

## Recent Talks 2009-2012

Ilic, Marija, "Connecting the Dots: Sensing, Communications and Control for Enhanced Performance in Future Electric Energy Systems", UCLA HSSEAS, February 4, 2009.

Ilic, Marija, "Smart Regulation for Smart Grids: IT-enabled Rules, Rights and Responsibilities (3Rs) for Efficient Integration of New Energy Resources and Responsive Demand", CITRIS, University of California Berkeley, February 5, 2009.

Ilic, Marija, Dynamic Monitoring and Decision Systems (DYMONDS)—Interactive System-Wide Multi-Layered Multi-Directional Means of Integration of Components, NEMA Meeting, Seattle, WA, March 16, 2009.

Ilic, Marija, Integrating Distributed Energy Resources and Demand-Side Management: The Key Role of Dynamic Monitoring and Decision Systems (DYMONDS), i-PCGRID Workshop, Pacific Gas and Electric, San Francisco, CA, March 18, 2009.

Ilic, Marija, Integration, Innovation and Expansion in Undergraduate Education: Energy Systems, 25th ECEDHA Meeting, New Orleans, March 21, 2009.

Ilic, Marija, Integrating Distributed Energy Resources and Demand-Side Management: The Key Role of Dynamic Monitoring and Decision Systems (DYMONDS), Federal Energy Regulatory Commission (FERC), April 20, 2009.

Ilic, Marija, Vision for Dynamic Monitoring and Decision Systems, 5<sup>th</sup> CMU Conference on Electric Power Industry, March 9, 2009,  
<http://www.ece.cmu.edu/~electricityconference/>

Ilic, Marija, The Future of Electricity Systems: General Trends and Developments, "Managing the Increasing Dependence of the Electricity Infrastructure on ICT," Utrecht, The Netherlands, May 13-14 2009.

Ilic, Marija, Integration, Innovation and Expansion in Future Cyber-Physical Energy Systems, CCC Workshop, George Mason University, <http://cps.isis.vanderbilt.edu/>, May 18, 2009.

Ilic, Marija, The Challenge of Moving Forward, National Workshop on Future R&D Needs in Cyber Physical Energy Systems, <http://www.ece.cmu.edu/~nsf/~cps/>

Ilic, Marija, New Systems Control Formulations for the Changing Electric Energy Industry, Los Alamos National Laboratory, May 18-22, 2009,  
[http://cnls.lanl.gov/External/workshops\\_2009.php](http://cnls.lanl.gov/External/workshops_2009.php).

Ilic, Marija, `` The Role of Dynamic Monitoring and Decision Systems (DYMONDS) in Enabling Adaptive Urban Energy Consumption'', 12<sup>th</sup> ICTPI, July 12,2009, Porto, Portugal.

Ilic, Marija, `` Dynamic Monitoring and Decision Systems (DYMONDS) for Smart Grids: The Missing Link'', [http://www.ieeeboston.org/edu/2009fall/2009\\_fall\\_courses/smarter\\_elec\\_grid.html](http://www.ieeeboston.org/edu/2009fall/2009_fall_courses/smarter_elec_grid.html).

Ilic, Marija, `` Driving Efficiencies and Optimization: Maximizing the Operational Value of Smart Grid'', GridWeek, Washington, DC, September 21, 2009.

Ilic, Marija, `` Dynamic Monitoring and Decision Systems (DYMONDS) and Smart Grids: One and The Same'', Washington University, St. Louis MO, November 3, 2009.

Ilic, Marija, `` Dynamic Monitoring and Decision Systems (DYMONDS) and Smart Grids: One and The Same'', EPRI Asset Management Meeting, Dallas, TX, November 4, 2009.

Ilic, Marija, `` R&D Needs for Assessing and Managing Effects of Smart Grids on Reliability –Work in Progress'', NERC Smart Grid Task Force (SGTF) Meeting Atlanta, GA Nov 12, 2009.

Ilic, Marija, `` Unbundling and Smart Grids—US Experience'', UNECOM workshop on unbundling of energy companies Joint with Centre for European Policy Studies (CEPS) - Brussels [www.unecom.de](http://www.unecom.de), November 19 2009.

Ilic, Marija, Dynamic Monitoring and Decision Systems (DYMONDS) for Smart Grids: The Missing Link, January 21, 2010, The IEEE Conference on Smart Grids.

Ilic, Marija, `` Engineering Sustainable Electricity Services--The Key Role of Systems Thinking and Automation'', Precourt Institute for Energy,  
<http://energyseminar.stanford.edu/>,  
February 3, 2010.

