

## **Luca Solero**

*Dept. of Engineering – University Roma Tre  
Via della Vasca Navale, 79 – 00146 Roma, Italy  
Tel work +390657333277, Email luca.solero@uniroma3.it*

Prof. Luca Solero was born in Ravenna (RA), Italy, on 1968 May 22nd.

He received electrical engineering degree from the University of Rome “La Sapienza”, Rome, in 1994.

From 1996 to 2016 he was with the University Roma Tre with the positions of Assistant Professor and Associate Professor in the scientific and teaching field of “Converters, Machines and Electrical Drives” (ING-IND/32). Since 2016 he is engaged at the University Roma Tre with the position of Full Professor for teaching regular courses named “Electrical Industrial Applications” for mechanical engineering and “Design of Power Electronic Converters” for electronic engineering.

His current research interests include analysis and development of unconventional power converter topologies and motor drives for a number of applications including automotive power systems, hybrid and electric vehicles, renewable energy generating systems. Concerning these topics he authored more than 140 papers published in international journals and conference proceedings worldwide.

Prof. Solero has the scientific responsibility for agreements concerning students’ final thesis activities and training periods at companies in the Rome area, mainly in the field of power electronics. He has, furthermore, the scientific responsibility for the Framework Agreement between SEMIKRON and the Engineering Department of the University Roma Tre.

In 2001 and 2002, Prof. Luca Solero was Visiting Research Scholar at CPES (Center for Power Electronics Systems) – Virginia Tech, Blacksburg VA (USA). During his visit, Prof. Solero worked together with CPES researchers at the project “Power Electronics Building Blocks – Plug and Play – Hardware and Software Control Architectures” which was led by Prof. Dr. Dushan Boroyevich. Prof. Solero was in charge of design and sizing of Power Electronics Building Blocks (PEBBs) active and passive devices, both in case of hard switching and soft switching. He led the realization of the 33kW phase-leg prototype and the first experimental activity.

### Research Projects

During his career Prof. Solero was involved in the development of a significant number of research projects being funded by either public boards or private companies, mainly in the field of renewable energy and electric and hybrid vehicles.

Prof. Solero has led as Scientific Supervisor the following research projects:

ENEA (2005) “Design and Realization of a Combined Storage System for Automotive Applications”; Larcet (2008) “Design and Prototypal Development of a 3-Phase Multilevel PFC with 48V Output Voltage”; 3C-Group (2008) “Design Specifications for the Electric Drive devoted to a 50cc Scooter Propulsion”; MiUR Prin 2008 “Turboexpander Coupled Electric Drives for Energy Recovering in Automotive Applications”; Semikron (2009) “Investigation of Multilevel Topologies and Design of 3-Level Power Electronic Converters Test Bench”; Geant Empowering (2010) “Control Design and Implementation for a 3 kW 1-Phase NPC Inverter for PV Applications”; Lazio District - Tecno.Tib.e.r.i.s. Consortium (2011) “Modular Power Supply Unit with Digital Control”; Larcet (2011) “Design and Testing

of 3-Phase Inverters for Hybrid Farm Equipment”; Semikron (2015) “Characterization of power modules: 3L Rectifier Module and Hybrid DC/DC Converter Module”; ABB PPHV Adda (2016) “Research Activity on the Motor Drive 1.4 Capacitor Charger (BCHRG)”.

### Organizing Tasks

In 2000 Prof. Solero was member of the Local Committee for the organization of the IEEE Industry Applications Society Annual Meeting.

In 2004 he worked as member of the International Program Committee for the IEEE International Symposium on Vehicle Power and Propulsion.

In 2008 he served as Local Committee Member during the organization of the ESSCAP'08 - 3rd European Symposium on Supercapacitors and Applications.

In 2010 Prof. Solero was member of the Local Committee for the organization of the ICEM - International Conference of Electrical Machines.

In 2012 he worked as member of the Technical Program Committee for the IEEE Energycon Conference.

In 2014 and 2016 he served as Vice Chair of the IEEE ECCE Conference.

In 2016 he served in the Technical Program Committee of the IEEE IECON Conference and of the IEEE SLED Symposium.

European Liaison officer for the IEEE IAS Industrial Power Converters Committee IPCC, since Sept. 2013.

Secretary Officer for the IEEE IAS Industrial Power Converters Committee IPCC, since Jan. 2016.

Prof. Solero is member of the IEEE, Power Electronics Society (IEEE-PELS), Industrial Electronics Society (IEEE-IES), Industry Applications Society (IEEE-IAS); he is an active member of the IEEE Industrial Power Conversion Systems Department, specifically in Industrial Power Converter and in Industrial Drives Committees. Prof. Solero serves as reviewer for IEEE, IET and EPE journals and different international conferences.

Since 2014, Prof. Solero serves as Associate Editor of the IEEE Transactions on Industry Applications.

From 2003 to 2008, Prof. Solero was member of the Planning Committee of the Faculty of Engineering; furthermore, he was member of the Committee for the Students' Admission to the Faculty of Engineering of University Roma Tre.

Since 2010, Prof. Solero is the Delegate of the Head of Engineering Faculty in the GLOA Committee. GLOA Committee is in charge for strategic decisions concerning undergraduate and postgraduate students advising.

Prof. Solero was member of Committees for evaluation of candidates for the position of Assistant Professor in the field of “Converters, Machines and Electrical Drives”, as well he was member of Commissions for the evaluation of PhD final defenses in Italy and UK Universities.

Prof. Solero was member of the Team RhOME for denCity, winner of the international contest Solar Decathlon Europe 2014.

