

SDG PORTFOLIO

Sustainable Development Goals

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

Civil Engineering Department



B.Tech Civil Engineering

Batch: 2022–2026



DEPARTMENT OF CIVIL ENGINEERING

Building Foundations for Tomorrow Excellence in Civil Engineering.

The Department of Civil Engineering at SSET, established in 2001, is characterized by its dedicated and experienced faculty. It offers both undergraduate and postgraduate programs in Civil Engineering, specializing in Computer Aided Structural Engineering and Environmental Engineering. The department's teaching approach emphasizes professional ethics and service learning, integrating community service with instruction. Interactive sessions with industry experts, seminars, workshops, and conferences keep students and faculty updated on industry trends. The department's seven well-equipped laboratories support research activities and consultancy projects for government and non-government organizations. Notable projects include site surveys, road surveying, and environmental impact assessments. Additionally, the department collaborates closely with SCMS Water Institute (SWI), contributing to sustainable water management and community development. SWI's consultancy work, such as water auditing, rainwater harvesting, and disaster preparedness planning, provides students with valuable real-world experience. The success of the department's alumni in academia, industry, and government organizations globally attests to the quality of education provided. The Department of Civil Engineering encourages students to contribute toward sustainable development through academic projects, environmental activities, field studies, outreach programs, and innovative engineering solutions aligned with Sustainable Development Goals.

Vision

To be a Department of excellence providing quality education and to engage in research activities in diverse fields of Civil Engineering.

Mission

- Impart quality education to our graduates in all fields of Civil Engineering.
- Mould technically competent graduates who are prepared to meet the current global engineering challenges.
- Create socially committed and ethically responsible professionals performing cutting edge research that will positively impact and improve our profession and society.
- Instill in our graduates a passion for lifelong learning.

SDGs Addressed in different activities

Project: 1



Project: 1



Project: 3
Internship: 3
Activities: 5



Activities: 7



Project: 4
Internship: 13
Activities: 6



Project: 4
Internship: 13
Activities: 5



Project: 3
Internship: 2
Activities: 2



SDGs Addressed in Academic Projects

1. Effective Rainwater Management System for the College Campus

Student Name

1. Ms. ASWATHI A V
2. Ms. ATHITHA A
3. Mr.SREESHAIG K

Guide Name

Ms. Sruthy M R, Assistant Professor

SDG Linked

SDG 6 – Clean Water and Sanitation

SDG 11 – Sustainable Cities and Communities

SDG 13 – Climate Action

Justification

The project promotes efficient water conservation and sustainable water management practices within the campus, supporting clean water accessibility and climate-resilient infrastructure development.



2. Effect of Flood Water Stagnation on Nylon Fibre Reinforced Soil

Student Name

1. Ms. FATHIMA SALIM
2. Ms. HUDHA SALIM
3. Mr. PRANAV K S

Guide Name

Mr. Deeraj A D, Assistant Professor

SDG Linked

- SDG 9 – Industry, Innovation and Infrastructure
- SDG 11 – Sustainable Cities and Communities
- SDG 13 – Climate Action

Justification

The project studies soil performance under flood conditions to improve resilient infrastructure and disaster mitigation strategies against climate-induced flooding.



3. Assessment of Pedestrian Safety in Indian Urban Roads Using Microsimulation

Student Name

1. Ms. SHAMEEMA NAZRIN KS
2. Ms. SAFWANA V S
3. Mr. ANAND PANKAJAKSHAN

Guide Name

Ms. Remya Y. K., Assistant Professor

SDG Linked

SDG 3 – Good Health and Well-being

SDG 9 – Industry, Innovation and Infrastructure

SDG 11 – Sustainable Cities and Communities

Justification

The project focuses on improving pedestrian safety, reducing accident risks, and enhancing sustainable urban transportation systems through simulation-based analysis.



4. Scientific Validation of Nellipalaka in Improving Water Quality in Wells

Student Name

1. Mr. ARJUN V SATHIAN
2. Ms. APARNA SANTOSH
3. Ms. JISMI SHAJU
4. Ms. ANGEL MARIA ROY

Guide Name

Mr. Deepu R, Assistant Professor

SDG Linked

SDG 3 – Good Health and Well-being

SDG 6 – Clean Water and Sanitation

SDG 12 – Responsible Consumption and Production

Justification

The project aims to improve drinking water quality using sustainable and traditional methods, thereby contributing to public health and responsible environmental practices.



