

Variation in Vortex-Induced Vibration Phenomenon Due to Surface Roughness on Low- and High-Mass-Ratio Circular Cylinders: A Numerical Study

Elsayed Mohamed Tag Eldin , Muhammad Usman Anwar ; Niaz Bahadur Khan ; Muhammad Arshad ; Adnan Munir ; Muhammad Nasir Bashir ; Mohammed Jameel ; Muhammad Faisal Rehman

Abstract

<https://www.mdpi.com/2077-1312/10/10/1465/htm>

Journal of Marine Science and Engineering 2022, October