## List of Papers

- [1] S. Bifaretti, A. Lidozzi, L. Solero, F. Crescimbinì, *Modulation with Sinusoidal Third Harmonic Injection for Active Split DC-Bus Four-Leg Inverters*, **IEEE Transactions on Power Electronics**, *early access 2015*. (doi: 10.1109/TPEL.2015.2502320) ISSN 0885-8993.
- [2] E. Rovelli, S. Scarpaci, A. Lidozzi, L. Solero, *An HVCB Electronic Drive for Modern Electrical Substation in Distribution Power Systems*, **IEEE Transactions on Power Delivery**, *early access 2015*. (doi: 10.1109/TPWRD.2015.2475217) ISSN 0885-8977.
- [3] P.J. Grbović, A. Lidozzi, L. Solero, F. Crescimbinì, *Five-Level Unidirectional T-Rectifier for High Speed Gen-Set Applications*, **IEEE Transactions on Industry Applications**, *early access 2015*. (doi: 10.1109/TIA.2015.2504469) ISSN 0093-9994. Presented at the IEEE Energy Conversion Congress and Exposition, ECCE 2014, Pittsburgh - PA (USA), Sept. 14-18, 2014, pp. 4718-4725. (doi: 10.1109/ECCE.2014.6954047) ISBN: 978-1-4799-5776-7.
- [4] A. Lidozzi, L. Solero, F. Crescimbinì, Chao Ji, P. Zanchetta, *Load Adaptive Zero-Phase-Shift Direct Repetitive Control for Stand-Alone Four-Leg VSI*, IEEE Energy Conversion Congress and Exposition, ECCE 2015, Montreal - (CA), Sept. 20-24, 2015, pp. 4330-4336. (doi: 10.1109/ECCE.2015.7310272). ISBN: 978-1-4673-7151-3.
- [5] M. Di Benedetto, A. Lidozzi, L. Solero, F. Crescimbinì, P.J. Grbovic, *Low Frequency State-Space Model for the Five-Level Unidirectional T-Rectifier*, IEEE Energy Conversion Congress and Exposition, ECCE 2015, Montreal - (CA), Sept. 20-24, 2015, pp. 5102-5109. (doi: 10.1109/ECCE.2015.7310379). ISBN: 978-1-4673-7151-3.
- [6] P.J. Grbovic, A. Lidozzi, L. Solero, F. Crescimbinì, *Performance Evaluation for the Five-Level Unidirectional T-Rectifier in High-Speed Electric Generating Units*, IEEE Energy Conversion Congress and Exposition, ECCE 2015, Montreal - (CA), Sept. 20-24, 2015, pp. 5110-5116. (doi: 10.1109/ECCE.2015.7310380). ISBN: 978-1-4673-7151-3.
- [7] M. Di Benedetto, A. Lidozzi, L. Solero, P.J. Grbovic, S. Bifaretti, *ISOP DC-DC Converters Equipped 5-Level Unidirectional T-Rectifier for Aerospace Applications*, IEEE Energy Conversion Congress and Exposition, ECCE 2015, Montreal - (CA), Sept. 20-24, 2015, pp. 1694-1700. (doi: 10.1109/ECCE.2015.7309899). ISBN: 978-1-4673-7151-3.
- [8] S. Bifaretti, S. Pipolo, A. Lidozzi, L. Solero, *Control Strategies for a ZVT Full Bridge DC-DC Converter*, IEEE Energy Conversion Congress and Exposition, ECCE 2015, Montreal - (CA), Sept. 20-24, 2015, pp. 1701-1706. (doi: 10.1109/ECCE.2015.7309900). ISBN: 978-1-4673-7151-3.
- [9] S. Pipolo, S. Bifaretti, A. Lidozzi, L. Solero, *Feed-Forward Control of a ZVT Full Bridge DC-DC Converter*, IEEE Environment and Electrical Engineering International Conference, EEEIC 2015, Roma (Italy), June 10-13, 2015, pp. 1041-1046. (doi: 10.1109/EEEIC.2015.7165308). ISBN: 978-1-4799-7993-6.
- [10] A. Lidozzi, M. Di Benedetto, S. Bifaretti, L. Solero, F. Crescimbinì, *Resonant Controllers with Three-Degree of Freedom for AC Power Electronic Converters*, **IEEE Transactions on Industry Applications**, Vol. 51, No. 6, Nov.-Dec. 2015, pp. 4595-4604. (doi: 10.1109/TIA.2015.2448057) ISSN 0093-9994. Presented at the IEEE Energy Conversion Congress and Exposition, ECCE 2014, Pittsburgh-PA (USA), Sept.14-18, 2014, pp.1663-1670. (doi:10.1109/ECCE.2014.6953618) ISBN:978-1-4799-5776-7.
- [11] A. Lidozzi, Chao Ji, L. Solero, P. Zanchetta, F. Crescimbinì, *Resonant-Repetitive Combined Control for Stand-Alone Power Supply Units*, **IEEE Transactions on Industry Applications**, Vol. 51, No. 6, Nov.-Dec. 2015, pp. 4653-4663. (doi: 10.1109/TIA.2015.2458960) ISSN 0093-9994. Presented at the IEEE Energy Conversion Congress and Exposition, ECCE 2014, Pittsburgh - PA (USA), Sept. 14-18, 2014, pp. 2952-2959. (doi: 10.1109/ECCE.2014.6953800). ISBN: 978-1-4799-5776-7.
