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*Review*

# A Review about Wireless Sensor Networks and the Internet of Things

**Amarjit Singh***

New Horizon College of Engineering, Bangalore, 560038, India
*Corresponding Author: Amarjit Singh. Email: asingh@gmail.com
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**Abstract:** Wireless sensor networks (WSNs) are created and affect our daily lives. You can find applications in various fields such as health, accident, life, manufacturing, production management, network management and many other fields. WSN now connects to the Internet of Things, connects the sensor to the Internet, and then uses it for collaboration and collaboration. However, when WSN is part of the internet we need to be able to study and analyze related terms. In this article, we're going to look at different ways to get WSN online and identify the challenges that address in future as well.

**Keywords:** Dynamic condition monitoring; secured database; moving vehicle; position tracking; auto fuel checking

## 1 Introduction

The Internet in the future, conceived as the "Internet of Things" intended to be a "global network of these are spoken in a unique way, based on the standard of communication [1]. Detected by a unique address, everything including a computer, sensor, RFID card or mobile phone can access the network, cooperate and work together effectively to perform various tasks. When you put WSN in this situation, new ideas arise. Covering the area quickly, the WSN can play an important role in gathering information about the environment and the environment. However, getting a WSN designed to access the internet presents a new challenge, which must be resolved before it can reap the full benefits of installation.

The main donations to this report can be concise as follows: We are looking at WSN across the internet and the idea of where WSN will be part of the internet. Therefore, we identify the proxy application conditions for the multidimensional WSN (see Section 2) WSN design space [2], to get an idea of the problems involved in the application. Application Value The application describes the various WSN configurations online and then displays and compares it to Part III. Further studies on integration will identify the key elements (see Section 4) of the WSN network that must be set up to fulfill its ability to connect to the Internet. Finally, Section 5 provides an overview, provides advice on how to overcome the identified problems, and recalls the amount of money available at the WSN station all the time.

## 2 Selected WSN Application

The broad area of application of an air sensor network can be separated into three types according to [3]: monitoring aperture, a shadow of an object and a shadow of a relationship between an object and a space. The required classification may be extended by other reviewers.

An example of the first section is environmental monitoring. WSNs are deployed in a variety of environments, including glaciers [4], forests [3] and mountains [5] to collect long-term environmental systems. Calculations from temperature, humidity or temperature sensor allow the analysis of environmental factors, such effects of environment change on rock formations in the permafrost zone [5].

Secondly type focuses on the analysis of certain factors. Structural monitoring is one example that can do this one. By detecting the type of vibration, the object becomes noisy and in response to impetuses, mechanical changes of the bridge [6] or building [7] indicates a potential explosion.

The structure can be identified. Examine the relationship between what the object and the space are a combination of the previous two sectors and included the consideration of environmental hazards such as floods [8] and volcanic eruptions [9]. Indicates the extension and the extracted configuration, viz.

The latter type focuses on human imagery. Gate Closer to the body, the removed sensor can collect faster information as well as physiological parameters such as heart rate. Especially in medical applications, such intervention may help identify bipolar patients [10] and diagnose the elderly in home care settings [11].

Configuration required, and especially options deployments, show large WSN application formats in terms of topics and environments being explored. Useful for the internet of things, different types of situations are significant. However, this must be taken into account when considering ways to put WSN on the internet.

## 3 Approaches

The WSN internet connection is possible in the three points above [12] and differs from the online configuration of the WSN enrollment diploma. Currently, most WSNs have internet access that accepts and displays the highest level of abstraction between networks. The recommended method (Fig. 1) is to first connect the WSN to the Internet through a single gateway. The second system (Fig. 2), which shows an increase in integration, creates a hybrid network consisting of two independent network systems with two small sensors.


**Figure 1:** Network scenario

The current WLAN format with 802.15.4 space type main network, where multiple common sensors can be integrated Internet at the same time. Obviously the first method has only one main point fall due to the special nature of the gate. There is no stopping the door between WSN and the internet. However, the second and third ports are included and the access point is weak. To ensure that the network is robust, it is determined whether the application supports this type of network configuration.

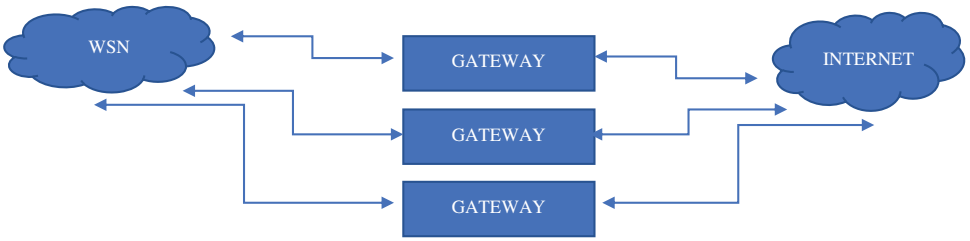


**Figure 2:** Hybrid network scenario

Choice between the two remaining links. The WSN program affects it. Allows to cover a large eye, the second way may be intended for WSNs customized in mesh topology.