5. A QGIS-Based Approach to Landslide Susceptibility Mapping and Early Warning

Student Name

1. Ms. GOWRI BENEESH M
2. Ms. NANDANA A S
3. Mr. DIPU PEETHAMBARAN
4. Mr. SIDDHARTH J NAIR

Guide Name

Ms. Meera Varghese, Assistant Professor

SDG Linked

SDG 9 – Industry, Innovation and Infrastructure

SDG 11 – Sustainable Cities and Communities

SDG 13 – Climate Action

Justification

The project supports disaster preparedness and climate resilience through GIS-based mapping and early warning systems while helping protect land ecosystems in vulnerable regions.



6. Smart Buoy Based Lake Water Quality and Eutrophication Detection System

Student Name

1. Ms. ALISHA K R
2. Ms. ANGELA THERESSA JOY

Guide Name

Dr. Lakshmi Priya, Assistant Professor

SDG Linked

SDG 6 – Clean Water and Sanitation

SDG 9 – Industry, Innovation and Infrastructure

Justification

The project utilizes smart monitoring systems to detect water pollution and eutrophication, contributing to water quality management and protection of aquatic ecosystems.



SDG Addressed in Internship

Sl No.	Student Name	Industry / Organization	Area of Training	Relevant SDGs	Justification
1	Ms. Aparna Santosh	STEDAC Engineering and Constructions Pvt. Ltd., Angamaly	Construction site management	SDG 9, SDG 11	Supports sustainable infrastructure development and efficient urban construction practices.
2	Ms. Jismi Shaju	STEDAC Engineering and Constructions Pvt. Ltd., Angamaly	Construction site management	SDG 9, SDG 11	Enhances knowledge in sustainable construction management and resilient infrastructure practices.
3	Ms. Aswathi A. V	ULCCS Ltd., Kerala	Infrastructure execution	SDG 9, SDG 11	Contributes to sustainable infrastructure execution and community development initiatives.
4	Mr. Siddharth J Nair	ULCCS Ltd., Kerala	Infrastructure execution	SDG 9, SDG 11	Focuses on infrastructure development aligned with sustainable urban growth.
5	Mr. Dipu Peethambaran	ULCCS Ltd., Kerala	Infrastructure execution	SDG 9, SDG 11	Supports resilient infrastructure construction and sustainable development practices.

Sl No.	Student Name	Industry / Organization	Area of Training	Relevant SDGs	Justification
6	Ms. Athitha A	Associated Structural Consultants, Ernakulam	Structural design consultancy	SDG 9, SDG 11	Promotes safe, durable, and sustainable structural engineering solutions.
7	Ms. Gowri Benesh M	Associated Structural Consultants, Ernakulam	Structural design consultancy	SDG 9, SDG 11	Encourages innovative structural design for sustainable and resilient infrastructure.
8	Ms. Fathima Salim K	El Holdings, Kochi	Project planning	SDG 8, SDG 9, SDG 11	Supports efficient project planning practices contributing to sustainable economic and infrastructure growth.
9	Ms. Hudha Salim	El Holdings, Kochi	Project planning	SDG 8, SDG 9, SDG 11	Enhances planning skills for sustainable infrastructure and responsible urban development.
10	Ms. Hudha Salim	NICMAR University of Construction Studies, Hyderabad	Construction management	SDG 4, SDG 9	Promotes quality education and advanced construction management practices for infrastructure development.

Sl No.	Student Name	Industry / Organization	Area of Training	Relevant SDGs	Justification
11	Ms. Nandana A. S	Kerala Water Authority, Chalakudy	Water supply systems	SDG 6, SDG 11	Supports sustainable water supply management and access to clean water resources.
12	Ms. Safwana V. S	Varma Homes Pvt. Ltd.	Residential project execution	SDG 9, SDG 11	Encourages sustainable housing and responsible urban infrastructure development.
13	Ms. Shameema Nazrin K S	Varma Homes Pvt. Ltd.	Residential project execution	SDG 9, SDG 11	Contributes to sustainable residential infrastructure and urban development practices.
14	Mr. Sreeshaj K	HiLite Group, Calicut	Construction supervision	SDG 9, SDG 11	Supports quality construction practices and sustainable infrastructure monitoring.
15	Ms. Alisha K R	ULTRA TECH Environmental Consultancy and Laboratory	Environmental testing	SDG 6, SDG 13	Promotes environmental monitoring, pollution control, and climate-conscious practices.
16	Ms. Angela Theresa Joy	ULTRA TECH Environmental Consultancy and Laboratory	Environmental testing	SDG 6, SDG 13	Supports environmental sustainability through testing and assessment of ecological parameters.