- [12] A. Lidozzi, L. Solero, S. Bifaretti, F. Crescimbinì, *Sinusoidal Voltage Shaping of Inverter Equipped Stand-Alone Generating Units*, **IEEE Transactions on Industrial Electronics**, Vol. 62, No. 6, June 2015, pp. 3557-3568. (doi: 10.1109/TIE.2014.2370939) ISSN 0278-0046.
- [13] G. Lo Calzo, A. Lidozzi, L. Solero, F. Crescimbinì, *LC Filter Design for On-Grid and Off-Grid Distributed Generating Units*, **IEEE Transactions on Industry Applications**, Vol. 51, No. 2, Mar.-Apr. 2015, pp. 1639-1650. (doi: 10.1109/TIA.2014.2345952) ISSN 0093-9994. Presented at the IEEE Energy Conversion Congress and Exposition, ECCE 2013, Denver – CO (USA), Sept. 15-19, 2013, pp. 713-720. (doi: 10.1109/ECCE.2013.6646772). ISBN 978-1-4799-0336-8.
- [14] S. Bifaretti, A. Lidozzi, L. Solero, F. Crescimbinì, *Anti-Islanding Detector based on a Robust PLL*, **IEEE Transactions on Industry Applications**, Vol. 51, No. 1, Jan.- Feb. 2015, pp. 398-405. (doi: 10.1109/TIA.2014.2330063) ISSN 0093-9994
- [15] G. Lo Calzo, P. Zanchetta, C. Gerada, A. Lidozzi, M. Degano, F. Crescimbinì, L. Solero, *Performance Evaluation of Converter Topologies for High Speed Starter/Generator in Aircraft Applications*, Annual Conference of the IEEE Industrial Electronics Society, IECON 2014, Dallas – TX (USA), Oct. 28 – Nov. 1, 2014.
- [16] P.J. Grbović, A. Lidozzi, L. Solero, F. Crescimbinì, *Multilevel Converters for Low Voltage High Current Applications: -Issues, Challenges and Limitations-*, 16th International Power Electronics and Motion Control Conference and Exposition, PEMC 2014, Antalya (Turkey), Sept. 21-24, 2014.
- [17] S. Bifaretti, A. Lidozzi, L. Solero, F. Crescimbinì, *Comparison of Modulation Techniques for Active Split DC-Bus Three-Phase Four-Leg Inverters*, IEEE Energy Conversion Congress and Exposition, ECCE 2014, Pittsburgh - PA (USA), Sept. 14-18, 2014, pp. 5631-5638. (doi: 10.1109/ECCE.2014.6954173). ISBN: 978-1-4799-5776-7.
- [18] A. Lidozzi, G. Lo Calzo, S. Pipolo, L. Solero, F. Crescimbinì, *Modeling of Voltage Source Inverter having Active Split DC-Bus for Supply of Four-Wire Electrical Utility Systems*, IEEE Energy Conversion Congress and Exposition, ECCE 2014, Pittsburgh - PA (USA), Sept. 14-18, 2014, pp. 1043-1050. (doi: 10.1109/ECCE.2014.6953514). ISBN: 978-1-4799-5776-7.
- [19] A. Accetta, M. Pucci, A. Lidozzi, L. Solero, F. Crescimbinì, *Compensation of Static End Effects in Linear Induction Motor Drives by Frequency-Adaptive Synchronous Controllers*, Proceedings of the ICEM 2014, The XXI International Conference on Electrical Machines, Berlin (Germany), Sept. 2-5, 2014. (doi: 10.1109/ICELMACH.2014.6960260). ISBN 978-1-4799-4389-0.
- [20] F. Crescimbinì, A. Lidozzi, G. Lo Calzo, L. Solero, *High-Speed Electric Drive for Exhaust Gas Energy Recovery Applications*, **IEEE Transactions on Industrial Electronics**, Vol. 61, No. 6, June 2014, pp. 2998-3011. (doi: 10.1109/TIE.2013.2271602) ISSN 0278-0046.
- [21] A. Lidozzi, G. Lo Calzo, L. Solero, F. Crescimbinì, *Integral-Resonant Control for Stand-Alone Voltage Source Inverters*, **Institution of Engineering and Technology, IET Power Electronics Journal**, Vol. 7, No. 2, Feb. 2014, pp. 271-278. (doi: 10.1049/iet-pel.2013.0121) ISSN 1755-4535.
- [22] A. Lidozzi, G. Lo Calzo, L. Solero, F. Crescimbinì, *"Multiple Resonant Controller with Load-Adaptive Phase Compensation Capabilities"*, Proceedings of the 39<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society, IECON 2013, Vienna (A), Nov. 10-13, 2013, pp. 1068-1073. (doi: 10.1109/IECON.2013.6699281). ISBN 978-1-4799-0224-8.

