

SYLLABUS/  
CURRICULUM



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

(Approved by AJCTE & Affiliated to Anna University, Chennai)

Madurai - Sivagangai Highway, Arasanoor, Thirumansolai Post, Sivagangai Dt. - 630 561, Tamilnadu  
Mobile : 9842102628, 7373002628 Email: info@psyec.edu.in Website : www.psyec.edu.in

City Office : 10, Pandian Saraswathi St, Sivagami Nagar, Narayanapuram, Madurai - 625 014. Telefax- 0452 2682338, Mobile : 98423-02628

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### COURSE SYLLABUS

ACADEMIC YEAR 2018-2019

#### VACECE1819PCB-PCB DESIGN AND ITS FABRICATION

<b>CHAPTER-1</b>	<b>Introduction to PCB Design</b>	<b>7</b>
Overview of PCBs and their applications Introduction to CAD tools for PCB design Basic electronic components and their symbols Schematic Capture Understanding schematic diagrams Using CAD software for schematic capture Creating and annotating components		
<b>CHAPTER-2</b>	<b>Routing Techniques</b>	<b>7</b>
Component Placement Guidelines for component placement Considerations for signal integrity and thermal management Hands-on exercises on component placement Introduction to routing layers and stack-up Manual vs. automated routing Signal integrity considerations in routing		
<b>CHAPTER-3</b>	<b>PCB Fabrication Process</b>	<b>7</b>
Design rule checking (DRC) and electrical rule checking (ERC) Simulation tools for signal integrity analysis Design optimization techniques PCB Fabrication Processes Overview of PCB fabrication steps Substrate materials and their properties Etching, drilling, and plating processes		
<b>CHAPTER-4</b>	<b>Gerber Files and Manufacturing Documentation</b>	<b>7</b>
Gerber Files and Manufacturing Documentation Understanding Gerber files Generating manufacturing documentation (BOM, assembly drawings) Design for manufacturability (DFM) guidelines Advanced Topics High-speed PCB design considerations RF PCB design fundamentals PCB assembly techniques and soldering methods		
<b>CHAPTER-5</b>	<b>Industry Trends and Future Outlook</b>	<b>7</b>
Case Studies and Project Analysis of real-world PCB designs Hands-on PCB design project Presentation of projects and peer review Emerging technologies in PCB design and fabrication Career opportunities in the PCB industry		

**TOTAL: 35Hrs**

  
COURSE COORDINATOR

  
HOD/ECE

  
PRINCIPAL

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ENGINEERING COLLEGE  
Arasanoor, Thirumansolai P.O-630 561  
Sivagangai Dist. Tamilnadu



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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING COURSE SCHEDULE

### VACECE1819PCB- PCB DESIGN AND ITS FABRICATION

DATE	TIME	SYLLABUS
10.12.2018	9.00AM TO 1.00PM	Introduction to PCB Design-Overview of PCBs and their applications, Introduction to CAD tools for PCB design Basic electronic components and their symbols Schematic Capture Understanding schematic diagrams Using CAD software for schematic capture Creating and annotating components
	2.00PM TO 5.00PM	
11.12.2018	9.00AM TO 1.00PM	Component Placement-Guidelines for component placement Considerations for signal integrity and thermal management Hands-on exercises on component placement Routing Techniques-Introduction to routing layers and stack-up Manual vs. automated routing Signal integrity considerations in routing
	2.00PM TO 5.00PM	
12.12.2018	9.00AM TO 1.00PM	Design Validation-Design rule checking (DRC) and electrical rule checking (ERC) Simulation tools for signal integrity analysis Design optimization techniques PCB Fabrication Processes-Overview of PCB fabrication steps Substrate materials and their properties Etching, drilling, and plating processes
	2.00PM TO 5.00PM	
13.12.2018	9.00AM TO 1.00PM	Gerber Files and Manufacturing Documentation-Understanding Gerber files Generating manufacturing documentation (BOM, assembly drawings) Design for manufacturability (DFM) guidelines Advanced Topics-High-speed PCB design considerations-RF PCB design fundamental-PCB assembly techniques and soldering methods
	2.00PM TO 5.00PM	
14.12.2018	9.00AM TO 1.00PM	Case Studies and Projects Analysis of real-world PCB designs Hands-on PCB design project Presentation of projects and peer review Industry Trends and Future Outlook-Emerging technologies in PCB design and fabrication-Career opportunities in the PCB industry Open discussion and Q&A session
	2.00PM TO 5.00PM	

