

VOLT STABILIZER DESIGN WITH ADDITIONS OF ADJUSTABLE VOLTAGE STEP-UP DC TO DC TO MAXIMIZE WEAK BATTERY PERFORMANCE

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ABSTRACT

This research aims to evaluate the effect of using the step-up module, in particular the MT3608 module, in designing a Volt Stabilizer for motorized vehicles in Indonesia. Motorized vehicles are a vital part of daily mobility, and they produce more complex electricity, which depends on batteries as the primary power source. Unstable voltage problems can cause damage to the electronic components of the vehicles. In this research, tests were carried out on the lights and fuel pumps of two-wheeled vehicles with different voltage outputs at various battery conditions, ranging from weak to normal. The results show that the Volt Stabilizer design modules The MT3608 succeeded in increasing the power at the fuel pump, but it was not optimal when it was used for lights. The researcher suggests to prioritize testing on LED lights that are more energy-saving and further testing exploration on other critical components in the vehicle for a more comprehensive evaluation.

Key words: *Boost Converter Modul, Vehicle Electronic, Battery*