Welcome to Civil Engineering Department

The department of Civil Engineering is the largest and one of the pioneering departments of National Institute of Technology, Srinagar. It was established at the inception of the Institute (then REC Srinagar) in 1960. Over the years, since then, the Department has progressed with a considerable development in its infrastructure, both in terms of its faculty and the other learning facilities. The Department has produced several eminent professionals who have made excellent contribution in the field of Civil Engineering, both at National and the International levels.

The Department offers a four-year course leading to the Bachelor's Degree in Civil Engineering and two-year courses leading to Master's degree in four major specializations of civil engineering (viz., Water Resources Engineering, Structural Engineering Geotechnical Engineering, and Transportation Engineering & Planning). The Department, in addition to Under-graduate and Post-Graduate programs is offering Doctoral Programs in all the specializations of Civil Engineering.

The Department is known for its reputed and well qualified faculty having experience in diverse fields. The faculty is supported by experienced technical staff and well-equipped laboratories. The faculty strives its level best in imparting the latest technical knowledge to the students and

conducting the high quality of research. The faculty also offers technical advice on the live and challenging civil engineering problems to various Government, semi-government and the Private organizations.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1.	To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology, to meet the challenges in the field of Civil Engineering and to serve the Society.
PEO2.	To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.
PEO3.	To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.
PEO4.	To impart the training in problem visualization, surveying, analysis and planning for its solution.
PEO5.	To impart training for development of laboratory and design skills, communication skills and skills for software and other modern tool usage among the students.
PEO6.	To inculcate in the students the ability to take up the innovative research projects and to conduct investigations of complex Civil Engineering problems using research based methods, thus urging them for higher studies.

PROGRAM OUTCOMES (POs)

PO1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, basic and engineering sciences.

PO3. Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.

PO5. Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling of complex engineering activities with an understanding of the limitations.

PO6. The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and Sustainability: Understand the impact of the professional engineering solutions in societal

and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1. Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as softwares, towards solving technical problems requiring Civil Engineering interventions.

PSO2. Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.

PSO3. Ability to conduct field and laboratory investigations pertaining to Civil Engineering domain, and utilize modern tools and techniques.