- [23] A. Lidozzi, G. Lo Calzo, L. Solero, F. Crescimbinì, "Symmetrical Tuning for Resonant Controllers in Inverter Based Micro-Grid Applications", Proceedings of the IEEE Energy Conversion Congress and Exposition, ECCE 2013, Denver – CO (USA), Sept. 15-19, 2013, pp. 755-762. (doi: 10.1109/ECCE.2013.6646778). ISBN 978-1-4799-0336-8.
- [24] A. Lidozzi, A. Romanelli, L. Solero, *High Power Density 3-Level 3-Phase AC-DC 48V Power Supply*, **Journal of Energy and Power Engineering**, David Publishing Comp. (USA), Vol. 6, No. 10, Oct. 2012, pp. 1623-1633. ISSN 1934-8975
- [25] G. Lo Calzo, A. Lidozzi, L. Solero, F. Crescimbinì, *Three-Phase Z-Source Power Supply Design*, **Institution of Engineering and Technology, IET Power Electronics Journal**, Vol. 5, No. 8, Sept. 2012, pp. 1270-1281. (doi: 10.1049/iet-pel.2012.0130) ISSN 1755-4535.
- [26] A. Lidozzi, G. Lo Calzo, L. Solero, F. Crescimbinì, *Sinusoidal Current Shaping in Variable-Speed Distributed Generating Units with Low-Resolution Position Sensors*, Proceedings of the IEEE Energy Conversion Congress and Exposition, ECCE 2012, Raleigh–NC (USA), Sept. 15-20, 2012, pp. 2646-2653. (doi: 10.1109/ECCE.2012.6342538). ISBN 978-1-4673-0803-8.
- [27] A. Lidozzi, G. Lo Calzo, L. Solero, F. Crescimbinì, *Integral-Resonant Voltage Control for Three-Phase Four-Leg Voltage Source Inverters*, Proceedings of the IEEE Energy Conversion Congress and Exposition, ECCE 2012, Raleigh – NC (USA), Sept. 15-20, 2012, pp. 1412-1419. (doi: 10.1109/ECCE.2012.6342649). ISBN 978-1-4673-0803-8.
- [28] G. Lo Calzo, M. Lega, A. Lidozzi, L. Solero, F. Crescimbinì, *Single-Phase Three-Level Transformer-less Inverter for Residential Distributed Generation*, Proceedings of the IEEE Energycon 2012, Florence (Italy), Sept. 9-12, 2012, pp. 13-18. (doi: 10.1109/EnergyCon.2012.6348260). ISBN 978-1-4673-1454-1.
- [29] M. Lega, G. Lo Calzo, A. Lidozzi, L. Solero, F. Crescimbinì, *Variable Speed Generating Unit for Stand-Along Microgrids*, Proceedings of the IEEE Energycon 2012, Florence (Italy), Sept. 9-12, 2012, pp. 165-170. (doi: 10.1109/EnergyCon.2012.6347741). ISBN 978-1-4673-1454-1.
- [30] G. Lo Calzo, A. Lidozzi, L. Solero, F. Crescimbinì, V. Cardì, *Thermal Regulation as Control Reference in Electric Drives*, Proceedings of the EPE-PEMC 2012 ECCE EUROPE, Novi Sad (Serbia), Sept. 4-6, 2012, cd rom. (doi: 10.1109/EPEPEMC.2012.6397301) ISBN 978-1-4673-1972-0.
- [31] F. Crescimbinì, A. Lidozzi, E. Rovelli, A. Salvatore, L. Solero, *A 30kW Transformer-less PV NPC Inverter*, Proceedings of the EPE-PEMC 2012 ECCE EUROPE, Novi Sad (Serbia), Sept. 4-6, 2012, cd rom. (doi: 10.1109/EPEPEMC.2012.6397301) ISBN 978-1-4673-1972-0.
- [32] F. Crescimbinì, A. Lidozzi, L. Solero, *High Speed Generator and Multilevel Converter for Energy Recovery in Automotive Systems*, **IEEE Transactions on Industrial Electronics**, Vol. 59, No. 6, June 2012, pp. 2678-2688. (doi: 10.1109/TIE.2011.2160513) ISSN 0278-0046.
- [33] A. Lidozzi, L. Solero, F. Crescimbinì, *Adaptive Direct-Tuning Control for Variable-Speed Diesel-Electric Generating Units*, **IEEE Transactions on Industrial Electronics**, Vol. 59, No. 5, May 2012, pp. 2126-2134. (doi: 10.1109/TIE.2011.2151826) ISSN 0278-0046.
- [34] G. Lo Calzo, A. Lidozzi, L. Solero, F. Crescimbinì, *Three-Phase Z-Source Power Supply Design and Dynamic Modeling*, Proceedings of the IEEE Energy Conversion Congress and Exposition, ECCE 2011, Phoenix – AZ (USA), Sept. 17-22, 2011, pp. 1339-1345. (doi: 10.1109/ECCE.2011.6063934). ISBN 978-1-4577-0541-0.
- [35] L. D'Errico, A. Lidozzi, L. Solero, *Neutral Point Clamped Converter for High Fundamental Frequency Applications*, **Institution of Engineering and Technology, IET Power Electronics Journal**, Vol. 4, No. 3, May 2011, pp. 296-308. (doi: 10.1049/iet-pel.2009.0166) ISSN 1755-4535.