SDGs addressed in Department Activities

Sl. No.	Department Activity	Month & Year	SDG Mapping	Justification
1	Onam pookkalam design competition with the theme “Match with nature”	Aug 2023	SDG 11; SDG 13	Promoted eco-friendly practices and environmental awareness.
2	Field visit to Chalakudy River Diversion Scheme at Thumburmuzhy	Sep 2023	SDG 6	Provided exposure to water diversion and irrigation systems.
3	GIS day – team activity	Nov 20...	SDG 9	Improved awareness of GIS applications in infrastructure planning.
5	Water Day organised by FRAMES	Mar 2024	SDG 6	Encouraged sustainable water usage practices.
6	Hands-on workshop on “Advanced Survey Techniques”	Sep 2024	SDG 9	Provided training in modern surveying technologies.
7	Hands-on workshop on “Aerial Mapping”	Sep 2024	SDG 9	Introduced drone-based mapping technologies for infrastructure development.
8	Training on LCA	Oct 2024	SDG 12	Introduced life cycle assessment concepts for sustainable engineering practices.
9	A Day Outside the Classroom – Visit to Chimmoni Dam	Oct 2024	SDG 6	Enhanced understanding of water storage and distribution systems.

Sl. No.	Department Activity	Month & Year	SDG Mapping	Justification
10	Site Visit to Chellanam Sea Wall	Jan 2025	SDG 11	Demonstrated coastal protection and disaster mitigation infrastructure.
11	Inquizitive 25 – Technical Quiz Competition	Jan 2025	SDG 4	Encouraged active technical learning and innovation.
12	Alumni Talk – Roles and Responsibilities of a Civil Engineer in Construction Industry	Jan 2025	SDG 4	Improved awareness of professional responsibilities in civil engineering.
13	Online session on Language and Communication Skills	Mar 2025	SDG 4	Strengthened communication and professional interaction skills.
14	Beyond Pollution Control: The Role of Engineers in Environmental Sustainability	Mar 2025	SDG 13	Encouraged environmental responsibility in engineering practice.
15	Visit to Dr. Fixit learning centre	Mar 2025	SDG 9	Introduced innovative construction materials and technologies.
16	Photography contest Threads of water ties of life	Mar 2025	SDG 6	Promoted awareness about the importance of water conservation.
17	Add-on course – Introduction to computing solutions in Civil Engineering	Mar–Apr 2025	SDG 9	Enhanced computational and digital engineering skills.
18	Invited Talk on Human Values	Apr 2025	SDG 4	Encouraged ethical values and social responsibility among students.
19	Session on Gender equality	Apr 2025	SDG 5	Promoted inclusiveness and gender sensitivity.

Sl. No .	Department Activity	Month & Year	SDG Mapping	Justification
20	Technical seminar on “UPGRADE TO UPDATE”	Jul 2025	SDG 9	Updated students on recent trends and technologies in civil engineering.
21	3 days workshop on MEP by M/s CADPOINT, Angamaly	Sep 2025	SDG 4	Provided industry-oriented practical training in MEP systems.
22	Inauguration of Sub Clubs – TECHFrame & ARTEFrame; Invited talk on Civil Engineering for a Resilient Future	Sep 2025	SDG 11	Promoted resilient infrastructure and interdisciplinary learning.
23	Guest lecture on Scientific Principles behind Vastu Sastra in building design	Sep 2025	SDG 11	Discussed sustainable and culturally responsive building design concepts.
24	Career and Higher Studies Counselling Session	Oct 2025	SDG 4	Guided students towards higher studies and professional growth.
25	Visit to Kerala Kalamandalam	Dec 2025	SDG 11	Encouraged appreciation of cultural heritage and community values.
26	Civil Engineering Department Association Day	Feb 2026	SDG 4	Promoted collaborative learning and student engagement activities.
27	One day workshop on Sustainable Groundwater Conservation and Management	Feb 2026	SDG 6	Increased awareness about groundwater sustainability and conservation techniques.
28	Technical Session – How to be a Successful Civil Engineer	Mar 2026	SDG 4	Motivated students towards professional development and lifelong learning.