

List of provisionally selected abstracts (29 January 2018)

Theme 1. Business models, roles, responsibilities and regulatory aspects

0029	<i>Energy Transition enhanced by Sharing Energy Management Systems on local energy districts</i>	Vera Nunes, EDP Distribuição Energia, Portugal/ Gonçalo Faria, EDP Distribuição Energia, Portugal/ Hugo Nogueira, EDP Distribuição Energia, Portugal/ jorge moreira, EDP Distribuição Energia, Portugal/ susete albuquerque, EDP Distribuição Energia, Portugal/ sonia cunha, Instituto Superior Técnico, Portugal/ / / /
0037	<i>Evaluating the Economization of Smart Industrial Microgrids in Iranian Power Distribution Companies using the Conceptual Model of Development-oriented Planning (Case Study: Power Distribution Company of Mazandaran)</i>	hossein yousef, Mazandaran Electricity Distribution Company, Islamic Republic Of Iran, Islamic Republic Of Iran/ / / / / / / / /
0039	<i>Ensuring Reliable Power for Commercial and Industrial Sites</i>	Mohit Chhabra, ABB, The United States of America/ / / / / / / / /
0054	<i>Concrete design of local flexibility markets using the traffic light approach</i>	Kevin Kotthaus, Wuppertal University, Germany/ Jessica Hermanns, Wuppertal University, Germany/ Frederik Paulat, Wuppertal University, Germany/ Sven Pack, Wuppertal University, Germany/ Jan Meese, Wuppertal University, Germany/ Nils Neusel-Lange, SPIE SAG GmbH, Germany/ Robert Schweiger, E-Werk Schweiger oHG, Germany/ Markus Zdrallek, Wuppertal University, Germany/ Fritz Schweiger, , E-Werk Schweiger oHG/
0065	<i>Identification and evaluation of marketing opportunities for flexibility in local energy communities</i>	Robert Schmidt, Wuppertal University, Germany/ Evgeny Schnittmann, Wuppertal University, Germany/ Jan Meese, Wuppertal University, Germany/ Markus Zdrallek, Wuppertal University, Germany/ Thomas Arnoneit, Stadtwerke Iserlohn GmbH, Germany/ / / / /
0066	<i>Optimized Decentralized and Centralized Load Management Techniques in Industrial Microgrids</i>	Charline Stevanoni, University of Mons, Belgium/ François Vallée, University of Mons, Belgium/ Zacharie De Grève, University of Mons, Belgium/ Olivier Deblecker, University of Mons, Belgium/ / / / / /
0081	<i>Business model development on parking infrastructure with high shares of electro mobility in smart cities</i>	Christian Haag, Flexible Electrical Networks GmbH, Germany/ / / / / / / / /
0100	<i>R&I needs and challenges for a future reliable, economic and efficient smart grid system taking into account micro-grids and local energy communities to support the EU Energy transition</i>	Raphael Rinaldi, ETIP SNET, Belgium/ Werner Friedl, ETIP SNET, WG1, Austria/ Mihaela Albu, ETIP SNET, WG1, Romania/ Víctor Bermúdez Llamusí, ETIP SNET, WG1, Spain/ Anna Kulmala, ETIP SNET, WG1, Finland/ Ricardo Prata, ETIP SNET, WG1, Portugal/ Jakub Marecek, ETIP SNET, WG1, Ireland/ Natalie Samovich, ETIP SNET, WG1, Portugal/ Martin Střelec, , ETIP SNET, WG1/
0123	<i>Energy Market Models for Distributed Energy Resources</i>	Georgia Asimakopoulou, National Technical University of Athens, Greece/ Nikos Hatziaargyriou, National Technical University of Athens, Greece/ /

0134	Performance indices of partially self-sustaining direct current communities in the given regulatory framework	Gonca Gürses-Tran, Flexible Electrical Networks GmbH, Germany/ / / / / / / /
0139	Great revolution: the business perspective of energy internet in China	Yang LI, EDF , China/ xingyan NIU, EDF , China/ / / / / / / /
0170	The Need for Charging Reform to Support Community Energy Projects	Ben Lister, Uniper, United Kingdom/ / / / / / / /
0183	Economic and Operational Implications of Demand Charge for Distribution Systems with Renewable Energy	chen fang, Electric Power Research Institute, State Grid Shanghai Municipal Electric Power Company, China/ Weibin Cao, State Grid Shanghai Municipal Electric Power Company, China/ Duanhong Zhang, Shanghai Jiao Tong University, China/ Tao Sun, Shanghai Jiao Tong University, China/ Donghan Feng, Shanghai Jiao Tong University, China/ / / / / / / / /
0188	Implementing the Standardization Framework to Support the Development of Non-Conventional Distribution Networks / Microgrids	Raffael La Fauci, IEC/ewz, Switzerland/ Xavier Xianjun Yang, IEC/EDF, France/ Wenyuan Ma, IEC/CEPRI, China/ / / / / / / /
0201	Urban energy community between recommendation and perspective	Valentin Stefanescu, SDEE Electrica, Romania/ George Vlad Badea, Enel, Romania/ / / / / / / /
0219	Power trading and pricing among DSO and multi-micro grid in transactive energy market	Wenxiong Mo, Guangzhou Power Supply Bureau Co., Ltd., China/ Hang Zhang, Guangzhou Power Supply Bureau Co., Ltd., China/ Hongbin Wang, Guangzhou Power Supply Bureau Co., Ltd., China/ Yong Wang, Guangzhou Power Supply Bureau Co., Ltd., China/ Yu Qin, Guangzhou Power Supply Bureau Co., Ltd., China/ Sanhong Zou, Guangzhou Power Supply Bureau Co., Ltd., China/ / / / / / / /
0231	Energy Local, a business model for local energy communities - concept and outcomes	Peter Boait, De Montfort University, United Kingdom/ Robin Morris, Energy Local CIC, United Kingdom/ / / / / / / /
0232	Legal opportunities for Smart Grid deployment in the European Union	George Badea, Enel Foundation, Romania/ / / / / / / /
0234	Socio-technical Modelling of Customer Roles in Developing Low Voltage Distribution Networks	Katja Sirviö, University of Vaasa, Finland/ Petra Berg, University of Vaasa, Finland/ Kimmo Kauhaniemi, University of Vaasa, Finland/ Hannu Laaksonen, University of Vaasa, Finland/ Pirjo Laaksonen, University of Vaasa, Finland/ Arto Rajala, University of Vaasa, Finland/ / / / / / / /
0239	A novel optimal electricity pricing method in microgrids based on customers' participation levels	HamidReza Mansouri, Tehran Electrical Power Distribution Co., Islamic Republic Of Iran/ MohammadMajid Jalali, Tehran Electrical Power Distribution Co., Islamic Republic Of Iran/ Hossein Sabouri, Tehran Electrical Power Distribution Co., Islamic Republic Of Iran/ / / / / / / /
0246	The multiple roles of a battery storage unit. Results of a pilot project.	Evdokia Kaffe, ewz, Switzerland/ Raffael La Fauci, ewz, Switzerland/ Benedikt Loepfe, ewz, Switzerland/ / / / / / / /
0250	Local energy communities: an insight from European smart grid projects	Antonios Marinopoulos, European Commission - Joint Research Centre, The Netherlands/ Anna Mengolini, European Commission - Joint Research Centre, The Netherlands/ Julija Vasiljevska, European Commission - Joint Research Centre, The Netherlands/ / / / / / / /

0263	<i>A Two-stage Operating Strategy of Microgrids With Consideration of Uncertainty For Participating in Power Market</i>	Zichong Zhang, Guangzhou Power Supply Bureau Co.,Ltd.CSG, China/ Hao He, Guangzhou Power Supply Bureau Co.,Ltd.CSG, China/ Dapeng Chen, South China University of Technology, China/ / / / / / /
0264	<i>Analysis on the Stakeholders of Microgrid Businesses for the Development of Dissemination Policies</i>	Sungwook Hwang, KEPCO, The Republic Of Korea/ Yongseung Lee, KEPCO, The Republic Of Korea/ Junbo Sim, KEPCO, The Republic Of Korea/ Wook Won Kim, KEPCO, The Republic Of Korea/ Hakju Lee, KEPCO, The Republic Of Korea/ / / / /
0272	<i>Local energy markets: Opportunities, benefits, and barriers</i>	Goncalo Mendes, Lappeenranta University of Technology (LUT), Finland/ Salla Annala, Lappeenranta University of Technology (LUT), Finland/ Jere Nylund, Lappeenranta University of Technology (LUT), Finland/ Samuli Honkapuro, Lappeenranta University of Technology (LUT), Finland/ Olli Kilkki, Empower, Finland/ Jan Segerstam, Empower, Finland/ / / /
0280	<i>Considering various consumers profiles in a smart-grid</i>	Benoit Durillon, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Arnaud Davigny, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Sabine Kazmierczak, Lille Catholic Institut (ICL) - Faculty of Business, Economics, and Sciences, France/ Hervé Barry, Lille Catholic Institut (ICL) - Faculty of Business, Economics, and Sciences, France/ Christophe Saudemont, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Benoît Robyns, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ / / / /
0281	<i>Optimal operation and fair profit allocation in community microgrids</i>	Bertrand Cornélusse, University of Liège, Belgium/ Damien Ernst, University of Liège, Belgium/ Simon Lachi, Nethys S.A, Belgium/ / / / / / / /
0286	<i>The Role of Utilities in the Development of the Smart City</i>	Neil Hughes, Electric Power Research Institute (EPRI), The United States of America/ / / / / / / / / /
0291	<i>The innovative role of local system operator as a facilitator of grid and community services in the local electricity market</i>	Iliana Ilieva, Smart Innovation Norway, Norway/ Xue Wang, InnoEnergy, Sweden/ Jayaprakash Rajasekharan, Smart Innovation Norway, Norway/ / / / / / /
0294	<i>Localised Energy Consumption Aggregates using Smart Metering data</i>	Karima Boukir, Enedis, France/ Olivier Chaouy, Enedis, France/ Bruno Traverson, EDF R&D, France/ / / / / / / /
0297	<i>InteGrid Grid-Market Hub: empowering Local Energy Communities</i>	Pedro Matos, EDP Distribuição, Portugal/ Guido Pires, EDP Distribuição, Portugal/ Inês Prates, EDP Distribuição, Portugal/ Ricardo Bessa, INESC TEC, Portugal/ Fábio Coelho, INESC TEC, Portugal/ Ana Alonso, INESC TEC, Portugal/ Hossein Shahrokni, Kungliga Tekniska högskolan (KTH), Sweden/ / / /
0304	<i>Collaborative Business Model in Future Distribution Network with Shared Network Access (SNA)</i>	Fang Zhai, Tsinghua University, China/ Zhipeng Zhang, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ / / / / / / /
0317	<i>Platform based business models in the future energy market</i>	Bernt Arild Bremdal, Smart Innovation Norway & University of Tromsø, Norway/ Dagfinn Wåge, Lyse, Norway/ Gunnar Crawford, Stavanger kommune, Norway/ / / / / / / /

