E	IV/ECE	10	100	18	72	86
40	912616106010	ROJA A	IV/ECE	8	80	18	72	76
41	912616106011	SHANMUGAPRIYA R	IV/ECE	10	100	19	76	88
42	912616106012	SHIYAMALA E	IV/ECE	10	100	17	68	84
43	912616106013	SIVABHARATHI P	IV/ECE	10	100	19	76	88
44	912616106014	SIVARUBINI S	IV/ECE	10	100	21	84	92
45	912616106016	VINCY A	IV/ECE	8	80	20	80	80
46	912616106302	SANKAVI M	IV/ECE	10	100	15	60	80

VAC Coordinator


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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/EVEN SEMESTER

DEPARTMENT CIRCULAR

Date: 02.12.2019

Value Added Course offered by the Department of ECE will be conducted for Second, Third and Final year students on “**Learning Arduino Platform and its Uses**” in association with Galwin Technology from 09.12.2019 to 14.12.2019. Certificates will be issued to the eligible participants at the end of the course.

S.No	Name of the Course	Resource Person
1	Learning Arduino Platform and its Uses	Er.S.DEEPAN, Embedded Developer, Galwin Technology, 12A, Periyasamy Towers, 3rd floor, Chathiram Bus Stand, Trichy- 620 002. Tamil Nadu . Mail.Id: info@galwintech.in

Cc:

- Principal's Office
- IQAC Coordinator
- Class In charges- II ,III &IV Year
- II ,III & IV Year ECE Students
- Notice Board


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/EVEN SEMESTER

Value Added Course on “LEARNING ARDUINO PLATFORM AND ITS USES”

SYLLABUS”

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction of Arduino	2	9.12.2019
2	Anatomy of an Arduino Board	1	9.12.2019
3	Basic Operation, Circuit Basics	3	9.12.2019
4	Sensors & Actuators, Memory, Embedded Sensors	3	10.12.2019
5	Sensors and Software: Understanding Processing Code Structure, variables and flow control, Interfacing to the Real World	3	10.12.2019
6	Libraries, GPIO / Pin Management	3	11.12.2019
7	Core Specific API	3	11.12.2019
8	Arduino Software Tools	3	12.12.2019
9	Arduino IDE 1.8.x	3	12.12.2019
10	Internet of Things (IoT)	3	13.12.2019
11	Arduino programming language and IDE, Program basic Arduino examples.	3	13.12.2019
12	Arduino API, Structure	3	14.12.2019
13	Arduino Communication Modules	3	14.12.2019
Total Hours			36


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DEPARTMENT OF ELECTRONICS AN COMMUNICATIONENGINEERING
ACADEMIC YEAR EVEN SEMESTER (2019-2020)

STUDENT PARTICIPATION LIST FOR VALUE ADDED PROGRAM

Learning Arduino Platform and its Uses

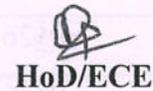
S.NO	REG.NO	NAME	YEAR & BRANCH
1	912618106001	ANUSHAA S	II & ECE
2	912618106002	ARIVARASI A	II & ECE
3	912618106003	ASMATH HAZEENA N	II & ECE
4	912618106004	ATCHAYA R	II & ECE
5	912618106005	JAYAPRIYA T	II & ECE
6	912618106006	JAYASRI M	II & ECE
7	912618106007	NAGALAKSHMI P	II & ECE
8	912618106008	NAVITHRA D	II & ECE
9	912618106009	ROHINI K	II & ECE
10	912618106010	SOUNTHARYA P	II & ECE
11	912618106012	THAIYAL NAYAGI K	II & ECE
12	912618106701	JANANI.R	II & ECE
13	912617106001	ABIRAMI S	III & ECE
14	912617106002	ABISHEKA S	III & ECE
15	912617106003	ATSHAYA R	III & ECE
16	912617106004	BAVADHARANI A	III & ECE
17	912617106005	BHUVANESHWARI B	III & ECE
18	912617106006	DHIVYA L	III & ECE
19	912617106007	GOWSALYA D	III & ECE
20	912617106009	INDHUMATHI S	III & ECE
21	912617106010	KANIMOZHI D	III & ECE
22	912617106011	KAVYA C	III & ECE
23	912617106012	KEERTHANA G	III & ECE
24	912617106013	MAHESHWARI G	III & ECE

