**ABSTRACT** 

Nowadays Lead Acid Battery or more likely known as Accumulator Battery were acknowledged

with many excellent factors to become secondary energy supply. With the convenience way to

measuring State of Health (SOH) for determining the parameter of battery condition. The

development of fiber optics to become sensor were developed by many countries today. The

research of using Fiber Optics as sensor to determine the electrolyte density in battery using bias

index that transmitted from Visual Fault Locator (VFL) to LDR sensor. This reaserch using

kualitatif method. The results of this study found that the density value is directly proportional to

the light intensity received by the LDR. The tools made in this study have an accuracy value of

97.718522%.

**Keywords:** Lead Acid Battery, SOH, Fiber Optics, Sensor

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