

SYLLABUS/
CURRICULUM



PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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

Madurai - Sivagangal Highway, Arasanoor, Thirumansolai Post, Sivagangal 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 CIVIL ENGINEERING

Academic Year 2019-2020

VACCE1920BL - Basic Lab Techniques and Protocols

OBJECTIVE OF THE COURSE

- To equipping students with foundational skills and knowledge essential for safe and effective laboratory work. The foremost objective is to install a thorough understanding of laboratory safety protocols.
- The techniques is emphasized, encompassing tasks such as accurate pipetting, measurement, mixing, and heating of substances, along with proficiency in handling common laboratory instruments like microscopes and spectrophotometers.

Chapter 1 5

Laboratory Safety and Protocols - essential safety measures, handling chemicals to emergency response procedures, robust foundation for subsequent lab work.

Chapter 2 6

safety protocols, Mastering Basic Laboratory Techniques. hands-on practice, learners would refine skills in pipetting, measurement, and instrument operation, gaining confidence in executing fundamental lab procedures accurately.

Chapter 3 6

Develop Analytical Skills, data analysis and interpretation. Exercises and experiments on discern patterns, identify outliers, and critical thinking abilities crucial for scientific inquiry.

Chapter 4 6

Chemical Handling and Waste Management, methods of responsible handling, storage, and disposal of laboratory chemicals. the principles of chemical safety and waste management - personal safety - environmental stewardship.

Chapter 5 6

Lab Experiments and Protocols, designing and executing their lab experiments - established protocols. hands-on approach fosters independence and creativity reinforcing the importance of meticulous planning experiments

Chapter 6 6

comprehensive grasp of laboratory safety protocols - confidently navigating potential hazards and emergencies.

TOTAL HOURS:35

O. Sharmiladevi
Course-Coordinator

D. S. L.
HOD

[Signature]
PRINCIPAL



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DEPARTMENT OF CIVIL ENGINEERING

Academic Year 2019-2020

VACCE1920BL - Basic Lab Techniques and Protocols

Course Schedule

Date	Time	TOPICS
09/02/2020	9.00 am to 12.15 pm	Laboratory Safety and Protocols - essential safety measures, handling chemicals to emergency response procedures, robust foundation for subsequent lab work.
	1.00 pm to 4.15 pm	
10/02/2020	9.00 am to 12.15 pm	safety protocols, Mastering Basic Laboratory Techniques. hands-on practice, learners would refine skills in pipetting, measurement, and instrument operation, gaining confidence in executing fundamental lab procedures accurately.
	1.00 pm to 4.15 pm	
11/02/2020	9.00 am to 12.15 pm	Develop Analytical Skills, data analysis and interpretation. Exercises and experiments on discern patterns, identify outliers, and critical thinking abilities crucial for scientific inquiry.
	1.00 pm to 4.15 pm	
12/02/2020	9.00 am to 12.15 pm	Chemical Handling and Waste Management, methods of responsible handling, storage, and disposal of laboratory chemicals. the principles of chemical safety and waste management - personal safety - environmental stewardship.
	1.00 pm to 4.15 pm	
13/02/2020	9.00 am to 12.15 pm	Lab Experiments and Protocols, designing and executing their lab experiments - established protocols. hands-on approach fosters independence and creativity reinforcing the importance of meticulous planning experiments
	1.00 pm to 4.15 pm	
14/02/2020	9.00 am to 12.15 pm	comprehensive grasp of laboratory safety protocols - confidently navigating potential hazards and emergencies.
	1.00 pm to 4.15 pm	

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

Lunch : 12:15 pm to 01:00pm

Total Hours :35

O. Sheenilaben
Course-Coordinator

D. Akhila
HOD

[Signature]
PRINCIPAL



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DEPARTMENT OF CIVIL ENGINEERING

Academic Year 2019-2020

VACCE1920BL - Basic Lab Techniques and Protocols One-page Report

Name of the course : Basic Lab Techniques and Protocols
Development Course Code : VACCE1920BL
Course Coordinator : Mrs.O. SHARMILA BEGUM
Date/Duration : 09.02.2020 to 14.02.2020— 35 hours

I here affirm that the third-year students of strength 53 have been taught the value-added course title “**Basic Lab Techniques and Protocols**” as per the syllabus and completed within the stipulated time duration.

