

Samuele Grillo

POSIZIONE ACCADEMICA

Apr. 2018–presente	Professore Associato presso il Politecnico di Milano, SSD ING-IND/33 “Sistemi elettrici per l’energia”.
23/11/2016–presente	Membro del Collegio di Dottorato di Ingegneria Elettrica/Electrical Engineering presso il Politecnico di Milano.
Apr. 2015–Mar.2018	Ricercatore universitario Senior presso il Politecnico di Milano (art. 24 c.3-b Legge 240/10), SSD ING-IND/33 “Sistemi elettrici per l’energia”.
Lug. 2010–Giu. 2014	Ricercatore universitario presso il Politecnico di Milano. Vincitore di un concorso per un posto da ricercatore a tempo determinato (art. 1 comma 14 Legge 230/05 e s.m.i. – tre anni successivamente rinnovato per un ulteriore anno) presso il Politecnico di Milano.
Feb. 2008–Lug. 2010	Assegnista di ricerca presso l’Università degli Studi di Genova. Vincitore di nr. 3 assegni di ricerca (art 51, comma 6, L. 449/97 e s.m.i.). Temi della ricerca: generazione distribuita, controllo e ottimizzazione; valutazione della sicurezza dei sistemi elettrici con strumenti di intelligenza artificiale.
Gen. 2005–Dic.2007	Attività di Dottorato di Ricerca in Ingegneria Elettrica (XX Ciclo) presso l’Università degli Studi di Genova. Vincitore di una borsa di dottorato. Ambiti di studio: <i>machine learning</i> (applicazione dell’intelligenza artificiale al <i>security assessment</i> dei sistemi elettrici) e mercato dell’energia elettrica.

ATTIVITÀ DI INSEGNAMENTO

a.a. 2019/2020	Docente titolare del corso di “Smart grids: components, functionalities and benefits” Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (10 CFU).
a.a. 2018/2019	Docente titolare del corso di “Smart grids: components, functionalities and benefits” Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (8 CFU).
a.a. 2017/2018	Docente titolare del corso di “Smart grids: components, functionalities and benefits” Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (8 CFU).
a.a. 2016/2017	Docente titolare del corso di “Planning & operation of distribution grids with a high penetration of RES” Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (8 CFU).
a.a. 2015/2016	Docente titolare del corso di “Planning & operation of distribution grids with a high penetration of RES” Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (8 CFU).
a.a. 2013/2014	Docente titolare del corso di “Elettrotecnica [1]” presso il Politecnico di Milano, Scuola di Ingegneria Industriale e dell’Informazione, Corso di Laurea in Ingegneria Fisica, Il anno di Laurea Triennale (5 CFU).
a.a. 2012/2013	Docente titolare del corso di “Elettrotecnica [1]” presso il Politecnico di Milano, Scuola di Ingegneria dei Sistemi, Corso di Laurea in Ingegneria Fisica, Il anno di Laurea Triennale (5 CFU).
a.a. 2010/2011	Esercitatore del corso di “Impianti Elettrici” presso il Politecnico di Milano, Scuola di Ingegneria dei Processi industriali, Corso di Laurea in Ingegneria Elettrica, Il anno di Laurea Magistrale (10 CFU).

- 04/12/2009** Nominato **cultore della materia** per l'insegnamento "Fondamenti di Controlli per Sistemi Elettrici 1", Il anno Laurea Triennale, delibera del 4/12/2009 del Consiglio di Corso di Studi in Ingegneria Elettrica.
- 02/2006–06/2006** Affidamento di incarico di **attività di supporto alla didattica** previsto dal regolamento provvisorio per l'attuazione dell'art. 33 dello Statuto dell'Università degli Studi di Genova – (Fondamenti di Controlli Automatici per Sistemi Elettrici 1).
- 03/2005–06/2005** Affidamento di incarico di **attività di supporto alla didattica** previsto dal regolamento provvisorio per l'attuazione dell'art. 33 dello Statuto dell'Università degli Studi di Genova – (Automazione dei Sistemi Elettrici per l'Energia 1).

