Home Automation System using Arduino and Bluetooth

Mrs. Priya Jadhav[1], Mrs. Dhanashree Gowari[2], Mrs. Riddhi Killedar[3],
Mrs. Siddhi Killedar[4], Mrs. Vijaya Chavan[5]

Students, Department of Computer Technology[1,2,3,4]
Guide, Department of Computer Technology[5]
Bharati Vidyapeeth Institute of Technology, Navi Mumbai, Maharashtra, India

Abstract: *Protection of our personal properties is a key challenge and prior responsibility every time which affects massively on a day-to-day life. The current system of achieving security has plenty of drawbacks and less secure. The main goal of implementing a home automation system is to achieve a powerful and more secure way to handle the day-to-day stuff preventing from misuse hands and keeping track of usage of home electrical appliances to know the necessary and unnecessary actions. The system is built on IoT (Internet of things) to make more accurate and error-free control over the flow of the system. To make the difference from the existing system, in this proposed system we built the communication of hardware devices with an application where devices take commands and operate it while application rise the commands and keeps track of each transaction made so far. The combination of hardware and software will make life easier and safer for its users.*

Keywords: Home Automation

REFERENCES

[1] V. Lohan and R. P. Singh, "Home Automation Using Internet of Things," in Lecture Notes in Networks and Systems, 2019.

[2] M. Mrinal, L. Priyanka, M. Saniya, K. Poonam, and A. B. Gavali, "Smart home - Automation and security system based on sensing mechanism," in Proceedings of the 2017 2nd IEEE International Conference on Electrical, Computer and Communication Technologies, ICECCT 2017, 2017, doi: 10.1109/ICECCT.2017.8117986.

[3] K. Gill, S. H. Yang, F. Yao, and X. Lu, "A ZigBee-based home automation system," IEEE Trans. Consume. Electron., 2009, doi: 10.1109/TCE.2009.5174403.

[4] R. Teymourzadeh, S. A. Ahmed, K. W. Chan, and M. V. Hoong, "Smart GSM based home automation system," in Proceedings - 2013 IEEE Conference on Systems, Process and Control, ICSPC 2013, 2013, doi: 10.1109/SPC.2013.6735152.

[5] A. Elshafee and K. A. Hamed, "Design and Implementation of a Wi-Fi Based Home Automation System," World Acad. Sci. Eng. Technol., 2012.

[6] A. Z. Alkar, J. Roach, and D. Baysal, "IP based home automation system," IEEE Trans. Consume. Electron., 2010, doi: 10.1109/TCE.2010.5681091.

[7] X. Ye and J. Huang, "A framework for cloudbased smart home," in Proceedings of 2011 International Conference on Computer Science and Network Technology, ICCSNT 2011, 2011, doi: 10.1109/ICCSNT.2011.6182105.

[8] M. Asadullah and A. Raza, "An overview of home automation systems," in 2016 2nd International Conference on Robotics and Artificial Intelligence, ICRAI 2016, 2016, doi: 10.1109/ICRAI.2016.7791223.

[9] I. I. Pătru, M. Carabaș, M. Bărbulescu, and L. Gheorghe, "Smart home IoT system," in Networking in Education and Research: RoEduNet International Conference 15th Edition, RoEduNet 2016 - Proceedings, 2016, doi: 10.1109/RoEduNet.2016.7753232.

[10] K. Mandula, R. Parupalli, C. H. A. S. Murty, E. Magesh, and R. Lunagariya, "Mobile based home automation using Internet of Things(IoT)," in 2015 International Conference on Control Instrumentation Communication and Computational Technologies, ICCICCT 2015, 2016, doi: 10.1109/ICCICCT.2015.7475301.

Copyright to IJARSCT
www.ijarsct.co.in

DOI: 10.48175/568

ISSN
2581-9429
IJARSCT

181

[11] Abhishek Kumar, Bishwajeet Pandey, D M Akbar Hussain, Mohammad Atiqur Rahman, Vishal Jain and Ayoub Bahanasse, "Frequency Scaling and HighSpeed Transceiver Logic Based Low Power UART design on 45nm FPGA", "2019 11th International Conference on Computational Intelligence and Communication Networks (CICN)" during 3rd - 6th January, 2019 at University of Hawaii, USA.

[12] Anirudh Khanna, Bhagwan Das, Bishwajeet Pandey, DMA Hussain, and Vishal Jain, "A Discussion about Upgrading the Quick Script Platform to Create Natural Language based IoT Systems", Indian Journal of Science and Technology, Volume 9, Issue 46, December 2016, page no. 1-4 having ISSN No. 0974- 6846 .

[13] V.M.Prabhakaran , Prof.S.Balamurugan , S.Charanyaa, "A Strategy for Secured Uploading of Encrypted Microdata in Cloud Environments", International Advanced Research Journal in Science, Engineering and Technology Vol. 1, Issue 3, November 2014

[14] R Santhya, S Balamurugan, "A Survey on Privacy Preserving Data Publishing of Numerical Sensitive Data", International Journal of Innovative Research in Computer and Communication Engineering , Vol. 2, Issue 10, October 2014

[15] Balamurugan Shanmugam, Dr. Visalakshi Palani swami, Santhya. R, Venkatesh. R.S., "Strategies for Privacy Preserving Publishing of Functionally Dependent Sensitive Data: A State-of-the art Survey. Aust. J. Basic & Appl. Sci., 8(15): 353-365, 2014

Copyright to IJARSCT
www.ijarsct.co.in

DOI: 10.48175/568

ISSN
2581-9429
IJARSCT

182