# “Modelling, Fabrication and Analysis of PCES”

# ANURAG GROUP OF INSTITUTIONS

(An Autonomous Institution)

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# DECLARATION

We ‘**K.Srivathsav Reddy, G.Ganesh Kumar, B.Gowtham’**, are students of ‘Bachelor of Technology in Mechanical Engineering’, pertaining to 2016–2020 batch, **Anurag Group of Institutions**, Venkatapur (V), Ghatkesar (M), RangaReddy (Dist.), Telangana State, hereby declare that the work presented in this Major Project Work entitled **“Modelling, Fabrication and Analysis of PCES”** is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken by taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

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**ABSTRACT**

Now-a-days, Fuel economy and pollutant emissions are keenly felt topics and hybrid electric vehicle (HEVs) represent the best opportunity to respond to this problem in the short term. Hybrid electric vehicles meet the high efficiency if electric motors with the high reliability. HEVs are the major trend in the automobile industry and they are becoming an alternative to the conventional vehicles systems. In near future these technologies completely change the entire perspective of the industry. In terms of market share, EV demand is raising.

An electric drive vehicle or simple electric scooter is a vehicle based on one or more multiple motors to insure propulsion. Electric scooter are plug-in electric vehicles with two wheels that can be recharged from any external source of electricity, and this electricity is stored in a rechargeable battery, which provides power to one or more electric motors to attain movement. Electric scooter, are differentiated from other vehicles, do not have a step-through frame. The electricity generated from an external source helps in acceleration of the scooter. The speed of this scooter is limited (approximately 20km/h). The electricity is stored using a battery and the locomotion and movement of the scooter is hence propelled using a brushed dc electric motor. The electric scooter are not using an engine, becomes an effective way of road transport as it causes no pollution. It is ecofriendly and it definitely reduces human effort. In this project report, work concerning product design and manufacturing process making of an electric scooter vehicle is described, which was the outcome of a collaborative project for new product development. The final product was satisfactory, and was designed according to the aesthetic principle. Not only the product appearance was created, but an electric scooter was also built using various traditional modeling and engineering techniques.