DESIGN AND ANALYSIS OF WARNING SYSTEM FOR AIRCRAFT WINGTIP PROXIMITY TO HANGAR COLUMN USING ULTRASONIC SENSOR

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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In the aircraft maintenance organization, they used hangar as a house of aircraft with high activity aircraft movement in or out. The movements is tow and pushback, where in the process has a hazard area that is the wingtip can collide with hangar column. In this research, warning system for aircraft wingtip proximity has designed for attached in column and hangar area. The system using ultrasonic sensor and camera wirelessly connected as Internet Of Things system to warn personnel incase object present. The analyzing dimension and position of 2 types aircraft wingtip is done to get column effective area monitored. The speed of tow car will affect driver time owned to response and take action. Result of calculation in experimental, the warning system is have enough time to take response.

Keywords: Warning system, Ultrasonic, Proximity, Internet Of Things, Collision

DEDICATION

I dedicated this works for all people in GMF AeroAsia with concern in Aircraft Maintenance process to be great safety warrior.

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