

IEEE Senior Member, Prof. Dr. Hassan Ali, University of Newcastle, Australia

Speech title: Design and Implementation of a Cloud based Smart Electricity Metering System

Abstract: Smart electric grids are power networks that can automatically monitor electricity flows and adjust to changes in electricity supply and demand accordingly. Smart electricity meters are the basis of the smart electric grid concept, enabling consumers to be more engaged and able to take control of their electricity consumption, at the same time, helping electric utilities to optimize their operations. This presentation is aimed at sharing smart metering concepts, technologies and systems. As an example, our experience in building a smart electricity metering design solution is discussed. The smart electricity metering design is calibrated and tested in a ZigBee wireless mesh based advanced measurement infrastructure (AMI). The system is shown to allow a bidirectional communication between the household smart electricity meters and the cloud based utility management system.