BORSE E PREMI

- Giu. 2010** **Vincitore** di una borsa di studio di 4 mesi offerta dal DAAD (Deutscher Akademischer Austausch Dienst) alla TUM (Technische Universität München) (Monaco di Baviera, Germania).
- Feb. 2009** **Premio dell'IEEE Power & Energy Society (Italy Section)** per la miglior tesi di Dottorato di Ricerca.
- Giu. 2008** **Premio** alla migliore memoria conferito all'articolo: "*Modellizzazione di una microturbina con i relativi controlli per lo studio di reti di distribuzione con generazione propria*", presentato al convegno ENERSIS, Milano 17–18 giugno 2008 e successivamente pubblicato sulla rivista AUTOMAZIONE E STRUMENTAZIONE

ABILITAZIONI E MEMBERSHIP

- Dic. 2014** **Abilitazione scientifica nazionale alle funzioni di professore di II fascia nel settore concorsuale 09/E2**
- Gen. 2006** Abilitazione all'esercizio della professione di Ingegnere (II sessione 2005).

MEMBERSHIP, COMITATI INTERNAZIONALI, INVITI, ATTIVITÀ EDITORIALE

- Ago. 2020** **Presentazione su invito:** Functional Principal Component Analysis to understand load patterns" alla sessione AMPSISPL01 "Intelligent consumers and load data processing for efficient operation of buildings and smartgrids" del 2020 IEEE IEEE Power & Energy Society General Meeting.
- Ago. 2020** **Chair** e organizzatore della Panel Session "Modern Heuristic Optimization for Distribution Systems" al 2020 IEEE Power & Energy Society General Meeting.
- 28/07/2020–presente** **Membro effettivo** dell'IEEE Power & Energy Society "Power Systems Dynamic Performance (PSDP) Committee e del relativo Administrative Committee (AdCom) [su invito].
- Lug. 2020–presente** **Membro** dell'International Advisory Committee (associate editor) dell'IEEE PowerTech 2021 conference.
- Feb. 2020–presente** **Associate Editor** della 2020 IEEE ISGT Europe conference.
- Gen. 2020–presente** **Associate Editor** della rivista Clean Technologies (MDPI).
- Gen. 2020–presente** **Vice-Chair** dell'IEEE Italy Section PES Chapter CH08372.
- Ott. 2019–Lug. 2020** **Associate Editor** per il TC 6.3 Power and Process System – Power Plants and Power Systems per l'IFAC World Congress Berlin, Germany, 12–17 Lug. 2020.
- Set. 2019–presente** **IEEE PES R8 Zonal Representative, Western Europe**
- Ago. 2019–presente** **Secretary** dell'IEEE Working Group on Modern Heuristic Optimization (IEEE PES Analytic Methods in Power Systems (AMPS) Committee).
- Giu. 2019** **Co-Chair** ed organizzatore della Panel Session "Optimization Techniques for Renewable Energy Sources Integration with Energy Storage Devices" all'IEEE PowerTech 2019, Milano, IT, 23–27 Giu. 2019.

Ago. 2018–presente	Membro del CIGRÉ Working Group B5.65 “Enhancing Protection System Performance by Optimising the Response of Inverter-Based Sources”
Lug. 2017	Chair ed organizzatore della Panel Session “Modern Heuristic Optimization Techniques for Renewable Energy Sources Integration with Energy Storage Devices: Optimization under Uncertainty” all’IEEE Power & Energy Society General Meeting, Chicago, USA, 16–20 Lug. 2017.
Lug. 2016	Membro dell’IEEE Working Group on Modern Heuristic Optimization.
Mag. 2016–Dic. 2019	Secretary/treasurer dell’IEEE Italy Section PES Chapter CH08372.
Mag. 2015	IEEE Senior Member
2014–presente	Membro del Technical Programme Committee dell’IET Conference Renewable Power Generation.
2017–presente	Member of Technical Programme Committee of TC 6.3 Power and Energy Systems of ‘International Federation of Automatic Control (IFAC).
2017–presente	Membro dell’ International Steering Committee dell’International Conference on Clean Electrical Power (ICCEP).
2017	Membro del Local Organizing Committee dell’International Conference on Environment and Electrical Energy (EEEIC).
2013–2019	Relatore al Festival BergamoScienza per le edizioni 2013, 2015, 2016 e 2017.

