


Event:
Date:
Place:

ENERGY in BUILDINGS 2016
Saturday November 12, 2016
Athens, Hellas



#	<p>DIMITRIOS STIMONIARIS Dr Electrical & Computer Engineer</p>	
Title:	<p>Assistant Professor at the Dept of Electrical Engineering, Western Macedonia University of Applied Sciences (TEIWM), Koila Kozanis, Kozani, 50100, Greece</p>	
Presentation title:	<p>Integration of Building Automation Systems into Microgrids Management Systems for Effective Demand Response Schemes in Smart Grids</p>	
<p>The increasing penetration of home automation technologies and their control possibilities over energy consumption can make valuable contributions to the electricity grid operation. Thus, the control system of the future electricity grid should be compatible with home automation systems. First, this paper outlines the existing methodologies and techniques that could ensure compatibility between Building Automation Systems (BAS) and electricity distribution grid management systems. Their drawbacks are analyzed and then a simple technique that enables home automation technologies to be used for demand-side management in smart grids is presented. The proposed technique does not require additional interface or software tools and therefore is cost-effective. Then, the development of a virtual test bed is shown, using the field data and energy management logic of a microgrid laboratory. In addition to modeling a microgrid, BAS devices (i.e. a dimmer) are also simulated for analyzing the integration of an existing home automation technology into microgrid control actions. The developed simple technique that ensures compatibility between BAS and smart grids is applied in simulations, using the developed virtual test bed, and in a microgrid laboratory. Both simulation results and experimental results prove that BAS could contribute to the voltage regulation as well as to the application of efficient energy management policies of the electricity distribution grid.</p>		
CV:		
<p>EDUCATION</p> <p>2016 PhD in Electrical and Computer Engineering, School of Electrical and Computer Engineering, National Technical University of Athens, GREECE</p> <p>2005 Master in Electrical and Computer Engineering, Department of Electrical and Computer Engineering, Democritus University of Thrace, GREECE.</p> <p>1989 Dipl-Eng degree from the ECE Department of the Aristotle University of Thessaloniki</p> <p>POSITION(S)</p> <p>2014 Assistant Professor, Faculty of Engineering/ Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Kozani, GREECE (ee.teiwm.gr), (ape.ee.teiwm.gr)</p> <p>2013 – 2014 Scientific Responsible of the IPA Cross-Border Programme “Greece-FYROM 2007-2013 project with Acronym PEEBPE. Faculty of Engineering/ Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Kozani, GREECE (www.peebpe.eu)</p> <p>2014 Scientific Responsible, Bilateral Research & Technology Cooperation Greece-Turkey 2013-2014 – “Smart Electric Energy Management and Buildings Energy Efficiency Technologies project-SEEMBEET”, Dept of Electrical Engineering, Technological</p>		

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Educational Institute of West Macedonia, GREECE.

2015 Project Manager and Electrical Engineer of the IPA Cross-Border Programme "Greece-FYROM 2007-2013 project with Acronym BIOFOSS. Faculty of Engineering/ Department of Electrical Engineering, Technological Educational Institute of Western Macedonia, Kozani, GREECE. (www.biofoss-project.eu)

1989 – 2009

Electrical Engineer – supervisor of many industrial projects in Northern Greece.
ORGANISATION OF SCIENTIFIC MEETINGS

2014 Chairman of the Organizing Committee, Scientific Publications responsible, International Conference on Buildings Energy Efficiency and Renewable Energy Sources (BEE RES 2014 Conference – www.bee-res.gr), Kozani, Greece.

INSTITUTIONAL RESPONSIBILITIES

2011-2016

Member by election, Technical Chamber of Greece - Region of West Macedonia (TEE-TDM), Greece.

2011-2014

Vice-President of the Thessaloniki's Integrated Transport Authority
(<https://www.thita.gov.gr/en>)

2007- Member of the Technical Board of the Municipality of Kozani

PUBLICATIONS:

He is the co-author of 3 papers in International Journals with reviewers and more than 15 in International Conference proceedings with reviewers. Indicative list of journals:

IEEE Transactions on Power Systems

Electric Power Systems Research (Elsevier)