

SYLLABUS/  
CURRICULUM



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

(Approved by AICTE & 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 Mechanical Engineering

Academic Year 2020-2021

### VACME2021CSE -Concept of Sustainable Engineering

#### OBJECTIVE OF THE COURSE

- To recognize the importance of sustainable Engineering
- To understand and apply appropriate sustainability tools techniques
- To explore practical applications of sustainability concepts

#### Module-1

7

Concepts of sustainability and sustainable development — Need for sustainable development - Components of sustainability.

#### Module-2

7

Tools and Techniques of Sustainable Engineering. Life cycle assessment, Design for Environment.

#### Module-3

7

Sustainable Product Development — Various Phases.

#### Module-4

7

Interactions between energy and technology and their implications for the environment and sustainable development

#### Module-5

7

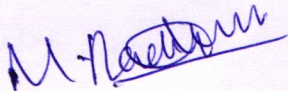
Indicators of sustainability Environmental. Economic, Societal and Business indicators. Product Sustainability and Risk/Benefit Assessment Corporate Social Responsibility

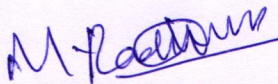
**Total: 35 hours**

#### OUTCOMES

After the completion of the course,

- the students will be able to understand Sustainable Engineering, Life cycle assessment and sustainable product developments.
- The student understands in Product Sustainability and Risk/Benefit Assessment

  
Course Coordinator

  
HOD/MECH

  
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# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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## Department of Mechanical Engineering

Academic Year 2020-2021

### VACME2021CSE -Concept of Sustainable Engineering

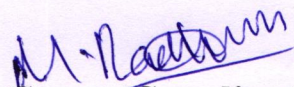
#### Course Schedule

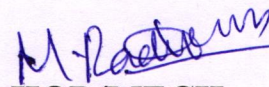
Date	Time	TOPICS
02/07 /2021	9.00 am to 12.30 pm	Concepts of sustainability and sustainable development — Need for sustainable development - Components of sustainability
	1.00 pm to 4.00 pm	
03/07 /2021	9.00 am to 12.30 pm	Tools and Techniques of Sustainable Engineering
	1.00 pm to 4.00 pm	
04/07 /2021	9.00 am to 12.30 pm	Life cycle aassessment, Design for Environment.
	1.00 pm to 4.00 pm	
05/07 /2021	9.00 am to 12.30 pm	Sustainable Product Development — Various Phases
	1.00 pm to 4.00 pm	
06/07 /2021	9.00 am to 12.30 pm	Interactions between energy and technology <b>and their</b> implications for the environment and sustainable development
	1.00 pm to 4.00 pm	
07/07 /2021	9.00 am to 12.30 pm	Indicators of sustainability Environmental. Economic, Societal and Business indicators. Product Sustainability and Risk/Benefit Assessment Corporate Social Responsibility
	1.00 pm to 4.00 pm	

Total Hours: 35

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

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

  
Course Coordinator

  
HOD/MECH

  
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# ASSESSMENT PROCEDURE



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

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## Department of Mechanical Engineering

Academic Year 2020-2021

### VACME2021CSE -Concept of Sustainable Engineering

#### Assessment Questions with Answer

- \_\_\_\_\_ is a Programme run by UN related to sustainable development.
  - GHG indicator
  - Agenda 21**
  - IPCC
  - UNEP
- How many types of ecological pyramids are there?
  - 3**
  - 2
  - 4
  - 5
- A legally binding agreement between 2 or more nation states relating to environment is:
  - BEA
  - BA
  - MA
  - MEA**
- \_\_\_\_\_ is the conventional source for hydel power.
  - Tidal wave
  - Currents
  - Water**
  - Ripples
- Which of the below is a global scale environmental issue?
  - Eutrophication
  - Regional ozone**



