

How data communication is used in a smart grid based power supply system?

In smart grid, efficient and reliable communication is incorporated to improve the efficiency, sustainability, and stability of the whole system. This paper presents a review on the different types of available communication methods and protocols which are used for data communication within and outside a smart grid based power supply system.

What is smart grid communication?

3. Smart Grid Communication From the previous section we can see that SGs are highly dependent on information flow and communication between different entities in different networks. Communication is one of enabling technologies of SG. As the number of sensors increase, the amount of data coming to and from the utility increases. 3.1.

What is the role of data communication and networking in smart grid?

Advanced data communication and networking techniques will play a key role in the successful development of the emerging smart grid system. The communication network in the smart grid must be able to support all aspects of generation, transmission, distribution, as well as the requirements of users and utility service providers.

How IoT technology aids smart grid?

The IoT technology aids smart grid by supplying advanced IoT-devices towards monitoring, analyzing and controlling the entire system. This refers to the Internet of Things-assisted smart grid system, which supports and develops several network utilities in the power sector.

How a smart grid is dependent on information flow & communication?

From the previous section we can see that SGs are highly dependent on information flow and communication between different entities in different networks. Communication is one of enabling technologies of SG. As the number of sensors increase, the amount of data coming to and from the utility increases. 3.1. QoS Requirements for Smart Grids

Are cellular M2M communications suitable for smart grid applications?

The authors argue that the cellular M2M communications technologies are suitable for smart grid applications such as wide-area situational awareness, interconnection of distributed energy resources, and distribution automation in the transmission and distribution networks.

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As this data hub architecture is designed to work with various distributed data networks enabling smart meters to directly communicate for the power company, implementing this method is potentially expected to accelerate the implementation of ...

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optimize communication systems for the smart grid. Ekram Hossain is a Professor in the Department of Electrical and Computer Engineering at the University of Manitoba, Canada, where his current research interests lie in the

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It will greatly improve the system robustness and reliability by harnessing the modern and secure communication protocols, the communication technologies, faster and more robust control devices and Intelligent Electronic Devices (IEDs) for the entire grid from substation and feeder to customer resources .

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