

## عنوان مقاله:

EXPERIMENTAL INVESTIGATION OF INTERACTION BETWEEN SURFACE SHALLOW WATER WAVES AND  
FLOATING PLATES

## محل انتشار:

دهمین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1391)

تعداد صفحات اصل مقاله: 7

## نویسنده:

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## خلاصه مقاله:

The present study has developed a experimental model for the analysis of interaction between surface shallow water waves and floating plates .The fluid is considered homogenous, nonadhesive and non-compressive. Using a restricted floating plate as a large floating structure on the water, which was connected to the bottom of the flume via cables, the floating structure's movements and the level fluctuations of free waters was measured in various draught depths using, respectively, acoustic and impedance sensors. The results indicated that the structure's movements maintain a positive correlation with wave length and height and a negative correlation with draught depth. In the next stage the fluctuations of the free waters surface were investigated using impedance sensors both in the front and at the back of the floating plate and using the results the experimental transmission coefficient was calculated. The results show that an increase in the wave length and period results in an increase in the transmission coefficient. In addition the transmission coefficient was calculated using the method of matched eigenfunction expansions (MMEE) method, which was reasonably consistent the lab results

## کلمات کلیدی:

Water wave, MMEE, Limited floating plate, Transmission coefficient

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/184399>