- [36] L. Solero, A. Lidozzi, V. Serrao, L. Martellucci, E. Rossi, *Ultracapacitors for Fuel Saving in Small Size Hybrid Vehicles*, **Elsevier Journal of Power Sources**, Vol. 196, No. 1, Jan. 2011, pp. 587-595. ISSN 0378-7753. Presented at the ESSCAP'08, 3<sup>rd</sup> European Symposium on Supercapacitors and Applications, Rome (Italy), Nov. 6-7, 2008, cd-rom.
- [37] A. Lidozzi, L. Solero, A. Di Napoli, *Ultracapacitors Equipped Hybrid Electric MicroCar*, **Institution of Engineering and Technology, IET Electric Power Applications Journal**, Vol. 4, No. 8, Sept. 2010, pp. 618-628. (doi: 10.1049/iet-epa.2009.0096) ISSN 1751-8660.
- [38] A. Lidozzi, L. Solero, F. Crescimbinì, *Adaptive Direct-Tuning Control for Diesel-Electric Power Supply Units*, Proceedings of the ICEM 2010, The XIX International Conference on Electrical Machines, Rome (Italy), Sept. 6-8, 2010, cd rom. ISBN 978-1-4244-4175-4.
- [39] F. Mergioti, F. Crescimbinì, L. Solero, A. Lidozzi, *Design of a Turbo-Expander Driven Generator for Energy Recovery in Automotive Systems*, Proceedings of the ICEM 2010, The XIX International Conference on Electrical Machines, Rome (Italy), Sept. 6-8, 2010, cd rom. ISBN 978-1-4244-4175-4.
- [40] C. Polini, F. Crescimbinì, A. Di Napoli, A. Lidozzi, L. Solero, *Power Flow Analysis for Plug In Hybrid Electric Vehicles*, Proceedings of the ICEM 2010, The XIX International Conference on Electrical Machines, Rome (Italy), Sept. 6-8, 2010, cd rom. ISBN 978-1-4244-4175-4
- [41] A. Lidozzi, L. Solero, F. Crescimbinì, A. Di Napoli, *Direct Tuning Strategy for Speed Controlled PMSM Drives*, Proceedings of the IEEE – ISIE 2010, International Symposium on Industrial Electronics, Bari (Italy), July 4-7, 2010, pp. 1265-1270. ISBN 978-1-4244-6391-6.
- [42] L. D'Errico, A. Lidozzi, G. Lo Calzo, A. Romanelli, L. Solero, *Multi-Level Configurations for Three-Phase AC-DC 48V Power Supply*, Proceedings of the IEEE – ISIE 2010, International Symposium on Industrial Electronics, Bari (Italy), July 4-7, 2010, pp. 945-950. ISBN 978-1-4244-6391-6.
- [43] A. Romanelli, A. Lidozzi, L. D'Errico, L. Solero, *High Power Density Three-Phase AC-DC 48V Power Supply*, Proceedings of the PCIM 2010, International Exhibition and Conference for Power Electronics, Intelligent Motion, Power Quality, Nuremberg (Germany), May 4-6, 2010, pp. 101-106. ISBN 9789-3-8007-3229-6.
- [44] F. Crescimbinì, L. Solero, *La Conversione Elettronica di Potenza nei Sistemi Elettrici*, Chapter of the Book Sistemi di Propulsione Elettrica ed Ibrida – dalla sorgente a bordo all'attuazione meccanica, Edito da ENEA, Rome (Italy), Oct. 2009, pp. 147-208. ISBN 88-8286-172-4.
- [45] L. D'Errico, L. Solero, *Multilevel DC/DC Converter for Fuel Cell Vehicular Applications*, Proceedings of the HYSYDAYS 2009, 3<sup>rd</sup> World Congress of Young Scientists on Hydrogen Energy Systems, Turin (Italy), Oct. 7-9, 2009, cd-rom.
- [46] L. D'Errico, A. Lidozzi, V. Serrao, L. Solero, *Multilevel Converters for High Fundamental Frequency Application*, Proceedings of the EPE 2009, 13th European Conference on Power Electronics and Applications, Barcelona (Spain), Sept. 8-10, 2009, cd-rom. ISBN 97890758115009.
- [47] G. Pede, A. Puccetti, E. Rossi, L. Solero, A. Lidozzi, A. Morrone, *ENEA Hybrid Drive Train Testing Facility: a versatile instrument for HIL (hardware-in-the-loop) assisted design*, Proceedings of the EVS 24, 24th International Electric Vehicle Symposium, Stavanger (Norway), May 13-16, 2009, cd-rom.
- [48] A. Lidozzi, V. Serrao, L. Solero, F. Crescimbinì, A. Di Napoli, *Direct Tuning Strategy for PMSM Drives*, Conference Record of the 2008 IEEE Industry Applications Conference 43rd Annual Meeting, Edmonton (Canada), Oct. 5-9, 2008, cd-rom. ISBN 978-1-4244-2279-1.