0319	Privacy by Design for Local Energy Communities	Pol Van Aubel, Radboud University, The Netherlands/ Jaap-Henk Hoepman, Radboud University, The Netherlands/ Erik Poll, Radboud University, The Netherlands/ / / / / / /
0323	Blockchain for peer-to-peer energy exchanges: design and recommendations	David Vangulick, ORES - University of Liège, Belgium/ Bertrand Cornélusse, University of Liège, Belgium/ Damien Ernst, University of Liège, Belgium/ / / / / / /
0330	Developing Policy Schemes Towards Grid-Scale Microgrids; Discussing The Iranian Case	Mohammad Hassan Bahmani, Tarbiat modares university, Islamic Republic Of Iran/ Mahmoud Reza Haghifam, Tarbiat modares university, Islamic Republic Of Iran/ Majid Miri Larimi, Tarbiat modares university, Islamic Republic Of Iran/ / / / / / /
0354	The roles of the Distribution System Operators in making microgrids an integrated part of the electricity distribution system of the future.	Hadi Safarifarmad, Khorasanrazavi Electric Distribution Co., Islamic Republic Of Iran/ / / / / / /
0356	Establishment of ESS according to Customer Type in order to derive Optimal Effect of Power System Stability and Business Aspect	Chung-yeol Yang, Korea Electric Power Corporation , The Republic Of Korea/ In-gyu Choi, Korea Electric Power Corporation , The Republic Of Korea/ Ki-ju Ahn, Korea Electric Power Corporation , The Republic Of Korea/ Seung-ho Yang, Korea Electric Power Corporation , The Republic Of Korea/ / / / / / /
0375	Sizing and dispatching of local energy communities to assess their potential economic impact through regulation and community design	Damien Schyns, Tractebel, Belgium/ Frédéric Tounquet, Tractebel, Belgium/ Parvathy Chittur Ramaswamy, Tractebel, Belgium/ Siebert Bressinck, Tractebel, Belgium/ Vincenzo Giordano, Tractebel, Belgium/ / / / / / /
0384	Improved methods for stakeholder analysis to unveil vital roles and responsibilities in the future flexibility markets	Iliana Ilieva, Smart Innovation Norway, Norway/ Sanket Puranik, Smart Innovation Norway, Norway/ Bernt Bremdal, Smart Innovation Norway, Norway/ / / / / / /
0393	Topological power plants as embedded microgrids for the market and grid integration of distributed energy resources	Maria Vasconcelos, RWTH Aachen University, Germany/ Nicolas Thie, RWTH Aachen University, Germany/ Armin Schnettler, RWTH-AACHEN University, Germany/ Michael Metzger, Siemens AG, Germany/ Alexander Hammer, Siemens AG, Germany/ Markus Reischböck, Siemens AG, Germany/ Robert Koeberle, AllgäuNetz GmbH & Co. KG, Germany/ / / / / / /
0399	Methodology for Factual Justification to Prioritise Critical Infrastructures during Emergency Power Supply	Christoph Steinhart, Augsburg, University of Applied Sciences, Germany/ Sonja Baumgartner, Augsburg, University of Applied Sciences, Germany/ Michael Finkel, Augsburg, University of Applied Sciences, Germany/ Rolf Witzmann, Technical University of Munich, Germany/ / / / / / /
0400	Organisation of the commercial and public services for the installation of local and renewable energy communities	Ruth Van Caenegem, Eandis, Belgium/ Wim Cardinaels, Energyville, Belgium/ Frederik Loecx, Flux50, Belgium/ / / / / / /
0402	Lessons learned from local energy projects in Scotland	Calum Edmunds, University of Strathclyde, United Kingdom/ Stuart Galloway, University of Strathclyde, United Kingdom/ Simon Gill, University of Strathclyde, United Kingdom/ Beth Robertson, University of Strathclyde, United Kingdom/ / / / / / /

0404	Strengthening the foundation of community energy models: community engagement and socio-economic impacts in Project SENSIBLE	Gisela Mendes, EDP NEW R&D, Portugal/ Pedro Castro, EDP NEW R&D, Portugal/ Alexandre Neto, EDP NEW R&D, Portugal/ Julian Marsh, MOZES, United Kingdom/ Lucelia Rodrigues, University of Nottingham, United Kingdom/ Lorna Kiamba, University of Nottingham, United Kingdom/ / / /
0416	Providing a customer microgrid as a service – A review of a pilot installation	Vincent Gliniewicz, Vattenfall R&D, Sweden/ Annika Larsson, Vattenfall R&D, Sweden/ Anders Skarin, Vattenfall Eldistribution AB, Sweden/ / / / /
0418	Business case assessment of flexible multi-energy microgrid considering local and wider system ancillary services	Han Wang, The University of Melbourne, Australia/ Nicholas Good, The University of Manchester, United Kingdom/ Eduardo Alejandro Martinez Cesena, The University of Manchester, United Kingdom/ Pierluigi Mancarella, The University of Melbourne, Australia/ / / / / /
0439	Challenges for coordination consumption of a pool of prosumers	Moch Arief Albachrony, CEA & BPPT, Indonesia/ Duy Long HA, CEA-INES, France/ Quoc Tuan Tran, CEA/INES, INSTN – Paris Saclay University, France/ Adrien BRUN, CEA-INES, France/ Marc PETIT, Centrale Supélec, France/ / / / /
0440	Real-Time Bidding Strategies from Micro-Grids Using Reinforcement Learning	Ioannis Boukas, University of Liège, Belgium/ Damien Ernst, Munich University of Applied Sciences, Germany/ Bertrand Cornélusse, University of Liège, Belgium/ / / / / / /
0474	Pricing of EV Demand Flexibility in the Local Energy Market	Fan Yi, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ / / / / / / / /
0479	Berlenga Island - Sustainable Smart Microgrid.	Ricardo Santos, EDP Distribuição, Portugal/ Gonçalo Faria, EDP Distribuição, Portugal/ Claudia Pinto, EDP Distribuição, Portugal/ Antonio Fonseca, EDP Distribuição, Portugal/ António Joyce, LNEG, Portugal/ Nuno Cativo, Camera Peniche, Portugal/ / / /
0480	Local Energy Community: the Italian Scenario within the pan-European Framework	Claudio Carlini, RSE - Ricerca sul Sistema Energetico, Italy/ Diana Moneta, RSE - Ricerca sul Sistema Energetico, Italy/ Valerio Angelucci, RSE - Ricerca sul Sistema Energetico, Italy/ / / / / / / / /
0481	Energy communities in Greece through peer to peer approach	Maya Andreou, Social cooperative Wind of Renewal, Greece/ / / / / / / / / /
0486	Microgrids offering services and flexibility: DSOs' business cases	Giuditta Pisano, University of Cagliari, Italy/ Nicola Natale, University of Cagliari, Italy/ Fabrizio Pilo, University of Cagliari, Italy/ Gian Giuseppe Soma, University of Cagliari, Italy/ / / / / / /
0494	Multi-objective Role of BESS in an Energy System	Nadezda Belonogova, Lappeenranta University of Technology (LUT), Finland/ Ville Tikka, Lappeenranta University of Technology (LUT), Finland/ Samuli Honkapuro, Lappeenranta University of Technology (LUT), Finland/ Jukka Lassila, Lappeenranta University of Technology (LUT), Finland/ Jarmo Partanen, Lappeenranta University of Technology (LUT), Finland/ Pirjo Heine, Helen Electricity Network Ltd., Finland/ Atte Pihkala, Helen Electricity Network Ltd., Finland/ Hannu-Pekka Hellman, Helen Electricity Network Ltd., Finland/ Juha Karppinen, Helen Ltd./

0496	Peak Demand Charge Reduction in Microgrids through Adaptive Optimal Energy Management	Dino Ablakovic, Siemens AG, Germany/ Markus Reischböck, Siemens AG, Germany/ / / / / / / /
0497	On the design of a microgrids aggregation management framework to provide ancillary services	Alessio La Bella, Politecnico di Milano, Italy/ Marcello Farina, Politecnico di Milano, Italy/ Carlo Sandroni, RSE, Ricerca sul sistema energetico, Italy/ Riccardo Scattolini, Politecnico di Milano, Italy/ / / / / /
0500	Testing network-based electricity prices and batteries in a field test	Victor Reijnders, University of Twente, The Netherlands/ Marco Gerard, University of Twente, The Netherlands/ Gerard Smit, University of Twente, The Netherlands/ Johann Hurink, University of Twente, The Netherlands/ / / / / /
0505	Business Model for Frequency Regulation in Future Low Inertia Power Systems	Lucian Toma, University Politehnica of Bucharest, Romania/ Mihai Sanduleac, University Politehnica of Bucharest, Romania/ Aysar Musa, E.ON Energy Research Center, RWTH Aachen University, Germany/ Antonello Monti, E.ON Energy Research Center, RWTH Aachen University, Germany/ Steffen Bretzke, Ericsson, Germany/ Anca Antemir, Transelectrica, Romania/ / / / /
0513	Demand Side Management in a rural area	Pedro Castro, EDP NEW R&D, Portugal/ Ricardo André, EDP NEW R&D, Portugal/ Alexandre Neto, EDP NEW R&D, Portugal/ Gisela Mendes, EDP NEW R&D, Portugal/ Clara Gouveia, INESC TEC, Portugal/ Olli Kilkki, Empower, Finland/ Carlos Florez, ARMINES, France/ / / / /
0520	Distributed Iterative Local Energy Bidding in Agent-based Microgrids	Yajun Zhang, University of Bath, United Kingdom/ Chenghong Gu, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ / / / / / /
0521	Assessment of Relative Efficiency of Differing Energy Markets for Community Energy	Lanqing Shan, University of Bath, United Kingdom/ Heng Shi, University of Bath, United Kingdom/ Liz Sidebotham, Northern Powergrid, United Kingdom/ Furong Li, University of Bath, United Kingdom/ / / / / / /
0523	Flexibility for DSOs on a local scale: business models and associated regulatory questions raised in the InterFlex project	Christian Dumbs, Enedis, France/ Grégory Jarry, Accenture, France/ Didier Laffaille, Commission de régulation de l'énergie, France/ Stanislav Hes, CEZ Distribuce, The Czech Republic/ Luis Arturo Hernandez Salmeron, E.ON, Germany/ Thomas Drizard, Enedis, France/ / / / / /
0529	Increasing the household engagement of energy communities' in demand side management programs through normalized baselines	Aram Mäkivierikko, Kungliga Tekniska högskolan (KTH), Sweden/ Hossein Shahrokni, Kungliga Tekniska högskolan (KTH), Sweden/ Olga Kordas, Kungliga Tekniska högskolan (KTH), Sweden/ / / / / / /
0539	Microgrid Business Intelligent Model Based on a Fuzzy System	hoda farag, Alexandria Electricity Distribution Company, Egypt/ / / / / / / / / /
0552	Impact of Aggregator of Distributed Energy Resources on Traditional Power System Participants	Ivan Pavić, University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia/ Mateo Beus, University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia/ Hrvoje Pandžić, University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia/ Tomislav Capuder, University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia/ / / / / / / /

		Ivona Štritof, Hrvatska elektroprivreda d.d., Croatia/////
0562	<i>Cost-Benefit Analysis: Case Studies of Community Microgrids</i>	Dean Weng, Electric Power Research Institute (EPRI), The United States of America/ Jeffrey Roark, Electric Power Research Institute (EPRI), The United States of America/ Arindam Maitra, Electric Power Research Institute (EPRI), The United States of America/ Nadav Enbar, Electric Power Research Institute (EPRI), The United States of America/////
0591	<i>Exploring Regulatory Policies in Distribution Networks through a Multi-Agent Simulator</i>	Miguel Manuel de Villena Millan, University of Liège, Belgium//////////