Tea Break: 10:40 am to 10:55am & 02:45 pm to 15:00 pm

Lunch Break: 12:30pm to 01:00pm

TOTAL: 35hrs

  
COURSE COORDINATOR

  
HOD / ECE

  
PRINCIPAL

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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Academic Year 2018-2019

One page Report

Name of the course : **PCB DESIGN AND ITS FABRICATION**

Course Code : VACECE1819PCB

Resource Person : Mrs A.PONMALAR ASP/ECE ,PSYEC

Course Coordinator : MS R.RAJALAKSHMI AP/ECE

Date/Duration : 10.12.2018-14.12.2018— 35 hours


I here affirm that the Final-year students of strength 32 have been taught the value-added course title "PCB DESIGN AND ITS FABRICATION" as per the syllabus and completed within the stipulated time duration.

I confirm that the value-added course titled "PCB DESIGN AND ITS FABRICATION" has been conducted in the beginning of the semester and course delivery along with the attendance of the students was recorded.

I confirmed that all the students were actively participated in the course and the eligible students were certified for the course.

  
COURSE COORDINATOR

  
HOD/ECE

  
PRINCIPAL  
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Arasanoor, Thirumansolai Post, Sivagangai Dt - 630 551  
Tamilnadu

# ASSESSMENT PROCEDURE



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### ASSESSMENT QUESTION WITH ANSWER

#### VACECEI819PCB- PCB DESIGN AND ITS FABRICATION

**1: What does PCB stand for?**

- a) Printed Central Board
- b) Printed Circuit Board
- c) Processed Circuit Board
- d) Personal Computer Board

**Answer: b) Printed Circuit Board**

**2: Which CAD software is commonly used for PCB design?**

- a) Photoshop
- b) AutoCAD
- c) Altium Designer
- d) Microsoft Excel

**Answer: c) Altium Designer**

**3: What is the purpose of schematic capture in PCB design?**

- a) To draw artistic representations of the circuit
- b) To simulate the behavior of components
- c) To create a graphical representation of the circuit connections
- d) To analyze signal integrity issues

**Answer: c) To create a graphical representation of the circuit connections**

**4: What is DFM in the context of PCB design?**

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Sivagangal Dist. Tamilnadu

- a) Digital Frequency Modulation
- b) Design for Manufacturing
- c) Digital Fabrication Method
- d) Dual Frequency Multiplexing

**Answer: b) Design for Manufacturing**

**5: Which process is used to create conductive traces on a PCB?**

- a) Etching
- b) Welding
- c) Soldering
- d) Coating

**Answer: a) Etching**

**6: What is the purpose of a Gerber file in PCB fabrication?**

- a) To simulate the circuit behavior
- b) To generate the bill of materials (BOM)
- c) To create a graphical representation of the PCB layout
- d) To specify manufacturing instructions for PCB production

**Answer: c) To create a graphical representation of the PCB layout**

**7: What is the significance of signal integrity in PCB design?**

- a) It ensures that the PCB looks aesthetically pleasing
- b) It ensures that the PCB can withstand environmental conditions
- c) It ensures that signals are not distorted or degraded during transmission
- d) It ensures that the PCB is compatible with various CAD software

**Answer: c) It ensures that signals are not distorted or degraded during transmission**

**8: Which material is commonly used as the substrate for PCBs?**

- a) Glass
- b) Aluminum
- c) Silicon

d) FR4

**Answer: d) FR4**

**9: What is the purpose of routing in PCB design?**


- a) To connect electronic components together
- b) To draw decorative patterns on the PCB
- c) To cool down the PCB
- d) To generate manufacturing instructions

**Answer: a) To connect electronic components together**

**10: What does ERC stand for in PCB design?**

- a) Electrical Resistance Calculator
- b) Electronic Rule Checking
- c) Energy Recovery Circuit
- d) External Routing Component

**Answer: b) Electronic Rule Checking**

  
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# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### ASSESSMENT TEST PAPER

#### VACECE1819PCB- PCB DESIGN AND ITS FABRICATION

REGISTER NO: 912015106001

NAME OF THE STUDENT: Anesha Rindhini. V. S

YEAR/SEM: 10/VII

7  
10

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Sivagangai, Tamilnadu

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- b) Electronic Rule Checking
- c) Energy Recovery Circuit
- d) External Routing Component

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Electronics and Communication Engineering