Ilic, Marija, Designing Sustainable Electricity Services—The Relevance of Systems Thinking and Automation, February 9, 2010, ESD Seminar, MIT.

Ilic, Marija, A Decision Making Framework and Simulator for Sustainable Electric Energy Systems, April 8, 2010, Boston University.

Ilic, Marija, Engineering Sustainable Electricity Services--The Key Role of Systems Thinking and Automation, April 1, 2010, MIT Energy Club Talk, MIT, Cambridge, MA.

Ilic, Marija, Discussion of the White Paper ``Plug-in Electric Vehicle Infrastructure: A Foundation for Electrified Transportation'', MITEI Transportation Electrification Symposium, Cambridge, MA April 8 2010.

Ilic, Marija, From Hierarchical to Open Access Electric Energy Systems: Challenges and Opportunities, 6<sup>th</sup> NSF/Northeast Control Workshop Keynote Lecture, John Hopkins University, April 24, 2010.

Ilic, Marija, Designing Sustainable Electricity Services—The Relevance of Systems Thinking and Automation, Cornell University Seminar, April 30, 2010.

Ilic, Marija, Designing Sustainable Electricity Services—Key Role of Cyber-Physical Energy Systems, May 9, 2010, China Smart Grid Workshop, Chinese Academies of Science (organizer).

Ilic, Marija, Toward Sustainability Models of Electric Energy Systems: The Key Role of ICT Design—Smart Grid, The 13<sup>th</sup> Economics Conference on Infrastructures Delft, The Netherlands, May 27, 2010.

Ilic, Marija, Unit Commitment for Sustainable Integration of Large-Scale Wind Power and Responsive Demand, Technical Conference on Unit Commitment Software Docket AD10-12  
FERC, Washington, DC June 2-3, 2010.

Ilic, Marija, A Proposal for Long-Term Energy Market Design: Interactive Planning Framework (IPF) in Support of Sustainable Technologies, FERC Conference June 9-10, 2010.

Ilic, Marija, On Dynamic Programming (DP) Formulation of Least Cost Planning and an Example, FERC Conference June 9-10, 2010.

Ilic, Marija, Toward Near Real-Time Fault Simulation, Detection and Testing in Smart Grids, DAC Workshop, Anaheim, CA, June 13, 2010.

Ilic, Marija, Working on the Right Problem—Key to Bringing Value to the Sustainable Energy Future, 2<sup>nd</sup> Int'l Conference on Computational Sustainability, MIT, Cambridge, MA , June 28, 2010.

Ilic, Marija, Managing Reliability Amidst Major Infrastructure Change - What Do Utilities Need from Smart Grids, Hawaii Electric Co (HECO), August 16, 2010.

Ilic, Marija, Integration, Innovation and Expansion in Energy Systems Education, Univ of Hawaii, REIS, August 20, 2010 .

Ilic, Marija and Le Xie, Emission-Concerned Economic Dispatch with Intermittent Resources:  
Dependence on Methods Used, Joint Program Seminar, October 8, 2010.

Ilic, Marija, Achieving power system efficiency—survivability challenges, Smart Grid Survivability Workshop, Arlington, VA ,October 13-14, 2010.

Ilic, Marija, The Challenges and Opportunities in Educating Electric Energy Systems, Dowd Fellowship Celebration, CMU October 27, 2010.

Ilic, Marija., Transforming Education in Electric Energy Systems, Electrical and Computer Engineering department Head Association (ECEDHA) Energy Workshop, November 1, 2010.

Ilic, Marija, `` Dynamic Monitoring and Decision Systems (DYMONDS) for Sustainable Energy Services'', Univ of California, Santa Barbara, Dec. 1, 2010.

Ilic, Marija, MIT Power Systems History, ESRG Talk, Dec 8, 2010.

Ilic, Marija, From Hierarchical to Open Access Electric Energy Systems: Challenges and Opportunities, Czech Republic Visit Presentation, MIT December 17 2010.

Ilic, Marija, Making Transmission Smart: An Opportunity Which Should Not Be Missed, GridWeek 2010.

Ilic, Marija, Integration, Innovation and Expansion in Energy Systems Education, UPM, Madrid, Spain.

Ilic, Marija, `` IT-enabled Electricity Services: The Missing Piece of the Environmental Puzzle'', Issues in Technology and Policy, 2011 IAP Seminar Series, MIT, January 19,2011.

Ilic, Marija, Engineering IT-Enabled Electricity Services, MITEI Seminar Series February 8, 2011.

