World Academy of Science, Engineering and Technology
International Journal of Aerospace and Mechanical Engineering
Vol:10, No:03, 2016

Design and Development of a Prototype Vehicle for Shell Eco-Marathon

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Abstract : Improvement in vehicle efficiency can reduce global fossil fuels consumptions. For that sole reason, Shell Global Corporation introduces Shell Eco-marathon where student teams require to design, build and test energy-efficient vehicles. Hence, this paper will focus on design processes and the development of a fuel economic vehicle which satisfying the requirements of the competition. In this project, three components are designed and analyzed, which are the body, chassis and powertrain of the vehicle. Optimum design for each component is produced through simulation analysis and theoretical calculation in which improvement is made as the project progresses.

Keywords : energy efficient, drag force, chassis, powertrain
Conference Title : ICMAAE 2016 : International Conference on Mechanical, Aeronautical and Automotive Engineering
Conference Location : Singapore, Singapore
Conference Dates : March 03-04, 2016