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PROJECT

HYBRID ELECTRIC BIKE

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This Hybrid Electric Bike mainly focuses on energy conservation and pollution control. As compared with conventional internal combustion (IC) engines, fuel consumption in this bike is lower, mileage is better, and the pollution is lesser.

Features

- Light in weight owing to the compact hub motor in the front wheel, which is powered from a lithium-ion/SMF (sealed maintenance free) lead acid battery
- Three different ways of charging the battery are incorporated: 220V AC wall outlet, energy from IC engine, and regenerative braking
- Power assisted cycling by regenerating power from IC engine through alternator and charging the battery facilitates longer distance commute
- Addresses electrical switching between engine and motor power to achieve smooth power transmission to the wheels, thus reducing fuel consumption. A conventional sequential-based switching control operates the system with the motor at low speeds and the engine at higher speeds, using the number of rotations per unit time as the switching parameter. Alternatively, a kill switch can be used to switch manually without any sensors and programming