

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belgaum – 590014



A Project Report On

“Detection of Energy draining attack using EWMA in Wireless Ad Hoc Sensor Networks”

*Submitted in the partial fulfillment of the requirements for the award of the Degree of
Bachelor of Engineering in Computer Science and Engineering*

Submitted by

Pooja S Raj	10X11CS059
Rashmi D	10X11CS072
Spurthi Nimbalkar	10X11CS114
Suchana L	10X11CS115

Under the guidance of

Dr. R. J. ANANDHI

Vice Principal and HOD, Department of CSE, TOCE



Department of Computer Science and Engineering

The Oxford College of Engineering

Hosur Road, Bommanahalli, Bengaluru– 560068

2014-2015

ABSTRACT

Wireless Sensor Networks came into prominence around the start of this millennium motivated by the omnipresent scenario of small-sized sensors with limited power deployed in large numbers over an area to monitor different phenomenon. The sole motivation of a large portion of research efforts has been to maximize the lifetime of the network, where network lifetime is typically measured from the instant of deployment to the point when one of the nodes has expended its limited power source and becomes in operational commonly referred as first node failure. Over the years, research has increasingly adopted ideas from wireless communications. In this paper we consider how routing protocols, affect from attack even those designed to be secure, lack protection from these attacks, which we call Vampire attacks, which permanently disable networks by quickly draining nodes battery power. These Vampire attacks are not specific to any specific protocol which are devastating, difficult to detect, and are easy to carry out using as few as one malicious insider sending only protocolcompliant messages. We proposed a Energy Weighted Monitoring Algorithm method to bound the damage caused by these vampire types of attacks during the packet forwarding phase.