Theme 2. Architecture and system development

0043	Microgrids for decentralized energy markets based on blockchain	Giovanni Velotto, ABB Corporate Research, Sweden/ Ritwik Majumder, ABB Corporate Research, Sweden/ Bemgt Stridh, ABB Corporate Research, Sweden/ / / / / / /
0071	A Cooperative Planning Model of Active Distribution Network with Multi-MGs	Kaigui Xie, State Key Laboratory of Power Transmission Equipment and System Security, Chongqing University, Chongqing, 400030, China/ Botao Ma, State Key Laboratory of Power Transmission Equipment and System Security, Chongqing University, Chongqing, 400030, China/ / / / / / / /
0078	Optimal and Modular Configuration of Wind Integrated Hybrid Power Plants for Off-Grid Systems	Lennart Petersen, Department of Energy Technology, Aalborg University, Denmark/ Florin Iov, Department of Energy Technology, Aalborg University, Denmark/ German Claudio Tarnowski, Vestas Wind Systems, Denmark/ Carlos Eduardo Carrejo Gonzales, Vestas Wind Systems, Denmark/ / / / / /
0082	SPORE @REIDS – A multi-fluid microgrid demonstrator in Singapore	Quentin Antoine, Engie Laborelec, Belgium/ Stijn Uytterhoeven, Engie Laborelec, Belgium/ / / / / / / /
0089	EDPD's experience with data analytics and stochastic simulation methods for risk-controlled network planning	Andre Aguas, EDP Distribuição, Portugal/ Vera Pereira, EDP Distribuição, Portugal/ Pedro Carvalho, AmberTree, Portugal/ Joao Machado, AmberTree, Portugal/ Luisa Jorge, EDP Distribuição, Portugal/ Ricardo Prata, EDP Distribuição, Portugal/ Rui Bento, EDP Distribuição, Portugal/ / /
0091	Microgrid Open Architecture: The need for an Open Architecture that Promotes Flexibility, Scalability, and Security	Mark Ossel, OSGP Alliance, The Netherlands/ / / / / / / / / /
0106	A methodology to assess the potential of demand response of industry in Italy A methodology to assess the potential of demand response of industry in Italy	simone maggiore, Ricerca sul Sistema Energetico (RSE), Italy/ claudio zagano, Ricerca sul Sistema Energetico (RSE), Italy/ anna realini, Ricerca sul Sistema Energetico (RSE), Italy/ / / / / / / /
0119	Validating the ELECTRA Web-of-Cell control concept – An overview of possible simulation environment enhancements	Mattia Cabiati, Ricerca sul Sistema Energetico (RSE), Italy/ Carlo Tornelli, Ricerca sul Sistema Energetico (RSE), Italy/ Christian Seidl, AIT Austrian Institute of Technology, Austria/ Thomas Strasser, AIT Austrian Institute of Technology, Austria/ / / / / /
0128	Isolated microgrid design problem considering resilient indices	Sajjad Rahmanzadeh, Guilan Power Distribution Company, Islamic Republic Of Iran/ Hamed Daneshvar, Guilan Power Distribution Company, Islamic Republic Of Iran/ Ali Mirzazadeh, Guilan Power Distribution Company, Islamic Republic Of Iran/ / / / / / / /
0135	Holistic energy analysis for urban development applied on Colombo Port City, Sri Lanka	Katarina Yuen, Sweco AB, Sweden/ Senad Apelfröjd, Sweco AB, Sweden/ / / / / / / /
0137	Robust and reliable design of a micro-grid supply chain based on photovoltaic energy in presence of system disruptions (Case study: Yazd; a sunny city with 320 days sunshine)	Davood Shishebori, Yazd Electric Distribution Company, Islamic Republic Of Iran/ Faride Behdad, Yazd Electric Distribution Company, Islamic Republic Of Iran/ Ahmad Ahmadi Yazdi, Yazd Electric Distribution Company, Islamic Republic Of Iran/ / / / / / / / / /

0143	<i>Design of a grid-connected campus microgrid considering energy efficiency and financial feasibility</i>	Ba Hau Vu, Kookmin University, The Republic Of Korea/ Munir Aminu Husein, Kookmin University, The Republic Of Korea/ Il-Yop Chung, Kookmin University, The Republic Of Korea/ Jintae Cho, Korea Electric Power Corporation , The Republic Of Korea////////
0174	<i>Design of Decentral Energy System – Optimized Energy Supply on Basis of PSS®DE</i>	Han Rui, Siemens AG, Germany/ Ben Gemsjaeger, Siemens AG, Germany/ Tongtong Akerman, Siemens AG, Germany////////
0178	<i>A completely renewable remote/isolated μ-grid in Mafate</i>	davide beretta, EIFER, Germany/ Philippe Mocoteguy, EIFER, Germany/ giovanna sessa, EIFER, Germany/ matthieu limagne, EDF SEI La Reunion, France/ jean emmanuel boucher, Powidian, France/////
0185	<i>Defining residential customer interface and connection principles for low voltage direct current grids</i>	Antti Alahäivälä, VTT Technical Research Centre of Finland Ltd, Finland/ Kari Mäki, VTT Technical Research Centre of Finland Ltd, Finland/ Anna Kulmala, VTT Technical Research Centre of Finland Ltd, Finland/ Jussi Ikäheimo, VTT Technical Research Centre of Finland Ltd, Finland/ Kim Forssen, VTT Technical Research Centre of Finland Ltd, Finland/ YoungPyo Cho, KEPCO Research Institute, The Republic Of Korea/ JaeHan Kim, KEPCO Research Institute, The Republic Of Korea/ Jintae Cho, KEPCO Research Institute, The Republic Of Korea/ JuYoung Kim, , KEPCO Research Institute/
0192	<i>LV Connect and Manage: A Novel Solution for LCT Integration</i>	Samuel Jupe, Nortech Management Limited, United Kingdom/ Mikhail Prokhnich, Western Power Distribution, United Kingdom//////////
0194	<i>Architecture of Virtual Power Plant for Ancillary Services</i>	Jibrán Ali, DITEN-University of Genova, Italy/ Stefano Massucco, DITEN (University of Genova), Italy/ Federico Silvestro, DITEN (University of Genova), Italy////////
0218	<i>Design and Implementation of an Internet of Things Based Smart Energy Metering</i>	Mohammad Hossein Yaghmaee, Mashhad Electric Energy Distribution Co., Islamic Republic Of Iran/ Mohsen Zabihi, Mashhad Electric Energy Distribution Co., Islamic Republic Of Iran/ saeed Alishahi, Mashhad Electric Energy Distribution Co., Islamic Republic Of Iran////////
0221	<i>Research on flexible network planning of autonomy micro grid</i>	Ranqun Zhuo, School of Electrical and Electronic Engineering, North China Electric Power University, China/ Zifa Liu, School of Electrical and Electronic Engineering, North China Electric Power University, China////////
0255	<i>Design and development of a smart urban microgrid for an electric logistics fleet</i>	Christos Keramisanos, UK Power Networks Services, United Kingdom/ Panagiotis Papadopoulos, HIT Hypertech Innovations, Cyprus/ Ismini Dimitriadou, UK Power Networks, United Kingdom////////
0257	<i>On Fostering Smart Grid Systems Development and Validation with a Model-Based Engineering and Support Framework</i>	Filip Pröstl-Andrén, AIT Austrian Institute of Technology GmbH, Austria/ Thomas Strasser, AIT Austrian Institute of Technology GmbH, Austria/ Jürgen Resch, Ing. Punzenberger COPA-DATA GmbH, Austria/ Christof Brandauer, Salzburg Research Forschungsgesellschaft m.b.H., Austria////////
0276	<i>Bottom Up Approach for the Prediction of the Deployment of Distributed Energy Resources</i>	Oliver Pohl, Schleswig-Holstein Netz AG, Germany/ Torsten Sowa, Schleswig-Holstein Netz AG, Germany/ Tobias Pletzer, Schleswig-Holstein Netz AG, Germany/ Xiaohu Tao, Schleswig-Holstein Netz AG, Germany/

		Joachim Kabs, Schleswig-Holstein Netz AG, Germany/ ////
0284	Reliability Assessment of Islanded Microgrids with Distributed Energy Resources and Demand Management	Alberto Escalera Blasco, IMDEA Energy Institute, Spain/ Milan Prodanovic, IMDEA Energy Institute, Spain////////
0301	Multi-Laboratory Cooperation for Validating Microgrid and Smart Distribution System Approaches	Marcel Otte, Hamburg University of Applied Sciences, Germany/ Daniele Pala, Ricerca sul Sistema Energetico (RSE), Italy/ Carlo Sandroni, Ricerca sul Sistema Energetico (RSE), Italy/ Sebastian Rohjans, Hamburg University of Applied Sciences, Germany/ Thomas Strasser, AIT Austrian Institute of Technology, Austria/////
0303	Artificial Intelligence for Microgrid Planning	Age Van der Mei, Duinn, The Netherlands/ Jan-Peter Doomernik, Enexis, The Netherlands/ Gaston Halders, Enexis, The Netherlands////////
0305	An energy storage integration tool for microgrid techno-economic assessment	Anastasia Nikolopoulou, DNV GL, The Netherlands/ Novy Francis, DNV GL, The Netherlands/ Jos van der Burgt, DNV GL, The Netherlands////////
0313	Co-simulation of electricity distribution networks and blockchain-based local peer-to-peer energy trading platforms	Barry Hayes, NUI Galway, Ireland/ Subhasis Thakur, NUI Galway, Ireland/ John Breslin, NUI Galway, Ireland////////
0320	Integrating an Agent-Aggregator Model for Demand Side Management in Distribution Network Planning	Irena Dukovska, Eindhoven University of Technology, The Netherlands/ Raoul Bernards, Eindhoven University of Technology, The Netherlands/ Johan Morren, Eindhoven University of Technology, The Netherlands/ Han (J.G.) Slootweg, Eindhoven University of Technology, The Netherlands////////
0321	To expand microgrid applications in rural areas	Toshihisa FUNABASHI, Nagoya University, Japan/ Hirota TAKANO, University of Fukui, Japan/ Takeyoshi Kato, Nagoya University, Japan/ Atsushi YONA, University of the Ryukyus, Japan/ Tomonobu SENJYU, University of the Ryukyus, Japan/////
0322	Block-level microgrids for power system resilience: Scaling and impacts	Aminy Ostfeld, University of California, Berkeley, The United States of America/ Michael Whitmeyer, University of California, Berkeley, The United States of America/ Alexandra von Meier, University of California, Berkeley, The United States of America////
0324	Blockchain for peer-to-peer energy exchanges: probabilistic approach of Proof of Stake	David Vangulick, ORES - University of Liège, Belgium/ Bertrand Cornélusse, University of Liège, Belgium/ Damien Ernst, University of Liège, Belgium////////
0336	Study on Small Power Grid Model with an EMS that controls diesel generators, PV and storage batteries	YOSHIKI KUSHIMA, TEPCO Power Grid, inc., Japan/ KAZUHIRO YOSHIMURA, Tokyo Electric Power Company Holdings, Inc., Japan/ SATORU KOIZUMI, TEPCO Power Grid, inc., Japan/ MASAHITO MIYATA, TEPCO Power Grid, inc., Japan/////
0338	Development and Test of KEPCO Distribution Management System	Cheol-Min Chu, KEPCO Research Institute, The Republic Of Korea/ Won-Wook Jung, KEPCO Research Institute, The Republic Of Korea/ Jeong-Hun Kim, KEPCO Research Institute, The Republic Of Korea/ Jong-Nam Weon, KEPCO Research Institute, The Republic Of Korea/ Hakju Lee, KEPCO Research Institute, The Republic Of Korea/////

