Abstract

Internet, a revolutionary invention, is always transforming into some new kind of hardware and software making it unavoidable for anyone. The form of communication that we see now is either human-human or human-device, but the Internet of Things (IoT) promises a great future for the internet where the type of communication is machine-machine (M2M). This paper aims to provide a comprehensive overview of the IoT scenario and reviews its enabling technologies and the sensor networks. Also, it describes a six-layered architecture of IoT and points out the related key challenges.
References

- Guicheng Shen and Bingwu Liu, "The visions, technologies, applications and security issues of Internet of Things," in E-Business and E-Government (ICEE), 2011, pp. 1-4
- Jason Pontin, "Bill Joy's Six Webs;" MIT Technology Review, 29 September 2005
- Kevin Ashton, "That Internet of Things;" RFID Journal, 22 June 2009
- Twine" by Supermechanical. It can be accessed at: http://supermechanical.com/twine
- De-Li Yang, Feng Liu and Yi-Duo Liang, "A Survey of the Internet of Things;" in International Conference on E-Business Intelligence (ICEBI), 2010
- Harald Sundmaeker, Patrick Guillemin, Peter Friess, Sylvie Woelffl, "Vision and challenges for realising the Internet of Things;" Publications Office of the European Union, 2010
- Gartner, Inc. It can be accessed at: http://www.gartner.com/newsroom/id/2905717
- "From the ARPANET to the Internet;" by Ronda Hauben - TCP Digest (UUCP). Retrieved 2007-07-05 It can be accessed at: http://www.columbia.edu/rh120/other/tcpdigest paper.txt
- Jian An, Xiao-Lin Gui, Xin He, "Study on the Architecture and Key Technologies for Internet of Things;" in Advances in Biomedical Engineering, Vol. 11, IERI-2012, pp. 329-335
- "The Internet of Things;" ITU Report, Nov 2005
A Review on Internet of Things (IoT)

- Ying Zhang, "Technology Framework of the Internet of THings and Its Application," in Electrical and Control Engineering (ICECE), 2011, pp. 4109-4112
- Benjamin Khoo, "RFID as an Enabler of the Internet of Things: Issues of Security and Privacy," in Internet of Things (iThings/CPSCOM), 2011, pp. 709-712
- WISP by Intel Labs; It can be accessed at: http://wisp.wikispaces.com
- G. Montenegro, N. Kushalnagar, J. Hui, D. Culler, "Transmission of IPv6 Packets over IEEE 802. 15. 4 Networks;" 
- B. B. P. Rao, P. Saluia, N. Sharma, A. Mittal, S. V. Sharma, "Cloud computing for Internet of Things & sensing based applications," in Sensing Technology (ICST), 2012 Sixth International Conference, IEEE
- X. Xiaohui, "Study on Security Problems and Key Technologies of The Internet of
A Review on Internet of Things (IoT) Things, Computational and Information Sciences (ICCIS), 2013, pp. 407-410
- O. Vermesan, P. Friess; Internet of Things? From Research and Innovation to Market Deployment; River Publishers, pp. 74-75
- V. M. Lubecke, Jung-Chih Chiao; MEMS technologies for enabling high frequency communications circuits; in Telecommunications in Modern Satellite, Cable and Broadcasting Services, 1999, Volume: 2, pp. 382-389
- R. Abdmeziem, D. Tandjaoui; Internet of Things: Concept, Building blocks, Applications and Challenges, Computers and Society, Cornell University
- What we're driving at; Google Official Blog. It can be accessed at: http://googleblog.blogspot.com/2010/10/what-were-drivingat.html
- Y. Cao, W. Li, J. Zhang; Real-time traffic information collecting and monitoring system based on the internet of things; in Pervasive Computing and Applications (ICPCA), 2011 6th International Conference, pp. 45-49
- P. Fuhrer, D. Guinard; Building a Smart Hospital using RFID technologies.
- F. TongKe; Smart Agriculture Based on Cloud Computing and IoT; in Journal of Convergence Information Technology (JCIT), Jan'13
- V. Ashktorab, S. R. Taghizadeh; Security Threats and Countermeasures in Cloud Computing; in International Journal of Application or Innovation in Engineering and Management (IJAIE), Volume 1, Issue 2, Oct'12.

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