I confirm that the value-added course titled “**Basic Lab Techniques and Protocols**” 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.

O. Sharmila Begum
Course-Coordinator

D. S. S. S.
HOD

U. S.
PRINCIPAL

ASSESSMENT PROCEDURE

**PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE,
ARASANOOR -630561
DEPARTMENT OF CIVIL ENGINEERING**

Academic Year 2019-2020

VACCE1920BL - Basic Lab Techniques and Protocols

Assessment Questions with Answer

1. What is the primary purpose of LabVIEW?
 - A) Graphic design
 - B) Data analysis**
 - C) Web development
 - D) Word processing

2. Which of the following is NOT a programming element in LabVIEW?
 - A) Sub VI
 - B) Cluster
 - C) Loop
 - D) Pixel**

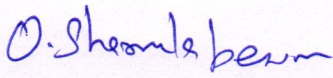
3. What does the term "SubVI" stand for in LabVIEW?
 - A) A virtual instrument
 - B) A subroutine VI**
 - C) A subversion of VI
 - D) A subsidiary VI

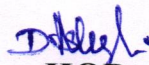
4. Which programming paradigm does LabVIEW follow?
 - A) Object-oriented programming
 - B) Procedural programming
 - C) Functional programming
 - D) Graphical programming**

5. What does a 'While Loop' do in LabVIEW?
 - A) Executes code repeatedly while a condition is true**
 - B) Executes code a fixed number of times
 - C) Executes code only once
 - D) Executes code in parallel

6. What is the purpose of a 'Case Structure' in LabVIEW?
 - A) To select one of several sequences of code to execute**
 - B) To create a circular reference
 - C) To measure voltage
 - D) To visualize data

7. Which of the following data types is NOT supported by LabVIEW?
- A) Integer
 - B) Boolean
 - C) String
 - D) Float**
8. What does the term 'Front Panel' refer to in LabVIEW?
- A) The part of the VI where the code is written
 - B) The part of the VI that displays the user interface**
 - C) The part of the VI that connects to external devices
 - D) The part of the VI that executes code
9. Which of the following is NOT a tool for troubleshooting in LabVIEW?
- A) Breakpoint
 - B) Probe
 - C) Multimeter**
 - D) Highlight Execution
10. What does the abbreviation 'VI' stand for in LabVIEW?
- A) Visual Integration
 - B) Virtual Interface
 - C) Voltage Indicator
 - D) Virtual Instrument**


Course Coordinator


HOD


Principal

**PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE,
ARASANOOR -630561
DEPARTMENT OF CIVIL ENGINEERING**

Academic Year 2019-2020

VACCE1920BL - Basic Lab Techniques and Protocols

Assessment Test Paper

REGISTER NUMBER: 912017103008

NAME OF THE STUDENT: Chandru K

9/10

1. What is the primary purpose of LabVIEW?
A) Graphic design
B) ~~Data analysis~~
C) Web development
D) Word processing
2. Which of the following is NOT a programming element in LabVIEW?
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C) Loop
D) ~~Pixel~~
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C) Voltage Indicator
D) Virtual Instrument

