



Mechanical/Environmental Sustainability Project

Environmentally Friendly Navigation System

Mission Statement

To create a new “environmentally-friendly” navigation method to address increasing concerns of motorists on rising fuel costs and pollutant emissions.

Synopsis

Congestion in roads during peak hours is a major concern that causes pollution to the environment through fuel evaporative emissions and exhaust pollutants. As quoted by US EPA report “Driving a private car is probably a typical citizen’s most “polluting” daily activity”.



GPS is used for business purposes for many different reasons. It has helped our business world become more successful. Many GPS products are being used by businesses and government agencies to track their vehicle locations using wireless communications. Some GPS receivers have been integrated into mobile radios, cellular phones and mobile data terminals to meet the needs of vehicle fleet managers. Many pilots are turning to GPS as a supplemental navigation aid for their aircraft. At sea, GPS receivers are used on recreational and commercial vessels to provide real-time latitude, longitude, time, and course and speed information, and assist with coast-line and harbor navigation. Surveying and mapping consist primarily of the collection and processing of position information and usually requires specialized GPS equipment.



The projects initially started as a design project. The objective is to design a GPS or in dash navigation system that would give drivers an option to choose a third route which is “Eco-Route”. However, our research revealed that there are products that already exist and solve this objective. The scope of the project changed the perspective to researching. The purpose of the research project is to explore into subject to get optimized results on how congestion is related to emission.

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