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S.NO	REG.NO	NAME	YEAR & BRANCH
25	912617106014	MANOHARI M	III & ECE
26	912617106015	MARAGATHALAKSHMI S	III & ECE
27	912617106017	SAFRIN NISHA S	III & ECE
28	912617106018	SUBASHINI M	III & ECE
29	912617106019	SUBASHINI T	III & ECE
30	912617106020	VINTHIYA R	III & ECE
31	912616106001	ABINAYA R	IV& ECE
32	912616106002	AGALYA A	IV& ECE
33	912616106003	ATCHAYA G	IV& ECE
34	912616106004	DEEPA N	IV& ECE
35	912616106005	DHARANIYA A	IV& ECE
36	912616106006	JEEVITHA U	IV& ECE
37	912616106007	MAHESWARI V	IV& ECE
38	912616106008	PAZHANIYAMMAL R	IV& ECE
39	912616106009	PRIYANKA E	IV& ECE
40	912616106010	ROJA A	IV& ECE
41	912616106011	SHANMUGAPRIYA R	IV& ECE
42	912616106012	SHIYAMALA E	IV& ECE
43	912616106013	SIVABHARATHI P	IV& ECE
44	912616106014	SIVARUBINI S	IV& ECE
45	912616106016	VINCY A	IV& ECE
46	912616106302	SANKAVI M	IV& ECE


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KAIKKURICHI, PUDUKKOTTAI-622 303

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ACADEMIC YEAR EVEN SEMESTER (2019-2020)

ATTENDANCE SHEET FOR VALUE ADDED COURSE-LEARNING ARDUINO PLATFORM AND ITS USES

S.No	REG. NO	NAME	YEAR/ BRANCH	9.12.2019		10.12.2019		11.12.2019		12.12.2019		13.12.2019		14.12.2019		NO. OF SESSIONS ATTENDED	SIGN OF STUDENT
				F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N		
1	912618106001	ANUSHAA S	II/ECE	a	a	/	/	/	/	/	/	/	/	/	/	10	<i>[Signature]</i>
2	912618106002	ARIVARASI A	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>Arivarasi. A</i>
3	912618106003	ASMATH HAZEENA N	II/ECE	/	/	/	/	/	/	a	a	/	/	/	/	10	<i>Asmath Hazeeha N</i>
4	912618106004	ATCHAYA R	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>ATCHAYA. R</i>
5	912618106005	JAYAPRIYA T	II/ECE	a	/	/	/	/	/	a	/	/	/	/	/	10	<i>Jayapriya</i>
6	912618106006	JAYASRI M	II/ECE	a	/	/	/	/	/	a	a	/	/	/	/	9	<i>Jayasri</i>
7	912618106007	NAGALAKSHMI P	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>Nagalakshmi P</i>
8	912618106008	NAVITHRA D	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>Navithra D</i>
9	912618106009	ROHINI K	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>Rohini K</i>
10	912618106010	SOUNTHARYA P	II/ECE	a	a	/	/	/	/	/	/	/	/	/	/	10	<i>Sountharya P</i>
11	912618106012	THAIYAL NAYAGI K	II/ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>Thaiyal Nayagi K</i>
12	912618106701	JANANI.R	II/ECE	/	/	/	/	/	/	/	/	a	a	/	/	10	<i>Janani R</i>
13	912617106001	ABIRAMI S	III /ECE	/	/	/	/	/	/	/	/	/	/	/	/	12	<i>S. Abirami</i>