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- c) **Climate change**
- d) Pollution
6. The 'Miracle Material' that can turn CO<sub>2</sub> into liquid fuel is:
- a) Propene
- b) Copper
- c) **Graphene**
- d) Potassium
7. The first academic publication about ecological footprints was in:
- a) **1992**
- b) 1990
- c) 1993
- d) 1994
8. **Mercury, as well as leads, are poisonous substances that contribute to**
- a. noise exposure,
- b. poor air quality,
- c. water contamination, and
- d. soil pollution.**
9. **What is the definition of sustainable development?**
- a. The growth that satisfies current demands without jeopardising future generations' ability to fulfil their own needs.
- b. Conserve mineral wealth and explore alternative energy sources while decreasing pollution and environmental impact.
- c. It is the process of creating land and building projects in such a way that they have a lower environmental effect by enabling them to produce fuel-efficient self-sufficiency patterns.
- d. All the preceding**
10. **The 21st-century notion of sustainable growth places a greater emphasis on**
- a. Economic progress
- b. Social progress
- c. Protection of the environment
- d. All of the preceding.**



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## Department of Mechanical Engineering

Academic Year 2020-2021

### VACME2021CSE -Concept of Sustainable Engineering

#### Assessment Test Paper

REGISTER NUMBER: 912019114301

NAME OF THE STUDENT: Balaji R

- \_\_\_\_\_ is a Programme run by UN related to sustainable development.
  - GHG indicator
  - Agenda 21
  - IPCC
  - UNEP
- How many types of ecological pyramids are there?
  - 3
  - 2
  - 4
  - 5
- A legally binding agreement between 2 or more nation states relating to environment is:
  - BEA
  - BA
  - MA
  - MEA
- \_\_\_\_\_ is the conventional source for hydel power.
  - Tidal wave
  - Currents
  - Water
  - Ripples
- Which of the below is a global scale environmental issue?
  - Eutrophication

9/10



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- b) Regional ozone  
 c) Climate change  
d) Pollution
6. The 'Miracle Material' that can turn CO<sub>2</sub> into liquid fuel is:  
a) Propene  
b) Copper  
 c) Graphene  
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7. The first academic publication about ecological footprints was in:  
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c) It is the process of creating land and building projects in such a way that they have a lower environmental effect by enabling them to produce fuel-efficient self-sufficiency patterns.  
 d) All the preceding
10. The 21st-century notion of sustainable growth places a greater emphasis on  
a) Economic progress  
 b) Social progress  
c) Protection of the environment  
d) All of the preceding.



Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Mechanical Engineering

Student Performance Sheet

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

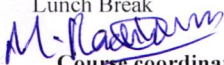
Assessment Marks			Marks
Sl. No	Register Number	Student Name	
1	912019114001	Ahmed Masthan.S	93
2	912019114002	Anandha Nathan.K	92
3	912019114003	Ananth Kumar.M	78
4	912019114005	Arikrishnan.P	79
5	912019114006	Ayyanar.K	80
6	912019114007	Dhivya Bharath.K	91
7	912019114008	Gowri Sankar.R	92
8	912019114009	Guru Moorthi.P	93
9	912019114010	Hari Bala.R	94
10	912019114011	Jaya Ram.R	75
11	912019114012	Karthik.S	74
12	912019114013	Karthi Raja.E	77
13	912019114014	Kaviyarasan.A	80
14	912019114015	Mohamed Ashik.A	82
15	912019114016	Mohana Sundaram.M	84
16	912019114017	Murugesan.R	83
17	912019114018	Muthaiah.M	82
18	912019114019	Nandha Kumar.M	81
19	912019114020	Pradeep.S	94
20	912019114021	Ramanathan.R	93
21	912019114022	Rama Subramaniyan.R	95
22	912019114023	Ranjith Kumar.V	92
23	912019114024	Sundara Pandi.A	93
24	912019114026	Vignesh.P	94
25	912019114301	Balaji.R	90
26	912019114302	Nirmal Kumar.T	88

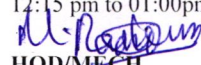
Tea Break

Lunch Break

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

12:15 pm to 01:00pm

  
Course coordinator

  
HOD/MECT

  
PRINCIPAL

**R RAJA**

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RAJA

Date: 2024.06.26 18:22:44

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# STUDENTS ATTENDANCE

**Student Attendance Sheet**

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : **Concept of Sustainable Engineering**

