



SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

(An Autonomous Institution)
Kalavakkam – 603 110

ACADEMICS

2.1 Institutional sustainability learning outcomes for
undergraduate students

Submitted to

**The Sustainability Tracking, Assessment & Rating
System (STARS)**

3.1 Graduate programs with sustainability-focused learning requirements

- List and description of the institution's sustainability-focused degrees and majors for graduate student

M.E. Energy Engineering This program focuses on the development and optimization of sustainable energy systems. Students gain expertise in renewable energy technologies, energy efficiency, and energy management, equipping them to address global energy challenges and promote sustainable energy solutions.

M.E. Manufacturing Engineering Manufacturing Engineering emphasizes sustainable production practices, eco-friendly manufacturing processes, and resource optimization. The curriculum integrates advanced manufacturing techniques with principles of sustainability, preparing students to lead industries toward greener, more efficient production methods.

M. Tech. Environmental Science and Technology This program is designed to address environmental challenges by providing students with knowledge in pollution control, sustainable waste management, and environmental impact assessment. Graduates are equipped to create innovative solutions to mitigate environmental degradation and enhance ecosystem sustainability.

M.E. Power Electronic Devices Power Electronics is essential for the development of energy-efficient systems, particularly in renewable energy technologies such as solar and wind power. The program covers the design and implementation of power devices that optimize energy conversion and contribute to more sustainable energy grids.

M. Tech. Information Technology Although traditionally focused on IT infrastructure and software, this program can integrate sustainability principles by encouraging the development of green technologies, energy-efficient computing, and the optimization of IT systems for minimal environmental impact.

M.B.A. (Master of Business Administration) The MBA program includes sustainability-focused courses on sustainable business practices, corporate social responsibility (CSR), and ethical leadership. Students are prepared to lead organizations in creating strategies that balance profitability with environmental stewardship and social responsibility.

- List and description of the institution's sustainability-focused certificates, concentrations, and minors for graduate students.

https://www.ssn.edu.in/wp-content/uploads/2024/02/1.1.2_Link_Curriculum_EEC-Courses-signed.pdf

- List and description of the institution's graduate qualifications focused on subjects other than sustainability that have sustainability-focused learning requirements.

Name of the Sustainability focused degree program: **M. Tech in Environmental Science and Technology**

Description about the program:

The Master of Technology in Environmental Science and Technology program equips students with the skills to assess and enhance sustainability in various environmental processes, emphasizing the practical implementation for comprehensive sustainability evaluation and management. The program provides an education in the application of advanced technologies to address environmental challenges. This program emphasizes a multidisciplinary approach, equipping students with the knowledge and skills needed to analyze, design, and implement sustainable solutions in the field of environmental science and technology. This is meticulously crafted to provide students with a profound understanding of environmental science, coupled with advanced technological expertise, to address the complex challenges facing our planet. The curriculum is designed to offer a holistic perspective on environmental issues, incorporating scientific principles, technological applications, and sustainable practices. The curriculum places a strong emphasis on cutting-edge technologies relevant to environmental sustainability. Students delve into subjects such as environmental monitoring, modeling, and data analysis, preparing them for a technology-driven approach to problem-solving. A unique aspect of our program is the integration of sustainability principles throughout the coursework. This includes a focus on renewable energy, green technologies, and sustainable development practices, aligning graduates with global efforts toward a more sustainable future. Students have the opportunity to engage in research projects, working closely with faculty members on real-world environmental issues. This hands-on research experience enhances critical thinking and problem-solving skills. Through a combination of academic excellence, technological innovation, and a commitment to sustainability, our program empowers the next generation of environmental professionals to make a lasting impact on the world.

<http://coe.ssn.net/login>

http://www.ssn.net/twiki/pub/SsnIntranet/SsnExamCell/2003_MTECH_EVST_R2022.pdf