

# **HARVESTING OF ENERGY FROM WAVES**

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## ABSTRACT

Ocean waves are a huge, largely untapped energy resources, and the potential for extracting energy from waves is considerable. Wave energy seems the best solution for the electrical power supply and meeting the current energy demanding due to its environmentally friendly technology, clean renewable energy production and supporting sustainability development concept. There are a lot of methods and systems for converting wave power into electrical power. The objective of this thesis evaluates the factors contributing to the energy of waves and to determine the energy produce by the wave. The most common structure of wave power is Oscillating Water Column (OWC). The bottle 5.5 liters are used for OWC. The waves are created by using wave propagator. The amplitude inside and outside chamber are observed. Amplitude inside the chamber are greater than amplitude outside the chamber. The wave height is calculated by the twice of amplitude. This is because the force inside the chamber when water flow the hole is faster. The energy produce by the wave and chamber inlet pressure are calculate. The highest value of wave energy density is  $6.00 \text{ J/m}^2$  and the lowest is  $0.71 \text{ J/m}^2$ .

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