O. Shende
Course Coordinator

D. Shinde
HOD

SS
Principal

PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE, ARASANOOR 630561
DEPARTMENT OF CIVIL ENGINEERING

Academic Year 2019-2020

Student Performance Sheet

Period of course: 09.02.2020 to 14.02.2020

Duration of Course: 35 hours

VACCE1920BL- BASIC LAB TECHNIQUES AND PROTOCOLS

Sl. No	Register Number	Student Name	Assessment Marks
1	912017103001	ANAND G	91
2	912017103002	ANANTH T	96
3	912017103003	ANDIYAPPAN C	98
4	912017103004	ANUSHYA M	88
5	912017103005	ARUL MURUGAN R	91
6	912017103006	ARUNRAJ N	95
7	912017103007	ATCHAYA D	89
8	912017103008	CHANDRU K	90
9	912017103009	DHANAPRIYA D	92
10	912017103010	DINESH D	93
11	912017103011	DINESH KUMAR A	89
12	912017103013	JAYAKRISHNAPANDIYAN M	81
13	912017103014	JERLIN DEENA M	88
14	912017103015	KALEESHWARI M	79
15	912017103016	KANIMURUGAN R	82
16	912017103017	KANNAN M	83
17	912017103018	KARTHICK A	95
18	912017103019	KARUPPUSAMY S	96
19	912017103021	KRISHNA KUMAR D	98
20	912017103022	LOGESWARAN M	89
21	912017103023	MALAICHAMY G	82
22	912017103024	MUTHU ABISHEKA PRIYAN M	85
23	912017103025	NIKIL KANNAN A	86
24	912017103026	PANNEER PANDI M	89
25	912017103027	RANJITH K	92
26	912017103028	SABESH KARTHICK K	93

27	912017103029	SAKTHI BALAJI S	86
28	912017103030	SARAVANAN M	80
29	912017103031	SELVA B	91
30	912017103032	SETHUPATHI B	95
31	912017103033	SIVANESAN M	94
32	912017103034	SOWMIYA K	90
33	912017103035	THANGAMANI SP	98
34	912017103036	THINESH KUMAR M	91
35	912017103037	THIRUPATHI B	89
36	912017103038	THIRUPATHI T	78
37	912017103039	ULAGANATHAN K	86
38	912017103040	VARATHA MUNEES C	75
39	912017103041	VIJAYARAJAN V	70
40	912017103042	VIJAY BHARATHI S	81
41	912017103043	VINITH MS	85
42	912017103301	ADAIKKALAPRAKASH A	86
43	912017103303	ELAYAPALLAVAN D	82
44	912017103304	JERALD DAVID G	89
45	912017103305	KASIVISWANATHAN SP	91
46	912017103306	PRATHIMANAN R	93
47	912017103307	PREM RAJAN DP	95
48	912017103308	RAMAKRISHNAN R	91
49	912017103309	SARAVANA PRAKASH C	98
50	912017103310	SHARMA J	95
51	912017103701	ILAKKIYA M	92
52	912017103702	BALAKRISHNAN P	89
53	912017103703	MANI MARAN K	86


