FINAL YEAR PROJECT REPORT

Smart Grid Communication using Open Smart Grid Protocol (OSGP)

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ABSTRACT

The smart grid conveys power from makers to purchasers utilizing two-way computerized innovation and permits control of machines in the buyers' homes and of machines in processing plants to spare vitality, while diminishing expenses and expanding dependability and transparency. A smart grid incorporates a shrewd checking framework that stays informed concerning all the power that streams in the framework. Then again, smart grid at crest hours can, in a joint effort with the customer, turn off chose apparatuses and machines to diminish demand. A solid and quick correspondence framework between the supplier and buyer is basic to the smart grid.

Open Smart Grid Protocol is streamlined to give solid and productive conveyance of order and control data for smart meters and other smart grid devices. Open Smart Grid Protocol takes after an advanced, organized methodology focused around the OSI model.

In this project, we have created a prototype to exhibit the communication using Open Smart Grid Protocol (OSGP) over power lines through power line communication modems. Open Smart Grid Protocol is executed on micro-controller to control the apparatuses.