

**O 49. PRODUCING ENERGY FROM MAGNETIC FIELD WITH WAVE ENERGY**

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**ABSTRACT:** As a result of the increase in the world population and the continuous growth of the industry, it has been seen that the energy demand will increase in the coming years. Due to the cost of standard energy production methods and environmental pollution, many countries tend clean and renewable energy sources. Therefore, the energy sector is looking for alternative energy production methods for clean and renewable energy. In the historical development process related to renewable energy, different renewable resources in energy production, and energy production technologies derived from these sources have been developed. In this study, the properties of the wave energy which is a renewable source, the principles of transformation were investigated, and a system has designed to generate electricity energy by using the potential energy of the wave power. In this design, buoys on the water surface oscillates up and down due to the potential energy of the wave energy. The potential energy of the wave power has converted into kinetic energy by means of buoys. The kinetic energy gained by the buoys influenced the coil system and the magnetic field has formed and the energy produced in the magnetic field converted into electrical energy.

*Keywords: Renewable Energy, Wave Energy, Electricity Production, Magnetic Field*