Course Coordinator


HOD


Principal

Enrollment
Student Name
List

PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE, ARASANCOOR 630561
DEPARTMENT OF CIVIL ENGINEERING

Academic Year 2019-2020

Student Registration Sheet

Period of course: 09.12.2020 to 14.12.2020

Duration of Course: 35 hours

VACCE1920BL- BASIC LAB TECHNIQUES AND PROTOCOLS

Sl. No	Register Number	Student Name	Signature of the Student
1	912017103001	ANAND G	Anand G
2	912017103002	ANANTH T	Ananth T
3	912017103003	ANDIYAPPAN C	C. Andiyappan
4	912017103004	ANUSHYA M	Anushya M
5	912017103005	ARUL MURUGAN R	R. Arul murugan
6	912017103006	ARUNRAJ N	Arunraj N
7	912017103007	ATCHAYA D	Atchaya D
8	912017103008	CHANDRU K	K. CHANDRU
9	912017103009	DHANAPRIYA D	DHANAPRIYA D
10	912017103010	DINESH D	Dinesh D
11	912017103011	DINESH KUMAR A	DINESH KUMAR A
12	912017103013	JAYAKRISHNAPANDIYAN M	M. Jayakrishna Pandian
13	912017103014	JERLIN DEENA M	M. Jerlin deena
14	912017103015	KALEESHWARI M	KALEESHWARI M
15	912017103016	KANIMURUGAN R	R. KANIMURUGAN
16	912017103017	KANNAN M	Kannan M
17	912017103018	KARTHICK A	Karthick A
18	912017103019	KARUPPUSAMY S	KARUPPUSAMY S
19	912017103021	KRISHNA KUMAR D	D. Krishna Kumar
20	912017103022	LOGESWARAN M	Logeswaran M
21	912017103023	MALAICHAMY G	G. Malaichamy
22	912017103024	MUTHU ABISHEKA PRIYAN M	M. Muthu Abhishek Priyan
23	912017103025	NIKIL KANNAN A	A. Nikil
24	912017103026	PANNEER PANDI M	PANNEER PANDI M
25	912017103027	RANJITH K	Ranjith K
26	912017103028	SABESH KARTHICK K	K. SABESH KARTHICK
27	912017103029	SAKTHI BALAJI S	Sakthi Balaji S

28	912017103030	SARAVANAN M	M. Saravanan
29	912017103031	SELVA B	B. SELVA
30	912017103032	SETHUPATHI B	B. SETHUPATHI
31	912017103033	SIVANESAN M	M. SIVANESAN
32	912017103034	SOWMIYA K	Sowmiya K
33	912017103035	THANGAMANI SP	SP. Thangamani
34	912017103036	THINESH KUMAR M	THINESH KUMAR
35	912017103037	THIRUPATHI B	B. Thirupathi
36	912017103038	THIRUPATHI T	T. Thirupathi
37	912017103039	ULAGANATHAN K	K. Ulaganathan
38	912017103040	VARATHA MUNEES C	VARATHA MUNEESE C
39	912017103041	VIJAYARAJAN V	V. Vijayarajan
40	912017103042	VIJAY BHARATHI S	VIJAY BHARATHI S
41	912017103043	VINITH MS	MS. VINITH
42	912017103301	ADAIKKALAPRAKASH A	A. ADAIKKALAPRAKASH
43	912017103302	DANIEL DENSINGH S	DANIEL DENNING S
44	912017103303	ELAYAPALLAVAN D	D. Elayapallavan
45	912017103304	JERALD DAVID G	G. Jerald David
46	912017103305	KASIVISWANATHAN SP	KASIVISWANATHAN
47	912017103306	PRATHIMANAN R	R. Prathimanan
48	912017103307	PREM RAJAN DP	DP. Prem Rajan
49	912017103308	RAMAKRISHNAN R	R. RAMAKRISHNAN
50	912017103309	SARAVANA PRAKASH C	C. Saravana
51	912017103310	SHARMA J	J. Sharma
52	912017103701	ILAKKIYA M	M. Ilakkiya
53	912017103702	BALAKRISHNAN P	P. BALAKRISHNAN
54	912017103703	MANI MARAN K	K. Mani maran

O. Shanmugasri
Course Coordinator

D. D. D.
HOD

[Signature]
Principal

STUDENTS ATTENDANCE

27	912017103029	SAKTHI BALAJI S	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi
28	912017103030	SARAVANAN M	M.Sarav.	M.Sarav.	M.Sarav.	M.Sarav.	M.Sarav.	M.Sarav.
29	912017103031	SELVA B	Selva	Selva	Selva	Selva	Selva	Selva
30	912017103032	SETHUPATHI B	Sethu	Sethu	Sethu	Sethu	Sethu	Sethu
31	912017103033	SIVANESAN M	M.Siv.	M.Siv.	M.Siv.	M.Siv.	M.Siv.	M.Siv.
32	912017103034	SOWMIYA K	Sowmiya	Sowmiya	Sowmiya	Sowmiya	Sowmiya	Sowmiya
33	912017103035	THANGAMANI SP	Thangam	Thangam	Thangam	Thangam	Thangam	Thangam
34	912017103036	THINESH KUMAR M	Thinesh	Thinesh	Thinesh	Thinesh	Thinesh	Thinesh
35	912017103037	THIRUPATHI B	Thiru	Thiru	Thiru	Thiru	Thiru	Thiru
36	912017103038	THIRUPPATHI T	Thiru	Thiru	Thiru	Thiru	Thiru	Thiru
37	912017103039	ULAGANATHAN K	Ulagan	Ulagan	Ulagan	Ulagan	Ulagan	Ulagan
38	912017103040	VARATHA MUNEES C	Vera	Vera	Vera	Vera	Vera	Vera
39	912017103041	VIJAYARAJAN V	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay
40	912017103042	VIJAY BHARATHI S	S.Vijay	S.Vijay	S.Vijay	S.Vijay	S.Vijay	S.Vijay
41	912017103043	VINITH MS	Vitha	Vitha	Vitha	Vitha	Vitha	Vitha
42	912017103301	ADAIKKALAPRAKASH A	Prakash	Prakash	Prakash	Prakash	Prakash	Prakash
43	912017103302	DANIEL DENSINGH S	AB	AB	AB	AB	AB	AB
44	912017103303	ELAYAPALLAVAN D	Dant	Dant	Dant	Dant	Dant	Dant
45	912017103304	JERALD DAVID G	Jee	Jee	Jee	Jee	Jee	Jee
46	912017103305	KASIVISWANATHAN SP	Kasi	Kasi	Kasi	Kasi	Kasi	Kasi
47	912017103306	PRATHIMANAN R	Prath	Prath	Prath	Prath	Prath	Prath
48	912017103307	PREM RAJAN DP	DPrem	DPrem	DPrem	DPrem	DPrem	DPrem
49	912017103308	RAMAKRISHNAN R	Rama	Rama	Rama	Rama	Rama	Rama
50	912017103309	SARAVANA PRAKASH C	C.Prakas.	C.Prakas.	C.Prakas.	C.Prakas.	C.Prakas.	C.Prakas.
51	912017103310	SHARMA J	Sharma	Sharma	Sharma	Sharma	Sharma	Sharma
52	912017103701	ILAKKIYA M	Ilakkiya	Ilakkiya	Ilakkiya	Ilakkiya	Ilakkiya	Ilakkiya
53	912017103702	BALAKRISHNAN P	P.Bal	P.Bal	P.Bal	P.Bal	P.Bal	P.Bal
54	912017103703	MANI MARAN K	Mani	Mani	Mani	Mani	Mani	Mani

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

Lunch : 12:15 pm to 01:00pm

O. Shanthan
Course Coordinator

D. Arul
HOD


Principal

MODEL
CERTIFICATES

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Value added course on

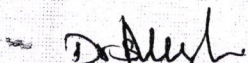
Basic Lab Techniques and Protocols


Organized by

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to Certify that T. ANANTH from third year students has participated in the value-added course on **Basic Lab Techniques and Protocols** by the Department of Civil Engineering from 09.02.2020 to 14.02.2020 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.


Dr. MEENAKSHI SUDARVIZHI
HOD


Dr. R. RAJA
PRINCIPAL

PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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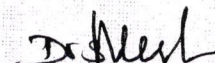
Basic Lab Techniques and Protocols


Organized by

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to Certify that M. KANNAN from third year students has participated in the value-added course on **Basic Lab Techniques and Protocols** by the Department of Civil Engineering from 09.02.2020 to 14.02.2020 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.


Dr. MEENAKSHI SUDARVIZHI
HOD


Dr. R. RAJA
PRINICIPAL

PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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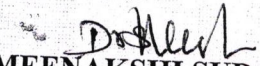
Basic Lab Techniques and Protocols


Organized by

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to Certify thatK. RANJITH..... from third year students has participated in the value-added course on **Basic Lab Techniques and Protocols** by the Department of Civil Engineering from 09.02.2020 to 14.02.2020 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.


Dr. MEENAKSHI SUDARVIZHI
HOD


Dr. R. RAJA
PRINCIPAL