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WAVE, TIDAL AND OCEAN ENERGY FOR SUSTAINABLE ENERGY AND ENVIRONMENT

Anitha Thulasi[1]*, Sreemathy Baskar[2], Yoga Subathra Initha Jegatheesan[2]

[1]*Associate Professor, Department of Biotechnology, Rajalakshmi Engineering College, Chennai- 602 105, TamilNadu, India.*
[2]*B.Tech Biotechnology, Department of Biotechnology, Rajalakshmi Engineering College, Chennai- 602 105, TamilNadu, India*

Abstract

Reservoirs like seas, oceans and lakes that are present on earth contributes to a colossal volume of renewable energy. The techniques to tackle the power of the oceans are still in the developmental stages. Even the technologies that are up to date, such as the tidal currents and ocean waves, face many difficult obstacles and limitations. This review provides an overview over the current state of investigation about the ocean, tide and wave energy. In terms of reliability, greater energy density, certainty, and durability, these oceanic, tidal and wave energy are very promising. The kinetic energy which can be extracted from the predictable vertical movement of water that causes tidal currents may be used to generate power. This article also identifies the knowledge gap as well as the areas where future development efforts are needed in the production of electricity. A substantial amount of research is now being conducted in order to quantify existing energy resources and create efficient technologies for capturing it. This objective is genuinely aimed at maximizing the power output from the most favourable places like near sea shore which is yet to be explored.

Keywords: generators, ocean energy, power extraction, tidal currents, wave energy

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* Author to whom all correspondence should be addressed: e-mail: anitha.t@rajalakshmi.edu.in