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(54) Title of the invention : NOVEL TECHNIQUE FOR SEISMIC RESILIENCE ENHANCEMENT OF RUBBLE MOUND BREAKWATER THROUGH REINFORCING ELEMENT INTEGRATION

<p>(51) International classification :E02B0003060000, E02B0003120000, E02D0003000000, E01C0003040000, A61N0001372000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)National Institute of Technology Karnataka Address of Applicant :Srinivasnagar PO, Surathkal, Mangaluru - 575025, Karnataka, India Mangalore ----- -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Babloo Chaudhary Address of Applicant :Department of Civil Engineering , National Institute of Technology Karnataka (NITK), Surathkal,P.O.Srinivasnagar, Mangaluru-575 025, Karnataka, India. Mangalore ----- -----</p> <p>2)Akarsh P K Address of Applicant :Department of Civil Engineering, National Institute of Technology Karnataka, Surathkal (NITK),P.O.Srinivasnagar, Mangaluru-575 025, Karnataka, India. Mangalore ----- -----</p>
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(57) Abstract :
According to an aspect of the present disclosure, a method for seismic resilience enhancement of rubble mound breakwaters through reinforcing element integration comprises reinforcing elements like geogrid layers, geotextile sandfills and sheet piles. The geotextile sandfills are strategically placed on the outer slopes of the breakwater, on both the port and sea sides. Additionally, two layers of geogrid are employed, one positioned at the base of the breakwater, between the breakwater body and the seabed, and the other within the core of the breakwater. In seabed soils, the two sheet piles are employed on the extreme sides of the breakwater and embedded to a certain depth of dense sand and the lower geogrid layer is connected to the top ends of both rows of sheet piles. This approach significantly enhances the seismic resilience of rubble mound breakwater. <>

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