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Chemical leakage detection in river find out through Internet of things

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Abstract: **Now a days so many factories are concentrate on only profit gain at this time those are violated the pollution control instruction. It is more effects on the nature and also human. West chemicals send to the water at that time water will be polluted .water pollution is effect on the water animals so it is problem for healthy society. And also it is effect on the factory generation. In this paper we proposed a physical object will be attached in the corner of the pipe (west items going pipe). If suppose any harmful chemical is going on to the at that pipe into the river. That information will be send to the factory owner and also send to the pollution control office. This idea very useful for better healthy society.**

Index terms- IoT, smart phone, RFID.

I. INTRODUCTION

Internet of things is a interaction between the things that consists of sensors and human. The main concept of the IoT is to allow things to be connected any time, any place with anything and any one, and any network and any service. By developing this we need a common operating platform that is middle ware. The middle ware platform enables sensor data collection, processing and analysis. Presently we design and implementation details of our proposed middle-ware solution namely mobile sensor data processing engine (MOSDEN).
MOSDEN is designed to support sensing as a service model natively. MOSDEN is a true zero programming middle ware. That means user do not need to write program code this MOSDEN middle ware is used for push and pull data streaming. For data transaction between android mobile and sensors we can develop a special plug-in that is used for the better communication between the sensor and human.

II. BASIC INFORMATION ABOUT IOT WORK

in this section, we briefly discuss the background and our motivation behind this work. By using IoT we can connect to billions of thing to the Internet. This method is not possible and practical to connect all of them to the Internet directly. This is mainly due to resource constraints (ex. network, communication capabilities and energy limitations) connecting directly to the Internet is expensive in term of computation bandwidth usage and hardware cast point of view. Enabling persistent Internet access is challenging and also negatively impacts on miniaturization and energy consumption of the sensor. due to such difficulties, IoT solution need to utilize different type of devices with different resource limitation and capability.
We believe that an ideal IoT middle ware solution should be able to take advantage and adapt to these different type of devices in order to make the solution more efficient and effective. One of the most critical decision that need to be taken in the domain of IoT is where and when to process the collected data.

without IoT:

Fig1: factory output pipe

Just observe above fig1 that shows chemical relished into rivers through the pipe. In this process is very harmful for the society. So pollution control will be control this type of problems by the directly see and observe and then take the action.
Factory owner only concentrate on the money that the reason those are violated the pollution control rules. That case those are send the waist item throw the output pipe into the river. In this has PH, ORP, dissolved oxygen (DO), nitrates, phosphates are going. These are polluted the water and it is very harmful for the water animal to control this problem in existing technology pollution control board directly to factory and then checking because checking machine coast is high and it can't send the information to the office that the reason these are directly come and then check. In this methodology sum owners are skip to catch . Because at that time of the raiding those are alerting and then diverting the output so in existing system not to control the 100% pollution if not possible for pollution control it is totally effect on the human life.

With IoT:

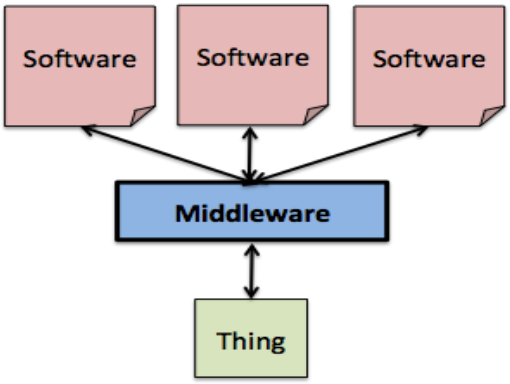

Fig 2: simple architecture about the IoT

Present technology is 100% not to identify the pollution because reasons are number of. On that one of the reason those are not to check daily and one more is pollution states information only presented in the factory owner and pollution control officer. Those persons going on some understanding issue pollution controlling rules and regulation are evaluated. So we are proposed methodology is over come this problem. That way we are implemented one smart water sensor that is attached at the end of the output pipe if suppose any harmful gases will become like PH,ORP,dissolved oxygen(DO),nitrate ,phosphates information will be send to the owner and pollution control board this process is going on each and every second. It is not secure information it is showing all are that many whose are responsibility to control the pollution that factory. In this methodology is very useful to control the pollution. It is helpful to better healthy society.

III. IMPLEMENTATION:

in this paper implementation we are taken the some physical objects that are arduino uno board that is smart water for receiving the signal from output pipe and smart phone or android phone for receive the signal from smart water sensor and we can take the one bell.

Ethernet shield is helpful for the sending the information through the world.

Now let's start for implementation of this paper firstly we can concentrate on the connection of arduino uno chip is smart water and bell. Smart water sensor has two connections one is +ve and other one is -ve. The -ve wire will be attached to the ground in power side ports. Other +ve wire will be connected to the digital side 3rd port by using the breadboard we can easily connected

Now comes to the programming side implementation. In this paper is implementing on the android platform because this program run on the smart phone. So defiantly we are developing the program in the android platform.

In this paper smart phone will be receive the signal to the arduino uno chip that is smart water in this chip in side one web server is presented and it have the capabilities to receive the signals request. The signal has mentioned the states of bell.

