

# Smart Hybrid Vehicle: Case Study

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**Abstract:** *Have you pulled your car up to the gas petrol pump lately and been shocked by the high price of gasoline? As the pump clicked past Rs 1400 or 1500, maybe you thought about trading in that SUV for something that gets better mileage. Or maybe you are worried that your car is contributing to the greenhouse effect. Or maybe you just want to have the coolest car on the block. Currently, there is a solution for all this problems, it's the hybrid electric vehicle.*

*The vehicle is lighter and roomier than a purely electric vehicle, because there is less need to carry as many heavy batteries. The internal combustion engine in hybrid- electric is much smaller and lighter and more efficient than the engine in a conventional vehicle, In fact, most automobile manufacturers have announced plans to manufacture their own hybrid versions. Hybrid electric vehicles are all around us. Most of the locomotives we see pulling trains are diesel-electric hybrids. Cities like Seattle have diesel-electric buses these can draw electric power from overhead wires or run on diesel when they are away from the wires. Giant mining trucks are often diesel-electric hybrids Submarines are also hybrid vehicles some are nuclear-electric and some are diesel- electric. Any vehicle that combines two or more sources of power that can directly or indirectly provide propulsion power is a hybrid.*

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