SUBJECT NO-NA60014, SUBJECT NAME- HYDROELASTICITY

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Introduction to Hydrodynamics and Structural mechanics, unsteady hydroelasticity problems, Analyses of a plate on fluid base-stationary loads, moving loads and critical speed, Fluid Structure interaction-Structures in steady flow, structures in waves, structural damping; solution methods of hydroelasticity problems-mode matching method, conjugate gradient method, finite element and boundary element methods, unsteady hydroelasticity problems, Analyses of a plate on fluid base-stationary loads, moving loads and critical speed, Application of hydroelasticity- Sloshing in vertical caisson, hydroelasticity of multi-module structures, wave ice interaction, wave interaction with floating and submerged structures, arrays of elastically connected cylinders, risers, pipelines.