

RESEARCH FACILITIES

SNGCE's campus boasts state-of-the-art research and training facilities aimed at fostering innovation and academic excellence. The institution has well-equipped laboratories spanning various engineering disciplines, providing hands-on experience to students. The campus also features dedicated research centres, fostering collaboration among faculty and students to undertake cutting-edge research projects. Additionally, SNGCE emphasizes industry partnerships, enabling students to engage in practical training, internships, and industry-driven projects, enhancing their practical skills and exposure to real-world scenarios. The institution's commitment to providing a conducive environment for both research and practical training contributes significantly to the holistic development of its students. Please note that developments may have occurred at SNGCE beyond my last update, so it's advisable to refer to the latest information available from the college.

MATERIAL TESTING LABORATORY I

The testing of materials is the backbone of Civil Engineering, which ensures the strength, reliability, and safety of structures that shape our cities and civil engineers as well as construction professionals rely on various testing methods to assess the properties of different materials. The Material Testing Lab I demonstrates the basic principles in the area of strength and mechanics of materials and structural analysis to the students through a series of experiments. In this lab experiments are performed to measure the properties of the materials such as impact strength, tensile strength, compressive strength, hardness, ductility etc.



MATERIAL TESTING LABORATORY II

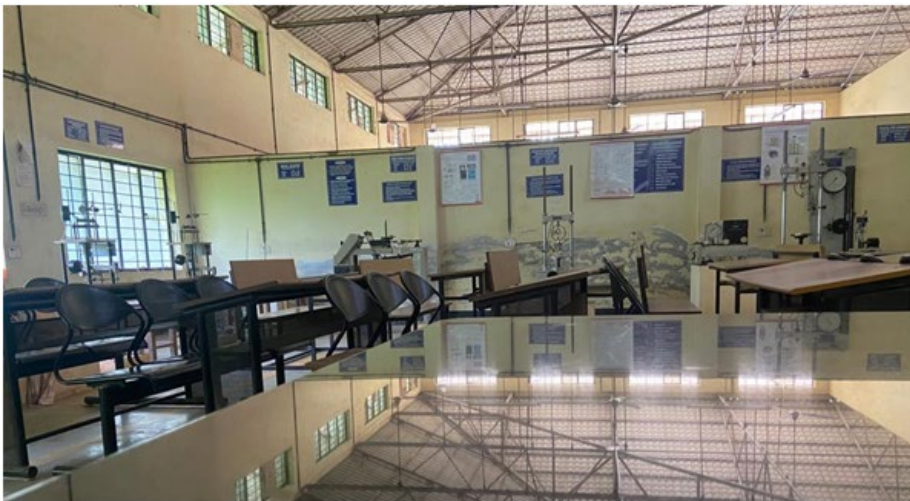
The Material Testing Laboratory II includes experimental studies on different types of materials that are used in concrete and testing of concrete specimens in various exposure conditions. This lab is of utmost importance for a Civil Engineering student as it deals with the testing of various construction materials such as cement, concrete (both fresh and hardened), tiles, bricks etc. thus determining the viability of materials in a particular project.

A. Hasee
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682311



GEOTECHNICAL ENGINEERING LABORATORY

The Geotechnical Engineering Laboratory is well-established and equipped to conduct soil tests, to determine soil properties and to classify soil. The students are being trained in the area of evaluating soils and identifying their physical, index, and engineering characteristics, which enables them to guarantee a strong, stable foundation for a construction that endures. This lab guides the students to conduct the tests that cater for the needs of consultancy requirements, research testing for student's project and faculty.



TRANSPORTATION ENGINEERING LABORATORY

The Transportation Engineering Laboratory is well equipped to conduct all the standardized tests to assess the quality of highway materials, pavement evaluation, and traffic engineering studies through the testing of bitumen, aggregate and bituminous mixture and confirm the material requirement as per relevant standards. This laboratory course will help the students to understand the theoretical concepts learned in the course transportation engineering.





ENVIRONMENTAL ENGINEERING LABORATORY

The Laboratory has all the state-of-the-art facilities for conducting various tests to determine the quality of potable and wastewater. The undergraduate students are encouraged to take up topics in the field of Environmental Engineering for their project work by making use of facilities available in the laboratory.



SURVEYING LABORATORY

The Surveying Laboratory is equipped with various instruments and tools that are used by students throughout the surveying course. The laboratory provides basic and advanced knowledge, as well as hands-on experience in the usage of various surveying and levelling instruments. Students learn techniques for gathering field data with conventional as well as contemporary methods and equipment. The laboratory is equipped with instruments such as electronic theodolite, total station, automatic level, levelling staves, range pole, prism with pole, aluminium tripod, and many more. The laboratory is designed to help students learn how to use surveying equipment and gain practical experience in the field.