Student Performance Sheet

Academic Year : 2018-2019

Course Code : VACECE1819PCB

Course Name : PCB Design and its Fabrication

Duration of hours : 35

Period of Course : 10.12.2018 to 14.12.2018

Assessment Marks			Marks
Sl. No	Register Number	Student Name	
1	912015106001	Anesha Nandni V S	100
2	912015106002	Antony Theresa A	95
3	912015106003	Balakrishnan P	98
4	912015106004	Bharathi Keerthana M	75
5	912015106005	Deivam G	94
6	912015106007	Dhanalakshmi R	100
7	912015106008	Divya N	94
8	912015106009	Evanjalin Nirmala R	85
9	912015106010	Fathima Nushra A	89
10	912015106011	Gunamathi G	90
11	912015106012	Karthika R	86
12	912015106013	Mohamed Arsath Nainar A	73
13	912015106014	Nandhini A	84
14	912015106015	Panchavarnam D	80
15	912015106016	Preethi P.	65
16	912015106017	Rajalakshmi J	87
17	912015106018	Rakku Selvi M	99
18	912015106020	Rikana Yasmin M	90
19	912015106021	Risbana Yasibha K	75
20	912015106022	Sangeetha B	70
21	912015106023	Sasikala A	89
22	912015106024	Sravani M	89
23	912015106025	Swarna L	92
24	912015106027	Vigneshvaran K J	96
25	912015106028	Vimala S	60
26	912015106029	Vinitha J	84
27	912015106030	Vinotha-M	86
28	912015106031	Yogesh B	70
29	912015106301	Lakshmanaperumal M	81
30	912015106303	Meenakshi P	99
31	912015106304	Sasitharan M	76
32	912015106901	Sharmila S	78

  
Course coordinator

  
HOD/ECE

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ENGINEERING COLLEGE  
Arasanoor, Thirumansolai P.O-630 561  
Sivagangai Dist. Tamilnadu

Enrollment  
Student Name  
List

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Electronics and Communication Engineering

Student Registration Sheet

Academic Year : 2018-2019

Course Code : VACECE1819PCB

Course Name : PCB Design and its Fabrication

Duration of hours : 35

Period of Course : 10.12.2018 to 14.12.2018

Sl. No	Register Number	Student Name	Signature
1	912015106001	Aneshā Nandni V S	V. S. Anand
2	912015106002	Antony Theresa A	A. Ant Theresa
3	912015106003	Balakrishnan P	Balakrishna
4	912015106004	Bharathi Keerthana M	M. Bharathi
5	912015106005	Deivam G	Deivam G
6	912015106007	Dhanalakshmi R	R. Dhana
7	912015106008	Divya N	N. Divya
8	912015106009	Evanjalin Nirmala R	Evanjalin Nirm R
9	912015106010	Fathima Nushra A	Fathima A
10	912015106011	Gunamathi G	G. Gunamathi
11	912015106012	Karthika R	R. Karthika
12	912015106013	Mohamed Arsath Nainar A	A. Mohamed
13	912015106014	Nandhini A	A. Nandhini
14	912015106015	Panchavarnam D	D. Panchavarnam
15	912015106016	Preethi P	P. Preethi
16	912015106017	Rajalakshmi J	J. Rajalakshmi
17	912015106018	Rakku Selvi M	M. Rakku Selvi
18	912015106020	Rikana Yasmin M	M. Rikana
19	912015106021	Risbana Yasibha K	K. Risbana
20	912015106022	Sangeetha B	B. Sangeetha
21	912015106023	Sasikala A	A. Sasikala
22	912015106024	Sravani M	M. Sravani
23	912015106025	Swarna L	L. Swarna
24	912015106027	Vigneshvaran K J	K. J. Vigneshvaran
25	912015106028	Vimala S	S. Vimala
26	912015106029	Vinitha J	J. Vinitha
27	912015106030	Vinotha M	M. Vinotha
28	912015106031	Yogesh B	B. Yogesh
29	912015106301	Lakshmanaperumal M	M. Lakshmanaperumal
30	912015106303	Meenakshi P	P. Meenakshi
31	912015106304	Sasitharan M	M. Sasitharan
32	912015106901	Sharmila S	S. Sharmila

R. P. [Signature]  
Course coordinator

[Signature]  
HOD/ECE

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Arasanoor, Thirumangalai P.O.-630 561  
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# STUDENTS ATTENDANCE

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Electronics and Communication Engineering