0347	Design of High Efficiency Unit Module of Solid State Transformer using SiC MOSFET Devices for DC Distribution	Chun gi Yun, Konkuk University, The Republic Of Korea/ Younghoon Cho, Konkuk University, The Republic Of Korea/ Ho-Sung Kim, KERI, The Republic Of Korea/ Ju-Yong Kim, KEPRI, The Republic Of Korea/ / / / /
0363	When to go for microgrids? Analysis of the main drivers in energy access context	Gauthier Roig, Tractebel, Belgium/ Sebastien Leyder, Tractebel, Belgium/ Vincent Lambillon, Tractebel, Belgium/ / / / / / /
0367	Flexible SCADA Framework Incorporating Local Energy Communities (LEC) At Medium Voltage (MV) Network	Claus Leth Bak, Department of Energy Technology, Aalborg University, Denmark/ Birgitte Bak-Jensen, Department of Energy Technology, Aalborg University, Denmark/ Filipe Miguel Faria Da Silva, Department of Energy Technology, Aalborg University, Denmark/ ABDUL WACHID SYAMRONI, Department of Energy Technology, Aalborg University, Denmark/ / / / / /
0373	Smart Grid Security Method: Consolidating requirements using a systematic approach	Mathias Uslar, OFFIS e.V., Germany/ Christine Rosinger, OFFIS e.V., Germany/ Sebastian Hanna, OFFIS e.V., Germany/ Marion Gottschalk, OFFIS e.V., Germany/ Maike Rosinger, OFFIS e.V., Germany/ Christina Kronberg, OFFIS e.V., Germany/ Johann Schütz, OFFIS e.V., Germany/ Judith Schulte, OFFIS e.V., Germany/ Marie Clausen, , OFFIS e.V./
0388	Power Systems Modelling of a Community Energy Project	Gita Judah, Frazer Nash, United Kingdom/ / / / / / / / /
0396	DC Microgrids for energy communities in the developing world	Christina Papadimitriou, National Technical University of Athens, Greece/ Vasilis Kleftakis, National Technical University of Athens, Greece/ Nikos Hatzigiorgi, National Technical University of Athens, Greece/ / / / / / /
0403	Distributed P2P Energy Trading System Using Matching System	Yasuhiro Takeda, The University of Tokyo, Japan/ Shin Fukushima, The University of Tokyo, Japan/ Kenji Tanaka, The University of Tokyo, Japan/ / / / / / /
0407	Robust technical/functional operation architecture for smart power systems	Albana ILO, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ Christian Schirmer, Netz Niederösterreich GmbH, Austria/ Daniel-Leon Schultis, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ / / / / / /
0413	A Practicable Design of Energy Internet Compatible with Current Power Supply System	AiQiang Pan, Shanghai Electric Power Research Institute,SGCC, China/ ling pan, Shanghai Electric Power Research Institute,SGCC, China/ Ting Zhao, Global Energy Interconnection Research Institute, China/ Di Zhang, Global Energy Interconnection Research Institute, China/ / / / / / /
0414	Residential quarters as innovative energy cells	Linda Günther, Bergische Universität Wuppertal, Germany/ James Garzon-Real, Bergische Universität Wuppertal, Germany/ Daniel Wolter, Bergische Universität Wuppertal, Germany/ Markus Zdrallek, Bergische Universität Wuppertal, Germany/ Nadine Lucke, Gas und Wärme Institut Essen e.V., Germany/ Jörn Benthin, Gas und Wärme Institut Essen e.V., Germany/ Carsten Stabenau, Westnetz GmbH, Germany/ Florian Lindner, innogy SE, Germany/ / /
0415	Analysis of local demand trends and forecasting	Jonathan Fox, SP Energy Networks, United Kingdom/ Milana Plecas, SP Energy Networks, United Kingdom/

	<i>through weather correction and benefit to DSO transition and microgrids</i>	David Neilson, SP Energy Networks, United Kingdom/ /////
0420	MASERA: Microgrid for Affordable and Sustainable Electricity in Remote Areas	Kévin Choletais, EDF R&D, France/ Stéphane JAMET, Enedis, France/ Roch DROZDOWSKI-STREHL, Nanyang Technological University, Singapore/////
0427	Data Exchange Schemas for a future Cell-Based Energy System Consisting of Microcells	Falko Ebe, University of Applied Sciences Ulm, Germany/ Basem Idlbi, University of Applied Sciences Ulm, Germany/ Gerd Heilscher, University of Applied Sciences Ulm, Germany/ Frank Marten, Fraunhofer IWES Kassel, Germany/ Sebastian Wende-von Berg, Fraunhofer IWES Kassel, Germany/////
0446	Nikolas Spiliopoulos Abstract - A novel approach for peer-to-peer exchange in microgrids with respect to carbon emissions	Nikolas Spiliopoulos, Newcastle University, United Kingdom/ Uma Rajarathnam, Enzen Global, India/ Damian Giaouris, Newcastle University, United Kingdom/ Phil Taylor, Newcastle University, United Kingdom/ Neal Wade, Newcastle University, United Kingdom/////
0453	An Adaptable System Architecture for Modular, Standardized and Scalable Urban Energy Hubs	Jonas Hinker, TU Dortmund University, Germany/ Sergio Contreras, TU Dortmund University, Germany/ Johanna Myrzik, TU Dortmund University, Germany// /////
0455	LV network control architecture: H2020 InteGrid case study	José Costa, EDP NEW R&D, Portugal/ Célia Trocato, EDP Distribuição, Portugal/ jorge moreira, EDP Distribuição, Portugal/ Ricardo Bessa, INESC TEC, Portugal/ André Madureira, INESC TEC, Portugal/ David Rua, INESC TEC, Portugal///
0460	Advanced ICT infrastructure enabling H2020 SENSIBLE innovative smartgrid approach	Ricardo Santos, EDP Distribuição, Portugal/ Pedro Nunes, EDP Distribuição, Portugal/ Francisco Melo, EDP Distribuição, Portugal/ Nuno Medeiros, EDP Distribuição, Portugal/ susete albuquerque, EDP Distribuição, Portugal/ Ricardo André, EDP Labelec, Portugal/ Catherine O'Connor, Indra, Spain//
0468	Optimal Planning of Smart Distribution Networks with DSR from Active Voltage Control and Community Multi-Energy Systems	Eduardo Alejandro Martinez Cesena, The University of Manchester, United Kingdom/ Pierluigi Mancarella, The University of Manchester, United Kingdom/////
0484	Evaluation of coordinated control of flexibility in an energy community in the presence of renewables, storage and grid injection limits	Parvathy Chittur Ramaswamy, Tractebel, Belgium/ Damien Schyns, Tractebel, Belgium/ Louise De Vos, Tractebel, Belgium/ Niels Leemput, Tractebel, Belgium/ Siebert Bressinck, Tractebel, Belgium/ Vincenzo Giordano, Tractebel, Belgium///
0492	An industrial solution of data-sharing enabling LECs	Patrick Liminana, Enedis, France/ Corinne Soors, Enedis, France/ Benoit Vuillaume, Enedis, France///
0503	A SGAM use case definition of an information exchange architecture	Aleksei Mashlakov, Lappeenranta University of Technology (LUT), Finland/ Ville Tikka, Lappeenranta University of Technology (LUT), Finland/ Pyry Lehtimäki, Tampere University of Technology, Finland/ Ville Tuominen, Tampere University of Technology, Finland/ Sami Repo, Tampere University of Technology, Finland/ Antti Keski - Koukkari, VTT Technical Research Centre of Finland Ltd, Finland/ Matti Aro, VTT Technical Research Centre of Finland Ltd, Finland/ Rinat Abdurafikov, VTT Technical Research Centre of Finland Ltd, Finland/ Anna

		Kulmala, , VTT Technical Research Centre of Finland Ltd/
0506	<i>Microgrid as a technological mean to the energy communities penetration</i>	Edoardo Corsetti, Ricerca sul Sistema Energetico (RSE), Italy/ Giuseppe Antonio Guagliardi, Ricerca sul Sistema Energetico (RSE), Italy/ Carlo Sandroni, Ricerca sul Sistema Energetico (RSE), Italy/ / / / / / / /
0508	<i>Automated Demand Response System: Linking Customers and System Operators for Improving Energy Efficiency and Network's Manageability – A Demonstration Project</i>	Luís Marques, Efacec , Portugal/ Filipe Campos, Efacec , Portugal/ André Simões, Efacec , Portugal/ Filipe Lopes, Efacec , Portugal/ Rui Fonseca, Daikin Industries, Japan/ Shuji Furui, Daikin Industries, Japan/ / / /
0512	<i>A probabilistic model of customer engagement for electricity market implementation within a microgrid</i>	Javid Maleki Delarestaghi, Murdoch University, Australia/ Ali Arefi, Murdoch University, Australia/ Gerard Ledwich, Queensland University of Technology, Australia/ / / / / / / /
0534	<i>A framework to evaluate microgrids & energy storage for increasing distribution system reliability</i>	Gaurav Singh, Electric Power Research Institute (EPRI), The United States of America/ Jouni Peppanen, Electric Power Research Institute (EPRI), The United States of America/ Arindam Maitra, Electric Power Research Institute (EPRI), The United States of America/ Jigar Patel, Hydro one, Canada/ / / / / / / /
0558	<i>Visions, Functions and Implementation of DSOs – A UK Perspective</i>	Furong Li, University of Bath, United Kingdom/ / / / / / / / / / / /
0564	<i>A whole system planning approach for integrating energy systems in local communities</i>	Wei Sun, The University of Edinburgh, United Kingdom/ Gareth Harrison, The University of Edinburgh, United Kingdom/ / / / / / / / / / / /
0569	<i>Expansion Planning of Automated Distribution Network considering Connected Microgrids</i>	Mahmud Fotuhi-Firuzabad, Sharif University of Technology, Islamic Republic Of Iran/ / / / / / / / / / / /
0581	<i>Finding the optimal location of electrical vehicle charging stations using the GIS system: maximizing the profit for electrical power distribution companies</i>	Hamed Ahmadi, Tehran Province DISCO, Islamic Republic Of Iran/ / / / / / / / / / / /
0588	<i>Integration of a PV energy balancing and trading mechanism in a microgrid</i>	Sandford Bessler, AIT Austrian Institute of Technology, Austria/ / / / / / / / / / / /
0600	<i>The Development & Implementation of a Common Application Platform to Support Local Energy Communities</i>	Richard Potter, EA Technology, United Kingdom/ Rachel Coxcoon, Centre for Sustainable Energy, United Kingdom/ Mark Dale, Western Power Distribution, United Kingdom/ Richard Ash, EA Technology, United Kingdom/ / / / / / / / / / / /

