

2013 AEIT Annual Conference

**Mondello, Palermo, Italy
3-5 October 2013**



**IEEE Catalog Number: CFP1317W
ISBN: 978-1-4799-2277-2**

Innovation in Energy

Smart Distribution System

The InGrid project and the evolution of supervision & control systems for Smart Distribution System management

Arrigoni Carlo, Bigoloni Maurizio, Rochira I. , Rodolfi M., Zanellini Fabio - Siemens, Italy, Bovo Cristian, Ilea V., Merlo Marco, Monfredini G., Subasic M. - Politecnico di Milano, Italy, Bonera R. - Università degli Studi di Milano, Italy

DSOs and Active Demand: Address Project Outcomes and Perspectives +

Di Marino Eugenio, Valtorta Giovanni - Enel Distribuzione, Italy, Losi Arturo, Russo Mario - Università di Cassino, Italy, Vicino Antonio, Paoletti Simone - Università di Siena, Italy

A Simplified Algorithm for The OLTC Tap Control in Active Distribution MV Networks

Caldon Roberto, Coppo Massimiliano, Sgarbossa R., Turri Roberto - University of Padova, Italy

Performances of the first Electric Storage Systems of Enel Distribuzione

Consiglio Lilia, Di Lembo Giorgio, Noce Christian - Enel Distribuzione, Italy, Eckert Peter, Rasic Andreja, Schuette Andreas - Siemens, Germany

Phasor Measurement Units for Smart Grids: Estimation Algorithm and Performance Issues

Barchi Grazia, Macii David, Petri Dario - University of Trento, Italy

A Possible Evolution of Substation Automation Systems for the Management of the Distributed Generation

Petrini Massimo, Casale Emiliano, Cuccia Paolo, Gnudi Roberto, Bassi Fabio, Giannuzzi Giorgio, Coluzzi Claudio, Bruno Gianluca, Campisano Laura, Zaretti Luciano, Agnetta Vincenzo, Sabelli Carlo- Terna Rete Italia, Italy

Assessing Security of Power and ICT Systems via a Risk-based Approach within an Integrated Framework

Ciapessoni Emanuele, Cirio Diego, Pitto Andrea - Ricerca sul Sistema Energetico – RSE, Italy, Massucco Stefano, Morini Andrea - University of Genoa, Italy, Sforna Marino - Terna, Italy

A Parametric Study on Unbalanced Three Phase islanded Microgrids with Inverter Interfaced Units

Riva Sanseverino Eleonora, Quang Ninh Nguyen, Zizzo Gaetano, Di Silvestre Maria Luisa- University of Palermo, Italy, Guerrero Josep Maria - Aalborg University, Denmark

The Smart Microgrid Pilot Project of the University of Genoa. Power and Communication Architectures

Bonfiglio A., Barillari L. , Delfino F., Pampararo F., Procopio R., Rossi M., Invernizzi M., Denegri G.B., Bracco S. - University of Genoa, Italy

Modeling the Control of Islanded Networks Supplied by Inverters: the Case of MV and LV Systems

Caldon Roberto, Coppo Massimiliano, Raciti Antonino, Turri Roberto - University of Padova, Italy

Mediterranean High Voltage Submarine Cable Links

Technology and System Challenges

Colla Luigi, Marelli Marco - Prysmian Powerlink, Italy, Lauria Stefano, Schembari Maddalena - "Sapienza" Università di Roma, Italy, Palone Francesco, Rebolini Massimo - Terna Rete Italia, Italy

The Role of the Sardinian Power System in the EU Supergrid **(

Celli Gianni, Mocci Susanna, Natale Nicola, Pilo Fabrizio - University of Cagliari, Italy

Management of Renewable Generation Plants: Imbalance Costs and Local Storage

Systems **+\$

Bignucolo Fabio, Raciti Antonino - University of Padova, Italy, Rossi B., Zingales A. - SAET, Italy

Innovation in Enabling Technologies

A Grid Tie Micro Inverter with Reactive Power Control Capability +*

Attanasio Rosario, Gennaro F., Scuderi G. - STMicroelectronics, Italy

DC/DC Converter for HEVs using Resonant Active Clamping Technique , &

Vitale Giovanni - STMicroelectronics, Italy

Latest Developments in Silicon Carbide MOSFETs: Advantages and Benefits vs.

