

Class 9 – Coastal flow: Storm surge, tsunami, and in-stream tidal power generation.

Reading: Delft 3D FLOW manual, Chapter 9.3.1.

- a. Flow power equation and devices for extracting in-stream power. Site feasibility. Simulation and monitoring.
- b. Storm surge – wind and pressure.
- c. Tsunami – long waves.
- d. Navier-Stokes equation.
- e. Homework – use Navier-Stokes equation to predict storm surge height at Haneda Airport for given wind speed. Wind and bed drag coefficients are given.