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 02.07.21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed
2	912019114002	Anandha Nathan.K	K. Anandha	K. Anandha	K. Anandha	K. Anandha	K. Anandha	K. Anandha
3	912019114003	Ananth Kumar.M	M. Ananth	M. Ananth	M. Ananth	M. Ananth	M. Ananth	M. Ananth
4	912019114005	Arikrishnan.P	P. Arikrishnan	P. Arikrishnan	P. Arikrishnan	P. Arikrishnan	P. Arikrishnan	P. Arikrishnan
5	912019114006	Ayyanar.K	K. Ayyanar	K. Ayyanar	K. Ayyanar	K. Ayyanar	K. Ayyanar	K. Ayyanar
6	912019114007	Dhivya Bharath.K	K. Dhivya	K. Dhivya	K. Dhivya	K. Dhivya	K. Dhivya	K. Dhivya
7	912019114008	Gowri Sankar.R	R. Gowri	R. Gowri	R. Gowri	R. Gowri	R. Gowri	R. Gowri
8	912019114009	Guru Moorthi.P	P. Guru	P. Guru	P. Guru	P. Guru	P. Guru	P. Guru
9	912019114010	Hari Bala.R	R. Hari	R. Hari	R. Hari	R. Hari	R. Hari	R. Hari
10	912019114011	Jaya Ram.R	R. Jaya	R. Jaya	R. Jaya	R. Jaya	R. Jaya	R. Jaya
11	912019114012	Karthik.S	S. Karthik	S. Karthik	S. Karthik	S. Karthik	S. Karthik	S. Karthik
12	912019114013	Karthi Raja.E	E. Karthi	E. Karthi	E. Karthi	E. Karthi	E. Karthi	E. Karthi
13	912019114014	Kaviyaranan.A	A. Kaviyaranan	A. Kaviyaranan	A. Kaviyaranan	A. Kaviyaranan	A. Kaviyaranan	A. Kaviyaranan
14	912019114015	Mohamed Ashik.A	A. Mohamed	A. Mohamed	A. Mohamed	A. Mohamed	A. Mohamed	A. Mohamed
15	912019114016	Mohana Sundaram.M	M. Mohana	M. Mohana	M. Mohana	M. Mohana	M. Mohana	M. Mohana
16	912019114017	Murugesan.R	R. Murugesan	R. Murugesan	R. Murugesan	R. Murugesan	R. Murugesan	R. Murugesan
17	912019114018	Muthaiah.M	M. Muthaiah	M. Muthaiah	M. Muthaiah	M. Muthaiah	M. Muthaiah	M. Muthaiah
18	912019114019	Nandha Kumar.M	M. Nandha	M. Nandha	M. Nandha	M. Nandha	M. Nandha	M. Nandha
19	912019114020	Pradeep.S	S. Pradeep	S. Pradeep	S. Pradeep	S. Pradeep	S. Pradeep	S. Pradeep
20	912019114021	Ramanathan.R	R. Ramanathan	R. Ramanathan	R. Ramanathan	R. Ramanathan	R. Ramanathan	R. Ramanathan
21	912019114022	Rama Subramanian.R	R. Rama	R. Rama	R. Rama	R. Rama	R. Rama	R. Rama
22	912019114023	Ranjith Kumar.V	V. Ranjith	V. Ranjith	V. Ranjith	V. Ranjith	V. Ranjith	V. Ranjith
23	912019114024	Sundara Pandi.A	A. Sundara	A. Sundara	A. Sundara	A. Sundara	A. Sundara	A. Sundara
24	912019114026	Vignesh.P	P. Vignesh	P. Vignesh	P. Vignesh	P. Vignesh	P. Vignesh	P. Vignesh
25	912019114301	Balaji.R	R. Balaji	R. Balaji	R. Balaji	R. Balaji	R. Balaji	R. Balaji
26	912019114302	Nirmal Kumar.T	T. Nirmal	T. Nirmal	T. Nirmal	T. Nirmal	T. Nirmal	T. Nirmal

