



**EVALUATION ON ENERGY STORAGE CAPACITY
PERFORMANCE FOR HYBRID PV/DIESEL SYSTEM IN
SMK MATUPANG JAYA RANAU, SABAH**

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This thesis is presented in partial fulfillment for the award of the
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ABSTRACT

Combination of Solar Photovoltaic (PV) system with batteries and diesel generators can guarantee high supply and meet the load for about 100% availability but in cloudy weather (weak irradiance), this strategy requires large storage capacity. State of Charge (SOC) is a fundamental parameter need for the battery, which measures energy left in a battery while Depth of Discharge (DOD) determine the fraction of power that can be withdrawn from the battery. The accuracy of estimation SOC and DOD battery can be important and premise in designing battery management system. This paper has presents an efficient SOC to match limit setting with respect to the solar irradiance and load condition. At the same time, the special consideration is based on analyzing the number of operational hours of diesel generator and lifetime of the battery

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