

## College of Engineering Trivandrum has developed a Motor-less Electric Vehicle



Department of Electrical Engineering, College of Engineering Trivandrum (CET) has developed a **Geared Electric Bike** controlled by electronic circuit in their research lab. The permanent magnet brushless DC motor with gearbox arrangement is used for the design of electric bike and the solar panel is used for the free recharging of the battery pack. This vehicle is as powerful as a conventional petrol engine bike. College has filed patent application for this innovative technology in 2017. Through the continuous researches carried out in the department, it developed an innovative driving technology by replacing the conventional fossil fuel engine, with a motor-less two-wheeler working on magnetic energy. This technology requires very few numbers of electronic components and any vehicle now on road including multi-cylinder vehicle can be modified as a **Motor-less Geared Electric Vehicle** in a cost-effective manner. The College has applied for patent to this technology also in 2019. It is thought that above technology can be economically adopted in manufacturing on a commercial level.

The research works were carried out by the Research scholar **Sri. Jino Joy Thomas** under the guidance of **Dr S Ushakumari**, Former Professor and Head, Department of Electrical Engineering during 2015-2019 period. **Dr. Jiji C**

V, Principal has informed that a number of research activities are progressing in the department on electric vehicle with the financial assistance from Central as well as State Governments.