

# From Smart Grid to Future Network



**引原 隆士 教授**

京都大学大学院工学研究科

**日時 : 2012/9/7 (Fri)**

**10:45-12:15 (14-313)**

## **Abstract:**

Smart grid is a composite technology used to manage and optimize power flow and balance of power networks that are supported by information and communications technology, while maintaining their flexibility. It includes the regulation of power utilities and sources in homes and buildings. Distribution systems require that steady loads and sources be maintained in homes and buildings. In addition, it is desired that home and building electricity distribution systems reduce their total consumption while satisfying the power demands of the consumers, which occasionally include irregular loads. To contribute to the development of future networks, we propose the use of two power distribution systems. One is a power-routing apparatus that uses circuit switching for AC power distribution, while the other is a dc power-dispatching system using power packets. Both are designed to integrate the information and power networks at the physical layer to maintain fixed paths for the power units from sources to loads.

## **About the Speaker:**

- 1987 京都大学大学院工学研究科博士後期課程  
電気工学専攻研究指導認定退学 (1990 京都大学工学博士)
- 1987 関西大学工学部電気工学科助手
- 1997 京都大学大学院工学研究科電気工学専攻 助教授
- 2001-現在 京都大学大学院工学研究科電気工学専攻 教授

