



MAGNETO POWER: EXPLORING SPARKPLUG POTENTIAL

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ABSTRACT

This study, Magneto Power: Exploring Sparkplug Potential, investigates the innovative use of magneto systems to generate electricity through sparkplugs. Traditionally used in combustion engines, magneto systems convert mechanical energy into electrical energy. The research explores how this principle can power a small charging station for low-power devices, promoting sustainability and energy efficiency. Conducted at Tuy Senior High School, the study used a quantitative approach, involving 130 STEM students from five sections who evaluated the system through questionnaires. Key performance indicators—such as electrical output, voltage stability, and system reliability—were measured and analyzed. Results showed that the device effectively converts mechanical motion into usable electrical energy, offering a practical and eco-friendly solution for off-grid charging. The simplicity, affordability, and environmental benefits of the system make it accessible to communities with limited electricity. Overall, this research highlights the potential of magneto-powered sparkplugs as an alternative energy source, contributing to the advancement of small-scale renewable power technologies.

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