[Signature] Dr. S. THILAGAVATHI M.E., Ph.D.,

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14	912617106002	ABISHEKA S	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	
15	912617106003	ATSHAYA R	III /ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	R. Atchaya
16	912617106004	BAVADHARANI A	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	A. Bavadharani
17	912617106005	BHUVANESHWARI B	III /ECE	1	1	a	a	1	1	1	1	1	1	1	1	1	10	B. Bhuvaneshwari
18	912617106006	DHIVYA L	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	L. Divya
19	912617106007	GOWSALYA D	III /ECE	1	1	a	a	a	1	1	1	1	1	1	1	1	9	D. Gowsalya
20	912617106009	INDHUMATHI S	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Indhumathi
21	912617106010	KANIMOZHI D	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	D. Kanimozhi
22	912617106011	KAVYA C	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	C. Kavya
23	912617106012	KEERTHANA G	III /ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	G. Keerthana
24	912617106013	MAHESHWARI G	III /ECE	1	1	1	1	a	a	1	1	1	1	1	1	1	10	G. Maheshwari
25	912617106014	MANOHARI M	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	M. Manohari
26	912617106015	MARAGATHALAKSHMI S	III /ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	S. Maragathalakshmi
27	912617106017	SAFRIN NISHA S	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Safrin Nisha
28	912617106018	SUBASHINI M	III /ECE	1	1	1	1	1	1	a	a	1	1	1	1	1	10	M. Subashini
29	912617106019	SUBASHINI T	III /ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	T. Subashini
30	912617106020	VINTHIYA R	III /ECE	1	1	1	1	1	1	a	a	1	1	1	1	1	10	R. Vinthiya
31	912616106001	ABINAYA R	IV/ECE	1	1	a	a	1	1	1	1	1	1	1	1	1	10	R. Abinaya
32	912616106002	AGALYA A	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	A. Agalya
33	912616106003	ATCHAYA G	IV/ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	G. Atchaya

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34	912616106004	DEEPA N	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	N. Deepa
35	912616106005	DHARANIYA A	IV/ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	D. Dhanya
36	912616106006	JEEVITHA U	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	U. Jeevitha
37	912616106007	MAHESWARI V	IV/ECE	1	1	1	1	1	1	1	1	a	a	1	1	1	10	M. Maheswari V
38	912616106008	PAZHANIYAMMAL R	IV/ECE	1	1	1	1	1	1	1	1	a	a	1	1	1	10	R. Pazzhaniyammal
39	912616106009	PRIYANKA E	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	E. Priyanka
40	912616106010	ROJA A	IV/ECE	1	1	1	1	1	1	a	a	1	1	1	1	1	10	A. Roja
41	912616106011	SHANMUGAPRIYA R	IV/ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	R. Shanmugapriya
42	912616106012	SHIYAMALA E	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	E. Shiyamala
43	912616106013	SIVABHARATHI P	IV/ECE	1	1	a	a	1	1	1	1	1	1	1	1	1	10	P. Sivabharathi
44	912616106014	SIVARUBINI S	IV/ECE	1	1	1	1	1	1	1	1	1	1	1	1	1	12	S. Sivarubini
45	912616106016	VINCY A	IV/ECE	1	1	a	a	1	1	1	1	1	1	1	1	1	10	A. Vincy
46	912616106302	SANKAVI M	IV/ECE	a	a	1	1	1	1	1	1	1	1	1	1	1	10	M. Sankavi


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title:	Learning Arduino Platform and its Uses				
Resource Person:	Er.S.DEEPAN, Embedded Developer, Galwin Technology, Trichy-620 002.				
Date of conduct from :	9.12.2019	To:	14.12.2019	Duration:	36 Hours
Organized Department :	Electronics and Communication Engineering				
Participant Year:	2/ 3 /4	Semester:	EVEN	No. of Students Registered :	46
Venue:	Seminar Hall, ,Ground Floor, SBECW				

Outcome of Value Added Course (VAC) :At the end of Course ,Students can able to

- Learn the basics of electronics, including reading schematics
- Recall the basics of sensors, its functioning.
- Execute basic and advanced assembly language programs.
- Learn the ways to interface I/O devices with processor for task sharing.
- Recall the basics of co-processor and its ways to handle float values by its instruction set.
- Recognize the functionality of micro controller, latest version processors and its applications.
- Design a component with realistic constraints, to solve real world engineering problems and analyse the results.
- After the completion of the course, the students will be specialized in Embedded System design using Arduino.

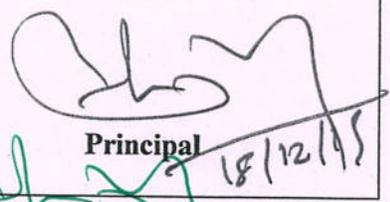
No. of students successfully completed the VAC course is **46 Students** based on the following Assessment process.

