

IoT Based Smart Street Pole for Smart Cities

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ABSTRACT

Street light is the most important part of sensible cities. The existing street lights in urban and semi urban cities uses conventional lighting systems that has fluorescent lamp which consumes more power and they are time based. In order to achieve energy conservation, we use Smart Street light in our project. Energy conservation can be achieved by replacing traditional lighting system with low power LEDs, and also by replacing streetlights with smart street lights. The smart street light consists of solar panel, camera, light dependent resistor, Infrared sensor, Ultrasonic sensors, fire detection sensor, air quality sensors, occupancy sensor, location detector, battery, internet connectivity, LCD screen. The communication technology is supported by ZigBee. The light illumination is based on motion of objects, the light will glow bright if the object is near and it automatically dims off if there is no object. The LCD screen is used to display weather forecast and emergency notifications. The fire detection sensor detect fire and send alert notification. The above-mentioned sensors and technologies are put together using Internet of things (IoT). Smart street light is used to save power and to maintain safety in smart cities.