- [49] A. Lidozzi, V. Serrao, L. Solero, A. Di Napoli, *Control Technique and Operation Strategy of PM Generators in Hybrid Vehicles*, Proceedings of the ICEM 2008, International Conference on Electrical Machines, Vilamoura (Portugal), Sept. 6-9, 2008, cd rom.
- [50] L. Solero, V. Serrao, M. Montuoro, A. Romanelli, *Low THD Variable Load Buck PFC Converter*, Proceedings of the 39<sup>th</sup> Annual IEEE Power Electronics Specialists Conference, Rhodes (Greece), June 15-19, 2008, pp. 906-912. ISBN 978-1-4244-1668-4.
- [51] A. Lidozzi, L. Solero, F. Crescimbin, R. Burgos, *Vector control of trapezoidal back-EMF PM machines using pseudo-Park transformation*, Proceedings of the 39<sup>th</sup> Annual IEEE Power Electronics Specialists Conference, Rhodes (Greece), June 15-19, 2008, pp. 2167-2171. ISBN 978-1-4244-1668-4.
- [52] V. Serrao, A. Lidozzi, L. Solero, A. Di Napoli, *Common and differential mode EMI filters for power electronics*, Proceedings of the SPEEDAM 2008, Ischia (Italy), June 11-13, 2008, pp. 918-923. ISBN 978-1-4244-1664-6.
- [53] A. Di Napoli, A. Lidozzi, V. Serrao, L. Solero, *Thermal Distribution Evaluation Directly from the Electromagnetic Field Finite Elements Analysis*, Proceedings of the ISEF 2007, XIII International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering, Prague (Czech Republic), Sept. 13-15, 2007, pp. 455-457. ISBN 978-80-01-03784-3.
- [54] A. Lidozzi, V. Serrao, L. Solero, A. Di Napoli, *EMI Characterization and Communication Aspects for Power Electronics in Hybrid Vehicles*, Proceedings of the EPE 2007, 12th European Conference on Power Electronics and Applications, Aalborg (Denmark), Sept. 2-5, 2007, cd-rom. ISBN 9789075815108.
- [55] A. Lidozzi, V. Serrao, L. Solero, F. Crescimbin, *Power Electronic Converters Distribution in HOST Hybrid Propulsion System*, Proceedings of the EPE 2007, 12th European Conference on Power Electronics and Applications, Aalborg (Denmark), Sept. 2-5, 2007, cd-rom. ISBN 9789075815108.
- [56] L. Solero, A. Puccetti, M. Pennese, *Inductor tied Ultracapacitor Module devoted to 12V Battery Starter Alternator Systems*, Proceedings of the Global Powertrain Congress 2007, Berlin (Germany), June 17-19, 2007, cd rom. ISSN 1543-9658, ISSN 1543-9674, ISSN 1543-9690.
- [57] A. Lidozzi, V. Serrao, L. Solero, F. Crescimbin, A. Di Napoli, *Low-Voltage Fed Encoderless Motor Drive Devoted to Wheelchairs for a Sustainable Mobility*, **Eletronica de Potencia, Revista da Associacao Brasileira de Eletronica de Potencia – SOBRAEP**, Vol. 12, No.1, March 2007, pp. 1-9. ISSN 1414-8862.
- [58] A. Lidozzi, L. Solero, F. Crescimbin, A. Di Napoli, *SVM PMSM Drive with Low Resolution Hall-Effect Sensors*, **IEEE Transactions on Power Electronics**, Vol. 22, No. 1, Jan. 2007, pp. 282-290. ISSN 0885-8993. Presented at the 36<sup>th</sup> Annual IEEE Power Electronics Specialists Conference, Recife (Brasil), June 12-16, 2005, cd-rom.
- [59] A. Di Napoli, F. Crescimbin, L. Solero, A. Lidozzi, V. Serrao, *Convertitore ad Ingressi Multipli per la Generazione di Energia da Fonti Rinnovabili*, Rendiconti Riunione Annuale AEIT, Capri (Italy), Sept. 16-20, 2006, cd-rom.
- [60] A. Lidozzi, L. Solero, A. Di Napoli, P. M. Kshirsagar, R. Burgos, D. Boroyevich, *Sensorless Speed Vector Control of a Trapezoidal Back-EMF PMSM Machine using Pseudo-Park Transformation for Fan Motor Drives*, Proceedings of the ICEM 2006, International Conference on Electrical Machines, Chania – Crete Island (Greece), Sept. 2-5, 2006, cd rom. Published also on Proceedings of the 2006 CPES Power Electronics Conference, Blacksburg-VA (USA), April 23-25, 2006, cd-rom.
- [61] V. Serrao, L. Conti, A. Di Napoli, L. Solero, *EMC Performance Evaluation of an Electrically Powered Wheelchair*, Proceedings of EMC Europe 2006, Barcelona (Spain), Sept. 4-8, 2006, pp. 792-797.
- [62] V. Serrao, L. Conti, A. Di Napoli, L. Solero, *Emission Testing for the EMC Performance Evaluation of an Electric Wheelchair*, Proceedings of the SPEEDAM 2006, Taormina (Italy), May 23-26, 2006, pp. S26.1-S26.6.
- [63] M. Santoro, M. Pasquali, G. Pagni, L. Solero, *A Hybrid Powertrain Provided with an Emulated Fuel Cell System and a Battery Pack: Experimental Results*, SAE Technical Paper Series 2006-01-0218 - 2006 SAE World Congress, Detroit-MI (USA), April 3-6, 2006.
- [64] L. Solero, V. Serrao, P. Taglioni, F. Crescimbin, *Low-Voltage Power Electronics Building Block for Automotive Applications*, Proceedings of the APEC2006, 21<sup>th</sup> IEEE Applied Power Electronics Conference and Exposition, Dallas-TX (USA), March 19-23, 2006, pp. 633-639.
- [65] A. Lidozzi, L. Solero, P. Taddia, *Synergetic Control for Axial-Flux PM Motor Drives*, Conference Record of the 2005 IEEE Industry Applications Conference 40<sup>th</sup> Annual Meeting, Honk Kong, Oct. 2-6, 2005, cd-rom.
- [66] L. Solero, A. Lidozzi, J.A. Pomilio, *Design of Multiple-Input Power Converter for Hybrid Vehicles*, **IEEE Transactions on Power Electronics**, Vol. 20, No. 5, Sept.-Oct. 2005, pp. 1007-1016. ISSN 0885-8993. Presented at the APEC2004, 19th IEEE Applied Power Electronics Conference and Exposition, Anaheim-CA (USA), Feb. 22-26, 2004, cd-rom.
- [67] F. Crescimbin, A. Di Napoli, L. Solero, F. Caricchi, *Compact Permanent-Magnet Generator for Hybrid Vehicle Applications*, **IEEE Transactions on Industry Applications**, Vol. 41, No. 5, Sept.-Oct. 2005. ISSN 0093-9994. Presented at the 2003 IEEE Industry Applications Conference 38<sup>th</sup> Annual Meeting, Salt Lake City-UT (USA), Oct. 12-16, 2003, cd-rom.
- [68] V. Serrao, A. Di Napoli, L. Solero, *PCB Design Aspects in Distributed Control Architectures for Power Electronics*, Proceedings of ISEF2005, XII International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering, Baiona (Spain), Sept. 15-17, 2005, cd-rom.
- [69] M. Pasquali, G. Pede, A. Puccetti, M. Santoro, A. Lidozzi, L. Solero, A. Di Napoli, M. Aresti, V. Ravello, *A Hardware-Emulated Test Analysis of a PEM-Fuel-Cell Hybrid Powertrain*, SAE Technical Paper Series 2005-24-040 - 7<sup>th</sup> International Conference on Engines for Automobile, Capri (Italy), Sept. 11-16, 2005, cd-rom.
- [70] F. Crescimbin, L. Solero, *Advances in Propulsion Systems of Hybrid and Electric Vehicles*, Proceedings of the COBEP'2005, the 8<sup>th</sup> Brazilian Power Electronics Conference, Recife (Brasil), June 14-17, 2005, cd-rom.
- [71] D. Ghizoni, R. Burgos, G. Francis, J. Guo, X. Ma, L. Solero, F. Wang, D. Boroyevich, D.A. Cartes, *Design and Evaluation of a 33 kW PEBB Module for Distributed Power Electronics Conversion Systems*, Proceedings of the 36<sup>th</sup> Annual IEEE Power Electronics Specialists Conference, Recife (Brasil), June 12-16, 2005, pp. 530-536.
- [72] F. Crescimbin, V. Serrao, L. Solero, *Power Electronics Building Block (PEBB) for Static Conversion Apparatus devoted to Low-Voltage Fed Electric Drives*, Proceedings of the 36<sup>th</sup> Annual IEEE Power Electronics Specialists Conference, Recife (Brasil), June 12-16, 2005, cd-rom.
- [73] T. Bogani, A. Lidozzi, L. Solero, A. Di Napoli, *Synergetic Control of PMSM Drives for High Dynamic Applications*, Proceedings of the IEMDC2005, IEEE International Electric Machines and Drives Conference, San Antonio-TX (USA), May 15-18, 2005, pp. 710-717.
- [74] F. Carella, A. Lidozzi, L. Solero, A. Di Napoli, F. Crescimbin, *High Reliable Near-Zero Speed Control for Sinusoidal PMSM Drives with Low Resolution Position Sensors*, Proceedings of the IEMDC2005, IEEE International Electric Machines and Drives Conference, San Antonio-TX (USA), May 15-18, 2005, pp. 682-688.
- [75] A. Lidozzi, L. Solero, M. Aresti, G. Pagni, M. Pasquali, A. Puccetti, M. Santoro, *PEM-Fuel-Cell Hybrid Powertrains: a Real Case and a "Hardware-Emulated" Test Analysis*, Proceedings of the EVS 21, 21<sup>st</sup> International Electric Vehicle Symposium, Monaco (Monte Carlo), April 2-6, 2005, cd-rom.

