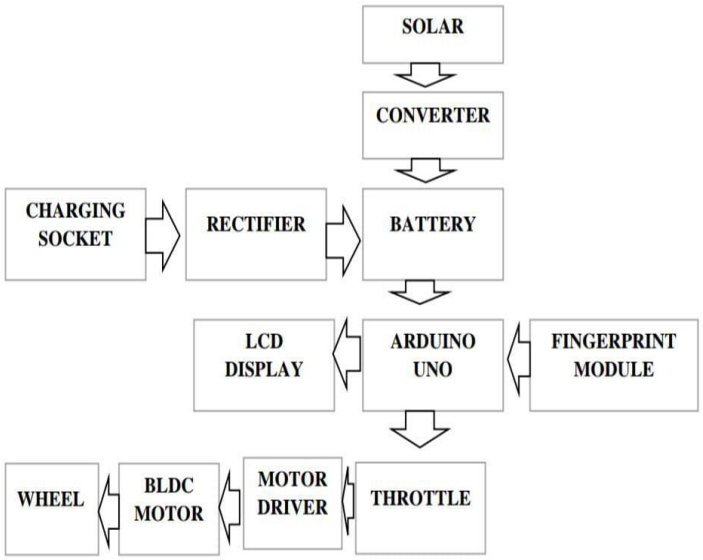
46th Series SPP: Synopsis Submission

Project Reference Number	46S_BE_4352
Title of the Project	Thumb start EV
Name of the College & Department	Rajarajeswari College of Engineering Electrical & Electronics Engineering
Name of the students & Guide(s)	Guide:- Prof. Prutha G(pruthags@gmail.com) Students:- Ms. Neha Raj VG (neharajvg6802@gmail.com) Mr. Sanjay Yadav N Ms. Bhoomika J Mr. Venu Gopal
Keywords	BLDC motor, Battery, Fingerprint module, Solar panel, Converters
Introduction / background (with specific reference to the project, work done earlier, etc)-about 20 lines	Oil prices are rising daily, owing to the widespread belief that oil will be depleted within next 50 years. During same period, total number of vehicles is expected to rise from 700 million to 2.5 billion. Alternative solutions are required and are currently being proposed. Electric vehicles (EVs) and hybrid electric vehicles (HEVs) proposed by major manufacturers reveal a shift in the urban mobility paradigm. Furthermore, several organizations and energy experts have proposed new policies to encourage EV-related research, development, and demonstration projects. When it comes to EV research, generality is associated with new and revolutionary vehicles. Low-cost solutions based on reliable off-the-shelf components, on the other hand, can be proposed.
Objectives (about 10 lines)	The objective of this project is to reduce the cost of maintenance and implementing the thumb start for the purpose of safety. To increase the battery efficiency, we have adopted charging through solar using renewable sources which reduces the pollution and eco-friendly to environment.
Methodology (about 20 lines materials, methods, details of work	This EV vehicle is converted by using the BLDC motor for running in EV. For the purpose of safety in our

carried out, including drawings, diagrams etc)	project we implemented Thumb start in this the fingerprint is loaded in the Arduino uno and programmed if matched it will unlock if not device will be lock. For increasing the battery efficiency two way of charging is given one through plug in another through solar. From plugin rectifier is connected for converting AC to DC and from solar converter is connected to get the stable output. This how our project works. 
Results and Conclusions (about 20 lines with specific reference to work carried out)	A Two way of charging has been achieved and use of green resources leads to the less pollution of Environment. Maintenance cost also decrease and vehicle runs efficiently by charging 100% and using solar up to 100 km with speed of 40 to 80. The vehicles are safe by using fingerprint by theft of vehicles.
Scope for future work (about 20 lines)	Further we can increase battery efficiency and speed by designing. Even we can convert into hybrid vehicle with more efficiency and flexibility. This in further 40 years it will be ruling the industry and no other can replace it.