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# Design and implementation of visible light communication based toys

(Article)

Baharudin, A.N.B.<sup>a,b</sup>, Habaebi, M.H.<sup>a</sup>, Rahman, F.A.<sup>a,c</sup>

<sup>a</sup>Department of Electrical and Computer Engineering, International Islamic University Malaysia, Malaysia  
<sup>b</sup>Department of Electrical and Computer Engineering, Kuliyyah of Engineering, International Islamic University Malaysia, P.O. Box 10, Kuala Lumpur, 50728, Malaysia  
<sup>c</sup>Department of Electrical and Electronic Engineering, University of Bristol, United Kingdom

## Abstract

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This paper presents the design and implementation steps of a smart visible light communication based toy system equipped with laser sensors that can send and receive the data message based on the conversion of data from ASCII to binary code. The toy system intends to offer two-ways communication that will be a new medium for educational purposes for kids in their developmental stages in which both players can send and receive the data to and from each other toys equipped with sound indicator module to alert the player. Lastly, functionality and system testing were conducted to verify the functionalities of the system. A thorough implementation methodology details are presented in the paper. © 2019 Institute of Advanced Engineering and Science. All rights reserved.

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✎ Baharudin, A.N.B.; Department of Electrical and Computer Engineering, Kuliyyah of Engineering, International Islamic University Malaysia, P.O. Box 10, Kuala Lumpur, Malaysia; email:ainnajihahbaha@gmail.com

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