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

*M. Nandhan*  
Course coordinator

*M. Nandhan*  
HOD/MECH

*R. Raja*  
PRINCIPAL

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Student Attendance Sheet

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 03.07.21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	<i>S. Shylpa</i>	<i>S. Shylpa</i>	<i>S. Shylpa</i>	<i>S. Shylpa</i>	<i>S. Shylpa</i>	<i>S. Shylpa</i>
2	912019114002	Anandha Nathan.K	<i>Anandha</i>	<i>Anandha</i>	<i>Anandha</i>	<i>Anandha</i>	<i>Anandha</i>	<i>Anandha</i>
3	912019114003	Ananth Kumar.M	<i>Ananth</i>	<i>Ananth</i>	<i>Ananth</i>	<i>Ananth</i>	<i>Ananth</i>	<i>Ananth</i>
4	912019114005	Arikrishnan.P	<i>Arik</i>	<i>Arik</i>	<i>Arik</i>	<i>Arik</i>	<i>Arik</i>	<i>Arik</i>
5	912019114006	Ayyanar.K	<i>Ayyanar</i>	<i>Ayyanar</i>	<i>Ayyanar</i>	<i>Ayyanar</i>	<i>Ayyanar</i>	<i>Ayyanar</i>
6	912019114007	Dhivya Bharath.K	<i>K. Dhivy</i>	<i>K. Dhivy</i>	<i>K. Dhivy</i>	<i>K. Dhivy</i>	<i>K. Dhivy</i>	<i>K. Dhivy</i>
7	912019114008	Gowri Sankar.R	<i>Gowri</i>	<i>Gowri</i>	<i>Gowri</i>	<i>Gowri</i>	<i>Gowri</i>	<i>Gowri</i>
8	912019114009	Guru Moorthi.P	<i>Guru</i>	<i>Guru</i>	<i>Guru</i>	<i>Guru</i>	<i>Guru</i>	<i>Guru</i>
9	912019114010	Hari Bala.R	<i>R. Hari</i>	<i>R. Hari</i>	<i>R. Hari</i>	<i>R. Hari</i>	<i>R. Hari</i>	<i>R. Hari</i>
10	912019114011	Jaya Ram.R	<i>Jaya</i>	<i>Jaya</i>	<i>Jaya</i>	<i>Jaya</i>	<i>Jaya</i>	<i>Jaya</i>
11	912019114012	Karthik.S	<i>Karthik</i>	<i>Karthik</i>	<i>Karthik</i>	<i>Karthik</i>	<i>Karthik</i>	<i>Karthik</i>
12	912019114013	Karthi Raja.E	<i>K. Raja</i>	<i>K. Raja</i>	<i>K. Raja</i>	<i>K. Raja</i>	<i>K. Raja</i>	<i>K. Raja</i>
13	912019114014	Kaviyarsan.A	<i>Karvita</i>	<i>Karvita</i>	<i>Karvita</i>	<i>Karvita</i>	<i>Karvita</i>	<i>Karvita</i>
14	912019114015	Mohamed Ashik.A	<i>A. Mohd</i>	<i>A. Mohd</i>	<i>A. Mohd</i>	<i>A. Mohd</i>	<i>A. Mohd</i>	<i>A. Mohd</i>
15	912019114016	Mohana Sundaram.M	<i>Mohana</i>	<i>Mohana</i>	<i>Mohana</i>	<i>Mohana</i>	<i>Mohana</i>	<i>Mohana</i>
16	912019114017	Murugesan.R	<i>Murugesan</i>	<i>Murugesan</i>	<i>Murugesan</i>	<i>Murugesan</i>	<i>Murugesan</i>	<i>Murugesan</i>
17	912019114018	Muthaiah.M	<i>Mutha</i>	<i>Mutha</i>	<i>Mutha</i>	<i>Mutha</i>	<i>Mutha</i>	<i>Mutha</i>
18	912019114019	Nandha Kumar.M	<i>N. Nandha</i>	<i>N. Nandha</i>	<i>N. Nandha</i>	<i>N. Nandha</i>	<i>N. Nandha</i>	<i>N. Nandha</i>
19	912019114020	Pradeep.S	<i>Pradeep</i>	<i>Pradeep</i>	<i>Pradeep</i>	<i>Pradeep</i>	<i>Pradeep</i>	<i>Pradeep</i>
20	912019114021	Ramanathan.R	<i>R. Raman</i>	<i>R. Raman</i>	<i>R. Raman</i>	<i>R. Raman</i>	<i>R. Raman</i>	<i>R. Raman</i>
21	912019114022	Rama Subramaniyan.R	<i>R. Rama</i>	<i>R. Rama</i>	<i>R. Rama</i>	<i>R. Rama</i>	<i>R. Rama</i>	<i>R. Rama</i>
22	912019114023	Ranjith Kumar.V	<i>R. Ranjith</i>	<i>R. Ranjith</i>	<i>R. Ranjith</i>	<i>R. Ranjith</i>	<i>R. Ranjith</i>	<i>R. Ranjith</i>
23	912019114024	Sundara Pandi.A	<i>S. Sundara</i>	<i>S. Sundara</i>	<i>S. Sundara</i>	<i>S. Sundara</i>	<i>S. Sundara</i>	<i>S. Sundara</i>
24	912019114026	Vignesh.P	<i>Vignesh</i>	<i>Vignesh</i>	<i>Vignesh</i>	<i>Vignesh</i>	<i>Vignesh</i>	<i>Vignesh</i>
25	912019114301	Balaji.R	<i>B. Balaji</i>	<i>B. Balaji</i>	<i>B. Balaji</i>	<i>B. Balaji</i>	<i>B. Balaji</i>	<i>B. Balaji</i>
26	912019114302	Nirmal Kumar.T	<i>N. Nirmal</i>	<i>N. Nirmal</i>	<i>N. Nirmal</i>	<i>N. Nirmal</i>	<i>N. Nirmal</i>	<i>N. Nirmal</i>