Theme 3. Network integration, control concepts and operations

0012	<i>Nested Microgrids: Operation and Control Requirements</i>	Sam Al-Attiyah, Kungliga Tekniska högskolan (KTH), Sweden/ Ritwik Majumder, ABB Corporate Research, Sweden/ / / / / / / /
0031	<i>Light-Weight IEC 61850 GOOSE Based Loss of Mains Protection for Smart Grid</i>	Mike Mekkanen, Assistant professor, Finland/ / / / / / / /
0032	<i>Experimental Validation of Distributed Voltage Control for Peer-to-Peer Microgrids</i>	Hamada Almasalma, KU Leuven (EnergyVille), Belgium/ Sander Claeys, KU Leuven (EnergyVille), Belgium/ Geert Deconinck, KU Leuven (EnergyVille), Belgium/ / / / / / / /
0045	<i>Examining solar system behavior and single-phase energy storage batteries in a small-scaled micro-grid to decrease reliance on AC network power</i>	javad behkesh noshahr, Ardabil Province Electricity Distribution Company, Islamic Republic Of Iran/ / / / / / / /
0053	<i>Bidirectional electrical conversion: the first step towards smart residential energy gates</i>	Benoit Bidaine, CE+T Energrid, Belgium/ Paul Bleus, CE+T Power, Belgium/ Thierry Joannes, CE+T Power, Belgium/ François Milstein, CE+T Power, Belgium/ Jean-Pierre Chisogne, CE+T Energrid, Belgium/ / / / / / / /
0056	<i>Advanced Islanding Detection in Grid Interactive Microgrids</i>	Hannu Laaksonen, University of Vaasa, Finland/ Petri Hovila, ABB Oy, Finland/ Kimmo Kauhaniemi, University of Vaasa, Finland/ Katja Sirviö, University of Vaasa, Finland/ / / / / / / /
0064	<i>Assessment of the Low Voltage Right-Through capability of a smart distribution transformer with OLTC for renewable applications</i>	Ron Brandl, Fraunhofer IWES, Germany/ Gunter Arnold, Fraunhofer IWES, Germany/ Pablo Cirujano, Ormazabal Cotradis, Spain/ Gonzalo Pérez de Nanclares, Ormazabal Cotradis, Spain/ LUIS DEL RIO ETAYO, Ormazabal Corporate Technology, Spain/ Asier Soto, Ormazabal Corporate Technology, Spain/ Alena Ulasenka, Ormazabal Corporate Technology, Spain/ Ibon Larracochea, Ormazabal Corporate Technology, Spain/ / / / / / / /
0080	<i>Active Network Management Scheme for Reactive Power Control</i>	Katja Sirviö, University of Vaasa, Finland/ Hannu Laaksonen, University of Vaasa, Finland/ Kimmo Kauhaniemi, Munich University of Applied Sciences, Germany/ / / / / / / /
0086	<i>Load Step Pre-announcement and Bang-Bang controller Implemented in Islanded Microgrids to Improve Frequency Stability</i>	Yi Guo, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ Wolfgang Gawlik, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ / / / / / / /
0087	<i>Time Synchronous Control of Grid- and PV-Emulators for Laboratory Testing within a Co-Simulation Environment</i>	Christian Seidl, AIT Austrian Institute of Technology, Austria/ Thomas Strasser, AIT Austrian Institute of Technology, Austria/ Marios Maniatopoulos, National Technical University of Athens, Greece/ Panos Kotsampopoulos, National Technical University of Athens, Greece/ / / / / / / /
0092	<i>Towards the advanced security architecture for Microgrid systems and applications</i>	Mark Ossel, OSGP Alliance, The Netherlands/ / / / / / / /
0093	<i>Scalable ICT-structure for smart grid solutions for local energy communities</i>	Christina Sufke, Westnetz GmbH, Germany/ Carsten Hermanns, Westnetz GmbH, Germany/ / / / / / / /
0095	<i>Integrative Analysis of the Operational Impact of a MV Storage System in Back-Up and Ancillary Services Modes - Microgrid and Islanded Mode Simulation</i>	Jose Manuel Terras, EDP Distribuição, Portugal/ André Neves, EDP Distribuição, Portugal/ Miguel Louro, EDP Distribuição, Portugal/ Nuno Ferreira, EDP Distribuição, Portugal/ José Manuel Ferreira Pinto, EDP Distribuição, Portugal/ / / / / / / /

0099	Assessing the benefit of island operation of variable distributed generation in reliability improvement of radial distribution networks	Zeljko Popovic, University of Novi Sad, Faculty of Technical Sciences, Serbia/ Stanko Knezevic, Schneider Electric DMS NS, Serbia/ / / / / / / /
0103	Smart metering communication performance analysis in EDP Distribuição	Mário Tomé Chaves, EDP Distribuição, Portugal/ Rui Santos Barbosa, EDP Distribuição, Portugal/ Luís Amorim, EDP Distribuição, Portugal/ / / / / / / /
0111	On frequency control provision with a microgrid containing a BESS and renewable energy sources	Jannick Gallmann, ETH Zurich, Switzerland/ Stavros Karagiannopoulos, ETH Zurich, Switzerland/ Marina González Vayá, EKZ, Switzerland/ Gabriela Hug, ETH Zurich, Switzerland/ / / / / / / /
0112	Robust Control Strategy and Sizing Methodology for the Energy Storage System of a Multiservice DC Microgrid	Nelson Koch, CSEM SA, Switzerland/ Christian Rod, CSEM SA, Switzerland/ Pierre-Jean Alet, CSEM SA, Switzerland/ Christophe Ballif, CSEM SA, Switzerland/ / / / / / / /
0113	A Novel Unified Control Strategy for Seamless Transfer of Operation of Three-Phase PV-Inverter from Grid-tied to Islanded Mode	Rohit Kumar Gnanasekar, HTW Berlin school of Applied sciences, Germany/ Shrinath Kannan, Indian Institute of Technology - Madras, India/ Krishna Vasudevan, Indian Institute of Technology - Madras, India/ / / / / / / /
0116	Agent-based Grid Automation in Distribution Grids: Implementation and Field Test Experiences from Agent.HyGrid	Marcel Ludwig, Wuppertal University, Germany/ Kamil Korotkiewicz, Wuppertal University, Germany/ Benedikt Dahlmann, Wuppertal University, Germany/ Markus Zdrallek, Wuppertal University, Germany/ / / / / / / /
0120	Microgrid coordinated control system with VSG	HAOBIN ZHU, NR Electric Co Ltd, China/ XU Guangfu, NR Electric Co Ltd, China/ YU Qunbing, NR Electric Co Ltd, China/ CHEN Jun, NR Electric Co Ltd, China/ ZHU Xianwen, NR Electric Co Ltd, China/ WANG Chen, NR Electric Co Ltd, China/ / / / / / / /
0127	Comprehensive and Asymptotic Stable Controller for SST-based Micro-Grids	Hamzeh Beiranvand, Lorestan University, Islamic Republic Of Iran/ Esmaeel Rorok, Lorestan University, Islamic Republic Of Iran/ ebrahim sharifipour, Electricity distribution company of Lorestan, Islamic Republic Of Iran/ Freydoon Khodnia, Electricity distribution company of Lorestan, Islamic Republic Of Iran/ Hekmat Beiranvandi, Electricity distribution company of Lorestan, Islamic Republic Of Iran/ / / / / / / /
0130	Voltage drop phenomenon and countermeasures in distribution system with large amount of photovoltaic power generation	Toshiki Oda, Central Research Institute of Electric Power Industry, Japan/ Naoyuki Takahashi, Central Research Institute of Electric Power Industry, Japan/ Satoshi Uemura, Central Research Institute of Electric Power Industry, Japan/ / / / / / / /
0131	Microgrids Can Strengthen Grid Resilience	Doina Vornicu, CEZ Romania, Romania/ Laurentia Predescu, CEZ Romania, Romania/ / / / / / / /
0132	Smart Rural Grid	Ramon Gallart, Estabanell Energía, Spain/ Santiago Martínez, Estabanell Energía, Spain/ / / / / / / /
0136	Verification of Off Grid System for Remote Island Using Renewable Energy and Storage System Verification of Off Grid System for Remote Island Using Renewable Energy and Storage System	Jun Yoshinaga, TEPCO Power Grid, inc., Japan/ masato watanabe, TEPCO Power Grid, inc., Japan/ Soichiro Kama, Waseda University, Japan/ Teru Miyazaki, Waseda University, Japan/ Yasuhiro Hayashi, Waseda University, Japan/ / / / / / / /
0156	Impact of Adaptive Virtual Impedance Control of DERs Used for Power Sharing on the Protective Schemes of an Islanded Microgrid	Mojtaba Khederzadeh, Shahid Beheshti University, Islamic Republic Of Iran/ / / / / / / /

0158	<i>Incentive based control method of customer side battery energy storage systems in local energy community</i>	Hiroyuki Hatta, Central Research Institute of Electric Power Industry, Japan/ Eitaro Omine, Central Research Institute of Electric Power Industry, Japan/ / / / / / / /
0159	<i>Dynamic cooperative operation of distributed resources in multiple microgrids</i>	Wook Won Kim, KEPCO, The Republic Of Korea/ Sungwook Hwang, KEPCO, The Republic Of Korea/ Yongseung Lee, KEPCO, The Republic Of Korea/ Junbo Sim, KEPCO, The Republic Of Korea/ Hakju Lee, KEPCO, The Republic Of Korea/ / / / /
0168	<i>Line Voltage Regulation in Low Voltage Grids</i>	Mara Holt, TU Dortmund University, Germany/ Gerhard Grosse-Holz, Elektro-Baelemente GmbH, Germany/ Christian Rehtanz, TU Dortmund University, Germany/ / / / / / /
0177	<i>Battery Swap Station Participation in Microgrid Unit Commitment</i>	Ferinar Moaidi, K. N. Toosi University of Tech (KNTU), Islamic Republic Of Iran/ Masoud Aliakbar Golkar, K. N. Toosi University of Tech (KNTU), Islamic Republic Of Iran/ / / / / / / /
0181	<i>Assessment of Harmonic Emission Value of Distributed Generation System in Microgrid Based on Improved Complex Linear Regression</i>	Peng Zhang, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ Ling Pan, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ / / / / / / /
0187	<i>Research on Control Strategy of Hybrid AC/DC Distributed System Based on Multifunction Power Electronic Transformer</i>	Liang Ge, Beijing Sifang Automation Co., Ltd., China/ Qianjie Liu, Nanjing Sifang Epower Automation Co., Ltd., China/ Yun Liu, Nanjing Sifang Epower Automation Co., Ltd., China/ Jiahong Wu, Nanjing Sifang Epower Automation Co., Ltd., China/ / / / / / / /
0191	<i>Test and operation of a hybrid microgrid in the French island of Sein</i>	Thibaut Lafont, EDF, France/ Etienne Radvanyi, EDF, France/ Vincent Vernhes, EDF, France/ Sébastien Ruiz, EDF, France/ Camille Zakhour, EDF, France/ Boris Deneuve, EDF, France/ / / / /
0200	<i>Protection coordination of an inverter generation based microgrid for an unbalanced distribution system</i>	Mobolaji Bello, Electric Power Research Institute (EPRI), The United States of America/ Arindam Maitra, Electric Power Research Institute (EPRI), The United States of America/ Roger Dugan, Electric Power Research Institute (EPRI), The United States of America/ Araya Gebeyehu, Southern California Edison (SCE), The United States of America/ Jorge Araiza, Southern California Edison (SCE), The United States of America/ / / / /
0205	<i>Multi-objective Optimization of a Local Energy Community with distributed energy storage systems in Italy</i>	Susanna Mocci, University of Cagliari, Italy/ Fabrizio Pilo, University of Cagliari, Italy/ Gian Giuseppe Soma, University of Cagliari, Italy/ / / / / / / /
0210	<i>Agent based distributed optimal power flow using ADMM method</i>	Tung Lam Nguyen, Grenoble Electrical Engineering Laboratory (G2ELAB), France/ Quoc Tuan Tran, CEA-INES, France/ Raphael Caire, Grenoble Electrical Engineering Laboratory (G2ELAB), France/ / / / / / / /
0211	<i>A New Protection Strategy for Micro-grid Based On Relative Measured-Impedance and Regional Negative Sequence Component</i>	Jie Song, State Grid Shanghai EPRI, China/ Yupeng Li, State Grid Shanghai Shinan Electric Power Supply Company, China/ Xiangli Deng, Shanghai university of electric power, China/ Liang Gao, Shanghai university of electric power, China/ / / / / / / /