Student Attendance Sheet

Academic Year : 2018-2019

Course Code : VACECE1819PCB

Course Name : PCB Design and its Fabrication

Duration of hours : 35

Period of Course : 10.12.2018 to 14.12.2018

Date: 10/12/18

SL No	Register Number	Name	Date: 10/12/18					
			09.00 am - 10.00 am	10.00 am - 11.00 am	11.15 am - 12.15 pm	01.00 pm - 02.00 pm	02.00 pm - 03.00 pm	03.15 pm - 04.15 pm
1	912015106001	Anesha Nandni V S	Present	Present	Present	Present	Present	Present
2	912015106002	Antony Theresa A	Present	Present	Present	Present	Present	Present
3	912015106003	Balakrishnan P	Present	Present	Present	Present	Present	Present
4	912015106004	Bharathi Keerthana M	Present	Present	Present	Present	Present	Present
5	912015106005	Deivam G	Present	Present	Present	Present	Present	Present
6	912015106007	Dhanalakshmi R	Present	Present	Present	Present	Present	Present
7	912015106008	Divya N	Present	Present	Present	Present	Present	Present
8	912015106009	Evanjalini Nirmala R	Present	Present	Present	Present	Present	Present
9	912015106010	Fathima Nushra A	Present	Present	Present	Present	Present	Present
10	912015106011	Gunamathi G	Present	Present	Present	Present	Present	Present
11	912015106012	Karthika R	Present	Present	Present	Present	Present	Present
12	912015106013	Mohamed Arsath Nainar A	Present	Present	Present	Present	Present	Present
13	912015106014	Nandhini A	Present	Present	Present	Present	Present	Present
14	912015106015	Panchavarnam D	Present	Present	Present	Present	Present	Present
15	912015106016	Preethi P	Present	Present	Present	Present	Present	Present
16	912015106017	Rajalakshmi J	Present	Present	Present	Present	Present	Present
17	912015106018	Rakku Selvi M	Present	Present	Present	Present	Present	Present
18	912015106020	Rikana Yasmin M	Present	Present	Present	Present	Present	Present
19	912015106021	Risbana Yasibha K	Present	Present	Present	Present	Present	Present
20	912015106022	Sangeetha B	Present	Present	Present	Present	Present	Present
21	912015106023	Sasikala A	Present	Present	Present	Present	Present	Present
22	912015106024	Sravani M	Present	Present	Present	Present	Present	Present
23	912015106025	Swarna L	Present	Present	Present	Present	Present	Present
24	912015106027	Vigneshvaran K J	Present	Present	Present	Present	Present	Present
25	912015106028	Vimala S	Present	Present	Present	Present	Present	Present
26	912015106029	Vinitha J	Present	Present	Present	Present	Present	Present
27	912015106030	Vinotha M	Present	Present	Present	Present	Present	Present
28	912015106031	Yogesh B	Present	Present	Present	Present	Present	Present
29	912015106301	Lakshmanaperumal M	Present	Present	Present	Present	Present	Present
30	912015106303	Meenakshi P	Present	Present	Present	Present	Present	Present
31	912015106304	Sasitharan M^	Present	Present	Present	Present	Present	Present
32	912015106901	Sharmila S	Present	Present	Present	Present	Present	Present

Tea Break FN- 11:00 am to 11:15am & AN-03:00 pm to 03:15 pr  
Lunch Break 12:15 pm to 01:00pm

