



International Jubilee Scientific Conference
70th anniversary FHE of the UACEG

7-8 НОЕМВРИ 2019
7-8 NOVEMBER 2019

Международна Юбилейна Научна Конференция
70 години ХТФ на УАСГ

SUBMERGED AND PNEUMATIC BREAKWATERS AS AN INTEGRATED SHORE PROTECTION FACILITY

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Keywords: shore protection, wave dissipation, submerged breakwater, pneumatic breakwater

ABSTRACT

Based on the fact, that the coastal zone forms a complicated morphological environment, due to the natural and anthropogenic factors prevailing on it, a number of structural and non-structural shore protection methods have been innovated and developed. In this research we will discuss the most famous shore protection methods, and explain in more detail the submerged breakwater, which has a high efficiency in dissipating the wave energy and keeping the coastal zone protected from erosion, but its efficiency decreases in the case of severe storms. Therefore, we will describe in this paper how we have developed this facility by adding parallel to the submerged a pneumatic breakwater, which automatically dissipates the waves that crossed the submerged breakwater with a significant wave height. Finally, we have got an integrated shore protection facility.

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