0212	<i>Multi Energy Systems for Isolated Microgrids: A Study Case for Russian System</i>	Nikolai Voropai, Melentiev Energy Systems Institute , The Russian Federation/ Konstantin Suslov, Irkutsk National Research Technical University , The Russian Federation/ Ekaterina Ukolova, Melentiev Energy Systems Institute , The Russian Federation/ Dmitry Gerasimov, Irkutsk National Research Technical University , The Russian Federation/ Pio Lombardi, Fraunhofer Institute for Factory Operation and Automation IFF, Germany/ Przemyslaw Komarnicki, Fraunhofer Institute for Factory Operation and Automation IFF, Germany/ / / / /
0214	<i>LCL-filter Optimization Design Considering Stability of Grid-Connected Inverters in Microgrid</i>	Ling Luo, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ Peng Zhang, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ Tiantian Chen, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ Ling Pan, Electric Power Research Institute of State Grid Shanghai Electric Power Company, China/ / / / / /
0225	<i>Design Methodology of Droop Control for Enhanced Voltage Regulation and Power Sharing in DC Microgrids</i>	Gi-Young Lee, Hanyang University, The Republic Of Korea/ Byoung-Sun Ko, Hanyang University, The Republic Of Korea/ Rae-Young Kim, Hanyang University, The Republic Of Korea/ / / / / /
0226	<i>Probabilistic Topology Detection for Efficient MV-Micro Grid Control with Autarkic Smart Grid Systems</i>	Marcel Modemann, University of Wuppertal, Germany/ Philippe Steinbusch, University of Wuppertal, Germany/ Roman Uhlig, University of Wuppertal, Germany/ Markus Zdrallek, University of Wuppertal, Germany/ / / / / /
0227	<i>Experimental validation of Adaptive FCC and BRC functionalities for the ELECTRA proposed Web-of-Cells</i>	Mattia Cabiati, Ricerca sul Sistema Energetico (RSE), Italy/ Antonio Guagliardi, Ricerca sul Sistema Energetico (RSE), Italy/ Riccardo Lazzari, Ricerca sul Sistema Energetico (RSE), Italy/ Evangelos Rikos, Centre for Renewable Energy Sources and Saving (CRES), Greece/ / / / / /
0233	<i>Research on Key Technologies of Regional Integrated Energy Management System</i>	Yuquan Liu, Guangzhou Power Supply Co. Ltd., China/ Zhenhua Ding, Dongfang Electronics Co. Ltd., China/ Yanle Liu, Dongfang Electronics Co. Ltd., China/ Yingying Sun, Dongfang Electronics Co. Ltd., China/ / / / / /
0236	<i>Grid-Forming Converters – Inevitability, Control Strategies and Fundamental Challenges in Future Grids Application</i>	Ali Tayyebi, AIT Austrian Institute of Technology, Austria/ Florian Dörfler, ETH Zurich, Switzerland/ Friederich Kupzog, AIT Austrian Institute of Technology, Austria/ Zoran Miletic, AIT Austrian Institute of Technology, Austria/ Wolfgang Hribernik, AIT Austrian Institute of Technology, Austria/ / / / / /
0237	<i>Fallback Solution for a Low-Voltage Regulator Control using Artificial Neural Networks</i>	haiyan ma, TU Kaiserslautern, Germany/ Stefan Lang, Pfalzwerke AG, Germany/ Wolfram H. Wellßow, TU Kaiserslautern, Germany/ / / / / / /
0238	<i>The Strijp-S living lab for embedded microgrid studies</i>	Martijn Roos, Eindhoven University of Technology, The Netherlands/ Rik Fonteijn, Eindhoven University of Technology, The Netherlands/ Phuong Nguyen, Eindhoven University of Technology, The Netherlands/ Johan Morren, Eindhoven University of Technology, The Netherlands/ Han Sloopweg, Eindhoven University of Technology, The Netherlands/ / / / / /

0245	One Off-grid Microgrid Pilot Project with High PV Penetration	QUAN DING, GUODIAN NANJING AUTOMATION CO.,LTD, China/ / / / / / / /
0248	H2020 SENSIBLE Project – Laboratory Results for the Short-Circuit Behaviour of the Storage Devices, under Islanding Conditions	Nuno Lopes Filipe, EDP Labelec, Portugal/ Miguel Castanheira Marques, EDP NEW R&D, Portugal/ Ricardo André, EDP NEW R&D, Portugal/ Luís Rocha, EDP Labelec, Portugal/ Bernardo Almeida, EDP Distribuição, Portugal/ André Neves, EDP Distribuição, Portugal/ Miguel Louro, EDP Distribuição, Portugal/ José Damásio, Siemens SA, Portugal/ Salvador Rodriguez, , GPTECH/
0258	Research on grid instability caused by the interactions in microgrid	Rong Cai, ABB Corporate Research Center, China, China/ Jiayang Ruan, ABB Corporate Research Center, China, China/ Xing Huang, ABB Corporate Research Center, China, China/ Hailian Xie, ABB Corporate Research Center, China, China/ / / / / /
0259	Control Algorithm of DC Microgrids by Virtual Voltage Axis	Byoung-Sun Ko, Hanyang University, The Republic Of Korea/ Gi-Young Lee, Hanyang University, The Republic Of Korea/ Rae-Young Kim, Hanyang University, The Republic Of Korea/ / / / / /
0266	Study on Probability Distribution of Photovoltaic Power Fluctuations in Multi-time Scales	Lin Luo, EPRI, State Grid Shanghai Municipal Electric Power Company, China/ chen fang, EPRI, State Grid Shanghai Municipal Electric Power Company, China/ Yong Yang, Shanghai university of electric power, China/ Chunyang Li, Shanghai university of electric power, China/ Fen Li, Shanghai university of electric power, China/ Peng Zhang, EPRI, State Grid Shanghai Municipal Electric Power Company, China/ / / / /
0269	High precision distribution grid monitoring system utilizing optical communication network	Shimpei Oe, The Kansai Election Power Co.,Inc., Japan/ Hideki Miyamoto, The Kansai Election Power Co.,Inc., Japan/ Makoto Murata, The Kansai Election Power Co.,Inc., Japan/ Takayoshi Yamamoto, The Kansai Election Power Co.,Inc., Japan/ Masayuki Oyama, The Kansai Election Power Co.,Inc., Japan/ / / / /
0274	Control and protection of direct current based residential microgrid as a part of a low-voltage direct current distribution system	Antti Alahäivälä, VTT Technical Research Centre of Finland Ltd, Finland/ Kari Mäki, VTT Technical Research Centre of Finland Ltd, Finland/ Anna Kulmala, VTT Technical Research Centre of Finland Ltd, Finland/ Jussi Ikäheimo, VTT Technical Research Centre of Finland Ltd, Finland/ Kim Forssen, VTT Technical Research Centre of Finland Ltd, Finland/ YoungPyo Cho, KEPCO Research Institute, The Republic Of Korea/ JaeHan Kim, KEPCO Research Institute, The Republic Of Korea/ Jintae Cho, KEPCO Research Institute, The Republic Of Korea/ JuYoung Kim, , KEPCO Research Institute/
0275	Influence of inverter interfaced distributed generation and its control on power system protection in microgrids	Maciej Grębla, NTNU, Norway/ Jaya Yellajosula, MTU, The United States of America/ Hans Kristian Høidalen, NTNU, Norway/ / / / / / /
0287	LV network state estimation using decoupled load-flow algorithm	Mitja Antoncic, Faculty of Electrical Engineering, University of Ljubljana, Slovenia/ Bostjan Blazic, Faculty of Electrical Engineering, University of Ljubljana, Slovenia/ / / / / / /
0288	Evaluation of the impact of high presence of small DERs connected to the urban LV network	Juliana Katic, University of Novi Sad, Faculty of Technical Sciences, Serbia/ Vladimir Katic, University

		of Novi Sad, Faculty of Technical Sciences, Serbia/ // // // //
0292	Smartgrids enabling Microgrids and islanding operation: SENSIBLE as a real demonstration case study	Ricardo André, EDP Labelec, Portugal/ Filipe Guerra, EDP Labelec, Portugal/ Christian Mose, Siemens AG, Germany/ Salvador Rodriguez, GPTECH, Portugal/ Javier Villegas, GPTECH, Portugal/ Clara Gouveia, INESC TEC, Portugal/ Ricardo Santos, EDP Distribuição, Portugal/ José Damásio, Siemens SA, Portugal/ /
0299	A Data-driven Home Energy Management System for Sub-Saharan Africa	Shuangyuan Wang, University of Bath, United Kingdom/ Ran Li, University of Bath, United Kingdom/ Zhong Zhang, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ Clive Tomlinson, Swanbarton Limited, United Kingdom/ // // /
0302	Multimodal Microgrids: Flexibility for the Power System	Martin Zimmerlin, KIT, Germany/ Thomas Leibfried, KIT, Germany/ // // // // // /
0309	Operating properties of hybrid inverters and power flow regulators	Petr Mastny, Brno University of Technology, The Czech Republic/ Jan Moravek, Brno University of Technology, The Czech Republic/ Jiri Drapela, Brno University of Technology, The Czech Republic/ // // // // /
0311	Coordinated Control of Multiple Distributed Sources in Islanded Operation of Microgrid	Yu An, Shanghai Jiao Tong University, China/ Dong Liu, Shanghai Jiao Tong University, China/ Yuhui Huang, Shanghai Jiao Tong University, China/ // // // // /
0316	Protection Systems for Microgrids with High Rate of Inverter-Based-Generators	Philippe ALIBERT, Schneider Electric, France/ Jean Wild, Schneider Electric, France/ // // // // // /
0328	Management of Distributed Operating Power Reserve in an Urban Microgrid beyond DSO Risk Decision	Bruno FRANCOIS, Centrale Lille - L2EP, France/ Dhaker Abbes, HEI - L2EP, France/ Xingyu YAN, HEI - L2EP, France/ Xin WEN, Centrale Lille - L2EP, France/ // // // // /
0329	Dealing with Uncertainty in PV-powered Microgrids: An Optimal Corrective Approach	Fausto CALDERON-OBALDIA, GeePs-LMD, France/ Amjad Anvari-Moghaddam, Aalborg University, Denmark/ Jordi Badosa, LMD, France/ Josep M. Guerrero, Aalborg University, Denmark/ Juan C. Vasquez, Aalborg University, Denmark/ Anne Migan, GeePs-UPMC, France/ Vincent Bourdin, LIMSI, France/ // /
0331	Sizing of a battery system based on simulation of operation in an islanded network	Dimitri Nesterov, Tractebel, Belgium/ Niels Leemput, Tractebel, Belgium/ // // // // // /
0333	Microgrid Controller Standards for Integration and Interoperability	Jim Reilly, Reilly Associates, The United States of America/ Geza Joos, McGill University, Canada/ // // // // // /
0334	Microgrid predictive control method that supports resiliency and economic efficiency	Masataka Imabayashi, HITACHI, Japan/ Masatoshi Kumagai, HITACHI, Japan/ Masatoshi Watanabe, HITACHI, Japan/ // // // // // /
0345	Developing Protection Schemes for Low Voltage Microgrid with High Penetration of Photovoltaic Generation	Tran The Hoang, Grenoble Electrical Engineering Laboratory (G2ELAB), France/ Quoc Tuan Tran, CEA/INES, INSTN – Paris Saclay University, France/ Yvon Besanger, Grenoble Electrical Engineering Laboratory (G2ELAB), France/ // // // // // /
0351	Realtime-Substitution Mechanisms for Missing Field Measurements – Field-approved Methods and Evaluation Results	Mark Stefan, AIT Austrian Institute of Technology, Austria/ Stefan Kitzler, AIT Austrian Institute of Technology, Austria/ // // // // // /