Assessment Process

- Students securing **more than 60% on total score** and secured more than **75%** in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$


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18/12/15
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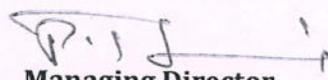
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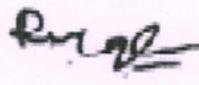


Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. **ATCHAYA.R** of **II ECE** has successfully completed Value Added Course on "Learning Arduino Platform and its Uses " organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 09.12.2019 to 14.12.2019 during the academic year 2019-2020.


Managing Director
Galwin Technology


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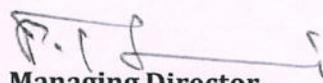
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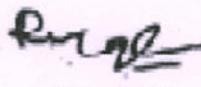


Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. **VINTHIYA. R** of **III ECE** has successfully completed Value Added Course on "Learning Arduino Platform and its Uses " organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 09.12.2019 to 14.12.2019 during the academic year 2019-2020.


Managing Director
Galwin Technology


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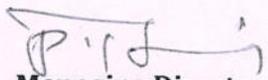
KAIKKURICHI, PUDUKKOTTAI-622303

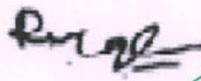


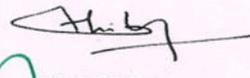
Certificate of completion

VALUE ADDED PROGRAM

This is to Certify that Mr/Ms. **SANKAVI .M** of **IV ECE** has successfully completed Value Added Course on "Learning Arduino Platform and its Uses " organized by the department of Electronics and Communication Engineering in association with Galwin Technology from 09.12.2019 to 14.12.2019 during the academic year 2019-2020.


Managing Director
Galwin Technology


HoD/ECE
SBECW


PRINCIPAL
SBECW

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

**SRI BHARATHI ENGINEERING
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Kaikkurichi - 622 303, Pudukkottai Dt.



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on “Learning Arduino Platform and its Uses”

MCQ QUESTIONS (20X1 = 20 Marks)

1. Arduino shields are also called as _____
 - a) Extra peripherals
 - b) Add-on modulest
 - c)Connectivity modules
 - d) Another Arduinos
2. Which is the software or a programming language used for controlling of Arduino?
 - a) Assembly Language
 - b) C Languages
 - c)C. JAVA
 - d) Any Language
3. What are the uses of Arduino?
 - a)Inexpensive
 - b)Cross-platform
 - c)Open source and extensible software
 - d)All of the above
4. What are the different file extensions for?
 - a)ino
 - b)pde
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 - d)All of the above
5. What are the types of Arduino?
 - a)Arduino UNO
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 - a)Build() and loop()
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7. What are Arduino UNO Salient features?
 - a)PWM (Pulse Width Modulation) outputs
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8. What is PWM?
 - a)A built-in library to control DC motor
 - b)A type of oscilloscope used with microcontrollers as Arduino
 - c)Is a technique for getting analog results with digital means
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9. What are the Steps to program an Arduino?
 - a)Declaration of Variables
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020/EVEN SEMESTER

Value Added Course on “Learning Arduino Platform and its Uses”

MCQ ANSWER KEY

1	B	6	C	11	B	16	B
2	D	7	D	12	B	17	A
3	D	8	C	13	C	18	A
4	D	9	D	14	A	19	C
5	D	10	D	15	B	20	A


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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name of the Student : Nagalakshmi .p

Year/Sem: 11/IV

AU Register Number: 912618106007

Value Added Course on "Learning Arduino Platform and its Uses"

16
20

MCQ QUESTIONS (20X1 = 20 Marks)

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name of the Student : MANOHARI . M

Year/Sem: III / ECE VI

AU Register Number: 912617106014

Value Added Course on “Learning Arduino Platform and its Uses”

15
20

MCQ QUESTIONS (20X1 = 20 Marks)

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10. What are the basic Arduino functions?
a) AnalogRead(pin) c) serial.begin(baud rate)
b) AnalogWrite(pin, value) d) All of the above
11. Delay(5000); stands for
a) Wait 5 minutes b) Wait 5 seconds c) Wait 50 seconds
12. Digitalwrite(13, LOW); turns the light
a) on b) offcorrect c) dim
13. A forward slash is used for
a) code b) output c) comments
14. An LED is an:
a) output b) input
15. An push button is
a) Output b) input
16. An knob is
a) Output b) input
17. An servo is
a) Output b) input
18. A sketch is
a) an Arduino file b) an Arduino picture c) an Arduino board
19. How long is the LED on?
digitalWrite(13, HIGH);
delay(1000);
digitalWrite(13, LOW);
delay(1000);
a) 1000 seconds b) 100 seconds c) 1 second d) 100 milliseconds
20. Which pin is the jumper wire connected to?
digitalWrite(13, HIGH);
delay(1000);
digitalWrite(13, LOW);
delay(1000);
a) 13 b) 12 c) 100 d) digital pin

