## VISVESVARAYA TECHNOLOGICAL UNIVERSITY

**Jnana Sangama, Belgaum-590018, Karnataka, India**



**A Technical Seminar Report on**

**Title : An Energy Management Scheme For Green IoT Environment**

#### Submitted in partial fulfillment of the requirement of VIII semester Bachelor of Engineering in

**Information Science and Engineering**

**Submitted by**

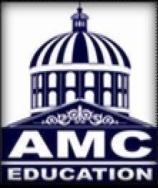
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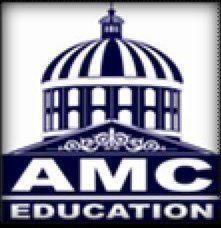
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**CERTIFICATE**

This is to certify that the seminar work titled “**An Energy Management Scheme For Green IoT Environment”** is carried out by **Mr. Navanith B S bearing USN 1AM17IS058** is a student of **AMC Engineering College** in partial fulfillment of the requirement of VIII semester Bachelor of Engineering in **Information Science and Engineering,**  Visvesvaraya Technological University, Belgaum during the year 2020 – 2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Seminar report has been approved as it satisfies the academic requirements in respect of Seminar work prescribed for the said degree.

|  |  |  |
| --- | --- | --- |
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## DECLARATION

I, **Navanith B S bearing USN 1AM17IS058** Student of VIII semester **B.E** in **Information Science And Engineering**, here by declare that seminar work titled “**An Energy Management Scheme For Green IoT Environment**” has been carried out by me at AMC Engineering College, Bengaluru and submitted in partial fulfillment of the course requirements of **Bachelor of Engineering in Information Science and Engineering of Visvesvaraya Technological University, Belagavi,** during the academic year 2020-2021. I also declare that, to the best of my knowledge and belief, the work reported here does not form part of any other dissertation on the basis of which a degree or an award was conferred on an earlier occasion on this by any other student.

Place: Bangalore

Date: 06/05/2021

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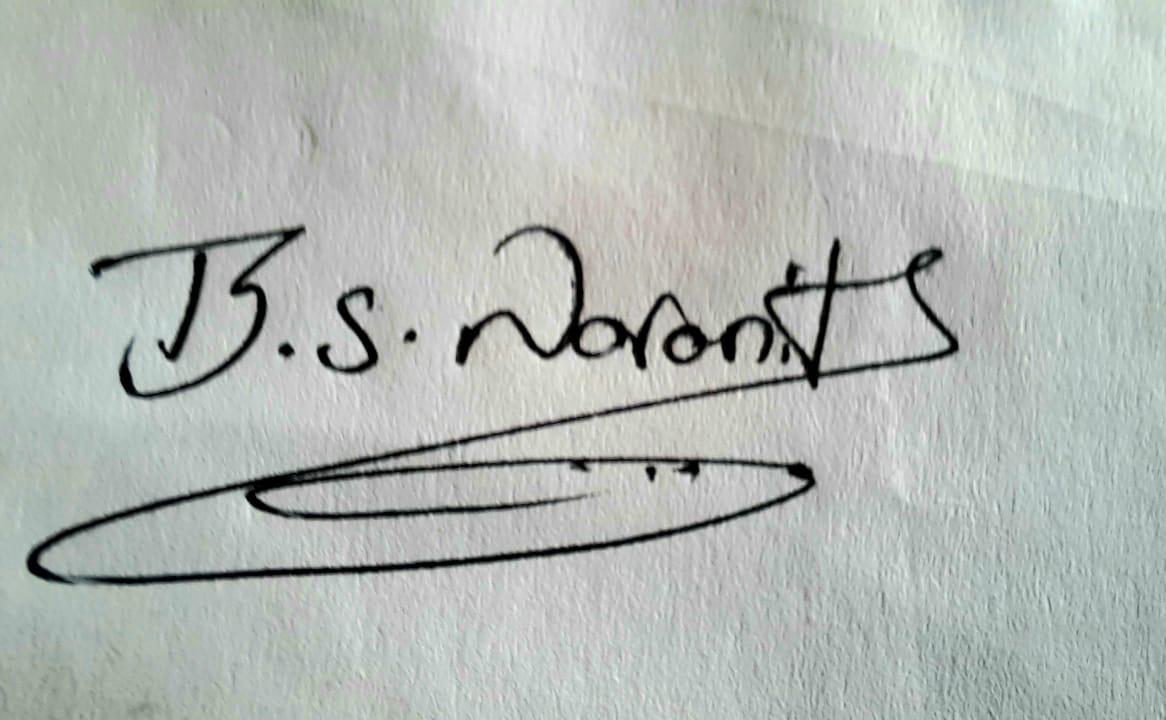
I take immense pleasure in thanking Dr. A G Nataraj, Principal, AMC Engineering College, Bangalore for providing me all the facilities for successful completion of my seminar.

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I

**Abstract**

The Internet of Things (IoT) has important applications in all aspects of our lives in areas such as business, military, security, and health. It is known that most IoT node designs are energy constrained.Maintaining an ideal energy consumption rate has become one of the most important challenges in the IoT research field. In this system, heterogeneous types of energy-constrained nodes are considered.

The proposed EMS comprises three strategies, the first strategy minimizes the volume of data that may be transmitted through the IoT environment and the second strategy schedules the work of the critical energy IoT nodes and the third strategy provides a fault tolerance scenario that can be applied to address inevitable energy problems faced by IoT nodes.

The Keywords specified in this paper are, Internet of things(IoT), Energy management Scheme(EMS), Network Simulator 2(NS2), Radio Frequency Identification(RFID), Wireless Sensor Network(WSN), Mobile Ad Hoc Network (MANET).

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