0352	Simulation-based cost-benefit analysis for innovative components in low voltage grids	Mark Stefan, AIT Austrian Institute of Technology, Austria/ Paul Zehetbauer, AIT Austrian Institute of Technology, Austria/ Khalil Hamad, Fachhochschule Oberösterreich – F&E GesmbH, Austria/ Andres Moreno, Fachhochschule Oberösterreich – F&E GesmbH, Austria/ Wolfgang Prügler, MOOSMOAR Energies OG, Austria/ Roland Sperr, Linz Strom Netz GmbH, Austria/ / / /
0355	Verification of Difference in Voltage Ride Through Assist Performance of Voltage Management Equipment between Serial and Parallel Type by Experiment	Akira Moriwaki, Central Research Institute of Electric Power Industry, Japan/ Satoshi Uemura, Central Research Institute of Electric Power Industry, Japan/ / / / / / / /
0357	Development on estimation method of output pf photovoltaic power generations for microgrids operation	Satoshi Uemura, The Central Research Institute of Electric Power Industry, Japan/ / / / / / / / /
0360	Redundancy and Synchronization Improvement for Prevailing Phase Angle Estimation and Flicker Source location	Sergio Santos, ZIV Automation, Spain/ Aitor Amezua, ZIV Automation, Spain/ / / / / / / /
0362	High Performance Virtual Generator BESS for Distribution Systems Support Applications Analysed in a Hardware-in-the-Loop Simulation Set Up	Francesco Baccino, ABB Power Grids, Grid Automation, Italy/ Pietro Serra, ABB Power Grids, Grid Automation, Italy/ Tilo Buehler, ABB Power Grids, Grid Automation, Switzerland/ Andrew Kitimbo, Vattenfall, Sweden/ Ulrika Morild, Vattenfall, Sweden/ / / / /
0380	Fuzzy-logic based Autonomous Operation of Small-scale Microgrid in Emergency	JiSong Hong, Chonnam National University, The Republic Of Korea/ Seon Ju Ahn, Chonnam National University, The Republic Of Korea/ Joon-Ho Choi, Chonnam National University, The Republic Of Korea/ Sang-Yun Yun, Chonnam National University, The Republic Of Korea/ / / / / /
0383	Distributed optimisation with restricted exchanges of information: charging of an electric vehicle fleet	Roman Le Goff Latimier, ENS Rennes, SATIE Laboratory, France/ Hamid Ben Ahmed, ENS Rennes, SATIE Laboratory, France/ Bernard Multon, ENS Rennes, SATIE Laboratory, France/ / / / / / /
0386	EXPERIMENTAL MICROGRID WITH IEC 61850 STANDARD	Thierry COSTE, EDF R&D, France/ Sébastien VILBOIS, EDF R&D, France/ / / / / / / /
0390	DEMOCRAT: Demonstrator of a micro-grid integrating storage	Marta Ribeiro, Efacec , Portugal/ Luís Marques, Efacec , Portugal/ Ismael Miranda, Efacec , Portugal/ / / / / / / /
0406	Active and reactive power requirements at DSO-TSO interface A cases study based on four European countries	Serdar Kadam, AIT Austrian Institute of Technology, Austria/ Roman Schwalbe, AIT Austrian Institute of Technology, Austria/ Stefan Übermasser, AIT Austrian Institute of Technology, Austria/ Christoph Groiss, Salzburg Netz GmbH, Austria/ Alfred Einfalt, Siemens AG Österreich, Austria/ Katja Sirviö, Universitu of Vaasa, Finland/ Hannu Laaksonen, University of Vaasa, Finland/ Petri Hovila, ABB, Finland/ /
0417	The INVADE project: Towards the flexibility operator concept and its application to the Spanish pilot	Pol Olivella-Rosell, CITCEA-UPC, Spain/ Pau Lloret-Gallego, CITCEA-UPC, Spain/ Roberto Villafafila-Robles, CITCEA-UPC, Spain/ Stig Ø. Ottesen, eSmart Systems, Norway/ Ramon Gallart, Estabanell Energía, Spain/ Andreas Sumper, CITCEA-UPC, Spain/ / / / /

0421	<i>Optimal energy management of Microgrid based on FCCHP in the presence of electric and thermal loads considering energy storage systems</i>	Mojtaba Rahmazadeh, K.N.Toosi University of Technology, Islamic Republic Of Iran/ Hamed Haggi, K.N.Toosi University of Technology, Islamic Republic Of Iran/ Masoud Aliakbar Golkar, K.N.Toosi University of Technology, Islamic Republic Of Iran/ / / / /
0423	<i>RESERVE Irish Demo – Virtual Output Impedance Control for Voltage Stability</i>	Sriram Karthik Gurumurthy, RWTH Aachen University, Germany/ Marco Cupelli, RWTH Aachen University, Germany/ Antonello Monti, RWTH Aachen University, Germany/ Ronan Murphy, ESB Networks, Ireland/ Jonathan Sandham, ESB Networks, Ireland/ / / / /
0424	<i>Impact of Imprecise MV Microgrid Synchronization on Component Loading</i>	Simon Eberlein, University of Stuttgart, Germany/ Krzysztof Rudion, University of Stuttgart, Germany/ / / / / /
0426	<i>Energy Management of a Microgrid with Emission limitations under Uncertainty</i>	Amir Abdollahi, SKED co., Kerman, Islamic Republic Of Iran/ hooman khaloie, Shahid Bahonar University of Kerman, Islamic Republic Of Iran/ Mehran Mohammadnejad, Shahid Bahonar University of Kerman, Islamic Republic Of Iran/ Abdolvahid Mahdavinia, SKED co., Kerman, Islamic Republic Of Iran/ / / / / /
0428	<i>Assessing the Flexibility Provision of Microgrids in MV Distribution Grids</i>	Daniel Contreras, University of Stuttgart, Germany/ Manswet Banka, University of Stuttgart, Germany/ Krzysztof Rudion, University of Stuttgart, Germany/ / / / / /
0434	<i>LV microgrid supplied by diesel generator and PV</i>	Josef Hrouda, EGC-CB, s.r.o., The Czech Republic/ Filip Broz, EGC-CB, s.r.o., The Czech Republic/ Jan Petrsek, EGC-CB, s.r.o., The Czech Republic/ Karel Prochazka, EGC-CB, s.r.o., The Czech Republic/ Jan Jiricka, E.ON Distribuce a.s., The Czech Republic/ / / / / /
0435	<i>Economic Operation Optimisation of Battery Energy Storage Systems in a Solar Rich Microgrid</i>	Asanga Jayawardana, University of Wollongong, Australia/ Massimo Fiorentini, University of Wollongong, Australia/ Duane A. Robinson, University of Wollongong, Australia/ Ashish P. Agalgaonkar, University of Wollongong, Australia/ / / / / /
0436	<i>An Approach for Validating and Testing Micro Grid and Cell-based Control Concepts</i>	Falko Ebe, University of Applied Sciences Ulm, Germany/ Basem Idlbi, University of Applied Sciences Ulm, Germany/ Matthias Casel, University of Applied Sciences Ulm, Germany/ Christoph Kondzialka, University of Applied Sciences Ulm, Germany/ Gerd Heilscher, University of Applied Sciences Ulm, Germany/ Christian Seidl, AIT Austrian Institute of Technology, Austria/ Roland Bruendinger, AIT Austrian Institute of Technology, Austria/ Thomas Strasser, AIT Austrian Institute of Technology, Austria/ / / / / /
0444	<i>Flexibility and optimization services validation in a microgrid</i>	Andraž Andolšek, cyberGRID GmbH & Co. KG, Austria/ Mag. Peter Nemček, cyberGRID GmbH & Co. KG, Austria/ Amador Gómez López, Enel Iberia, Spain/ Andrea Zocchi, Siemens, Italy/ Jorge Bruna Romero, Circe, Spain/ Miguel Ángel Oliván Monge, Circe, Spain/ / / / / /