PROGETTI

- Responsabile dell’Unità del Politecnico di Milano nel progetto PRIN 2017 (2017K4JZEE) “Planning and flexible operation of micro-grids with generation, storage and demand control as a support to sustainable and efficient electrical power systems: regulatory aspects, modelling and experimental validation” ammesso al finanziamento con DD n. 698 del 01.04.2019.
- Partecipazione alle attività del dell’Unità del Principal Investigator per il progetto Holistic Energy and Architectural Retrofit Toolkit (HEART) H2020 IA Project Ott. 2017–Set. 2021 (<https://heartproject.eu/>).
- Partecipazione alle attività del Gruppo di ricerca dell’Unità del Politecnico di Milano nel progetto AutoDrive (ECSEL JU H2020/2014-2020) Mag 2017–Apr. 2020 (<https://autodrive-project.eu/>).

ATTIVITÀ DI RICERCA

Le attività di ricerca si possono dividere in quattro categorie:

1. impatto sulle reti di distribuzione della ricarica dei veicoli elettrici
2. sicurezza dei sistemi elettrici;
3. monitoraggio e ottimizzazione della gestione di siti di generazione e di sistemi di accumulo;
4. *smart grid*.

PUBBLICAZIONI SCIENTIFICHE

Pubblicazioni su riviste internazionali

- [R1] D. Beretta, **S. Grillo**, D. Pigoli, E. Bionda, C. Bossi, C. Tornelli, "Functional principal component analysis as a versatile technique to understand and predict the electric consumption patterns," *Sustain. Energy Grids Netw.*, 21 (2020), pp. 1–8, article no. 100308.
- [R2] D. del Giudice, **S. Grillo**, "Analysis of the sensitivity of extended Kalman filter-based inertia estimation method to the assumed time of disturbance," *Energies*, vol. 12, no. 3, Feb. 2019, article no. 483.
- [R3] R. Lazzari, L. Piegari, **S. Grillo**, M. Carminati, E. Ragaini, C. Bossi, E. Tironi, "Selectivity and security of DC microgrid under line-to-ground fault," *Electr. Power Syst. Res.*, 165 (2018) pp. 238–249.
- [R4] D. Bosich, A. Vicenzutti, **S. Grillo**, G. Sulligoi, "A stability preserving criterion for the management of DC microgrids supplied by a floating bus," vol. 8, no. 11, Nov. 2018, article no. 2102.
- [R5] C. Del Pero, N. Aste, H. Paksoy, F. Haghghat, **S. Grillo**, F. Leonforte, "Energy storage key performance indicators for building application," *Sustainable Cities and Society*, 40(2018), pp. 54–65.
- [R6] **S. Grillo**, A. Pievatolo, E. Tironi, "Optimal Storage Scheduling Using Markov Decision Processes," *IEEE Trans. Sustain. Energy*, vol. 7, no. 2, pp. 755–764, Apr. 2016.
