Abstract

Efficient power management in wireless sensor network is a critical issue as the sensor nodes are low powered devices. In a sensor node, flip flop consumes large amount of power as they make maximum number of internal transitions. Reduction in the power consumed by flip-flops shows a deep impact on the total power consumed. Hence, designing low power flip flop cells are highly important for enhancing the life time of network. This paper presents a comparative study of different flip flop cells for WSN applications based on simulation at 90nm and 45nm technology. The simulation results show that flip flop using multiplexers offers the best overall performance.

References

- Jyoti Saraswat, Neha Rathi, Partha Pratim Bhattacharya, "Techniques to Enhance
Comparative Study of different Flip Flop Cells for WSN Applications


**Index Terms**

Computer Science, Wireless

**Keywords**

D flip flops, microcontroller, wireless sensor network, network lifetime, power management.