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The Implementation of IoT Based Smart Refrigerator System (Conference Paper)

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Abstract

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Wasted food due to spoilage is a critical resource issue. Food waste or food loss is food that is discarded or lost uneaten. Currently, in the world, according to the Food and Agriculture Organization of the United Nations (FAO), consumers waste about 1.3 billion tons of food annually and consumers in rich countries waste about 222 million tons of food products. Once food products are purchased and set aside in a refrigerator, the users do not alert about their food items' expiration date and/or freshness unless they individually examine and track them. Moreover, for food products which are not labeled with an explicit expiration date may lead to significant food spoilage and additional expenditure for the users. However, with the latest trend technology of the Internet of Things (IoT), this problem can be resolved. Combining the idea of Internet of Things and smart kitchen evolution, the smart refrigerator system is developed. The system consists of three main parts which are sensing module, control module and transmission module. Sensing module consists of load cell and odour sensor while control module consists of Arduino UNO and power supply unit and last but not least, the transmission module consists of LCD module and Wi-Fi module. These modules work together to determine contents status inside the refrigerator and notify the user about the condition and quantity of the food via an SMS or an email. © 2018 IEEE.

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Author keywords

Arduino Home Automation System Internet of Things (IoT) Sensors Smart Kitchen

Indexed keywords

Engineering controlled terms: Automation Chemical contamination Food microbiology Internet of things Light transmission Refrigerators Sensors Smart sensors

Engineering uncontrolled terms: Arduino Critical resources Food and agriculture organizations Home automation systems Internet of thing (IOT) Internet of Things (IOT) Power supply unit Transmission modules

Engineering main heading: Spoilage

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-
- 1 Chase, J.
The Evolution of the Internet of Things. Cited 24 times.
Texas Instruments Inc. 2013
www.ti.com/lit/ml/swrb028/swrb028.pdf
-
- 2 (2017) *Samsung Smart Home Enrich Your Life*
Retrieved from SAMSUNG
<http://www.samsung.com/ca/smarthome/>
-
- 3 Prapulla, S.B., Shobha, G., Thanuja, T.C.
Smart refrigerator using internet of things
(2015) *Journal of Internet of Things. Journal of Multidisciplinary Engineering Science and Technology (JMEST)*
-
- 4 Singh, D., Jain, P.
Iot based smart refrigerator system
(2016) *International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE)*, 5 (7), p. 5.
-
- 5 Rouillard, J.
The Pervasive Fridge. A smart computer system against uneaten food loss
(2012) *Seventh International Conference on Systems (ICONS2012)*, pp. 135-140. Cited 15 times.
Saint-Gilles, Réunion Feb 2012
-
- 6 Farr-Wharton, G., Hee-Jeong Choi, J., Foth, M.
(2014) *Technicolouring the Fridge: Reducing Food Waste Through Uses of Colour-coding and Cameras*, pp. 3-7.
-
- 7 [Pushbullet](#)
-
- 8 [ThingSpeak](#)
-
- 9 *Parallax Data Acquisition Tool (PLX-DAQ) Software Add-in for Microsoft Excel*
<https://www.parallax.com/downloads/plx-daq>
-

□ 10 Mehta, M.
Esp 8266: A breakthrough in wireless sensor networks and internet of things
(2015) *International Journal of Electronics and Communication Engineering & Technology*, 6 (8), p. 5. Cited
15 times.
August

□ 11 Kakade, N., Lokhande, S.D.
Iot based intelligent home using smart devices
(2016) *International Journal of Innovative Research in Computer and Communication Engineering*, 4 (6), p.
8.
June

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