# Abstract


## Amr A. Mohamed Mohamed Hassan


### Offshore Wells Turbines Performance Assessment


Wave energy is an alternative form of energy which is pollutant free and which is likely to be economically viable in the very near future. There are several principles that can be used to convert the energy of waves into mechanical energy. This work deals with devices suitable for extracting energy from ocean waves. The study focuses on Wells turbine which is a self-rectifying device installed in chamber positioned at wave site. Aerodynamic and geometric parameters affecting wells turbine performance are studied .These include Reynolds number, solidity, and blade section type in addition to different operating conditions. Further computational study was dared to examine the flow field characteristics in and around the rotor. Results are discussed and number of conclusion was drawn.