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

*M. R. Raja*  
Course coordinator

*M. R. Raja*  
HOD/MECH

*R. Raja*  
PRINCIPAL

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by R RAJA  
Date: 2024.06.26  
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Student Attendance Sheet

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 04.07.21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed
2	912019114002	Anandha Nathan.K	Anandha	Anandha	Anandha	Anandha	Anandha	Anandha
3	912019114003	Ananth Kumar.M	Ananth	Ananth	Ananth	Ananth	Ananth	Ananth
4	912019114005	Arikrishnan.P	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan
5	912019114006	Ayyanar.K	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar
6	912019114007	Dhivya Bharath.K	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya
7	912019114008	Gowri Sankar.R	Gowri	Gowri	Gowri	Gowri	Gowri	Gowri
8	912019114009	Guru Moorthi.P	Guru	Guru	Guru	Guru	Guru	Guru
9	912019114010	Hari Bala.R	Hari	Hari	Hari	Hari	Hari	Hari
10	912019114011	Jaya Ram.R	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya
11	912019114012	Karthik.S	Karthik	Karthik	Karthik	Karthik	Karthik	Karthik
12	912019114013	Karthi Raja.E	Karthi	Karthi	Karthi	Karthi	Karthi	Karthi
13	912019114014	Kaviyarasana.A	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara
14	912019114015	Mohamed Ashik.A	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed
15	912019114016	Mohana Sundaram.M	Mohana	Mohana	Mohana	Mohana	Mohana	Mohana
16	912019114017	Murugesan.R	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan
17	912019114018	Muthaiah.M	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah
18	912019114019	Nandha Kumar.M	Nandha	Nandha	Nandha	Nandha	Nandha	Nandha
19	912019114020	Pradeep.S	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep
20	912019114021	Ramanathan.R	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan
21	912019114022	Rama Subramaniyan.R	Rama	Rama	Rama	Rama	Rama	Rama
22	912019114023	Ranjith Kumar.V	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith
23	912019114024	Sundara Pandi.A	Sundara	Sundara	Sundara	Sundara	Sundara	Sundara
24	912019114026	Vignesh.P	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh
25	912019114301	Balaji.R	Balaji	Balaji	Balaji	Balaji	Balaji	Balaji
26	912019114302	Nirmal Kumar.T	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal

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

*M. Narasimhan*  
Course coordinator

*M. Narasimhan*  
HOD/MECH

*R. Raja*  
PRINCIPAL

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Student Attendance Sheet

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 05-07-21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed
2	912019114002	Anandha Nathan.K	Anandha	Anandha	Anandha	Anandha	Anandha	Anandha
3	912019114003	Ananth Kumar.M	Ananth	Ananth	Ananth	Ananth	Ananth	Ananth
4	912019114005	Arikrishnan.P	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan
5	912019114006	Ayyanar.K	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar
6	912019114007	Dhivya Bharath.K	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya
7	912019114008	Gowri Sankar.R	Gowri	Gowri	Gowri	Gowri	Gowri	Gowri
8	912019114009	Guru Moorthi.P	Guru	Guru	Guru	Guru	Guru	Guru
9	912019114010	Hari Bala.R	Hari	Hari	Hari	Hari	Hari	Hari
10	912019114011	Jaya Ram.R	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya
11	912019114012	Karthik.S	Karthik	Karthik	Karthik	Karthik	Karthik	Karthik
12	912019114013	Karthi Raja E	Karthi	Karthi	Karthi	Karthi	Karthi	Karthi
13	912019114014	Kaviyarasana.A	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara
14	912019114015	Mohamed Ashik.A	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed
15	912019114016	Mohana Sundaram.M	Mohana	Mohana	Mohana	Mohana	Mohana	Mohana
16	912019114017	Murugesan.R	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan
17	912019114018	Muthaiah.M	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah
18	912019114019	Nandha Kumar.M	Nandha	Nandha	Nandha	Nandha	Nandha	Nandha
19	912019114020	Pradeep.S	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep
20	912019114021	Ramanathan.R	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan
21	912019114022	Rama Subramaniyan.R	Rama	Rama	Rama	Rama	Rama	Rama
22	912019114023	Ranjith Kumar.V	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith
23	912019114024	Sundara Pandi.A	Sundara	Sundara	Sundara	Sundara	Sundara	Sundara
24	912019114026	Vignesh.P	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh
25	912019114301	Balaji.R	Balaji	Balaji	Balaji	Balaji	Balaji	Balaji
26	912019114302	Nirmal Kumar.T	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal

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

*M. Neelam*  
Course coordinator

*M. Neelam*  
HOD/MECH

*HS*  
PRINCIPAL

Student Attendance Sheet

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 06.07.21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed
2	912019114002	Anandha Nathan.K	Anandha	Anandha	Anandha	Anandha	Anandha	Anandha
3	912019114003	Ananth Kumar.M	Ananth	Ananth	Ananth	Ananth	Ananth	Ananth
4	912019114005	Arikrishnan.P	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan
5	912019114006	Ayyanar.K	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar
6	912019114007	Dhivya Bharath.K	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya
7	912019114008	Gowri Sankar.R	Gowri	Gowri	Gowri	Gowri	Gowri	Gowri
8	912019114009	Guru Moorthi.P	Guru	Guru	Guru	Guru	Guru	Guru
9	912019114010	Hari Bala.R	Hari	Hari	Hari	Hari	Hari	Hari
10	912019114011	Jaya Ram.R	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya
11	912019114012	Karthik.S	Karthik	Karthik	Karthik	Karthik	Karthik	Karthik
12	912019114013	Karthi Raja.E	Karthi	Karthi	Karthi	Karthi	Karthi	Karthi
13	912019114014	Kaviyarasana.A	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara	Kaviyara
14	912019114015	Mohamed Ashik.A	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed	Mohamed
15	912019114016	Mohana Sundaram.M	Mohana	Mohana	Mohana	Mohana	Mohana	Mohana
16	912019114017	Murugesan.R	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan
17	912019114018	Muthaiah.M	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah
18	912019114019	Nandha Kumar.M	Nandha	Nandha	Nandha	Nandha	Nandha	Nandha
19	912019114020	Pradeep.S	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep
20	912019114021	Ramanathan.R	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan
21	912019114022	Rama Subramanian.R	Rama	Rama	Rama	Rama	Rama	Rama
22	912019114023	Ranjith Kumar.V	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith
23	912019114024	Sundara Pandi.A	Sundara	Sundara	Sundara	Sundara	Sundara	Sundara
24	912019114026	Vignesh.P	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh
25	912019114301	Balaji.R	Balaji	Balaji	Balaji	Balaji	Balaji	Balaji
26	912019114302	Nirmal Kumar.T	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal	Nirmal

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

*M. Narayana*  
Course coordinator

*M. Narayana*  
HOD/MECH

*[Signature]*  
PRINCIPAL

**R RAJA**

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**Student Attendance Sheet**