0451	<i>The contribution of energy-based vs time-based controlled electric water heaters (EWH) in local energy communities</i>	Volahasina Rasendramalala, ADEME, France/ Arnaud Davigny, HEI - L2EP, France/ Kahina Hassam-Ouari, HEI , France/ Vincent Courtecuisse, Gérédis , France/ Leo Coutard, Gérédis , France/ Benoît Robyns, HEI - L2EP, France/ / / / /
0454	<i>Evaluation of different local var control strategies in low voltage grids</i>	Daniel-Leon Schultis, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ Albana ILO, TU Wien, ESEA, Gußhausstraße 25/370-1, 1040, Wien, Austria/ Christian Schirmer, Netz Niederösterreich GmbH, Austria/ / / / / / /
0465	<i>LabLink – A novel co-simulation tool for the evaluation of large scale EV penetration focusing on local energy communities</i>	Daniel Stahleder, AIT Austrian Institute of Technology GmbH, Austria/ David Reihs, AIT Austrian Institute of Technology GmbH, Austria/ Martin Nöhner, AIT Austrian Institute of Technology GmbH, Austria/ Felix Lehfuss, AIT Austrian Institute of Technology GmbH, Austria/ / / / / / /
0467	<i>Outage monitoring and management in Overhead and Cable networks with various types of architecture</i>	Andrey Kucheryavenkov, Trinity Engineering LLC, The Russian Federation/ Ekaterina Kartasheva, Trinity Engineering LLC, The Russian Federation/ Elena Kondrashenko, Trinity Engineering LLC, The Russian Federation/ / / / / / /
0473	<i>Control method and storage system sizing for PV-Diesel microgrid: From simulation to experimental analysis</i>	Thai Phuong DO, National Institute of Solar Energy (INES), French Alternative Energies Atomic Energy Commission, France/ Gabin KOUCOI, National Institute of Solar Energy (INES) French Alternative Energies Atomic Energy Commission , France/ Franck BOURRY, National Institute of Solar Energy (INES) French Alternative Energies Atomic Energy Commission , France/ Xavier LEPIVERT, SteadySun, Savoie Technolac , France/ / / / / / /
0476	<i>InterFlex - Simris– Technical management of a grid-connected microgrid that can run in an islanded mode with 100% renewable generation</i>	Milica Bogdanovic, RWTH Aachen University, Germany/ Henning Wilms, RWTH Aachen University, Germany/ Marco Cupelli, RWTH Aachen University, Germany/ Antonello Monti, RWTH Aachen University, Germany/ Paul Guest, EON , Sweden/ Michael Hirst, EON , Sweden/ Luis Arturo Hernandez Salmeron, EON, Germany/ / / /
0482	<i>Demonstration of the technical and commercial VPP concept: Slovenia demo in InteGrid</i>	Ursula Krisper, Elektro Ljubljana d.d., Slovenia/ / / / / / / /
0487	<i>InterFlex Swedish Demo in Malmö – Cross Carrier Integration for Enhanced Flexibility in Local Energy Communities and Microgrids</i>	Amir Ahmadifar, RWTH Aachen University, Germany/ Tobias Blacha, RWTH Aachen University, Germany/ Marco Cupelli, RWTH Aachen University, Germany/ Antonello Monti, RWTH Aachen University, Germany/ Paul Guest, EON , Sweden/ Luis Arturo Hernandez Salmeron, EON, Germany/ / / / /
0488	<i>Improved real-time operation of microgrids with integrated economic constraints</i>	Martin LEGRY, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Frederic colas, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Jean Yves Dieulot, CRISTAL- Centre de Recherche en Informatique, Signal et Automatique de Lille, France/ Christophe Saudemont, L2EP - Lille Laboratory of Electrical Engineering and Power Electronics, France/ Yann PANKOW, Engie Laborelec, Belgium/ / / / / /

0489	Performance of combined renewable generation and storage in the context of energy firming	Andrei Szabo, Siemens AG, Germany/ Dino Ablakovic, Siemens AG, Germany/ Joachim Bamberger, Siemens AG, Germany/ / / / / / /
0491	Optimal Design and Operation of a Hybrid AC/DC Microgrid	Anastasios Oulis Rousis, Imperial College London, United Kingdom/ Ioannis Konstantelos, Imperial College London, United Kingdom/ Goran Strbac, Imperial College London, United Kingdom/ / / / / / /
0495	Electric vehicle charging in unbalanced Belgian low-voltage grids: a case study	Marta Vanin, University of Trento, Italy/ Frederik Geth, KU Leuven (EnergyVille), Belgium/ Dirk Van Hertem, KU Leuven (EnergyVille), Belgium/ Reinhilde D'hulst, VITO, Belgium/ / / / / / /
0499	Decentralised control for combined heat and power system in energy community	Heng Shi, University of Bath, United Kingdom/ Zhong Zhang, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ / / / / / /
0501	Local stability performance analysis of islanded microgrid based on inner control loops approach	Guy Wanlongo Ndiwulu, Université catholique de Louvain (UCL), Belgium/ Emmanuel De Jaeger, Université catholique de Louvain (UCL), Belgium/ Angelo Kuti Lusala, Université Kongo (UK), The Democratic Republic Of The Congo/ / / / / / /
0502	Scheduling of operation in Low Voltage distribution networks with multiple Distributed Energy Resources	Konstantinos Kotsalos, Efacec , Portugal/ Nuno Silva, Efacec , Portugal/ Ismael Miranda, Efacec , Portugal/ Helder Leite, University of Porto, Portugal/ / / / / / /
0507	Reinforcement Learning forin Peer-to-peer Local Renewable Energy Trading	Haiwen Qin, University of Bath, United Kingdom/ Heng Shi, University of Bath, United Kingdom/ Furong Li, University of Bath, United Kingdom/ Zhong Zhang, University of Bath, United Kingdom/ / / / / / /
0511	Voltage regulation in stand-alone microgrids with storage units : a multi-variable H-infinity control approach	Quang-Linh Lam, G2Elab - GIPSA-lab, Grenoble INP, France/ Antoneta Iuliana Bratcu, GIPSA-lab, Grenoble INP, France/ Delphine Riu, G2Elab, Grenoble INP, France/ / / / / / /
0514	Multi-Energy Systems in Small Settlements: Methodology and Case Study for Electricity and Heat Supply	Athanasios Stefanidis, Avaloq Evolution AG, Switzerland/ Marija Zima-Bockarjova, ABB Corporate Research, Switzerland, Switzerland/ C. Yaman Evrenosoglu, ABB Corporate Research, Switzerland, Switzerland/ Alexandre Oudalov, ABB Power Grids, Switzerland/ / / / / / /
0516	Proof-of-Concept of Network Cell Harmonization: Web-of-Cell Approach	Mihai Calin, European Distributed Energy Resources Laboratories (DERlab) e. V., Germany/ Ron Brandl, Fraunhofer IWES Kassel, Germany/ Maria Nueschke, Fraunhofer IWES Kassel, Germany/ Evangelos Rikos, Centre for Renewable Energy Sources and Saving (CRES), Greece/ / / / / / /
0517	Novel Method for identifying maximum Renewable Energy Penetration in Distribution Grids	Veronica Biagini, ABB Corporate Research, Germany/ Marco Giuntoli, ABB Corporate Research, Germany/ Peter Noglik, ABB Corporate Research, Germany/ Matthias Biskoping, ABB Corporate Research, Germany/ Georg Gutermuth, ABB Corporate Research, Germany/ Kalpesh Bhalodi, ABB Corporate Research, Germany/ Alexandre Oudalov, ABB, Switzerland/ / / / / / /
0518	The optimal scheduling of a campus micro-grid with CHP and storage devices	Gim Jaehyeon, Sunchon national University, The Republic Of Korea/ Seong Don Kim, Sunchon national University, The Republic Of Korea/ / / / / / / /
0525	Flexibility model of integrated energy sources for the strategic planning of Distribution Networks	Gianni Celli, University of Cagliari, Italy/ Fabrizio Pilo, University of Cagliari, Italy/ Simona Ruggeri, University of Cagliari, Italy/ / / / / / / /

0532	Validation of Advanced Interoperability Functions for Battery Energy Storage Systems	Christian Messner, AIT Austrian Institute of Technology GmbH, Austria/ Jun Hashimoto, Fukushima Renewable Energy Institute, AIST (FREA), Japan////////
0542	Field Test on a DSO Microgrid in Southern Sweden – Design and Control Aspects	Ingmar Leisse, E.ON Energy Networks, Sweden/ Demijan Panic, E.ON Energy Networks, Sweden/////
0543	Multi-agent based control strategy in microgrid for the resynchronisation during system restoration	Manswet Banka, University of Stuttgart, Germany/ Simon Eberlein, University of Stuttgart, Germany/ Krzysztof Rudion, University of Stuttgart, Germany/////
0550	Results of the Sologrid Pilot Project – Decentralized Load Management to Increase the Efficiency of Local Energy Communities	Nicolas Stocker, Adaptricity AG, Switzerland/ Andreas Ulbig, Adaptricity AG, Switzerland/ Damiano Toffanin, Adaptricity AG, Switzerland////////
0553	A Microgrid model for the integrated operation of Heat and Electricity	Dingmin Kim, Dongshin University, The Republic Of Korea/ EunTae Son, Dongshin University, The Republic Of Korea/ Kyungsup Lee, Dongshin University, The Republic Of Korea/ Minsoo Kim, NURI Telecom Co., Ltd, The Republic Of Korea/ Sungwook Hwang, Korea Electric Power Corporation , The Republic Of Korea/////
0555	Methods to Measure and Characterize Microgrids to Make them More Stable, Robust, Resilient and Predictable	Dave Watson, Power Standards Lab, The United States of America/ Alex McEachern, Power Standards Lab, The United States of America/ Stephane Do, Power Standards Lab, The United States of America/////
0560	Preventive Management and Control of a Microgrid System using Flexibility of Distributed Storage	Clara Gouveia, INESC TEC, Portugal/ André Madureira, INESC TEC, Portugal/ José Gouveia, INESC TEC, Portugal/ Jean Sumaili, INESC TEC, Portugal/ Dewan Fayzur Rahman, INESC TEC, Portugal/ Ricardo Bessa, INESC TEC, Portugal/ Carlos Moreira, INESC TEC, Portugal/ Luís Seca, INESC TEC, Portugal/ /
0561	Realizing stacked benefits opportunities for local energy communities by using grid-tied In-Front-of-the-Meter shared energy storage system	Arindam Maitra, Electric Power Research Institute (EPRI), The United States of America/ Dean Weng, Electric Power Research Institute (EPRI), The United States of America/ Jouni Peppanen, Electric Power Research Institute (EPRI), The United States of America/ Elder Romero, AVANGRID, The United States of America/ Giovanni Damato, Electric Power Research Institute (EPRI), The United States of America/ Ram Ravikumar, Electric Power Research Institute (EPRI), The United States of America/ Megan Pomeroy, AVANGRID, The United States of America/ /
0565	A Performance Metric for Reserve Management in Day-Ahead Dispatch of Electric Microgrids	Mayank Panwar, Idaho National Laboratory, The United States of America/ Siddharth Suryanarayanan, Colorado State University, The United States of America/ Rob Hovsopian, Idaho National Laboratory, The United States of America////////
0566	Protection concepts for island grid operation – An applied approach	Christina Tzanetopoulou, BKW Energie AG, Switzerland/ Luigi Scoca, BKW Energie AG, Switzerland////////
0572	Ending Node Voltages Based DG Placement in Distribution Networks	akbar bayat, Zanjan Electrical Distribution Company, Islamic Republic Of Iran////////

0576	<i>Improvement Of Micro-Grid Islanding Detection Using Smart Methods Based On Multi-Resolution Analysis And Data Whitening</i>	negar karimipoor, Charmahal & Bakhtiari Distribution company, Islamic Republic Of Iran/ saleh asgari, Niroo research Institute of Iran, Islamic Republic Of Iran////////
0593	<i>Modelling of three-phase four-wire low-voltage cables taking into account the neutral connection to the earth</i>	Frederic Olivier, University of Liège, Belgium/ Raphael Fonteneau, University of Liège, Belgium/ Damien Ernst, University of Liège, Belgium////////
0594	<i>Demonstrating a Platform for the Integrated Grid</i>	Jonathan Sandham, ESB Networks, Ireland/ Mark McGranaghan, Electric Power Research Institute (EPRI), The United States of America/ Brian Seal, Electric Power Research Institute (EPRI), The United States of America////////
0606	<i>MV microgrids – case studies</i>	Dimitru Federenciu, S.C. Electrica S.A., Romania/ Nicu Constandache, SDEE Transilvania Sud, Romania/ Dorel Stanescu, SDEE Transilvania Sud, Romania////