As a result, the system will be more efficient distribution of the first "Surveillance space" and of the second "Monitoring the relationship between object and space" An introduction to the required application classification. By providing internet access of a single hop, the third and final system can use the WSN application requiring low latency and therefore requires immediate connection. WSN is known for its beautiful topology that can keep such an organization from having a central door instead of having a mouth without internet. Considering the initial configuration of the WSN application, this third method may be useful for object monitoring in humans, and can be used in submissions [6,7,10,11] for example.

It is important to note that the approaching second and third connections only support vertical network configuration. Of course, every new device needs to be connected to the internet requires a long reprogramming of the gate. Therefore, the change that the internet requires in the future is impossible will be obtained by these two methods in their present form. To meet the expectations of change, adoption of "IP and the method of field" [13] may be appropriate.

In comparison Paradigm, together sensors should be intelligent network components, which should no longer be limited to service detection. By transmitting intelligence and gateway sensors, the function of the gateway will be limited to protocol transmission and language translation. As a result, gateway repair work will no longer be necessary and can have a powerful network configuration. In addition, this intellectual change will open up new ideas, including local words for example.

## 4 Challenges for WSNS and Internet of Things

First, an introduction to "IP to the Field" has been added to highlight other functions and impact values in addition to the usual search functions. To illustrate and discuss the challenges of this new service, we have selected three possible functions for the sensor building: security, performance quality (QoS) and network configuration.

### *4.1 Security*

Within WSN offline, the sensor interface can play an important role in ensuring the confidentiality, integrity, access and analysis of data based on the application. However, the current combat situation requires the presence of flesh on the WSN side, for example breaking, healing or creating impactful vegetation. With the development of WSN on the internet, proximity to the environment is no longer necessary and attackers can carry WSN with them everywhere. In addition to an unprecedented situation, WSN may detect new threats, such as malware downloaded from an Internet connection, depending on the type of attacker. Many of the WSNs connected to the internet have

become central hubs and high-performance gateways providing effective security. But the management of these security systems is currently not possible due to the weakness, memory and IT infrastructure of the research institutes. The Mica2 Motes provides an 8-bit 8.3 MHz microcontroller with 128 KB of reprogrammable flash memory, 4 KB of RAM and 4 KB of EEPROM. Finally, many internet services use the long key encryption key on the RSA-1024 which is currently not supported. Therefore, a new security-based security system must be developed to protect WSN against new cyber-attacks.

### *4.2 Quality of Service*

With gateways acting only as adapters and protocol translators, the sensor should also assist in QoS management by enhancing the use of the hardware of all different devices is part of the internet of the future. It is not seen as a weakness, the variations of the system open up new ideas in terms of service distribution. Of course, different types of hardware can be used to distribute the current function between the terminal and the existing hardware. Improving QoS, such an integrated service promises for systems that require a large amount of money as a security system. However, there are currently ways to ensure the safety of services on the internet does not fit into the WSN, because sudden changes in the link identity can lead to significant changes of WSN topology. Therefore, it is important to find new ways to live up to the promise of delay and loss.

### *4.3 Design*

In addition to security and performance management, sensors may also require WSN configuration management, which includes functions such as address management, to ensure network performance and maintenance by detecting, scanning, or by deleting errors. Manage your setup However, it is not uncommon to update the automation of participating internet companies. Instead, the user should install the software and restore the system after the accident. On the other hand, uncertainty associated with the production of vertical sensors requires a new way of configuring and managing the network.

## 5 Conclusion

In this first testing process to put WSN into the internet thing, we looked at the selected scenarios application shows a wide variety in terms of the following topics and the environment. Considering their main characteristics, we examined three input methods and showed that they are inaccurate in their current state to allow the number of sensors to access the internet of the object. We plan to add IP to the Field Paradise, which includes assigning additional services and sensor slots as a viable solution for WSN deployment on the internet. We have selected three key functions to reflect the challenges arising from the adoption of standards: safety, work quality and organizational quality. Their research shows that the answers currently posted on the internet are not compatible with the limited hardware of the sensor space and, therefore, new systems must be developed adaptation to the power and limitations of the WSN. We are planning study current methods and find appropriate modifications for sensor blockchain platforms to address these challenges.

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