SMART CONTROLLED TEMPERATURE CAR

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A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics / Telecommunications / Instrumentations / Computer)

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"I declare that this report entitled "SMART CONTROLLED TEMPERATURE CAR" is the result of my own group research accepts as cited in the references. The report has not been accepted for any degree and is not concurrently in candidature of any other degree."

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ABSTRACT

This report is an outcome of the final year project which the title is Analysis of Ventilation and Heat Removing System for Waja Car. The main objective of this project is to determine temperature increment inside the cabin under direct sunlight. Second objective is to carry out an analysis of temperature increment inside the cabin in three different conditions which is in fully closed cabin, with the air conditioning blower switched on, and with heat removing devices attached to the car windows. For this project, data gathering was done by experiment method. The car is parked under direct sunlight, and data is taken from three manipulated condition for eight hours. Main apparatus that use in this project is thermocouple monitor, CPU fan, and J-Type thermocouple. Eight point of thermocouple is set inside the car cabin which is reacted as the temperature sensor. The result of the experiment shows that temperature inside car cabin can quickly rise to a level that is not suitable for people to enter the car. The highest temperature taken in the first experiment of fully closed cabin is 69.2°C and the minimum temperature taken is 29.7°C. For the second experiment of fully closed cabin, maximum temperature is 72.7°C, and the maximum temperature is 31.1°C. Maximum temperature taken when the blower switched on is 65.6°C and the minimum temperature is 31.4°C.For the last experiment, which is heat removing attached to the windows, the minimum temperature taken is 33.7°C and the maximum temperature is 59.2°C. The result also shows that attachment of the heat removing devices can reduce the maximum temperature inside the cabin.

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