



Sri SaiVidya Vikas Shikshana Samithi ®

# SAI VIDYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)

Accredited by NBA, New Delhi (CSE, ECE, ISE, MECH & CIVIL)

## DEPARTMENT OF CIVIL ENGINEERING

RAJANUKUNTE, BENGALURU- 560 064, KARNATAKA

Phone: 080-28468191/96/97/98,\* E-mail: [info@saividya.ac.in](mailto:info@saividya.ac.in) \* URL [www.saividya.ac.in](http://www.saividya.ac.in)

### Bridge Course for First year students of 2021-22 batch

Sl No	Date	Topic	Overview
1	8-11-2021	Introduction to Civil Engineering	Brief introduction to engineering, history, branches of engineering, types of engineers, what is civil engineering, scopes of civil engineering.
2	9-11-2021	Scope of Surveying & Building Materials	<p>The planning and design of all Civil Engineering projects such as construction of highways, bridges, tunnels, dams etc are based upon surveying measurements hence the importance and applications are presented to the students.</p> <p>Building material signifies structural existence. It demonstrates the presence of aesthetic sense in a design, and hence, defines the practicability of the structure. The use of building materials while designing a structure is symbolic of its existence in the field of architectural visualization. The students are enlightened on the importance building materials.</p>
3	10-11-2021	Scope of Construction Technology & Geotechnical Engineering	<p>Construction technology refers to the collection of innovative tools, machinery, modifications, software, etc. used during the construction phase of a project that enables advancement in field construction methods, including semi-automated and automated construction equipment. Hence the technological developments are presented to the students.</p> <p>Geotechnical engineering is the study of the behaviour of soils under the influence of loading forces and soil-water interactions. This knowledge is applied to the design of foundations, retaining walls, earth dams, clay liners, and geosynthetics for waste containment.</p> <p>The importance of soil investigations are presented to</p>



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			the students.
4	11-11-2021	Scope of Hydraulics	<p>What is hydraulics? Applications of hydraulics, hydraulic structures, turbines, pumps etc</p> <p><b>Conducted activity:</b> Pictionary, finding hidden letters in puzzle, finding missing numbers</p>
<p><b>Application of Hydraulics:</b></p>			
5	12-11-2021	Scope of Water Resources & Irrigation Engineering	<p>Practical application of irrigation engineering, showed videos on Irrigation engineering, Hydroelectric power generation, 10 largest dams in the world.</p>
6	15-11-2021	Scope of Transportation Engineering & Environmental Engineering	<p>Different modes of transportation, importance of environmental protection, what is the duty of environmental engineer etc. Videos on advanced mode of transportation, working water treatment and sewage treatment plants.</p> <p><b>Conducted an activity:</b> Quiz on environmental engineering, finding hidden pictures.</p>
7	16-11-2021	Scope of Structural Engineering	<p>Importance of structural engineering, components of structure, different structural failures, interesting information about Leaning Tower of Pisa, Italy</p>



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8	17-11-2021	Videos on Civil Engineering structures	There are many great civil engineering projects across the globe. The videos on some of the important Civil engineering structures are shown to students.
9	18-11-2021	Basic of Engineering Mechanics	Introduction to mechanics and derive the 3 equations of motion: $v = u + at$ , $s = ut + \frac{1}{2}at^2$ & $v^2 - u^2 = 2as$
10	19-11-2021	Quiz	

HOD/CV