R. P. [Signature]  
Course coordinator

[Signature]  
HOD/ECE

[Signature]  
PRINCIPAL

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Arasanoor, Thirumangaloor P.O-630 561  
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			09.00 am - 10.00 am	10.00 am - 11.00 am	11.15 am - 12.15pm	01.00 pm - 02.00 pm	02.00 pm - 03.00 pm	03.15 pm - 04.15 pm
1	912015106001	Anesha Nandni V S	Nandni	Nandni	Nandni	Nandni	Nandni	Nandni
2	912015106002	Antony Theresa A	Antony	Antony	Antony	Antony	Antony	Antony
3	912015106003	Balakrishnan P	P	P	P	P	P	P
4	912015106004	Bharathi Keerthana M	Bharathi	Bharathi	Bharathi	Bharathi	Bharathi	Bharathi
5	912015106005	Deivam G	Deivam	Deivam	Deivam	Deivam	Deivam	Deivam
6	912015106007	Dhanalakshmi R	Dhanalakshmi	Dhanalakshmi	Dhanalakshmi	Dhanalakshmi	Dhanalakshmi	Dhanalakshmi
7	912015106008	Divya N	Divya	Divya	Divya	Divya	Divya	Divya
8	912015106009	Evanjalini Nirmala R	Evanjalini	Evanjalini	Evanjalini	Evanjalini	Evanjalini	Evanjalini
9	912015106010	Fathima Nushra A	Fathima	Fathima	Fathima	Fathima	Fathima	Fathima
10	912015106011	Gunamathi G	Gunamathi	Gunamathi	Gunamathi	Gunamathi	Gunamathi	Gunamathi
11	912015106012	Karthika R	Karthika	Karthika	Karthika	Karthika	Karthika	Karthika
12	912015106013	Mohamed Arsath Nainar A	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed
13	912015106014	Nandhini A *	Nandhini	Nandhini	Nandhini	Nandhini	Nandhini	Nandhini
14	912015106015	Panchavarnam D	Panchavarnam	Panchavarnam	Panchavarnam	Panchavarnam	Panchavarnam	Panchavarnam
15	912015106016	Preethi P	Preethi	Preethi	Preethi	Preethi	Preethi	Preethi
16	912015106017	Rajalakshmi J	AB	AB	AB	AB	AB	AB
17	912015106018	Rakku Selvi M	Selvi	Selvi	Selvi	Selvi	Selvi	Selvi
18	912015106020	Rikana Yasmin M	Rikana	Rikana	Rikana	Rikana	Rikana	Rikana
19	912015106021	Risbana Yasibha K	Risbana	Risbana	Risbana	Risbana	Risbana	Risbana
20	912015106022	Sangeetha B	Sangeetha	Sangeetha	Sangeetha	Sangeetha	Sangeetha	Sangeetha
21	912015106023	Sasikala A	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi
22	912015106024	Sravani M	AB	AB	AB	AB	AB	AB
23	912015106025	Swarna L	Swarna	Swarna	Swarna	Swarna	Swarna	Swarna
24	912015106027	Vigneshvaran K J	Vigneshvaran	Vigneshvaran	Vigneshvaran	Vigneshvaran	Vigneshvaran	Vigneshvaran
25	912015106028	Vimala S	Vimala	Vimala	Vimala	Vimala	Vimala	Vimala
26	912015106029	Vinitha J	Vinitha	Vinitha	Vinitha	Vinitha	Vinitha	Vinitha
27	912015106030	Vinotha M	Vinotha	Vinotha	Vinotha	Vinotha	Vinotha	Vinotha
28	912015106031	Yogesh B *	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh	Yogesh
29	912015106301	Lakshmanaperumal M	Lakshmanaperumal	Lakshmanaperumal	Lakshmanaperumal	Lakshmanaperumal	Lakshmanaperumal	Lakshmanaperumal
30	912015106303	Meenakshi P	Meenakshi	Meenakshi	Meenakshi	Meenakshi	Meenakshi	Meenakshi
31	912015106304	Sasitharan M	Sasitharan	Sasitharan	Sasitharan	Sasitharan	Sasitharan	Sasitharan
32	912015106901	Sharmila S	Sharmila	Sharmila	Sharmila	Sharmila	Sharmila	Sharmila

Tea Break FN- 11.00 am to 11.15am & AN-03.00 pm to 03.15 pm

Lunch Break 12:15 pm to 01.00pm

Course coordinator

MOD/ECE

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PANDIAN SARASWATHI YADAV  
ENGINEERING COLLEGE  
Arasanoor, Thirumansolai P.O-630 561  
Sivagangai Dist. Tamilnadu

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Electronics and Communication Engineering

