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Child's Smart ID Card Tracking System with GPS Application: Their Whereabouts' Inside and Outside the School

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Abstract

This study was to develop a Child's Tracking System with GPS application and prototype hardware to be converted into ID card. It is GPS tracking system on a mobile phone that can track the location of the child. The prototype hardware has GSM, GPS, and Bluetooth modules. The GPS module is used to know the exact location of the child. The Bluetooth module is used to register the mobile phone number into the ID card. Using GSM module of the ID card, the location of the child inside the university will be sent to GSM module of the mobile phone to inform the parents. Using a map of the university in the tracking system, the parents could see and locate their child inside the university. The internet or data of the mobile phone could be used by the tracking system to know the location of the child outside the university. This study used an unpaired t-test and found that there is no difference between the parents not working in and parents working in the university in terms of experiences in picking up their child and point of view regarding the tracking system benefits. To measure internal consistency, this study used Cronbach's alpha on ten respondents' feedback survey forms. A purposive sampling was used to evaluate the proposed tracking system and the result of the test through its total mean value indicated that the system is working very effectively.

Keywords: Science and Technology, Tracking System, Descriptive-Developmental Method, Philippines