

**DESIGN AND DEVELOPMENT OF INVENTORY SYSTEM USING
WIRELESS CONNECTION AND ANDROID SYSTEM**

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ABSTRACT

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The study was started in August 2017 and ended on April 2018. It was conducted at Cavite State University Indang Cavite, to develop an inventory system using wireless connection and android system. Specifically, the study aimed to: (1) identify the present inventory system in a particular warehouse; (2) determine the features of inventory system mobile application; and (3) define the possible evaluation in the inventory system using wireless connection and android system in terms of: (a) speed of locating a tool, (b) functionality; (c) accuracy of information and (d) design. Developmental research was used as their guide in making the study. It was accomplished using the Arduino Mega 2560 to detect the exact location of the stocks or materials in a particular warehouse.

Interviews and observations were done to gather the necessary information needed. The information required were the borrowing, receiving process and process mapping of the present inventory system, sample of the borrowing slip and list of tools to be used. The data gathered were needed in the development of an inventory system.

The inventory system acted as a locator which helps in locating tools to be borrowed. It also helps the inventory system minimize the cause of delays in locating for the tools and distinguishing the available tools or simply the inventory of the tools. A mobile application was used to perform the proposed inventory system. The application was evaluated by the BSECE students and laboratory assistants of the CEIT Electronics Laboratory.

As the evaluation was done, the researchers distinguished that the mobile application was marked excellent in all aspects of the evaluation. Based on the result of the evaluation, it was clear that the respondents have positive responses on the application. Since the application has a good feedback, it would be necessary if the application would be made available for those particular warehouses who would like to use this. However, converting manual inventory system into a mobile application would be difficult.

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