Ilic, Marija, `` IT for Smart Grid Management and Distributed Generation'', Executive Master's Program in Sustainable Energy Systems, MIT, Cambridge, MA, March 2011.

Ilic, Marija, IT for Smart Grid Management and Distributed Generation, Executive Master's Program in Sustainable Energy Systems, MIT, March 1, 2011.

Ilic, Marija, `` Fundamental Limits to Hierarchical Control in the Changing Industry and Smart Grids-Enabled Management of Emerging Behavior'', 7<sup>th</sup> CMU Electricity Conference March 8, 2011, [www.ece.cmu.edu/~electricconf/](http://www.ece.cmu.edu/~electricconf/).

Ilic, Marija, Dynamic Monitoring and Decision Systems (DYMONDS) and Smart Grids: Key Enablers of Sustainable Energy Services, March 19, 2011, Cognitive Energy Systems Workshop, Hamilton, CA.

Ilic, Marija, Network Systems Engineering for Meeting Energy and Environmental Dream, Orange Institute, Sensor Networks as the New Growth Opportunity March 22, 2011.

Ilic, Marija, `` Network Systems Engineering for Meeting Energy and Environmental Dream'', Orange Institute, Sensor Networks as the New Growth Opportunity, Madrid, Spain, March 22, 2011.

Ilic, Marija, What is Smart Grid? The Key Role of Smart Grid on the Way to Sustainable Solar-Electrical Energy Systems, Workshop on Photovoltaic Power Systems, March 28,2011Abu Dhabi, UAE.

Ilic, Marija, `` The Key Role of Smart Grid on the Way to Sustainable Solar-Electrical Energy Systems'', Workshop on Photovoltaic Power Systems, TU Delft, the Netherlands, April 11 2011.

Ilic, Marija, Next Generation Infrastructures: Smart Grids, Opening Lecture, ICNSC'2011-8<sup>th</sup> IEEE Conference on Networking, Sensing and Control, Delft, The Netherlands April 11-13, 2011.

Ilic, Marija, Dynamic Monitoring and Decision Systems (DYMONDS): A Possible Mechanism for managing and Valuing Inter-Temporal Constraints under Uncertainties, MIT Electricity Student Research Group, MIT April 13, 2011.

Ilic, Marija, On Technical and Economic Limits to Integrating Clean Energy Under Current Operating and Planning Industry Practices: The Need for Systematic IT-Enabled Policy Design, ERI e-Workshop ,April 28, 2011, <http://www.src.org/program/eri/>.

Ilic, Marija, ``Greening the Azores Islands: The Key Role of Dynamic Monitoring and Decision Systems (DYMONDS)``, Green Islands Research Integration Workshop, MIT, Cambridge, May 25-27, 2011.

Ilic, Marija, Complex Power Grids: From Grid-Centric Reliability To Meeting Grid-enabled Users Needs, CPS Annual Meeting, NSF, <http://cps-vo.org/group/pimtg11> .

Ilic, Marija, `` Complex Power Grids: From Grid-Centric Reliability To Meeting Grid-enabled Users Needs``, CPS PI Meeting, August 1-2, 2011, Invited Panel on Energy, Arlington, VA.

Ilic, Marija, Toward Qualitative and Quantitative Sustainability Models of Electric Energy Systems, SAMSI Workshop, September 19-21, <http://www.samsi.info/workshop/uq-engineering-and-renewable-energy-opening-workshop-september-19-21-2011>.

Ilic, Marija, `` Dynamic Monitoring and Decision Systems: The Missing Piece of the Smart Grid Puzzle``, SAMSI Smart Grid Workshop, October 2 2011.

Ilic, M., R&D challenges in distribution grids, electric vehicles, energy efficiency and storage, Hidrocanabrico Workshop, Oviedo, Spain, October 2011, [www.hcenergia.com](http://www.hcenergia.com).

Ilic, Marija, Dynamic monitoring and Decision Systems (DYMONDS) for Sustainable Socio-Ecological Energy Systems (SEES): The Case of Low Cost Green Azores Islands, IBM, October 2011.

Ilic, Marija, ``Engineering IT-Enabled Electricity Services'', Southern Cal Workshop, Caltech October 13, 2011.

Ilic, Marija, ``Corrective Resource Management for Voltage Support in Planning and Operation'', FERC Staff Workshop on Voltage Coordination on High Voltage Grids Docket No. AD12-5-000, Washington DC, December 1, 2011.