Academic Year : 2020-2021

Course Code : VACME2021CSE

Course Name : Concept of Sustainable Engineering

Duration of hours : 35

Period of Course : 02.07.2021 to 07.07.2021

Attendance Sheet			Date: 07-07-21					
Sl. No	Register Number	Student Name	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	912019114001	Ahmed Masthan.S	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed	S. Ahmed
2	912019114002	Anandha Nathan.K	Anandha	Anandha	Anandha	Anandha	Anandha	Anandha
3	912019114003	Ananth Kumar.M	Ananth	Ananth	Ananth	Ananth	Ananth	Ananth
4	912019114005	Arikrishnan.P	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan	Arikrishnan
5	912019114006	Ayyanar.K	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar	Ayyanar
6	912019114007	Dhivya Bharath.K	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya	Dhivya
7	912019114008	Gowri Sankar.R	Gowri	Gowri	Gowri	Gowri	Gowri	Gowri
8	912019114009	Guru Moorthi.P	Guru	Guru	Guru	Guru	Guru	Guru
9	912019114010	Hari Bala.R	Hari	Hari	Hari	Hari	Hari	Hari
10	912019114011	Jaya Ram.R	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya
11	912019114012	Karthik.S	Karthik	Karthik	Karthik	Karthik	Karthik	Karthik
12	912019114013	Karthi Raja.E	Karthi	Karthi	Karthi	Karthi	Karthi	Karthi
13	912019114014	Kaviyaranan.A	Kaviyaranan	Kaviyaranan	Kaviyaranan	Kaviyaranan	Kaviyaranan	Kaviyaranan
14	912019114015	Mohamed Ashik.A	Ashik	Ashik	Ashik	Ashik	Ashik	Ashik
15	912019114016	Mohana Sundaram.M	Mohana	Mohana	Mohana	Mohana	Mohana	Mohana
16	912019114017	Murugesan.R	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan	Murugesan
17	912019114018	Muthaiah.M	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah	Muthaiah
18	912019114019	Nandha Kumar.M	Nandha	Nandha	Nandha	Nandha	Nandha	Nandha
19	912019114020	Pradeep.S	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep	Pradeep
20	912019114021	Ramanathan.R	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan	Ramanathan
21	912019114022	Rama Subramaniyan.R	Rama	Rama	Rama	Rama	Rama	Rama
22	912019114023	Ranjithi Kumar.V	Ranjithi	Ranjithi	Ranjithi	Ranjithi	Ranjithi	Ranjithi
23	912019114024	Sundara Pandi.A	Sundara	Sundara	Sundara	Sundara	Sundara	Sundara
24	912019114026	Vignesh.P	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh
25	912019114301	Balaji.R	Balaji	Balaji	Balaji	Balaji	Balaji	Balaji
26	912019114302	Nimal Kumar.T	Nimal	Nimal	Nimal	Nimal	Nimal	Nimal

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

*M. Narayan*  
Course coordinator

*M. Narayan*  
HOD/MECH

*R.R.*  
PRINCIPAL

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Enrollment  
Student Name  
List

Pandian Saraswathi yadav Engineering College, Arasanoor -630561

Department of Mechanical Engineering

**Student Registration Sheet**

Academic Year : 2020-2021

Course Code : **VACME2021CSE**

Course Name : **Concept of Sustainable Engineering**

Duration of hours : **35**

Period of Course : **02.07.2021 to 07.07.2021**

Enrolled Students List			Signature
Sl. No	Register Number	Student Name	
1	912019114001	Ahmed Masthan.S	S. Ahmed Masthan
2	912019114002	Anandha Nathan.K	Anandha Nathan
3	912019114003	Ananth Kumar.M	Ananth Kumar
4	912019114005	Arikrishnan.P	Arikrishnan
5	912019114006	Ayyanar.K	Ayyanar
6	912019114007	Dhivya Bharath.K	Dhivya Bharath
7	912019114008	Gowri Sankar.R	Gowri Sankar
8	912019114009	Guru Moorthi.P	Guru Moorthi
9	912019114010	Hari Bala.R	Hari Bala
10	912019114011	Jaya Ram.R	Jaya Ram
11	912019114012	Karthik.S	Karthik
12	912019114013	Karthi Raja.E	Karthi Raja
13	912019114014	Kaviyaran.A	Kaviyaran
14	912019114015	Mohamed Ashik.A	Mohamed Ashik
15	912019114016	Mohana Sundaram.M	Mohana Sundaram
16	912019114017	Murugesan.R	Murugesan
17	912019114018	Muthaiah.M	Muthaiah
18	912019114019	Nandha Kumar.M	Nandha Kumar
19	912019114020	Pradeep.S	Pradeep
20	912019114021	Ramanathan.R	Ramanathan
21	912019114022	Rama Subramaniyan.R	Rama Subramaniyan
22	912019114023	Ranjith Kumar.V	Ranjith Kumar
23	912019114024	Sundara Pandi.A	Sundara Pandi
24	912019114026	Vignesh.P	Vignesh
25	912019114301	Balaji.R	Balaji
26	912019114302	Nirmal Kumar.T	Nirmal Kumar

