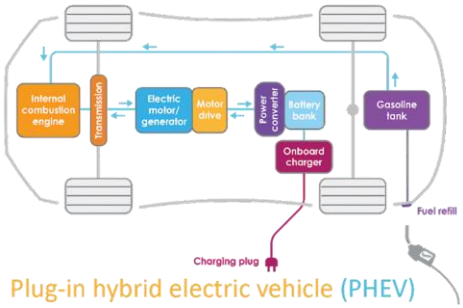
Green mobility or Electric vehicle is now becoming a need of the current era, to meet the environmental target of zero emission. EVs must be sustainable for society and that will be achieved by the Electric vehicle architecture. Vehicle architecture needs to be flexible so it can adopt drivetrain electrification.

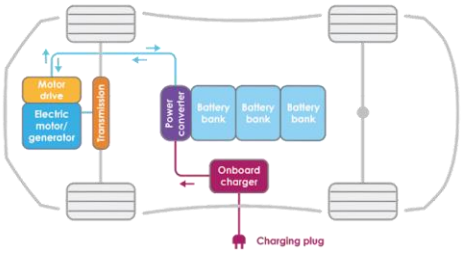
ICE vehicle architecture is specific and complex to understand but an advantage point in EV is that there is a new freedom for design, in the design of new components and implementation in electric car architecture is possible.

When designing the architecture for EV it is mandatory to use modeling and simulation tools, with specific consideration of electric powertrain, including battery, power electronics, electric motors, sensors, and control system. In ICE engine power production is not uniform because reciprocating components causes mechanical loss hence engine is not self-started to resolve this issue other components are added in the architecture that resulting in the engine becoming heavy as the other hand in Electric vehicle architecture consists of a motor which is self-started and can easily control by the input current. They produce uniform power and speed at the output because of this reason motor is lighter than ICE. The Electric vehicle architecture is the backbone of the EVs. Electric vehicle architecture is categorized in the following way Following are the Types of Electric Vehicle: Hybrid electric vehicle Plug-in hybrid electric vehicle (PHEV) Battery electric vehicle (BEV) In the above models, there are different potential and different configurations but PHEV has the same drivetrain as of Electric Vehicle.

Hybrid vehicle architecture is again classified into 3 different versions:- Series hybrid vehicle Parallel hybrid vehicle Series- a parallel hybrid vehicle The figure shows the different architecture of the Hybrid vehicles, as per name working is understandable, like if series architecture than energy flow from engine and battery is in series or if parallel architecture they will operate in the different effective region in a parallel manner and combination of both architectures is used for best performance of the Electric vehicle.



Plug-in hybrid electric vehicle (PHEV)



Battery electric vehicle (BEV)