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**FINAL YEAR PROJECT  
KJM 565**

**ERGONOMICS CAR DISPLAY**

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**ABSTRACT**

Self-contained that guide the driver to know what the information they need are gradually becoming important nowadays. The visual information can be displayed on the screen not on dashboard but in a head-up display that projects the information within the driver's primary field of view, superimposed on the outside road scene. The driver can see the information without the need to look down at the dashboard and without having to adapt visual accommodation substantially. From the research of ergonomics consideration, the ergonomic car display will be design to focus on head up display. In addition, a head-up display provides the driver with better opportunities to correlate the electronically generated information, usually simple graphics, with characteristics in the world outside and so make correct decisions. However, there are a number of factors in producing a well-designed head-up display. These include preventing the loss of all displayed information with a change of drivers head position; designing the graphics (symbol) for maximum comprehensibility and minimum confusion with elements in the outside world; ensuring clear visibility of display and outside scene, both day and night; determining the optimum position and viewing distance of the graphics; establishing the right moment for presenting the information; assessing the acceptance of such systems by their intended users.

## **1.0 OBJECTIVE**

Nowadays, there are many designs of control dashboard. All of this design is to make comfortable for the users. Many company take part in this scenario to design control dashboard to attract customer and make their latest design. Customer gives more attention to the ergonomics aspects and aesthetic value for them to feel more convenient and easy while using the car. So, many companies will come out with the new control dashboard and design for the future and the control dashboard will more ergonomics.

Today's car dashboard has a lot of panel key such as speedometer, rpm panel, fuel indicator, temperature panel, etc. All of these instructions will make the driver feel very bored, tension and eyes effecting performance during driving. For this case, ergonomics play an important role in recognizing of the need to provide the scientific basis for understanding of the problem by changing of the car display. The focus on the ergonomics need such as:

- i) Present dashboard is taking up space.
- ii) Control displays on the dashboard are fixed in numbers, sizes, and position.
- iii) Present dashboard is for head down display only. It should focus on the head up display because it is more comfortable and save, especially during high speed driving.

From that, we will introduce with a new design of “ ***Ergonomic Car Display***”.

A major benefit of head up display (HUD) is that they allow the driver to watch the road a head at all times while reading the display information. Another