IoT ENABLED SMART HYBRID POWER SYSTEM

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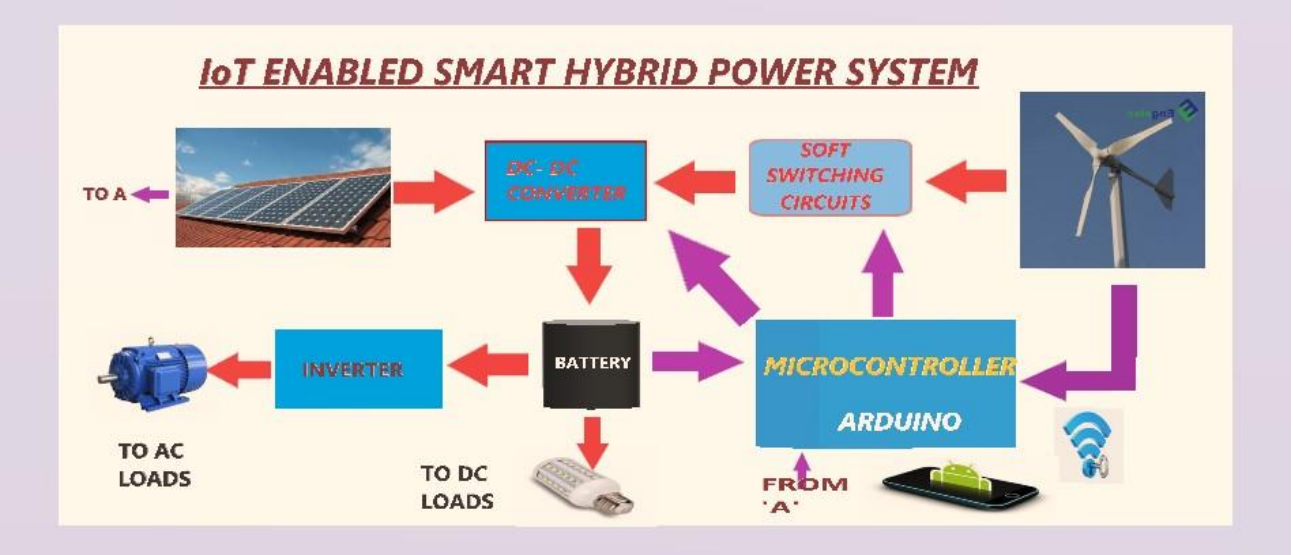
ABTRACT:

This project proposes a standalone distributed hybrid power system which consists of solar power, wind energy, battery storage and grid through inverter. A control strategy is introduced to maximize the simultaneous energy harvesting from both renewable sources. Power converters interface the source with a common DC link. The interfacing converter is utilized for controllable voltage for non-linear load. A supervisory control is proposed to accomplish the source type allocations and balance of energy in the operating contingencies. Real time results demonstrate accurate operation of the supervisory controller and functionality of **Maximum Power Point Tracking** algorithm (MPPT) in each operating condition for solar PV system. It is more reliable and adaptable in irrespective of weather changes. It also gives an aesthetic look when compared to conventional techniques. This system can be applied for distributed power generation through which Smart grid technology can be implemented.



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