Student Attendance Sheet

Academic Year : 2018-2019

Course Code : VACECE1819PCB

Course Name : PCB Design and its Fabrication

Duration of hours : 35

Period of Course : 10.12.2018 to 14.12.2018

Sl. No	Register Number		Date: 12/12/18					
			09.00 am - 10.00 am	10.00 am - 11.00 am	11.15 am - 12.15pm	01.00 pm - 02.00 pm	02.00 pm - 03.00 pm	03.15 pm - 04.15 pm
1	912015106001	Anesha Nandni V S	Nandhi	Nandhi	Nandhi	Nandhi	Nandhi	Nandhi
2	912015106002	Antony Theresa A	Antonia	Antonia	Antonia	Antonia	Antonia	Antonia
3	912015106003	Balakrishnan P	Ba	Ba	Ba	Ba	Ba	Ba
4	912015106004	Bharathi Keerthana M	Bhan	Bhan	Bhan	Bhan	Bhan	Bhan
5	912015106005	Deivam G	deiv	deiv	deiv	deiv	deiv	deiv
6	912015106007	Dhanalakshmi R	Dh	Dh	Dh	Dh	Dh	Dh
7	912015106008	Divya N	Div	Div	Div	Div	Div	Div
8	912015106009	Evanjalin Nirmala R	Eva	Eva	Eva	Eva	Eva	Eva
9	912015106010	Fathima Nushra A	Fath	Fath	Fath	Fath	Fath	Fath
10	912015106011	Gunamathi G	Gun	Gun	Gun	Gun	Gun	Gun
11	912015106012	Karthika R	Kar	Kar	Kar	Kar	Kar	Kar
12	912015106013	Mohamed Arsath Nainar A	M	M	M	M	M	M
13	912015106014	Nandhini A	Nand	Nand	Nand	Nand	Nand	Nand
14	912015106015	Panchavarnam D	Pan	Pan	Pan	Pan	Pan	Pan
15	912015106016	Preethi P	Pre	Pre	Pre	Pre	Pre	Pre
16	912015106017	Rajalakshmi J	Raja	Raja	Raja	Raja	Raja	Raja
17	912015106018	Rakku Selvi M	Raku	Raku	Raku	Raku	Raku	Raku
18	912015106020	Rikana Yasmin M	Rika	Rika	Rika	Rika	Rika	Rika
19	912015106021	Risbana Yasibha K	Risb	Risb	Risb	Risb	Risb	Risb
20	912015106022	Sangeetha B	Sang	Sang	Sang	Sang	Sang	Sang
21	912015106023	Sasikala A	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi
22	912015106024	Sravani M	Sra	Sra	Sra	Sra	Sra	Sra
23	912015106025	Swarna L	Sw	Sw	Sw	Sw	Sw	Sw
24	912015106027	Vigneshvaran K J	Vign	Vign	Vign	Vign	Vign	Vign
25	912015106028	Vimala S	Vima	Vima	Vima	Vima	Vima	Vima
26	912015106029	Vinitha J	Vini	Vini	Vini	Vini	Vini	Vini
27	912015106030	Vinotha M	Vino	Vino	Vino	Vino	Vino	Vino
28	912015106031	Yogesh B	Yogi	Yogi	Yogi	Yogi	Yogi	Yogi
29	912015106301	Lakshmanaperumal M	Lak	Lak	Lak	Lak	Lak	Lak
30	912015106303	Meenakshi P.	Meen	Meen	Meen	Meen	Meen	Meen
31	912015106304	Sasitharan M	Sasi	Sasi	Sasi	Sasi	Sasi	Sasi
32	912015106901	Sharmila S	Shar	Shar	Shar	Shar	Shar	Shar

Tea Break FN- 11:00 am to 11:15am & AN-03:00 pm to 03:15 pm

Lunch Break 12:15 pm to 01:00pm

R.P.  
Course coordinator

  
HOD/EC

  
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ENGINEERING COLLEGE  
Arasanoor, Thirumanthoor P.O-630 561  
Nivarganai Dist. Tamilnadu

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Electronics and Communication Engineering