- [R7] F. Baccino, F. Conte, **S. Grillo**, S. Massucco, F. Silvestro, "An Optimal Model-Based Control Technique to Improve Wind Farm Participation to Frequency Regulation," *IEEE Trans. Sustain. Energy*, vol. 6, no. 3, pp. 993–1003, Jul. 2015.
- [R8] F. Baccino, **S. Grillo**, S. Massucco, F. Silvestro, "A Two-Stage Margin-Based Algorithm for Optimal Plug-in Electric Vehicle Scheduling," *IEEE Trans. Smart Grid*, vol. 6, no. 2, pp. 759–766, Mar. 2015.
- [R9] **S. Grillo**, V. Musolino, L. Piegari, E. Tironi, C. Tornelli, "DC Islands in AC Smart Grids," *IEEE Trans. Power Electron.*, vol. 29, no. 1, pp. 89–98, Jan. 2014.
- [R10] E. Ciapessoni, D. Cirio, **S. Grillo**, S. Massucco, A. Pitto, F. Silvestro, "An Integrated Platform for Power System Security Assessment Implementing Probabilistic and Deterministic Methodologies," *IEEE Syst. J.*, vol. 7, no. 4, pp. 845–853, Dec. 2013.
- [R11] **S. Grillo**, M. Marinelli, F. Silvestro, S. Massucco, "Optimal Management Strategy of a Battery-based Storage System to Improve Renewable Energy Integration in Distribution Networks," *IEEE Trans. Smart Grid*, vol. 3, no. 2, pp. 950–958, Jun. 2012.
- [R12] **S. Grillo**, M. Marinelli, F. Silvestro, "Wind turbines integration with storage devices: modelling and control strategies," in *Wind Turbines*, pp. 437–462.
- [R13] **S. Grillo**, S. Massucco, A. Morini, A. Pitto, F. Silvestro, "Microturbine Control Modeling to Investigate the Effects of Distributed Generation in Electric Energy Networks," *IEEE Syst. J.*, vol. 4, no. 3, pp. 303–312, Sep. 2010.
- [R14] A. Borghetti, M. Bosetti, **S. Grillo**, S. Massucco, C.A. Nucci, M. Paolone, F. Silvestro, "Short-Term Scheduling and Control of Active Distribution Systems With High Penetration of Renewable Resources," *IEEE Syst. J.*, vol. 4, no. 3, pp. 313–322, Sep. 2010.
- [R15] **S. Grillo**, S. Massucco, A. Morini, A. Pitto, F. Silvestro, "Bifurcation analysis and chaos detection in power systems," *International Journal of Innovation in Energy Systems and Power (IJESP)*, vol. 5 no. 1, pp. 1–7, Apr. 2010.
- [R16] **S. Grillo**, S. Massucco, A. Morini, A. Pitto, F. Silvestro, "A Microturbine Model including its Control for the investigation of the effects of Distributed Generation in distribution networks," *3rd International Conference on Energy and Environment 2007*, in *U. P. B. Sci. Bull., Series C, Vol. 69, No.4, Polytechnica Press (ROM)*, Bucharest Nov. 2007, pp. 205–214.

