

ABSTRACT

Kenya needs to produce more energy to meet its people's demands. On the other hand, it is quit impossible to provide enough energy with the conventional way of producing energy. So apart from finding cost effective ways to harness energy, it is required to use the already available energy appropriately. This paper of designing a smart battery discharge controller for a solar powered streetlight with auto intensity control, the controller is designed such that it monitors the available voltage in the battery and controls the light intensity of the LED. This system made the LED light for longer time possible utilizing the available energy in the battery. The use of this proposed system is to eliminate sudden black out during cloudy and rainy seasons. Here PIC16F877A microcontroller is programmed according to the voltage level in the battery and the lighting intensity of the LED bulb. This system also utilizes the LDR sensor for automation of switching and just like the conventional street lighting. The use of this system is seen to be cost effective for it is more efficient hence improving the conventional solar powered street lights.