

In this paper, the design and implementation of the duty-cycle, that is based on pre-emptive time scheduling is proposed, this work analyze the time it will take based on the period the variable is available to be read and also the energy required with respect to components in use. The implementation of the duty-cycle WSN platform was described including the hardware, firmware, different energy saving mode were developed and the result was obtained using Matlab. An analysis of the battery Ampere hour consumption was carried out with a view to seeking ways of enhancing Battery life. When fully charged the Nokia BL-5CB Battery has an ampere hour value of 1027 mAH, when subjected to sleep and active mode for 24 hours. The ampere hour value of the battery fell to 998 mAH for source node and 900 for mAH for intermediate nodes.