Application **, ,

Di Giovanni Filippo, Buonomo Simone - STMicroelectronics, Italy

Thermal Modeling of Integrated Power Electronic Modules by a Lumped-Parameter Circuit Approach **- (

Raciti Angelo, Cristaldi Davide - University of Catania, Italy

A Novel Partial Discharge Detection System Based on Wireless Technology %\$

Candela Roberto, Di Stefano Antonio, Fiscelli Giuseppe, Franchi Bononi Stefano, De Rai Luca - Prysmian, Italy

Vision Based Traffic Conflict Analysis %%\$*

Battiato S., Farinella G.M., Giudice O., Cafiso S., Di Graziano A. - University of Catania, Italy

A High-Thrust Linear Electric Motor Prototype for Perspective Replacement of

Shipboard Hydraulic Actuators %%&

Bruzzone Claudio - University of Rome, Italy, Tessarolo Alberto - University of Trieste, Italy, Mazzuca Teresa, Scala G. - Italian Ministry of Defense

A Photovoltaic Charging System of an electrically assisted Rickshaw for Touristic Purposes %%

Caruso Massimo, Cecconi Vittorio, Cipriani G., Di Dio Vincenzo, Di Tommaso A.O., Genduso F., La Cascia D., Liga R., Ricco Galluzzo Giuseppe, Miceli Rosario, Trapanese M. - Università degli Studi di Palermo, Italy

Modeling and Simulation of a VCM Micromotor and its potential Applications %%&(

Caruso Massimo - Università degli Studi di Palermo, Italy

Innovation in Transportation and Mobility Systems

Bidirectional ESS for Railway Power Supply % \$

Brenna Morris, Foiadelli Federica, Zaninelli Dario - Politecnico di Milano, Italy

Siting and Sizing of Stationary Supercapacitors in a Metro Network %% *

Calderaro Vito, Gallo Vincenzo, Gruber Giuseppe, Piccolo Antonio - Università di Salerno, Italy

Use of Electrochemical Storage in Substations to Enhance Energy and Cost Efficiency of Tramways

Ceraolo Massimo, Giglioli Romano, Lutzemberger Giovanni - University of Pisa, Italy, Conte Mario, Pasquali Manlio - ENEA, Italy

Smart Mobility for Sustainability

Arena Marika, Cheli Federico, Zaninelli Dario - Politecnico di Milano, Italy, Capasso Alfonso, Lamedica Regina - "Sapienza" Università di Roma, Italy, Piccolo Antonio - Università di Salerno, Italy

Generators Electromechanical Stability in Shipboard Grids with Symmetrical Layout: Dynamic Interactions between Voltage and Frequency Controls

Sulligoi Giorgio, Vicenzutti Andrea, Chiandone Massimiliano, Bosich Daniele, Arcidiacono Vittorio - University of Trieste, Italy

Innovation in Electronics, Informatics and Telecommunications

Dangerous Effects Induced on Power MOSFETs by Terrestrial Neutrons

Consentino Giuseppe, Laudani M., Privitera G. - STMicroelectronics, Italy, Pace C., Giordano C., Mazzeo M., Hernandez Ambato J.L. - University of Calabria, Italy, Parlato A., Marchese N., Tomarchio E. - University of Palermo, Italy

Innovative Instrumentation for HRTB Tests on Semiconductor Power Devices

Consentino Giuseppe, De Pasquale D., Galiano S., D'Ignoti A. - STMicroelectronics, Italy, Pace C., Hernández Ambato J.L., Mazzeo M., Giordano C. - University of Calabria, Italy

An Embedded Biometric Sensor for Ubiquitous Authentication

Conti Vincenzo - Università degli Studi di Enna Kore, Italy, Vitabile Salvatore, Sorbelli Filippo - Università di Palermo, Italy

Enabling Technologies for Smart Building, what's missing?

Fantacci Romano, Pecorella Tommaso, Viti Roberto - Università di Firenze, Carlini Camillo, Obino Pietro - Telecom Italia, Italy

Web Interactive non Intrusive Load Disaggregation System for Energy Consumption Awareness

Amenta Valeria, Gagliano Salvina, Tina Giuseppe Marco, Di Modica Giuseppe, Tomarchio Orazio - University of Catania, Italy

Review of Studies of End-to-End QoS in LTE Networks

Forconi Sonia, Vizzarri Alessandro - University of Rome Tor Vergata, Italy

Multi-Objective Approach for the Optimal WiMax Allocation in Smart Grid

Soma Gian Giuseppe, Pilo Fabrizio, Celli Gianni - University of Cagliari, Italy

A Secret Sharing Scheme for Anonymous DNS Queries

Di Bella Giuseppe, Barcellona Cettina, Tinnirello Ilenia - Università degli Studi di Palermo, Italy

The European Electronic Toll Service Interoperability: a Key Strategy for easier Mobility in Europe

De Angelis Marco - IMQ, Italy, Giorgi Paolo - I.T.S., Italy