

The use of cable elements with different arrangements in offshore fixed platforms

Authors:

**Hossein Moghadaszadeh Naghibi¹,
Morteza Naghipoor² and
Mehdi Hamidi³**

Institution:

1. MSc, Hydraulic Structures, Babol Noshirvani University of Technology, Babol, Iran

2. PhD, Assistant Professor, Faculty Member of Babol Noshirvani University of Technology, Babol, Iran

3. PhD, Associate Professor, Faculty Member of Babol Noshirvani University of Technology, Babol, Iran

**Corresponding author:
Hossein Moghadaszadeh
Naghibi**

ABSTRACT:

Today, offshore platforms are installed for the extraction and exploitation of hydrocarbon reservoirs. The cyclical waves are the most important environmental loads exerted on offshore platforms that have a random nature. The actual behavior of the structure under the force, and normal or hurricane circumstances is of particular importance. The aim of this study was to evaluate the use of cable elements with different arrangements in offshore fixed platforms. Therefore, in this paper, ANSYS 14 software is used to analyze fixed offshore structures. The platform studied in this research is located in the Persian Gulf. The results of this study indicated that the use of cable elements on offshore fixed platforms, lead to the integration in platform floors and if a proper combination is used, it can reduce the structural motions in all directions (X, Y, and Z).

Keywords:

Cyclical wave, force, Cable elements, fixed offshore structures