

Smart Meter Incorporating UWB Technology

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Abstract : Smart Meter is a key element in the evolving concept of Smart Grid, which plays an important role in interaction between the consumer and the supplier. In general, the smart meter is an intelligent digital energy meter that measures the consumption of electrical energy and provides other additional services as compared to the conventional energy meters. One of the important element that makes a meter smart and different is its communication module. Smart meters usually have two way and real-time communication between the consumer and the supplier through which its transfer data and information. In this paper, Ultra Wide Band (UWB) is recommended as communication platform because of its high data-rate and presents the physical layer, which could be easily incorporated in existing Smart Meters. The physical layer is simulated in MATLAB Simulink and the results are provided.

Keywords : Ultra Wide Band (UWB), Smart Meter, MATLAB, transfer data

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