CENTRE FOR AUTOMOTIVE RESEARCH

The idea of building a Solar Electric Vehicle was given by our university Chancellor more than 15 years ago. Since then our Engineering students and faculty investigated and developed electric bikes, solar electric autorickshaws and solar cars. A group of Mechanical and Electrical engineering students of oue college under the guidance of Dr.GaneshUdupa, Director, E-Mobility, Campus, have developed Solar Electric Car.

The Solar Electric car is housing 500W Solar panels on the car which can generate about 25-30km of range daily. Together with Solar energy, the Car also hosts a 30kWh battery pack that gives about 300-350 km of driving range at an average cruising speed of 50km/hr on a single charge and the batteries can be charged in 7 to 8 hours at a household wall socket charger. The car can reach a maximum speed of 100 km/hour with the top gear. The Amrita Solar car can carry easily 4 passengers including the driver. It has 15 kW electric motor with a max power output of 18kW. The project was done by retrofitting the Marutiesteem car with a new motor, motor controller, batteries, BMS and solar panels and hence able to make it affordable and cost effective Solar Electric car.

The team encouraged the team and students saying, “We should indigenously develop and build eco-friendly and electric transportation vehicles that not only benefits to the society but also reduce climate change or global warming by cutting down carbon emissions. “
Dr. GaneshaUdupa said that the effort put into this will definitely help increase the role of solar innovation in India and the world and promote green mobility. He said that the efforts in this direction lead to more efficient recovery of materials from old vehicles, creates more employment opportunities and reduce the production cost of automobile parts as older parts can be recycled and utilised properly without damaging the environment or climate change.
“We are all grateful to our beloved Chancellor, Amma, for providing such a nice environment and funding to carry out a world class research work at campus.