Pubblicazioni a conferenze internazionali

- [C1] F. D'Agostino, G. Schiapparelli, F. Silvestro, **S. Grillo**, "DC Shipboard Microgrid Modeling for Fuel Cell Integration Study," *IEEE Power and Energy Society General Meeting*, 4–8 Aug. 2019, Atlanta, GA USA, pp. 1–5.
- [C2] S. Barcellona, D. De Simone, **S. Grillo**, "Real-time Electric Vehicle Range Estimation Based on a Lithium-Ion Battery Model," *7th International Conference on Clean Electrical Power ICCEP*, 2–4 Jul. 2019, Otranto, Italy, pp. 351–357.
- [C3] F. E. Atencio Espejo, **S. Grillo**, L. Luini, "Photovoltaic Power Production Estimation based on Numerical Weather Predictions," *IEEE PowerTech Conference*, 23–27 Jun. 2019, Milano, Italy, pp. 1–6.
- [C4] J. P. Fernandez-Porrás, **S. Grillo**, F. D'Agostino, F. Silvestro, "Mitigation of Voltage Deviations in DC Shipboard Microgrids Through the Active Utilization of Battery Energy Storage Systems," *IEEE Power and Energy Society General Meeting*, 5–9 Aug. 2018, Portland, OR USA, pp. 1–5.
- [C5] D. del Giudice, **S. Grillo**, "Analysis of the Sensitivity of Extended Kalman Filter Based Inertia Estimation Method to the Assumed Time of Disturbance," *IEEE International Conference on Environment and Electrical Engineering (EEEIC)*, 12–15 Jun. 2018, Palermo, Italy, pp. 1–6.
- [C6] M. Bertolo, E. Ragaini, **S. Grillo**, "Adaptive Protection Algorithms for Smart Distribution Systems: Hardware-in-the-loop Testing and Validation," *IEEE International Conference on Environment and Electrical Engineering (EEEIC)*, 12–15 Jun. 2018, Palermo, Italy, pp. 1–6.
- [C7] P. Azzaroli, M. Corti, **S. Grillo**, L. Piegari, E. Tironi, "Storage system control for fault protections of single phase loads in inverter-dominated grids," *IEEE ISGT Europe*, 26–29 Sep. 2017, Turin, Italy, pp. 1–6.
- [C8] S. Barcellona, **S. Grillo**, L. Piegari, "A novel current dependent lithium ion capacitor model: Analysis and experimental driving cycle test validation," *6th International Conference on Clean Electrical Power ICCEP*, 27–29 Jun. 2017 Santa Margherita Ligure, Italy, pp. 585–590.
- [C9] S. Aramini, M. Brenna, **S. Grillo**, E. Ragaini, "Management of a micro-grid with integrated logic in low voltage systems," *7th IEEE International Conference on Environment and Electrical Engineering 1st IEEE Industrial and Commercial Power Systems Europe, EEEIC / I and CPS Europe*, 6–9 Jun. 2017, Milan, Italy, pp. 1–6.
- [C10] S. Barcellona, **S. Grillo**, L. Piegari, "A simple battery model for EV range prediction: Theory and experimental validation," *International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference (ESARS-ITEC)*, 2–4 Nov. 2016, Toulouse, France, pp. 1–7.
- [C11] M. Brenna, F. Foadelli, M. Longo, **S. Grillo**, "Charging optimization for electric vehicles in large Park & Ride areas," *IEEE Power and Energy Society General Meeting*, 17–21 Jul. 2016, Boston, MA USA, pp. 1–5.
- [C12] **S. Grillo**, E. Tironi, G. Ubezio, "Analysis of failure rates of ac and dc micro-grids," *14th IMEKO TC10 Workshop on Technical Diagnostics*, 27–28 Jun. 2016, Milan, Italy, pp. 220–225.
- [C13] F. Bizzarri, A. Brambilla, **S. Grillo**, F. Milano, "Periodic small-signal analysis as a tool to build transient stability models of VSC-based devices," *19th Power Systems Computation Conference (PSCC)*, 20–24 Jun. 2016, Genoa, Italy, pp. 1–6.
- [C14] F. Adinolfi, F. Conte, S. Massucco, M. Saviozzi, F. Silvestro, **S. Grillo**, "Performance evaluation of algorithms for the State of Charge estimation of storage devices in microgrid operation," *19th Power Systems Computation Conference (PSCC)*, 20–24 Jun. 2016, Genoa, Italy, pp. 1–8.
- [C15] P. Lico, M. Marinelli, K. Knezović, **S. Grillo**, "Phase balancing by means of electric vehicles single-phase connection shifting in a low voltage Danish grid," *Universities Power Engineering Conference (UPEC)*, 1–4 Sep. 2015, Stoke-on-Trent, United Kingdom, pp. 1–5.
- [C16] M. Carminati, **S. Grillo**, L. Piegari, E. Ragaini, E. Tironi, "Fault protection analysis in low voltage DC microgrids with PV generators," *5th International Conference on Clean Electrical Power: Renewable Energy Resources Impact (ICCEP)*, 16–18 Jun. 2015, Taormina, Italy, pp. 184–191.
- [C17] **S. Grillo**, L. Piegari, E. Tironi, "Storage system control for correct operation of fault protections of single phase load in grids dominated by inverters," *IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC)*, 10–13 Jun. 2015, Rome, Italy, pp. 1857–1862.