A. Huse
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311



COMPUTER AIDED DESIGN LABORATORY

The Computer Aided Design Laboratory is intended to provide professional training for students in 2D and 3D drafting of Civil Engineering designs, construction management portfolios, modelling, analysis & design of structures, 3D modelling, and construction management through computer facilities with the latest versions of licensed software such as Revit, Naviswork, ANSYS, STAAD Pro.V8i, AutoCAD, and MSP. The laboratory is equipped with well-performing computers for research, teaching and conducting value-added courses. The lab facilitates the practicals for both undergraduate and postgraduate programs.



ELECTRICAL MEASUREMENTS LAB:

The Electrical measurements lab has various types of equipment used to measure different physical variables. The students get familiarized with the calibration of various meters and also measure various parameters using different types of equipment. The lab is equipped with types of equipment used for real field applications so that students get familiarized with them.



A. Huse
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadaiyiruppu, Kolenchery-682 311



Electrical Machines Lab:

The Electrical Machines lab has all the machines for the study of electrical machines. It has AC & DC machines manufactured by Kirloskar. The lab makes the student well versed in the study of electrical machines, their characteristics and applications.



Systems Lab:

The Lab is equipped with Computers for conducting programming labs and embedded systems lab. It is used for simulation studies of the control system and power system. Various softwares like MATLAB, PSCAD, Auto Cad etc. are used for the smooth conduct of various labs here.



A. Anze
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311

Power Electronics Lab:

Students get familiarized with different power semiconductor devices in the power electronics lab. This lab has various types of equipment to study the operation and characteristics of various types of power electronic converters.



Advanced Communication Lab

This lab is well equipped with Microwave benches and Optical trainer kits to familiarize advanced communication technologies



Advanced Software Lab

This lab is well equipped with sufficient computers with advanced softwares like MATLAB,PYTHON,Xilinx,Kiel ,Proteus etc.





VLSI & Embedded Lab

This lab is well equipped with sufficient computers together with FPGA kit, DSP kit, Universal Programmer

PROGRAMMING LAB

The objective of the lab is to help the students understand a powerful, portable and flexible structured programming language that is suitable for both systems and applications programming. It is a robust language that contains a rich set of built-in functions and operators to write any complex program.



A. Hussain
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311

DATA STRUCTURES LAB

The objective of this lab is to teach students various data structures and to explain them algorithms for performing various operations on these data structures. This lab complements the data structures course. Students will gain practical knowledge by writing and executing programs in C using various data structures such as arrays, linked lists, stacks, queues, trees, graphs, hash tables and search trees.



CYBER SECURITY LAB

The lab is intended to provide knowledge on information assurance, embedded systems, threat intelligence methods, data mining, machine learning and more. These secure, well-equipped spaces together form a collaborative hive to anticipate, overcome, and continually resist emerging cyberthreats.



A. Huse
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311



NETWORK PROGRAMMING LAB

Computer networking is the engineering discipline concerned with communication between computer systems or devices. It is the practice of linking computing devices together with hardware and software that supports data communications across these devices.



Fluid Mechanics Lab - I



A. Hase
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311



Fluid Mechanics Lab - II



Hydraulics Lab



P. Anwar
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311





Machine Tools Lab



Advanced Machine Tools Lab



A. Hase
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kolenchery-682 311



Heat Engine Lab



Measurement Lab



A. Anze
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kolenchery-682 311



Mechanical Lab



Fluid Mechanics Lab

Fluid Mechanics is the branch of Physics with the study of all fluids under static and dynamic situations. The Fluid Mechanics laboratory is designed to examine the properties of fluids and to conduct experiments involving both compressible and incompressible flow. Facilities are available for investigating the fundamentals of fluid statics as well as kinematics and kinetics of fluid flow to enhance the hands-on experience of our students.

Ship Design Lab

The research activities within the Ship Design and Operations lab (Ship Lab) focus on the design and behaviour of the ship in an offshore maritime operation environment. The facility is specially designed to provide knowledge on design models for ships and its simulation.

Marine Hydrodynamics and Hydraulics Machine Lab

In this course, the fundamentals of fluid mechanics are developed in the context of naval architecture and ocean science and engineering. The Marine Hydrodynamics And Hydraulic Machines laboratory is equipped with many equipment and experimental setups to study the fundamentals and applied aspects of ship hydrodynamics and hydraulic machines.

A. Anwar
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311

Strength of Materials

Demonstrating the basic principles in the area of strength and mechanics of materials and structural analysis to undergraduate students through a series of experiments is the objective of the strength of materials lab.

A. Hase
PRINCIPAL
Sree Narayana Gurukulam
College of Engineering
Kadayiruppu, Kolenchery-682 311

