

Electronic Helmet Safety Riding Based on Internet of Medical Things Technology to Detect Covid-19 for Ojek Passengers

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ABSTRACT

Covid-19 is a new type of corona virus that is transmitted to humans. In general, there are 3 common symptoms that can indicate a person is infected with the Corona virus, such as: fever (body temperature above 38 ° C), cough, and shortness of breath. The best prevention method is to apply physical distancing, use a mask, avoid contact with Covid-19 sufferers. Many job seekers are still outside such as medical personnel and online motorcycle taxis (ojol). Ojol often runs into passengers whose conditions are not known, indicated Covid-19 or not. This research focuses on making a prototype helmet as a personal protective equipment (PPE) ojol at work. On the helmet there is an electronic system that is able to read the body temperature of the passengers and maintain a distance between other people when communicating (social distancing). The final results of this research are 2 prototypes ("integrated helmet with electronic system" and "external head up display (HUD) for helmets"), 2 draft HAKI product designs ("HUD stand on integrated helmet system, social distancing and body temperature measurement. And "helmet prototype integrated electronic system for body temperature detection and social distance"), 1 Copyright HAKI ("electronic system of temperature camera on helmet to detect body temperature"), 3 International conference papers ("impact loading performance investigation of an open -face motorcycle helmet with hole in inner liner ", " multiple sensing method using moving average filter for automotive ultrasonic sensor ", and" bilinear interpolation method on 8x8 pixel thermal camera for temperature instrument of combustion engine "), and 3 draft international journals ("Computational and Analysis of poly lactic acid material in the design of the head up display stand on the helmet", "computational fluid dynamic analysis and experimental valid ation of aerodynamic noise on open face helmet with head up display ", and" development and application of hanning interpolated images of 8x8 scale thermal camera measurements ").

Kata Kunci: covid-19, head up display, helm, thermal camera