

DUAL-NETWORK ARDUINO-BASED VEHICLE LOCATOR USING GPS

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By:

**Aquisap, Eric B.
Ballao, Domvic R.
Golez, Ronalyn F.
Raguine, Joshua V.**

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(Formerly Ramon Magsaysay Technological University)
Castillejos Campus
Castillejos, Zambales



APPROVAL SHEET

This thesis project entitled **"Dual Network Arduino-Based Locator Using GPS"** was prepared and submitted by **Eric B. Aquisap, Domvic R. Ballao, Ronalyn F. Golez,** and **Joshua V. Raguine** in partial fulfillment of the requirements for the degree **Bachelor of Science in Computer Science**, has been examined and recommended for the Oral Examination.

Marie Celia R. Aglibot
MARIE CELIA R. AGLIBOT, MSCS

Thesis Adviser

Approved by the Panel of Examiners with a rating of 91.17 %

Michael G. Albino
MICHAEL G. ALBINO, MIT
Chair

Iratus Glenn A. Cruz
IRATUS GLENN A. CRUZ, MSCS
Member

Michael N. Farin
MICHAEL N. FARIN, MSCS
Member

Accepted and approved as a requirement for the degree **BACHELOR OF SCIENCE IN COMPUTER SCIENCE.**

Ivy H. Casupan
IVY H. CASUPANAN, Ed. D.
Campus Director

June 16, 2022
Date

ABSTRACT

A **Dual Network Arduino-Based Vehicle Locator Using GPS** is designed and implemented for tracking the movement of a vehicle. It incorporates a dual network to reduce signal loss throughout all of the sites where the researchers conduct their research. Due to the fact that there is a pressing need to develop a device that will help establish a safe and secured environment for the benefit of land vehicle owners, the researchers aim to develop a system that can be used for tracking the vehicle in any case that vehicles are stolen and used without asking the owner's permission.

To gather the respondent's opinions and ideas that are pertinent to the study, the researchers used convenient sampling and modified SUS survey questionnaires. The results according to SUS scale are six (6) Respondents graded the system as "Good", twelve (12) Respondents graded the system as "Okay", 5 respondents graded the system as "Poor", and eight (8) respondents graded the system as "Awful".

The proposed system was able to carry out and demonstrate the paper's concept, as well as the present location of the vehicle using the application, and via SMS. Although some IT experts desired the application for IOS as well, it is not possible for now because it is only intended for android phones.

For the benefit of the future researchers, high-end resources and a premium Map API can improve the system performance. Furthermore, future researchers can use other software in making the application to be possibly installed in IOS.

Keywords: android application, Arduino, Dual Network, GPS, map API