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name of the Student : ABINAYA R

Year/Sem: IV / VIII

AU Register Number: 91261610 6001

Value Added Course on "Learning Arduino Platform and its Uses"

14
20
8

MCQ QUESTIONS (20X1 = 20 Marks)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR EVEN SEMESTER (2019-2020)

MARK SHEET FOR VALUE ADDED COURSE- LEARNING ARDUINO PLATFORM AND ITS USES

S.NO	REGISTER NUMBER	NAME	YEAR & BRANCH	Attendance (A)		VAC –MCQ TEST (B)		OVERALL MARK(100) (50% of A + 50% of B)
				No.of Sessions Attended	Marks (100)	No.of Correct Answer	Marks (100)	
1	912618106001	ANUSHAA S	II /ECE	10	83	16	80	82
2	912618106002	ARIVARASI A	II /ECE	12	100	18	90	95
3	912618106003	ASMATH HAZEENA N	II /ECE	10	83	17	85	84
4	912618106004	ATCHAYA R	II /ECE	12	100	14	60	80
5	912618106005	JAYAPRIYA T	II /ECE	10	83	13	65	74
6	912618106006	JAYASRI M	II /ECE	9	75	15	75	75
7	912618106007	NAGALAKSHMI P	II /ECE	12	100	16	80	90
8	912618106008	NAVITHRA D	II /ECE	12	100	15	75	88
9	912618106009	ROHINI K	II /ECE	12	100	15	75	88
10	912618106010	SOUNTHARYA P	II /ECE	10	83	19	95	89
11	912618106012	THAIYAL NAYAGI K	II /ECE	12	100	17	85	93

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12	912618106701	JANANI.R	II /ECE	10	83	13	65	74
13	912617106001	ABIRAMI S	III /ECE	12	100	14	70	85
14	912617106002	ABISHEKA S	III /ECE	12	100	13	65	83
15	912617106003	ATSHAYA R	III /ECE	10	83	16	80	82
16	912617106004	BAVADHARANI A	III /ECE	12	100	13	65	83
17	912617106005	BHUVANESHWARI B	III /ECE	10	83	14	70	77
18	912617106006	DHIVYA L	III /ECE	12	100	19	95	98
19	912617106007	GOWSALYA D	III /ECE	9	75	18	90	83
20	912617106009	INDHUMATHI S	III /ECE	12	100	16	80	90
21	912617106010	KANIMOZHI D	III /ECE	12	100	14	60	80
22	912617106011	KAVYA C	III /ECE	12	100	18	90	95
23	912617106012	KEERTHANA G	III /ECE	10	83	14	70	77
24	912617106013	MAHESHWARI G	III /ECE	10	83	14	70	77
25	912617106014	MANOHARI M	III /ECE	12	100	15	75	88
26	912617106015	MARAGATHALAKSHMI S	III /ECE	10	83	18	90	87
27	912617106017	SAFRIN NISHA S	III /ECE	12	100	16	80	90
28	912617106018	SUBASHINI M	III /ECE	10	83	19	95	89
29	912617106019	SUBASHINI T	III /ECE	12	100	14	70	85
30	912617106020	VINTHIYA R	III /ECE	10	83	14	70	77

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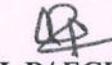
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

31	912616106001	ABINAYA R	IV/ECE	10	83	14	70	77
32	912616106002	AGALYA A	IV/ECE	12	100	19	95	98
33	912616106003	ATCHAYA G	IV/ECE	10	83	13	65	74
34	912616106004	DEEPA N	IV/ECE	12	100	14	70	85
35	912616106005	DHARANIYA A	IV/ECE	10	83	14	70	77
36	912616106006	JEEVITHA U	IV/ECE	12	100	17	75	88
37	912616106007	MAHESWARI V	IV/ECE	10	83	18	90	87
38	912616106008	PAZHANIYAMMAL R	IV/ECE	10	83	16	80	82
39	912616106009	PRIYANKA E	IV/ECE	12	100	15	75	88
40	912616106010	ROJA A	IV/ECE	10	83	14	70	77
41	912616106011	SHANMUGAPRIYA R	IV/ECE	10	83	16	80	82
42	912616106012	SHIYAMALA E	IV/ECE	12	100	15	75	88
43	912616106013	SIVABHARATHI P	IV/ECE	10	83	17	85	84
44	912616106014	SIVARUBINI S	IV/ECE	12	100	15	75	88
45	912616106016	VINCY A	IV/ECE	10	83	14	70	77
46	912616106302	SANKAVI M	IV/ECE	10	83	17	85	84