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

*M. Ramesh*

*M. Ramesh*

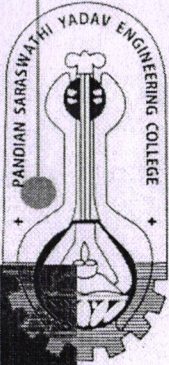
Course coordinator

HOD/MECH

PRINCIPAL

*[Signature]*

MODEL  
CERTIFICATES



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

Approved by AICTE & Affiliated to Anna University, Chennai.

Arasanoor, Thirumansolai Post, Sivagangai – Madurai Highway, Tamilnadu – 630 561

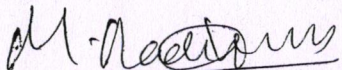
## Value added course on Concept of Sustainable Engineering

Organized by


DEPARTMENT OF MECHANICAL ENGINEERING

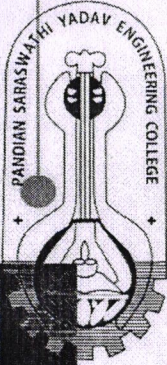
# CERTIFICATE

This is to Certify that Mr/Ms.....*R. Hari Bala*..... of *11/IV Sem / MECH*  
has actively participated in the value-added course on **Concept of Sustainable Engineering** organized by the Department of Mechanical Engineering From 02.07.2021 to 07.07.2021 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.

  
**Mr. M. Radhakrishnan**  
HOD/MECH

**R RAJA** Digitally signed by R RAJA  
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**Dr. R. Raja**  
Principal



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

Approved by AICTE & Affiliated to Anna University, Chennai.

Arasanoor, Thirumansolai Post, Sivagangai – Madurai Highway, Tamilnadu – 630 561

## Value added course on Concept of Sustainable Engineering

Organized by

**DEPARTMENT OF MECHANICAL ENGINEERING**

# CERTIFICATE

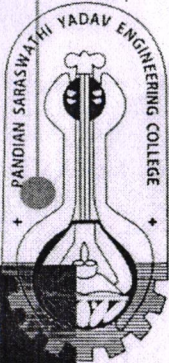
This is to Certify that Mr/Ms.....R. Balaji..... of II/IV Sem/MECH  
has actively participated in the value-added course on **Concept of Sustainable Engineering** organized by the Department of Mechanical Engineering From 02.07.2021 to 07.07.2021 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.

**Mr. M. Radhakrishnan**  
HOD/MECH

R  
RAJA

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**Dr. R. Raja**  
Principal



# PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE

Approved by AICTE & Affiliated to Anna University, Chennai.

Arasanoor, Thirumansolai Post, Sivagangai – Madurai Highway, Tamilnadu – 630 561

## Value added course on Concept of Sustainable Engineering

Organized by

DEPARTMENT OF MECHANICAL ENGINEERING

# CERTIFICATE

This is to Certify that Mr/Ms..... *S. Karthick* ..... of *III/IV Sem / MECH*  
has actively participated in the value-added course on **Concept of Sustainable Engineering** organized by the Department of Mechanical Engineering From 02.07.2021 to 07.07.2021 (35 Hours) at Pandian Saraswathi Yadav Engineering College, Sivagangai.

**Mr. M. Radhakrishnan**  
HOD/MECH

**R RAJA**

Digitally signed  
by R RAJA  
Date: 2024.06.26  
18:23:20 +05'30'

**Dr. R. Raja**  
Principal