

#### SETHU INSTITUTE OF TECHNOLOGY

### (An Autonomous Institution) Pulloor - 626 115, Kariapatti (TK), Virudhunagar District.

## **Department of Civil Engineering**

# **Video Lectures**

Academic year: 2024-2025

S.No	Name of the Course	Name of the Topic	Name of the Faculty
1.	Steel Structures	Design of welded connections: Design of welded connections is the process of determining the size, length, and type of welds required to safely transfer forces between connected structural members as per relevant design codes. <a href="https://youtu.be/u5KP1eid9tU?si=xFaswPM704kMZipc">https://youtu.be/u5KP1eid9tU?si=xFaswPM704kMZipc</a>	Mr.B.Palanikumar
2.	Structural Dyanamics	Importance in Structural Engineering : Structural dynamics is important in structural engineering as it enables the safe and efficient design of structures to withstand time-dependent loads such as earthquakes, wind, vibrations, and impacts. <a href="https://youtu.be/THu3kSI7EVo?si=cZy7UmYF2md]85PJ">https://youtu.be/THu3kSI7EVo?si=cZy7UmYF2md]85PJ</a>	Dr.S.Dhavamani Doss
3.	Advanced Steel Design	Design of Roof Truss: Design of a roof truss involves selecting a suitable truss form, assessing loads (dead, live, wind, snow), analyzing member forces, sizing members and connections per code, and detailing for stability, deflection, and economy. <a href="https://youtu.be/QrogFB_Kkk?si=0NmQTMMZExRRXu62">https://youtu.be/QrogFB_Kkk?si=0NmQTMMZExRRXu62</a>	Mr.P.Rajeswaran
4.	Applied Hydraulic Engineering	Fluid kinematics: Fluid kinematics is the study of the motion of fluids without considering the forces and energies causing the motion. <a href="https://youtu.be/Yls2YnbPZvs?si=LAk_JGbrG36VMtEl">https://youtu.be/Yls2YnbPZvs?si=LAk_JGbrG36VMtEl</a>	Mr.R.Logaraja



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5.	Smart material and smart structure	Sensors: Sensors are devices that detect physical, chemical, or biological quantities and convert them into measurable electrical signals for monitoring and control. <a href="https://youtu.be/lwRDjhJ6zyI?si=wITFA5uE7-UT-V8S">https://youtu.be/lwRDjhJ6zyI?si=wITFA5uE7-UT-V8S</a>	Dr.A.M.Arunmohan
6.	Development of smart cities	Introduction to smart cities: Smart cities are urban areas that integrate information and communication technologies (ICT) and intelligent solutions to enhance infrastructure, improve resource efficiency, ensure sustainability, and provide a better quality of life for citizens. <a href="https://youtu.be/Wwltc2n2NPg?si=BZiqakHGKtBYXyjD">https://youtu.be/Wwltc2n2NPg?si=BZiqakHGKtBYXyjD</a>	Mr.R.Logaraja