VAC Coordinator


Dr. S. THILAGAVATHI M.E., Ph.D.,
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Criteria 2

Teaching-Learning and Evaluation

350

Key Indicator- 2.3. Teaching- Learning Process (40)

2019-2020

**ELECTRONICS AND
COMMUNICATION ENGINEERING**

PARTICIPATIVE LEARNING

SYMPOSIUM, SEMINAR & WORKSHOP



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PARTICIPATIVE LEARNING (SYMPOSIUM/WORKSHOP/SEMINAR)

ACADEMIC YEAR 2019-2020

S.No	Register No	Student Name	Year/Sem	Name of the Learning Method
1	912616106004	DEEPA.N	IV/VII	Workshop - Recent Trends in Engineering and technology
2	912616106008	PAZHANIYAMMAL.R		
3	912616106009	PRIYANKA.E		
4	912617106004	BAVADHARANI. A	III/V	Workshop - Recent Trends in Engineering and technology
5	912617106011	KAVYA C		
6	912617106011	KAVYA C	III/V	Symposium-Paper Presentation
7	912617106019	SUBASHINI T		
8	912617106007	GOWSALYA D	III/V	Symposium-Paper Presentation
9	912617106020	VINTHIYA R		
10	912618106001	ANUSHAA S	II/IV	Seminar-Wireless communication
11	912618106002	ARIVARASI A		
12	912618106003	ASMATH HAZEENA N		
13	912618106004	ATCHAYA R		
14	912618106009	ROHINI K		
15	912618106010	SOUNTHARYA P		

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HOD / ECE

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Phone: 04333-294400. e-mail: info@mzcet.in, website: www.mzcet.in

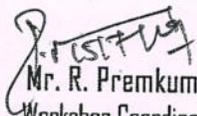
One Day Workshop on

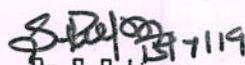
RECENT TRENDS IN ENGINEERING AND TECHNOLOGY

Organised by the
Department of Electronics & Communication Engineering

Certificate

This is to certify that **N.DEEPA** from **SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN** has participated in the one day workshop on **RECENT TRENDS IN ENGINEERING AND TECHNOLOGY** organized by the Department of Electronics and Communication Engineering and IETE at Mount Zion College of Engineering & Technology, Pudukkottai on 15th July, 2019.


Mr. R. Premkumar
Workshop Coordinator


Dr. S. Robinson
HoD/ECE


Dr. P. Balamurugan
PRINCIPAL


Dr. S. THILAGAVATHI M.E., Ph.D.,
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Phone: 04333-294400. e-mail: info@mzcet.in, website: www.mzcet.in

One Day Workshop on

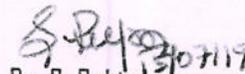
RECENT TRENDS IN ENGINEERING AND TECHNOLOGY

Organised by the
Department of Electronics & Communication Engineering

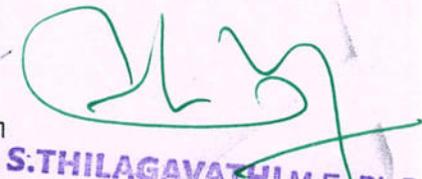
Certificate

This is to certify that **R.PAZHANIYAMMAL** from **SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN** has participated in the one day workshop on **RECENT TRENDS IN ENGINEERING AND TECHNOLOGY** organized by the Department of Electronics and Communication Engineering and IETE at Mount Zion College of Engineering & Technology,


Mr. R. Premkumar
Workshop Coordinator


Dr. S. Robinson
HoD/ECE


Dr. P. Balamurugan
PRINCIPAL


Dr. S. THILAGAVATHI M.E., Ph.D
PRINCIPAL

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One Day Workshop on

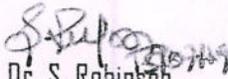
RECENT TRENDS IN ENGINEERING AND TECHNOLOGY

Organised by the
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Certificate

This is to certify that **E.PRIYANKA** from **SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN** has participated in the one day workshop on **RECENT TRENDS IN ENGINEERING AND TECHNOLOGY** organized by the Department of Electronics and Communication Engineering and IETE at Mount Zion College of Engineering & Technology, Pudukkottai on 15th July, 2019.


