**Internet of Things: Environment Perspective**

1st Santosh S. Patil  
  
1 Assistant Professor, DoS in Computer Science, VSK University, Ballari, India

santoshpatil@vskub.ac.in

***Abstract-*** The changes in the present climatic conditions allow us to give an importance towards the monitoring of environmental conditions. There is a need to monitor the conditions regularly and for this Internet of Things (IOT) plays an important role. IOT refers to the collection of all various devices which have the ability to Connect to the internet, collect the information from various Sensors, and share the data to the internet where the processing of that data can happen. In this paper, we are proposing the survey of comprehensive review for the environmental monitoring system which includes discussion on various Sensors available for reading the values such as recording the volume of Carbon Monoxide (CO), Humidity, and Temperature with the use of microcontroller called Arduino. Then, process the data and send to the Cloud for storing the values using the Wi-Fi module. Further, the detailed design of the monitoring system is discussed along with the challenges faced during the integration of various Sensors to Arduino microcontroller board. Finally, the read values could be projected to the user interface (LCD Display) to view the results which plays an important role for the organizations to take appropriate decisions to control the environmental conditions.

***Keywords: Internet of Things, Sensors, Microcontroller, Cloud, Arduino***

##### References

[1] George Mois, Silviu Folea and Teodora Sanislav, “Analysis of three IOT-Based Wireless Sensors for Environmental Monitoing”, IEEE Transactions on

Instrumentation and Measurement, vol. 66, pp. 2056-2064, issue. 8, Aug 2017.

[2] Jalpa Shah and Biswajit Mishra, “IOT Enabled Environmental Monitoring System for Smart Cities”, International Conference on Internet of Things and

Applications (IOTA), IEEE, DOI. 10.1109/IOTA.2016.7562757, 2016.

[3] Luís M. L. Oliveira and Joel J. P. C. Rodrigues, “Wireless Sensor Networks: a Survey on Environmental Monitoring”, Journal Of Communications, Vol.

6, No. 2, April 2011.

[4] Luigi Atzori, Antonio Iera, and Giacomo Morabito, “The Internet of Things: a Survey”, Computer Networks, DOI:10.1016/j.comnet.2010.05.010, 2010.