Student Attendance Sheet

Academic Year : 2018-2019

Course Code : VACECE1819PCB

Course Name : PCB Design and its Fabrication

Duration of hours : 35

Period of Course : 10.12.2018 to 14.12.2018

Sl. No	Register Number		Date: 13/12/18					
			09.00 am - 10.00 am	10.00 am - 11.00 am	11.15 am - 12.15 pm	01.00 pm - 02.00 pm	02.00 pm - 03.00 pm	03.15 pm - 04.15 pm
1	912015106001	Anesha Nandni V S	Nandni	Nandni	Nandni	Nandni	Nandni	Nandni
2	912015106002	Antony Theresa A	Antony	Antony	Antony	Antony	Antony	Antony
3	912015106003	Balakrishnan P	B	A	P	P	P	P
4	912015106004	Bharathi Keerthana M	Bhan	Bhan	Bhan	Bhan	Bhan	Bhan
5	912015106005	Deivam G	deivam	deivam	deivam	deivam	deivam	deivam
6	912015106007	Dhanalakshmi R	Dhan	Dhan	Dhan	Dhan	Dhan	Dhan
7	912015106008	Divya N	div	div	div	div	div	div
8	912015106009	Evanjalin Nirmala R	Evan	Evan	Evan	Evan	Evan	Evan
9	912015106010	Fathima Nushra A	Fath	Fath	Fath	Fath	Fath	Fath
10	912015106011	Gunamathi G	Gun	Gun	Gun	Gun	Gun	Gun
11	912015106012	Karthika R	Karth	Karth	Karth	Karth	Karth	Karth
12	912015106013	Mohamed Arsath Nainar A	(m)	(m)	(m)	(m)	(m)	(m)
13	912015106014	Nandhini A	Nand	Nand	Nand	Nand	Nand	Nand
14	912015106015	Panchavarnam D	Pan	Pan	Pan	Pan	Pan	Pan
15	912015106016	Preethi P	Pre	Pre	Pre	Pre	Pre	Pre
16	912015106017	Rajalakshmi J	Raja	Raja	Raja	Raja	Raja	Raja
17	912015106018	Rakku Selvi M	Raku	Raku	Raku	Raku	Raku	Raku
18	912015106020	Rikana Yasmin M	Rika	Rika	Rika	Rika	Rika	Rika
19	912015106021	Risbana Yasibha K	Risb	Risb	Risb	Risb	Risb	Risb
20	912015106022	Sangeetha B	Sang	Sang	Sang	Sang	Sang	Sang
21	912015106023	Sasikala A	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi	A.Sasi
22	912015106024	Sravani M	Sra	Sra	Sra	Sra	Sra	Sra
23	912015106025	Swarna L	Sw	Sw	Sw	Sw	Sw	Sw
24	912015106027	Vigneshvaran KJ	Vign	Vign	Vign	Vign	Vign	Vign
25	912015106028	Vimala S	Vim	Vim	Vim	Vim	Vim	Vim
26	912015106029	Vinitha J	Vin	Vin	Vin	Vin	Vin	Vin
27	912015106030	Vinotha M	Vino	Vino	Vino	Vino	Vino	Vino
28	912015106031	Yogesh B	Yogi	Yogi	Yogi	Yogi	Yogi	Yogi
29	912015106301	Lakshmanaperumal M	Lak	Lak	Lak	Lak	Lak	Lak
30	912015106303	Meenakshi P	Meen	Meen	Meen	Meen	Meen	Meen
31	912015106304	Sasitharan M	Sasi	Sasi	Sasi	Sasi	Sasi	Sasi
32	912015106901	Sharmila S	S.S	S.S	S.S	S.S	S.S	S.S

Tea Break

FN- 11:00 am to 11:15am & AN-03:00 pm to 03:15 pm

Lunch Break

12:15 pm to 01:00pm

*R.P.*  
Course coordinator

*[Signature]*  
HOD/ECE

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PANDIAN SARASWATHI YADAV  
ENGINEERING COLLEGE  
Arasanoor, Thirumanjalai P.O-630 561  
Sivagangai Dist. Tamilnadu

Student Attendance Sheet

Academic Year : 2018-2019  
 Course Code : VACECE1819PCB  
 Course Name : PCB Design and Its Fabrication  
 Duration of hours : 35  
 Period of Course : 10.12.2018 to 14.12.2018