Mr. R. Premkumar
Workshop Coordinator


Dr. S. Robinson
HoD/ECE


Dr. P. Balamurugan
PRINCIPAL
Dr. S. THILAGAVATHI M.E., Ph.D.,
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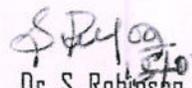
RECENT TRENDS IN ENGINEERING AND TECHNOLOGY

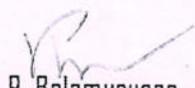
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Department of Electronics & Communication Engineering

Certificate

This is to certify that **A.BAVADHARANI** from **SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN** has participated in the one day workshop on **RECENT TRENDS IN ENGINEERING AND TECHNOLOGY** organized by the Department of Electronics and Communication Engineering and IETE at Mount Zion College of Engineering & Technology,

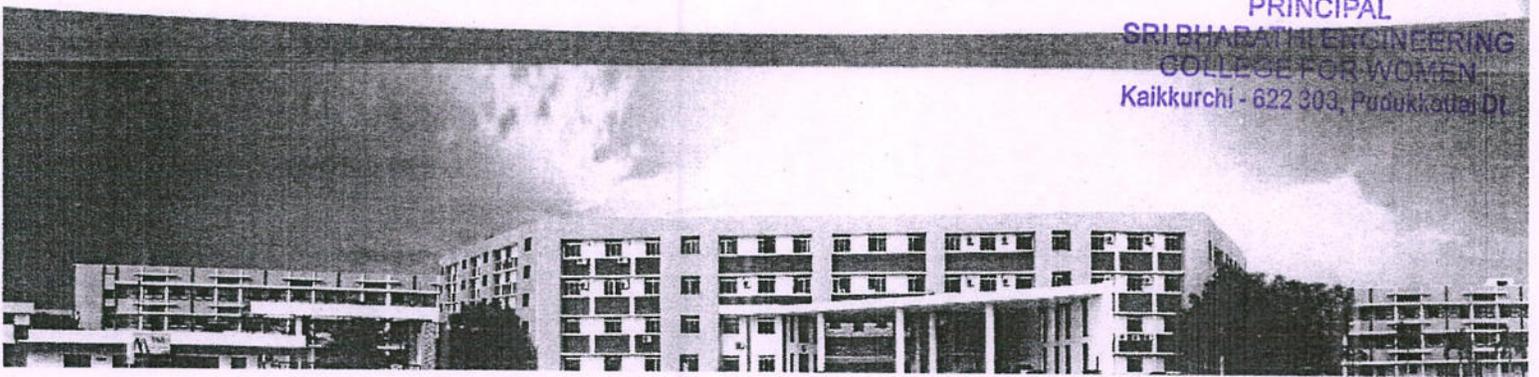

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Workshop Coordinator


Dr. S. Robinson
HoD/ECE


Dr. P. Balamurugan
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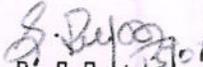
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Organised by the
Department of Electronics & Communication Engineering

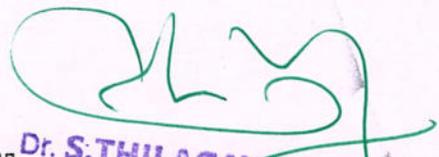
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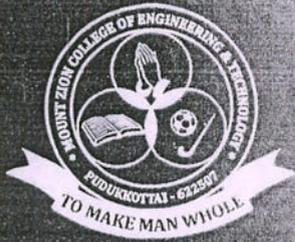