- [76] A. Lidozzi, L. Solero, A. Di Napoli, F. Crescimbin, *Synergetic Control for Ultracapacitors Based High Dynamic Converters*, Proceedings of the APEC2005, 20<sup>th</sup> IEEE Applied Power Electronics Conference and Exposition, Austin-TX (USA), March 6-10, 2005, pp. 1976-1982.
- [77] A. Di Napoli, F. Crescimbin, L. Solero, A. Lidozzi, G. Pede, M. Santoro, M. Pasquali, *Multi Input Power Electronic Converter*, **AutoTechnology**, No. 6, Dec. 2004, pp. 60-63. ISSN 1616-8216.
- [78] M. Raganella, A. Di Napoli, F. Crescimbin, A. Lidozzi, L. Solero, *Design and Modeling of Controllers in PM Drives for Wheelchairs*, Proceedings of the ICEM 2004, International Conference on Electrical Machines, Cracow (Poland), Sept. 5-8, 2004, cd rom.
- [79] A. Lidozzi, M. Pasquali, A. Puccetti, M. Santoro, L. Solero, *A Novel Multi-Input Power Electronic Converter for Automotive Applications*, Proceedings of the EPE-PEMC'04, 11th International Power Electronics and Motion Control Conference, Riga (Latvia), Sept. 2-4, 2004, cd-rom.
- [80] F. Caricchi, F. Crescimbin, F. Giulii Capponi, L. Solero, *Experimental Study on Reducing Cogging Torque and Core Power Loss in Axial-Flux Permanent-Magnet Machines with Slotted Winding*, **IEEE Transactions on Industry Applications**, Vol. 40, No. 4, July-Aug. 2004. ISSN 0093-9994. Presented at the 2002 IEEE Industry Applications Conference 37<sup>th</sup> Annual Meeting, Pittsburgh-PA (USA), Oct. 14-18, 2002, vol.2 pp. 1295-1302.
- [81] L. Solero, A. Lidozzi, A. Puccetti, M. Pasquali, M. Santoro, *A Smart Multi-Purpose Power Electronic Converter for Automotive Applications*, Proceedings of the International Conference on Vehicles Alternative Fuel Systems & Environmental Protection – VAFSEP2004, Dublin (Ireland), July 6-9, 2004, pp. 181-185.
- [82] G. Vitale, A. Di Napoli, F. Crescimbin, A. Lidozzi, L. Solero, *Combination of SVM Techniques for Electric Drives*, Proceedings of the SPEEDAM 2004, Capri (Italy), June 16-18, 2004, pp. 664-669.
- [83] A. Di Napoli, A. Lidozzi, L. Solero, *Comparison of Random Modulation Techniques for EMI Reduction in Electric Vehicles*, Proceedings of the SPEEDAM 2004, Capri (Italy), June 16-18, 2004, pp. 488-493.
- [84] M. Santoro, A. Puccetti, M. Pasquali, L. Solero, A. Lidozzi, *A Multi-Purpose Power Electronic Converter for Automotive Applications*, Proceedings of the 4<sup>th</sup> International AABC – Advanced Automotive Battery Conference, San Francisco-CA (USA), June 1-4, 2004, cd-rom.
- [85] A. Lidozzi, L. Solero, *Power Balance Control of Multiple-Input DC-DC Power Converter for Hybrid Vehicles*, Proceedings of the IEEE – ISIE 2004, International Symposium on Industrial Electronics, Ajaccio (France), May 4-7, 2004, pp. 1467-1472.
- [86] A. Di Napoli, F. Crescimbin, A. Lidozzi, L. Solero, M. Pasquali, A. Puccetti, E. Rossi, *Design and Testing of a Fuel-Cell Powered Propulsion System Supported by a Hybrid UC-Battery Storage*, SAE Technical Paper Series 2004-01-1303 - 2004 SAE World Congress, Detroit-MI (USA), March 8-11, 2004.
- [87] L. Solero, D. Boroyevich, Y.P. Li, F.C. Lee, *Design of Resonant Circuit for Zero-Current-Transition Techniques in 100kW PEBB Applications*, **IEEE Transactions on Industry Applications**, Vol. 39, No. 6, Nov.-Dec. 2003. ISSN 0093-9994. Presented at the 2002 IEEE Industry Applications Conference 37<sup>th</sup> Annual Meeting, Pittsburgh-PA (USA), Oct. 14-18, 2002, vol. 4 pp. 2335-2342.
- [88] O. Honorati, F. Caricchi, F. Crescimbin, F. Giulii Capponi, L. Solero, G. De Donato, *Multi-Stage Axial-Flux PM Wheel-Motor for a Shuttle-Bus Electric Vehicle*, Proceedings of ELECTROMOTION 2003, Marrakesh (Morocco), Nov. 26-28, 2003, cd-rom.
- [89] A. Di Napoli, F. Crescimbin, A. Lidozzi, M. Pasquali, G. Pede, E. Rossi, L. Solero, *A Fuel-Cell Powered Propulsion System Supported by a Hybrid UC-Battery Storage*, Proceedings of the EVS 20, 20<sup>th</sup> International Electric Vehicle Symposium, Long Beach-CA (USA), Nov. 15-19, 2003, cd-rom.
- [90] J.A. Pomilio, L. Solero, F. Crescimbin, A. Di Napoli, *Dynamic Modelling and Regulators Design for Multiple Input Power Converters for the Propulsion System of Electric Vehicles*, Proceedings of the COBEP'2003, The 7<sup>th</sup> Brazilian Power Electronics Conference, Fortaleza – Ceara (Brasil), Sept. 21-24, 2003, pp. 362-367.
- [91] A. Di Napoli, L. Solero, *Emissioni EM di Azionamenti Elettrici per Trazione Veicolare: Valutazione e Tecniche di Riduzione*, Atti del 2° Convegno Nazionale – Strumenti e Tecniche di Misura per la Protezione dell'Uomo e dell'Ambiente dai Campi Elettromagnetici, Florence (Italy), May 28-29, 2003, pp. 125-128.
- [92] A. Di Napoli, F. Caricchi, F. Crescimbin, F. Giulii Capponi, L. Solero, *Multiple-Input DC-DC Power Converter for Power-Flow Management in Hybrid Vehicles*, Conference Record of the 2002 IEEE Industry Applications Conference 37<sup>th</sup> Annual Meeting, Pittsburgh-PA (USA), Oct. 14-18, 2002, vol.3 pp. 1578-1585.
- [93] A. Di Napoli, F. Caricchi, F. Crescimbin, L. Solero, *Innovative Permanent Magnet Motor Drive for Wheelchairs*, Proceedings of the ICEM 2002, International Conference on Electrical Machines, Brugge (Belgium), Aug. 25-28, 2002, cd rom.
- [94] A. Di Napoli, F. Crescimbin, F. Giulii Capponi, L. Solero, *Control Strategy for Multiple Input DC-DC Power Converters Devoted to Hybrid Vehicle Propulsion Systems*, Proceedings of the IEEE – ISIE 2002, International Symposium on Industrial Electronics, L'Aquila (Italy), July 8-11, 2002, pp. 1036-1041.
- [95] A. Di Napoli, F. Crescimbin, S. Rodo, L. Solero, *Multiple Input DC-DC Power Converter for Fuel-Cell Powered Hybrid Vehicles*, Proceedings of the 33rd Annual IEEE Power Electronics Specialists Conference, Crains (Australia), June 24-27, 2002, pp. 1685-1690.
- [96] A. Di Napoli, F. Giulii Capponi, E. Santini, L. Solero, *Active Compensation Techniques for Common Mode Voltage in an Inverter Driven Electric Drive*, Proceedings of the SPEEDAM 2002, Ravello (Italy), June 11-14, 2002, pp. C42-C48.
- [97] A. Di Napoli, F. Crescimbin, L. Solero, G. Pede, M. Pasquali, G. Lo Bianco, *Fuel-Cell HEVs Assisted by Ultracapacitor and Battery Storage System*, Proceedings of the FISITA2002, 29th World Automotive Congress, Helsinki (Finland), June 2-7, 2002, cd-rom.
- [98] L. Solero, *Power Electronic Converters Devoted to Stand-Alone Wind-Energy Generating Systems*, **EPE Journal**, Vol. 12, No. 2, May 2002, pp. 43-48. ISSN 0939-8368.
- [99] M. Incurvati, L. Solero, *Power Electronic Interface Devoted to Starter/Alternator Systems for Automotive Applications*, **EPE Journal**, Vol. 11, No. 4, Nov. 2001, pp. 20-25. ISSN 0939-8368.
- [100] A. Di Napoli, F. Crescimbin, L. Solero, G. Pede, G. Lo Bianco, M. Pasquali, *Ultracapacitor and Battery Storage System Supporting Fuel-Cell Powered Vehicles*, Proceedings of the EVS 18, 18th International Electric Vehicle Symposium, Berlino (Germany), Oct. 20-24, 2001, cd-rom.
- [101] F. Caricchi, F. Crescimbin, F. Giulii Capponi, L. Solero, *Permanent-Magnet, Direct-Drive, Starter/Alternator Machine with Weakened Flux Linkage for Constant-Power Operation Over Extremely Wide Speed Range*, Conference Record of the 2001 IEEE Industry Applications Conference 36<sup>th</sup> Annual Meeting, Chicago-IL (USA), Sept. 30-Oct. 4, 2001, cd rom.
- [102] F. Giulii Capponi, L. Solero, *Short-Circuit Protection in Axial-Flux PM Motor Drives for EV and HEV Traction Systems*, Proceedings of the 2001 IEEE International Symposium on Diagnostics for Electrical Machines, Power Electronics and Drives, Grado (Italy), Sept. 1-3, 2001, pp. 507-512.
- [103] L. Solero, F. Caricchi, F. Crescimbin, M. Falchetta, *Direct-Drive Wind Generator Pilot Plant for Stand-Alone Units in Extremely Cold Climates*, **International Journal of Renewable Energy Engineering (IJREE)**, Vol. 3, No. 2, Aug. 2001, pp. 326-332. ISSN 1442-133X.