Sl. No	Register Number	Name	Date: 14/12/18					
			09.00 am - 10.00 am	10.00 am - 11.00 am	11.15 am - 12.15 pm	01.00 pm - 02.00 pm	02.00 pm - 03.00 pm	03.15 pm - 04.15 pm
1	912015106001	Anesha Nandini V S	Present	Present	Present	Present	Present	Present
2	912015106002	Antony Theresa A	Present	Present	Present	Present	Present	Present
3	912015106003	Balakrishnan P	Present	Present	Present	Present	Present	Present
4	912015106004	Bharathi Keerthana M	Present	Present	Present	Present	Present	Present
5	912015106005	Delvam G	Present	Present	Present	Present	Present	Present
6	912015106007	Dhanalakshmi R	Present	Present	Present	Present	Present	Present
7	912015106008	Divya N	Present	Present	Present	Present	Present	Present
8	912015106009	Evanjalin Nirmala R	Present	Present	Present	Present	Present	Present
9	912015106010	Fathima Nushra A	Present	Present	Present	Present	Present	Present
10	912015106011	Gunamathi G	Present	Present	Present	Present	Present	Present
11	912015106012	Karthika R	Present	Present	Present	Present	Present	Present
12	912015106013	Mohamed Arsath Natnar A	Present	Present	Present	Present	Present	Present
13	912015106014	Nandhini A	Present	Present	Present	Present	Present	Present
14	912015106015	Panchavarnam D	Present	Present	Present	Present	Present	Present
15	912015106016	Preethi P	Present	Present	Present	Present	Present	Present
16	912015106017	Rajalakshmi J	Present	Present	Present	Present	Present	Present
17	912015106018	Rakku Selvi M	Present	Present	Present	Present	Present	Present
18	912015106020	Rikana Yasmin M	Present	Present	Present	Present	Present	Present
19	912015106021	Rishana Yasibha K	Present	Present	Present	Present	Present	Present
20	912015106022	Sangeetha B	Present	Present	Present	Present	Present	Present
21	912015106023	Sasikala A	Present	Present	Present	Present	Present	Present
22	912015106024	Sravani M	Present	Present	Present	Present	Present	Present
23	912015106025	Swarna L	Present	Present	Present	Present	Present	Present
24	912015106027	Vigneshvaran K J	Present	Present	Present	Present	Present	Present
25	912015106028	Vimala S	Present	Present	Present	Present	Present	Present
26	912015106029	Vinitha J	Present	Present	Present	Present	Present	Present
27	912015106030	Vinotha M	Present	Present	Present	Present	Present	Present
28	912015106031	Yogesh B	Present	Present	Present	Present	Present	Present
29	912015106301	Lakshmanaperumal M	Present	Present	Present	Present	Present	Present
30	912015106303	Meenakshi P	Present	Present	Present	Present	Present	Present
31	912015106304	Sasitharan M	Present	Present	Present	Present	Present	Present
32	912015106901	Sharmila S	Present	Present	Present	Present	Present	Present

Tea Break FN- 11 00 am to 11 15am & AN-03 00 pm to 03 15 pm  
 Lunch Break 12 15 pm to 01 00pm

R.P.  
Course coordinator

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 ENGINEERING COLLEGE  
 Arasanoor, Thiruvananthapuram P.O. 630 561  
 Sivagangal Dist. Tamilnadu

MODEL  
CERTIFICATES

# Pandian Saraswathi Yadav Engineering College

Arasanoor ,Sivagangai - Madurai Highway,TamilNadu-630561

*Organised by*

**Department of Electronics and Communication Engineering**

**CERTIFICATE OF COMPLETION**


This certificate is proudly awarded to

**ANESHA NANDHINI V.S**

*Has Successfully completed the Value Added Cerified course on  
**PCB DESIGN AND ITS FABRICATION During 10.12.2018 to 14.12.2018***

  
MS R.RAJALAKSHMI  
HOD/ECE



  
DR R.RAJA  
PRINCIPAL  
PRINCIPAL  
PANDIAN SARASWATHI YADAV  
ENGINEERING COLLEGE  
Arasanoor, Thirumangaludi, P.O. 630561

**R RAJA**

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by R RAJA  
Date: 2024.06.27  
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# Pandian Saraswathi Yadav Engineering College

Arasanoor .Sivagangai - Madurai Highway.TamilNadu-630561

*Organised by*


Department of Electronics and Communication Engineering

CERTIFICATE OF COMPLETION


This certificate is proudly awarded to

**BALAKRISHNAN P**

*Has Successfully completed the Value Added Cerified course on  
PCB DESIGN AND ITS FABRICATION During 10.12.2018 to 14.12.2018*

  
MS.R.RAJALAKSHMI  
HOD/ECE



  
DR R.RAJA  
PRINCIPAL  
PRINCIPAL  
PANDIAN SARASWATHI YADAV  
ENGINEERING COLLEGE  
Arasanoor, Thirumansolai P.O-630 561  
Sivagangai Dist. Tamilnadu

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by R RAJA  
Date: 2024.06.27  
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# Pandian Saraswathi Yadav Engineering College

Arasanoor, Sivagangai - Madurai Highway, TamilNadu-630561

*Organised by*

**Department of Electronics and Communication Engineering**

CERTIFICATE OF COMPLETION

This certificate is proudly awarded to

**NANDHINI A**

*Has Successfully completed the Value Added Certified course on*  
**PCB DESIGN AND ITS FABRICATION During 10.12.2018 to 14.12.2018**

  
MS R. RAJALAKSHMI  
HOD/ECE



  
DR R. RAJA  
PRINCIPAL  
PANDIAN SARASWATHI YADAV  
ENGINEERING COLLEGE  
Arasanoor, Thirumansolai P.O-630 561  
Sivagangai Dist. Tamilnadu

**R RAJA**

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