



# International Journal on Recent Researches In Science, Engineering & Technology

(Division of Computer Science and Engineering)

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Research Paper

Available online at: [www.jrrset.com](http://www.jrrset.com)

Chief Editor : Dr. M.Narayana Rao, Ph.D., Rtd. Professor, NIT, Trichy.

ISSN (Print) : 2347-6729

ISSN (Online) : 2348-3105

Volume 3, Issue 3,  
March 2015.

JIR IF : 2.54

DIIF IF : 1.46

SJIF IF : 1.329

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## An Adaptive energy MAC protocol

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**Abstract** - Literature review revealed that sensor networks are deployed in remote locations with limited processor capabilities, memory capabilities, and battery supplies. Wireless Sensor Networks (WSN) detects environmental information with sensors in remote settings. One problem facing WSNs is the inability to resupply power to these energy constrained devices due to their remoteness. Therefore to extend WSNs effectiveness, the lifetime of the network must be increased by making them as energy efficient as possible. An energy efficient Medium Access Control (MAC) can boost a WSNs lifetime. This paper focuses on a protocol stack solution that deals with MAC layer, that minimizes energy consumption and delay required to transmit packets across the network. It is based on Sensor Medium Access Control (S -MAC) called Adaptive SMAC protocol designed for sensor networks. It enables low duty cycle operation in a multi-hop network and common sleep schedules to reduce control overhead and enable traffic adaptive wakeup. To reduce control overhead and latency, introduces coordinated sleeping among neighboring nodes.