

## **ABSTRACT**

The number of vehicles in Indonesia is increasing. The vehicles were using fuel oil (BBM) is not small. If the dependence and utilization of the oil fuel this continues, then our energy independence will be increasingly threatened. If there is no diversification in the renewal of energy, particularly the use of alternative energy for transportation highways, the availability of the fuel will be depleted.

The demand for the provision of a vehicle for transportation that has properties of high efficiency and low emission of pollutants which is getting stronger. It is well known by the general public that electric energy has the properties required, so that electric vehicles such as electric cars are still a concern. Another feature related electrical energy is ease of distribution of energy, so that energy source distribution difficulties can be minimized. The development of electric vehicles in Indonesia is expected to produce a vehicle that has a revolution of energy conservation and emission reduction of pollutants. Research and development of electric vehicles includes the electric motor, the management of the use of energy resources, and controlling the electric motor. The impact of this electric car, especially at high efficiency, low pollutant emissions and high reliability, and reasonable price.

In general, research on electric cars in the scope of the student merely a prototype, and still utilize components that inadequate so the result is less than the maximum. So that in the end only be unused goods. Given

the phenomena-lah then designed a prototype electric car dimensions and function the same as the car in general. On the mechanical side, the prototype still consider the safety and comfort of the rider and has an attractive appearance.

The electric car is the future will be very good research vessel to facilitate mahasiswa and lecturers to improve research capabilities, particularly in the field; power electronics, controls, telecommunications, telemetry, and mechanics. This is in line with the objective to achieve Telkom University Research University. In addition, it is also one of the efforts to support the Go Green program of Telkom University, which is one form of Telkom University of concern for the environment.

**Keywords:** electric car, go green, prototype