

## A Security Study for Smart Metering Systems

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**Abstract :** In modern societies, the smart cities concept raised simultaneously with the projection towards adopting smart devices. A smart grid is an essential part of any smart city as both consumers and power utility companies benefit from the features provided by the power grid. In addition to advanced features presented by smart grids, there may also be a risk when the grids are exposed to malicious acts such as security attacks performed by terrorists. Considering advanced security measures in the design of smart meters could reduce these risks. This paper presents a security study for smart metering systems with a prototype implementation of the user interfaces for future works.

**Keywords :** security design, smart city, smart meter, smart grid, smart metering system

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