- [C18] F. Baccino, **S. Grillo**, S. Massucco, F. Silvestro, "Optimal charging strategy algorithm for PEVs: A Monte Carlo validation," *IEEE International Electric Vehicle Conference (IEVC)*, 17–19 Dec. 2014, Florence, Italy, pp. 1–7.
- [C19] D. Bosich, G. Giadrossi, G. Sulligoi, **S. Grillo**, E. Tironi, "More Electric Vehicles DC power systems: A large signal stability analysis in presence of CPLs fed by floating supply voltage," *IEEE International Electric Vehicle Conference (IEVC)*, 17–19 Dec. 2014, Florence, Italy, pp. 1–8.
- [C20] F. Baccino, **S. Grillo**, S. Massucco, G. Mauri, P. Mora, F. Silvestro, "An aggregator for demand side management at domestic level including PEVs," *IEEE International Electric Vehicle Conference (IEVC)*, 17–19 Dec. 2014, Florence, Italy, pp. 1–8.
- [C21] F. Baccino, F. Conte, **S. Grillo**, S. Massucco, F. Silvestro, "Coordinated contribution of wind turbines to frequency regulation by model predictive control," *19th World Congress of the International Federation of Automatic Control (IFAC)*, 24–29 Aug. 2014, Cape Town, South Africa, pp. 1–6.
- [C22] F. Baccino, F. Conte, **S. Grillo**, S. Massucco, F. Silvestro, "Frequency Regulation by Management of Building Cooling Systems through Model Predictive Control," *18th Power Systems Computation Conference (PSCC)*, 18–22 Aug. 2014, Wroclaw, Poland, pp. 1–7.
- [C23] F. Baccino, **S. Grillo**, S. Massucco, F. Silvestro, "Management strategy for unbalanced LV distribution network with electric vehicles, heat pumps and domestic photovoltaic penetration," *IEEE PES General Meeting*, 27–31 Jul. 2014, National Harbor, MD (Washington, DC Metro Area) USA, pp. 1–5.
- [C24] A. Bagnasco, **S. Grillo**, M. Saviozzi, F. Silvestro, A. Vinci, E. Zennaro, "Artificial Neural Network Application to Load Forecasting in a Large Hospital Facility," *IEEE International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)*, 7–10 Jul. 2014, Durham, UK, pp. 1–6.
- [C25] M. Farrokhifar, **S. Grillo**, E. Tironi, "Loss Minimization in Medium Voltage Distribution Grids by Optimal Management of Energy Storage Devices," *IEEE PowerTech*, 16–20 Jun. 2013, Grenoble, France, pp. 1–5
- [C26] M. Farrokhifar, **S. Grillo**, E. Tironi, "Optimal Placement of Energy Storage Device for Loss Reduction in Distribution Networks," *IEEE PES Innovative Smart Grid Technologies Europe (ISGT Europe)*, 6–9 Oct. 2013, Copenhagen, Denmark, pp. 1–5
- [C27] M. S. Carmeli, D. Forlani, **S. Grillo**, R. Pinetti, E. Ragaini, E. Tironi, "A Stabilization Method for DC Networks with Constant-Power Loads," *ENERGYCON Conference & Exhibition*, 9–12 Sep. 2012, Florence, Italy, pp. 617–622
- [C28] F. Baccino, M. de Nigris, I. Gianinoni, **S. Grillo**, S. Massucco, E. Tironi, "A methodology for evaluating PEVs hosting capacity margins in distribution grids," *IEEE PES General Meeting*, 22–26 Jul. 2012, San Diego, CA USA, pp. 1–6
- [C29] **S. Grillo**, V. Musolino, G. Sulligoi, E. Tironi, "Stability Enhancement in DC Distribution Systems with Constant Power Controlled Converters," *IEEE International Conference on Harmonics and Quality of Power (ICHQP)*, 17–20 Jun. 2012, Hong Kong, pp. 848–854
- [C30] S. Bertolini, S. Massucco, F. Silvestro, **S. Grillo**, M. Giacomini, "Short-term load forecasting in hospital systems," *World Congress on Medical Physics and Biomedical Engineering*, 26–31 May 2012, Beijing, China, vol. 39, pp. 685–687
- [C31] F. Baccino, **S. Grillo**, M. Marinelli, S. Massucco, F. Silvestro, "Power and energy control strategies for a Vanadium Redox Flow Battery and wind farm combined system," *IEEE PES International Conference and Exhibition on Innovative Smart Grid Technologies (ISGT Europe)*, 5–7 Dec. 2011, Manchester, UK, pp. 1–8
- [C32] F. Baccino, S. Celaschi, M. de Nigris, I. Gianinoni, **S. Grillo**, S. Massucco, F. Silvestro, "A methodology for evaluating the hosting capacity margins for PEVs on distribution grids," *3rd European Conference SmartGrids and E-Mobility*, Monaco, 17–18 Oct. 2011
- [C33] F. Baccino, **S. Grillo**, M. Marinelli, S. Massucco, G. Petretto, S. Scalari, F. Silvestro, "Microgrid concepts and models for the electrical grid of an industrial district," *CIGRÉ International Symposium – The Electric Power System of the Future*, 13–15 Sep. 2011, Bologna, pp. 1–7