Ilic, Marija, `` (Incomplete) History of Power Systems Education and Research at MIT'', Invited ESRG Talk, MIT, Cambridge, MA, December 8, 2010.

Ilic, M., Invited Lectures, The Tenth TCS Excellence in Computer Science Week (TECS Week), Pune, India, January 9-13, 2012, [http://www.tcs-trddc.com/tecsweek/tecsweek\\_home.html](http://www.tcs-trddc.com/tecsweek/tecsweek_home.html).

Ilic, Marija, `` Engineering IT-Enabled Electricity Services: The Case of Low-Cost-Green Azores Islands'', Carnegie Mellon University, ECE Graduate Student Seminar February 23, 2012.

Ilic, Marija, `` Software for Future Electric Energy Industry: The Major Challenge and Opportunity'', NRC Commissioner Briefing, March 28, 2012.

Ilic, Marija, `` Examples and Counterexamples of What Smart Grids Can and Can Not Do as Enablers of Sustainable Energy Systems'', CNLS Annual Conference on Smart Grid, Santa Fe, NM, April 27, 2012

Ilic, M., Toward Large-scale Distributed Control for Tomorrow's Electricity Grid, Semi-Plenary Talk (invited), American Control Conference (ACC), 2012, <http://a2c2.org/conferences/acc2012/plenary.php> .

Ilic, Marija, ``My Work on the Puzzle of Complex Electric Energy Systems'', Women in Engineering Invited Panel, IEEE T&D Conference and Exposition, Orlando, FL, May 8, 2012.

Ilic, Marija, `` Toward Assessing Relative Value of Central Generation and DERs'', Federal Energy Regulatory Commission, May 18, 2012.

Ilic, Marija, ``Standards for Dynamics in Future Electric Energy Systems'', PSERC White Paper Webinar May 22, 2012.

Ilic, Marija, `` Methods for Exploring Non-Transmission Solutions to Integrating Renewable Power'', SRC ERI Invited Talk, May 24, 2012.

Ilic, Marija, `` Software for Future Electric Energy Industry: The Major Challenge and Opportunity'', NRECA Presentation, May 2012.

Ilic, Marija, `` A Method for Assessing Relative Value of Central Generation and Distributed Energy Resources (DERs) in Distribution Feeders'', Staff Technical Conference on Increasing Real-Time and Day-Ahead Market Efficiency through Improved Software (Docket No. AD10-12-003), Washington DC, June 25-27, 2012.

Ilic, Marija, `` Toward a New IT Framework and Implementation Platform in Future Electric Energy Systems'', The MIT--Stanford `` Game Changers'' Conference II. July 16-17, 2012, Cambridge, MA.

Ilic, Marija, `` A Systems Approach to Teaching Electric Energy Systems'', IEEE General Meeting, San Diego, CA, invited session on Collaborative Education, July 25, 2012.

Ilic, Marija, `` Ancillary Services in Systems with High Penetration of DERs'', Super Session, IEEE PES General Meeting, San Diego, July 2012 .

Ilic, Marija, `` Toward IT-Enabled Power Systems: Large-scale distributed control for tomorrow's electricity grid'', SGE'2012, August 2012 (keynote).

Ilic, Marija, `` Toward IT-enabled Electricity Services: The Tale of Two Low-Cost Green Azores Islands'', Energy Efficiency for a More Sustainable World (EEMSW)'2012 Sao Miguel, 14-16 September 2012, <http://www.energyefficiency.uac.pt>

Ilic, Marija, `` Engineering IT-Enabled Sustainable Electricity Services: The Tale of Two Low-Cost Green Azores Islands'', International Workshop on Energy Efficiency for a More Sustainable World, University of Azores, São Miguel Island, Azores, Portugal, 14-16 September 2012. (keynote)

Ilic, Marija, `` Structure-Based Modeling and Control of Future Electric Energy Systems'', 2012 Symposium on Emerging Topics in Control and Modeling. UIUC, October 15, 2012 (invited, keynote).

Ilic, Marija, `` A review of today's operating and planning practice and critical need for innovation: The Case of Low-Cost Green Azores Islands'', Guest Lecture in 16.S949 Special Subject: Computational Methods for Sustainability.



Ilic, Marija, ``Engineering IT-Enabled Electricity Services: The Case of Low-Cost-Green Azores Islands'', Carnegie Mellon University Dean's Council, November 5, 2012.

Ilic, Marija, ``Making the Most out of Energy Technologies at Value'', IEEE-USA Energy Policy Committee, November 8, 2012.