

Hybridization of Gasoline -based Automotive

Status: Filled

Group Members: Ahnaf Aziz Anan, Amirhossein Zahiremami, Diego Salazar, Mohmmadhossein Miri

Sponsor(s): Tech-e@SFU

Supervisor(s): Patrick Palmer, PhD, Professor, Mechatronic Systems Engineering

Project Description

Project Background:

Over the past century, motor vehicles have become an integral part of society - offering a convenient means of unhindered transport to the masses. However, with the limited amount of crude oil available in the Earth's crust, and the increasingly aggressive symptoms of global warming it is clear that humanity's driving habits cannot continue as it is. To tackle this issue manufacturers are releasing hybrid, and even fully electric vehicles. While this solves the issue for newer cars, millions of gas guzzlers are still in use all around the world. Gas hybrid conversion has become one of the most viable and cost efficient ways of converting fleets of existing cars into an environmentally sustainable option until EVs become more affordable in price. This may be especially useful in developing countries that rely heavily on older models of cars. In the market, there are already such conversion kits and services - for example, Volkswagen partnered with eClassics to develop a kit in-house for the Beetle. However proprietary hardware like that is difficult to implement across a wide range of different vehicles

Project Objectives: