

Document details

[Back to results](#) | 1 of 1[Full Text](#) | [View at Publisher](#) | [Export](#) | [Download](#) | [Add to List](#) | [More...](#)

Proceedings - 6th International Conference on Computer and Communication Engineering: Innovative Technologies to Serve Humanity, ICCCE 2016

29 December 2016, Article number 7808352, Pages 416-421

6th International Conference on Computer and Communication Engineering, ICCCE 2016; International Islamic University Malaysia Kuala Lumpur; Malaysia; 25 July 2016 through 27 July 2016; Category number E5811; Code 125901

Harvesting WiFi Received Signal Strength Indicator (RSSI) for Control/Automation System in SOHO Indoor Environment with ESP8266 (Conference Paper)

Habaebi, M.H. , Azizan, N.I.N.B.

Department of Electrical and Computer Engineering, IIUM, Malaysia

[View references \(8\)](#)

Abstract

WiFi are easily available almost everywhere nowadays. Due to this, there is increasing interest in harnessing this technology for purposes other than communication. Therefore, this research was carried out with the main idea of using WiFi in developing an efficient, low cost control system for small office home office (SOHO) indoor environment. The main objective of the research is to develop a proof of concept that WiFi received signal strength indicator (RSSI) can be harnessed and used to develop a control system. The control system basically will help to save energy in an intelligent manner with a very minimum cost for the controller circuit. There are two main parts in the development of the system. First is extracting the RSSI monitoring feed information and analyzing it for designing the control system. The second is the development of the controller circuit for real environment. The simple yet inexpensive controller was tested in an indoor environment and results showed successful operation of the circuit developed. © 2016 IEEE.

Indexed keywords

Engineering controlled terms: Control systems; Wireless local area networks (WLAN)

Indoor environment; Low costs; Minimum cost; Proof of concept; Real environments; Save energy; Small office home offices; Wifi received signal strengths

Engineering main heading: Controllers

ISBN: 978-150902427-8 **Source Type:** Conference Proceeding **Original language:** English

DOI: 10.1109/ICCCE.2016.94 **Document Type:** Conference Paper

Sponsors: **Publisher:** Institute of Electrical and Electronics Engineers Inc.

References (8)

[View in search results format](#)

All [Export](#) | [Print](#) | [E-mail](#) | [Save to PDF](#) | [Create bibliography](#)

- 1 Habaebi, H.M., Ali, M.M., Hassan, M.M., Shoib, M.S., Zahrudin, A.A., Kamarulzaman, A.A., Wan, A.W.S., (...), Islam, R. Development of physical intrusion detection system using Wi-Fi / ZigBee RF signals *2015 IEEE International Symposium on Robotics and Intelligent Sensors (IRIS 2015)* 18-20 October 2015, Langkawi Malaysia

- 2 Habaebi, M.H., Ali, M.M., Hassan, M.M., Shoib, M.S., Zahrudin, A.A., Kamarulzaman, A.A., Azhan, W.S.W., (...), Islam, M.R.

Development of Physical Intrusion Detection System Using Wi-Fi / ZigBee RF Signals

Procedia Computer Science, 76, pp. 547-552. Cited 2 times.

<http://www.sciencedirect.com/science/journal/18770509>

doi: 10.1016/j.procs.2015.12.342

[View at Publisher](#)

- 3 Habaebi, M.H., Agel, M.M., Zyoud, A.

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert](#)

[Set citation feed](#)

Related documents

Single chip UHF RFID reader digital baseband design

Zhang, B. , Wen, G. , Yang, L.

(2012) 2012 International Conference on Wavelet Active Media Technology and Information Processing, ICWAMTIP 2012

A new energy-efficient time synchronization algorithm

Guo, W. , Qiu, T. , Wang, L.

(2014) Proceedings of 2nd International Conference on Information Technology and Electronic Commerce, ICITEC 2014

Based on mobile agent data acquisition of mobile campus network construction

Jing, G.

(2016) RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao

[View all related documents based on references](#)

Find more related documents in Scopus based on:

[Authors](#)

[Keywords](#)