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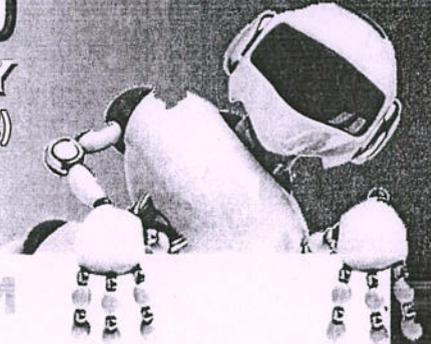
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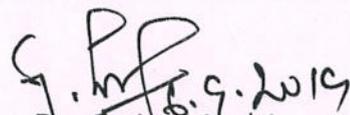
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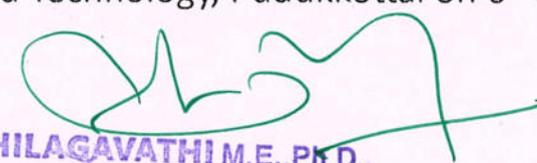
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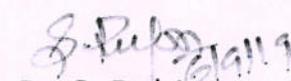
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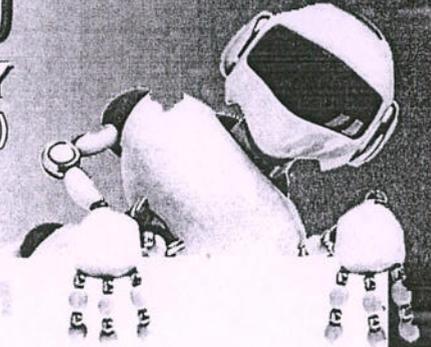
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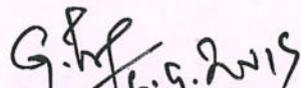
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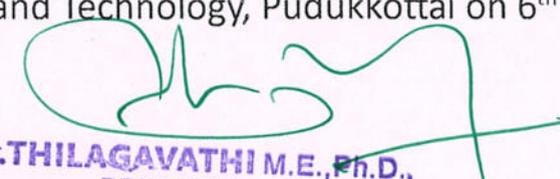
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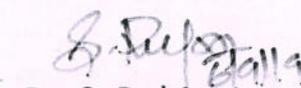
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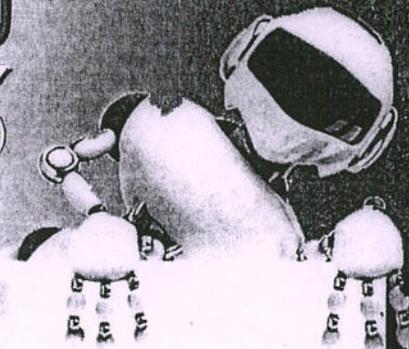
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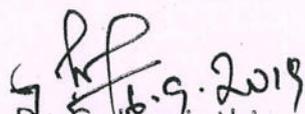
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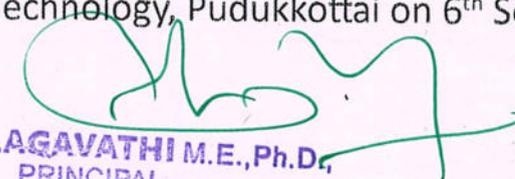
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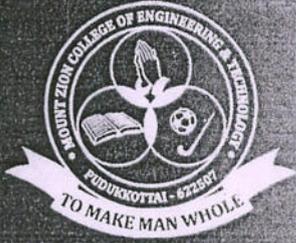
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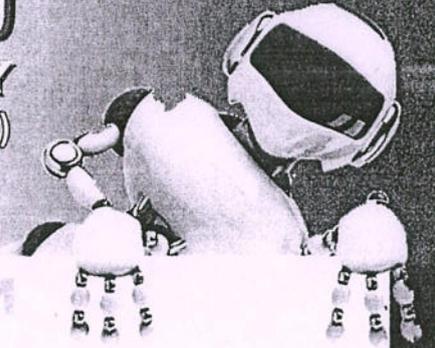
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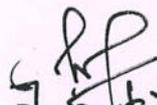
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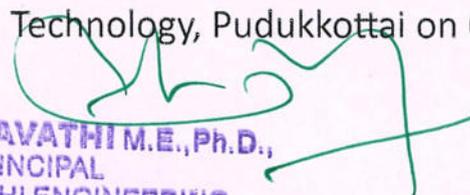
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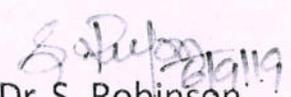
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