- [C34] **S. Grillo**, L. Martini, V. Musolino, L. Piegari, E. Tironi, C. Tornelli, "Management of Different Energy Storage Devices Using a Losses Minimization Algorithm," *International Conference on Clean Electrical Power: Renewable Energy Resources Impact*, 14–16 Jun. 2011, Ischia, pp. 420–425
- [C35] **S. Grillo**, V. Musolino, L. Piegari, E. Tironi, "A control strategy for optimizing the power flows supplied by two different storage units," *IEEE PowerTech*, 19–23 Jun. 2011, Trondheim, Norway, pp. 1–6
- [C36] E. Ciapessoni, D. Cirio, **S. Grillo**, S. Massucco, A. Pitto, F. Silvestro, "Operational Risk Assessment and Control: a Probabilistic Approach," *Innovative Smart Grid Technologies Conference Europe (ISGT Europe)*, 11–13 Oct. 2010, Gothenburg, Sweden, pp. 1–8
- [C37] S. Bertolini, G. Giacomini, **S. Grillo**, S. Massucco, F. Silvestro, "Coordinated micro-generation and load management for energy saving policies," *Innovative Smart Grid Technologies Conference Europe (ISGT Europe)*, 11–13 Oct. 2010, Gothenburg, Sweden, pp. 1–7
- [C38] M. de Nigris, I. Gianinoni, **S. Grillo**, S. Massucco, F. Silvestro, "Impact Evaluation of Plug-in Electric Vehicles (PEV) on Electric Distribution Networks," *IEEE International Conference on Harmonics and Quality of Power (ICHQP)*, 26–29 Sep. 2010, Bergamo, Italy, pp. 1–6
- [C39] **S. Grillo**, M. Marinelli, F. Silvestro, F. Sossan, O. Anaya-Lara, G. Burt, "Transient support to frequency control from wind turbine with synchronous generator and full converter," *International Universities Power Engineering Conference (UPEC)*, Cardiff, UK, 31 Aug.–3 Sep. 2010, pp. 1–6
- [C40] A. De Bellis, **S. Grillo**, S. Massucco, S. Scalari, P. Scalera, F. Silvestro, "A Smart Grid Approach to Distribution Management Systems (DMS) for Electric Networks," *CIGRE Workshop*, 7–8 Jun. 2010, Lyon, France, pp. 1–4
- [C41] D. Di Rosa, I. Fastelli, G. Gigliucci, **S. Grillo**, M. Marinelli, S. Massucco, F. Silvestro, "Generation and Battery Modelling and Integrated Control Strategies for a Better Acceptance of Intermittent Renewable Energy Sources in the Electric Distribution System," *CIGRE Workshop*, 7–8 Jun. 2010, Lyon, France, pp. 1–4
- [C42] **S. Grillo**, S. Massucco, A. Pitto, F. Silvestro, "Indices for Fast Contingency Ranking in Large Electric Power Systems," *IEEE Mediterranean Electrotechnical Conference (MELECON)*, Malta, 25–28 Apr. 2010, pp. 660–666
- [C43] **S. Grillo**, S. Massucco, A. Pitto, F. Silvestro, "Indices-based Voltage Stability Monitoring of the Italian HV Transmission System," *IEEE PES Transmission and Distribution Conference and Exposition*, New Orleans, Louisiana, USA, 19–22 Apr. 2010, pp. 1–7
- [C44] E. Ciapessoni, D. Cirio, E. Gaglioti, **S. Grillo**, S. Massucco, A. Pitto, "An integrated platform for power system security assessment implementing probabilistic and deterministic methodologies," *IEEE Complexity in Engineering, (COMPENG)*, Rome, Italy, 22–24 Feb. 2010, pp. 40–42
- [C45] **S. Grillo**, M. Marinelli, E. Pasca, G. Petretto, F. Silvestro, "Characterization of Wind and Solar generation and their influence on distribution network performances," *International Universities Power Engineering Conference (UPEC)*, Glasgow, 1–4 Sep. 2009, pp. 1–6
- [C46] A. Borghetti, M. Bosetti, **S. Grillo**, M. Paolone, F. Silvestro, "Short-Term Scheduling of Active Distribution Systems," *IEEE PowerTech*, Bucharest, Romania, 28 Jun.–2 Jul. 2009, pp. 1–7
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