By using RFID (radiofrequency identification) the chip and Ethernet server functionality programming will be developed. Mobile send the HTTP request in JSON (Java server on net) format signal will be send chip inside server will be receiving that signal and chip server will be work on the given states of bell. In this bell signal will be send on HTTP protocols format and this program will be run on the web server

IV. RESULTS AND DISCUSSIONS

In this above figure we can easily analysis what is the process is going on and how it is used total representation in the fig 3. It is very easy processing to control the pollution at the initial level. . By using this methodology we can control the pollution without any risk. In this technology is very useful for the bettor society and healthy society.

In this methodology is very useful for the society because at the initial level of the pollution it can find out very fatly and then intimate the related office controller and pollution controlling offices. So hear no covering the issues all the data about the factories pollution so pollution control must and should take the action. So it is very better for bright society

No need tension about the IoT basics etc.. it is just mobile operating. It can operate uneducated peoples also.

V. CONCLUSION:

We hope in this proposed methodology is very useful for better society. In this proposed methodology main concept is 100% not to identify the pollution because reasons are number of. On that one of the reason those are not to check daily and one more is pollution states information only presented in the factory owner and pollution control officer. Those persons going on some understanding issue pollution controlling rules and regulation are evaluated. So we are proposed methodology is over come this problem. That way we are implemented one smart water sensor that is attached at the end of the output pipe if suppose any harmful gases will become like PH, ORP, dissolved oxygen (DO), nitrate, phosphates information will be send to the owner and pollution control board this process is going on each and every second. It is not secure information it is showing all are that many whose are responsibility to control the pollution that factory. In this methodology is very useful to control the pollution. It is helpful to better healthy society.

Reference

[1] https://en.wikipedia.org/wiki/List_of_sensors
[2] http://dronelife.com/2014/12/30/5-actual-uses-drones-precision-agriculture-today/
[3] http://gisgeography.com/100-earth-remote-sensing-applications-uses/
[4] http://dronelife.com/product-filter?field_feature1_tid%5B%5D=22&field_feature3_tid%5%5D=52&field_feature5_tid%5B%5D=48&field_feature6_tid%5_%5D=51&field_manufacturer_nid=All&field_dollars_value=&sort_bef_combine=field_dollars_valu

e+DESC&items_per_page=30

[5] https://platform.telerik.com/

[6] N. Brouwers and K. Langendoen. Pogo, a middleware for mobile phone sensing. In Proceedings of the 13th International Middleware Conference, Middleware '12, pages 21–40, New York, NY, USA, 2012. Springer-Verlag New York, Inc.

[7] D. Carlson and A. Schrader. Dynamix: An open plug-and-play context framework for android. In Internet of Things (IOT), 2012 3rd International Conference on the, pages 151–158, 2012.

[8] Cosm.Cosm platform, 2007. https://cosm.com/ [Accessed on: 2012-08-05].

[9] D. Kharrat and S. Quadri. Self-registering plug-ins: an architecture for extensible software. In Electrical and Computer Engineering, 2005. Canadian Conference on, pages 1324–1327, 2005.

[10] N. Lane, E. Miluzzo, H. Lu, D. Peebles, T. Choudhury, and A. Campbell. A survey of mobile phone sensing. Communications Magazine, IEEE, 48(9):140 –150, sept. 2010.

[11] Libelium Comunicaciones Distribuidas. libelium,2006.http://www.libelium.com/ [Accessed on: 2012-011-28].

[12] S. Nath, J. Liu, and F. Zhao. Sensormap for wide-area sensor webs. Computer, 40(7):90–93, July 2007.

[13] C. Perera, P. Jayaraman, A. Zaslavsky, P. Christen, and D. Georgakopoulos. Dynamic configuration of sensors using mobile sensor hub in internet of things paradigm. In IEEE 8th International Conference on Intelligent Sensors, Sensor Networks, and Information Processing (ISSNIP), pages 473–478, Melbourne, Australia, April 2013.

[14] C. Perera, A. Zaslavsky, P. Christen, and D. Georgakopoulos. Context aware computing for the internet of things: A survey. Communications Surveys Tutorials, IEEE, xx:x–x, 2013.

[15] C. Perera, A. Zaslavsky, P. Christen, and D. Georgakopoulos. Sensing as a service model for smart cities supported by internet of things. Transactions on Emerging Telecommunications Technologies (ETT), pages n/a–n/a, 2014.

[16] C. Perera, A. Zaslavsky, P. Christen, A. Salehi, and D. Georgakopoulos. Capturing sensor data from mobile phones using global sensor network middleware. In IEEE 23rd International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC), pages 24–29, Sydney, Australia, September 2012.

[17] D. L. Phuoc, H. N. M. Quoc, J. X. Parreira, and M. Hauswirth. The linked sensor middleware - connecting the real world and the semantic web. In International Semantic Web Conference (ISWC), October 2011.

[18] K. Schreiner. Where we at? mobile phones bring gps to the masses. Computer Graphics and Applications, IEEE, 27(3):6–11, 2007.

[19] Z. Shen and Q. Wang. Data validation and confidence of self-validating multifunctional sensor. In Sensors, 2012 IEEE, pages 1–4, 2012.

[20] H. Sundmaeker, P. Guillemin, P. Friess, and S. Woelffle. Vision and challenges for realising the internet of things. Technical report, European Commission Information Society and Media, March 2010. http://www.internet-of-things-research.eu/pdf/IoT Clusterbook March 2010.pdf [Accessed on: 2011-10-10].