

**CAPACITY PERFORMANCE OF VRLA BATTERY AND
AUTOMOTIVE BATTERY FOR ENERGY BACKUP IN
TELECOMMUNICATION ACCESS**

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ABSTRACT

This study will show the capacity performance of valve-regulated lead acid (VRLA) battery and starting, lighting, ignition (SLI) or also known as automotive battery in telecommunication access outdoor cabinet. The capacity performance will show the efficiency of battery capacity applied to VRLA and automotive battery using capacity test with constant current. The method to determine the failure condition due to undercharge and overcharge condition is done at three telecommunication outdoor cabinets at Bangi, Selangor. During this study, relationship between voltage and temperature is important to decide whether it is undercharge or overcharge condition. Besides that, the temperature of battery is very important to control the charging voltage to prevent thermal runaway that can lead to decrease the battery life.

CHAPTER 1

INTRODUCTION

1.1 Background of study

Batter is defined as an electrochemical cell that can be charged electrically to provide a static potential for power or released electrical charge when needed. A battery generally consists of electrodes (anode, cathode), electrically conductive path between two electrodes and electrolyte. It is also known as galvanic cell. As shown in figure 1.1, two electrodes with different electrical potential are connected produced potential difference. The electrode with higher electrical potential becomes the anode, and the lower is cathode. A current will flow from anode to the cathode.

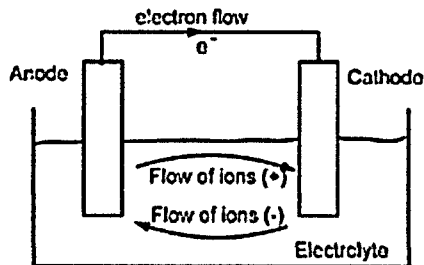


Figure 1.1: Galvanic cell or Battery