



Summer 2015

RTPIS Laboratory Distinguished Seminar Series

Presents

“Demand Response in the Smart Grid: the Path Towards Widespread Consumers' Active Participation”

By:

Professor Dr. Zita Vale

When and Where?

Thursday, July 23rd, 2015, 11.00 am to 12.00 pm

100A Riggs Hall

All are Welcome!

Abstract: Smart grids should deeply explore demand response solutions, driven by self-goals and/or ruled by contracts, in order to increase the efficiency of the system and of its parts. Demand response is a valuable energy resource, which has already proved to be highly flexible at reasonable cost. However, its practical and successful use is still limited by a set of regulatory, business, and technologic barriers.

The efficient use of demand response can enable the active and intensive participation of consumers, increasing the system efficiency and keeping energy costs at reasonable levels. In that way, demand response can help increasing the robustness, flexibility and capacity of smart grids to integrate renewable-based and decentralized generation, by providing the means for their adaptation to the generation profile.

The talk will address the current state of demand response around the world and present new models to enable the widespread consumers' active participation. The addressed models include the integration of small and medium size players in smart grids by providing the required business and technologic platforms to undertake efficient energy resource aggregation and to access the needed set of services.



Zita Vale graduated in Electrical Engineering in 1986 and in 1993 she received the PhD degree in Electrical and Computer Engineering, both from the University of Porto, Portugal. She is a Coordinator Professor in the Electrical Engineering Department at the School of Engineering (ISEP) and Director of GECAD – Research Group on Intelligent Engineering and Computing for Advanced Innovation and Developments, a R&D unit with more than 30 PhD researchers. She has been involved in more than 30 R&D projects from which she coordinated more than 20 projects. She published over 600 works, including more than 70 papers in international scientific journals. Main skills are related to the application of Artificial Intelligence Techniques to Power systems, including Knowledge based systems, Multi-agent systems, Genetic Algorithms, Neural Networks, Meta-heuristics, Optimization, algorithms for distributed resources Planning and Scheduling, Constraint Logic Programming and Knowledge Discovery Techniques. Along these years she has been participating in renowned international conferences as member of the Program Committee, Program Chair, reviewer, and organizing special and panel sessions. She has been also keynote speaker in several conferences, guest editor and/or member of editorial board of scientific international Journals.