- [104] L. Solero, O. Honorati, F. Caricchi, F. Crescimbinì, *Nonconventional Three-Wheel Electric Vehicle for Urban Mobility*, **IEEE Transactions on Vehicular Technology**. Vol. 50, No. 4, July 2001, pp. 1085-1091. ISSN 0018-9545.
- [105] A. Alessandrini, F. Caricchi, F. Filippi, O. Honorati, V. Naso, F. Orecchini, A. Santiangeli, F. Zuccari, F. Crescimbinì, A. Di Napoli, L. Solero, C. M. Bartolini, F. Caresana, *Studio di Fattibilità di un Sistema Energetico Ibrido a Basso Inquinamento*, Atti del X Convegno Tecnologie e Sistemi Energetici Complessi, Genova (Italy), June 21-22, 2001, pp. 515-533.
- [106] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *Sinusoidal Brushless Drive with Low-Cost Linear Hall Effect Position Sensors*, Proceedings of the 32nd Annual IEEE Power Electronics Specialists Conference, Vancouver (Canada), June 17-21, 2001, cd rom.
- [107] L. Solero, *Nonconventional On-Board Charger for Electric Vehicle Propulsion Batteries*, **IEEE Transactions on Vehicular Technology**. Vol. 50, No. 1, Jan. 2001, pp. 144-149. ISSN 0018-9545.
- [108] F. Caricchi, F. Crescimbinì, E. Santini, L. Solero, *High-Efficiency Low-Volume Starter/Alternator for Automotive Applications*, Conference Record of the 2000 IEEE Industry Applications Conference 35<sup>th</sup> Annual Meeting, Rome (Italy), Oct. 8-12, 2000, cd rom.
- [109] A. Di Napoli, O. Honorati, E. Santini, L. Solero, *The Use of Magnetic Materials for Improving Flux Weakening Capabilities of Axial Flux PM Machines*, Conference Record of the 2000 IEEE Industry Applications Conference 35<sup>th</sup> Annual Meeting, Rome (Italy), Oct. 8-12, 2000, cd rom.
- [110] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *An Innovative PM motor with phases series connection devoted to EV drives*, Proceedings of the ICEM 2000, International Conference on Electrical Machines, Espoo (Finland), Aug. 28-30, 2000, vol. 3, pp. 1692-1696.
- [111] M. Falchetta, A. Lori, A. Nunzi, D. Prischich, F. Caricchi, F. Crescimbinì, L. Solero, *A New Wind Turbine for Remote Installations in Inner Antarctica*, Proceedings of the 9<sup>th</sup> SCALOP Symposium, Tokyo (Japan), July 12, 2000, pp. 151-160.
- [112] F. Caricchi, F. Crescimbinì, L. Solero, *A Novel Lightweight and Compact On-Line UPS Engine-Generator System*, Proceedings of the PCIM 2000, International Conference on Power Conversion, Intelligent Motion and Power Quality, Nuremberg (Germany), June 6-8, 2000, cd-rom.
- [113] V. Callea, F. Caricchi, F. Crescimbinì, O. Honorati, L. Solero, *Design of Variable-Speed, Direct-Drive, Offshore Wind Generator*, Proceedings of OWEMES 2000, Offshore Wind Energy in Mediterranean and other European Seas Conference, Siracusa (Italy), April 13-15, 2000, pp. 181-185.
- [114] L. Solero, A. Di Napoli, F. Crescimbinì, *Sistemi con celle a combustibile e supercondensatori per la propulsione elettrica stradale*, Atti dell'11<sup>o</sup> Seminario Interattivo ANAE, Azionamenti Elettrici Evoluzione Tecnologica e Problematiche Emergenti, Bressanone-BZ (Italia), March 19-21, 2000, pp. 125-132.
- [115] F. Brucchi, M. Conte, F. Giulii Capponi, G. Lo Bianco, P. Salvati, L. Solero, *Ultracapacitor Tests for EV Applications: Introduction of New Equalisation Coefficients*, Proceedings of the EVS 16, 16th International Electric Vehicle Symposium, Beijing (China), Oct. 12-16, 1999, cd-rom.
- [116] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *A Novel Solid-State-Commutator PM Motor Arrangement for EV Application*, Conference Record of the 1999 IEEE Industry Applications Conference 34<sup>th</sup> Annual Meeting, Phoenix-AZ (USA), Oct. 3-7, 1999, vol. 4, pp. 2545-2551.
- [117] F. Caricchi, V. Callea, F. Crescimbinì, M. Falchetta, G. Lo Bianco, L. Solero, *Power Electronic Interface for Wind Energy Conversion System Supplying Remote Installations in Antarctica*, Proceedings of the EPE'99, 8th European Conference on Power Electronics and Applications, Lausanne (Switzerland), Sept. 7-9, 1999, cd-rom.
- [118] A. Di Napoli, F. Giulii Capponi, L. Solero, *Power Converter Arrangements with Ultracapacitor Tank for Battery Load Leveling in EV Motor Drives*, Proceedings of the EPE'99, 8th European Conference on Power Electronics and Applications, Lausanne (Switzerland), Sept. 7-9, 1999, cd-rom.
- [119] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *Electric Vehicle Motor Drive Arrangement Used as On-Board Charger for Propulsion Batteries*, Proceedings of the EPE'99, 8th European Conference on Power Electronics and Applications, Lausanne (Switzerland), Sept. 7-9, 1999, cd-rom.
- [120] F. Brucchi, F. Giulii Capponi, G. Lo Bianco, P. Salvati, L. Solero, *Employment of Ultra-Capacitors for Power Levelling Requirements in EV: a State of the Art*, Proceedings of the 32<sup>nd</sup> ISATA, Vienna (Austria), June 14-18, 1999, pp. 371-379.
- [121] F. Caricchi, F. Crescimbinì, E. Santini, L. Solero, *Axial Flux PM Machines: A New Class of Modular & Compact Electric Generators for Hydro Power Applications*, Proceedings of the WATERPOWER'99 Conference, Las Vegas-NE (USA), July 7-9, 1999, cd-rom.
- [122] M. Falchetta, D. Prischich, O. Honorati, L. Solero, *An Autonomous Wind-Power Plant for Power Supply of Remote Installations in Antarctica*, Proceedings of the European Wind Energy Conference, Nice (France), March 1-5, 1999, pp. 927-930.
- [123] L. Solero, F. Caricchi, F. Crescimbinì, G. Lo Bianco, *DC-DC Switch Mode Converters for Stand-Alone Wind-Energy Generating Systems*, Proceedings of the European Wind Energy Conference, Nice (France), March 1-5, 1999, pp. 841-844.
- [124] F. Caricchi, V. Callea, F. Crescimbinì, L. Solero, M. Falchetta, *Prototype of Variable-Speed, Direct-Drive Generator for Wind Power Exploitation in Extremely Cold Climates*, Proceedings of the European Wind Energy Conference, Nice (France), March 1-5, 1999, pp. 821-824.
- [125] O. Honorati, F. Caricchi, F. Crescimbinì, L. Solero, *Lightweight, Compact, Three-Wheel Electric Vehicle for Urban Mobility*, Proceedings of the PEDES'98, International Conference on Power Electronics Drives and Energy Systems for Industrial Growth, Perth (Australia), Dec. 1-3, 1998, pp. 797-802.
- [126] A. Di Napoli, F. Giulii Capponi, L. Solero, *Development and Testing of a High Performance Direct-Wheel Drive System for a Dual-Power Electric Vehicle*, Proceedings of the EVS 15, 15th International Electric Vehicle Symposium, Brussels (Belgium), Sept. 29 – Oct. 3, 1998, cd-rom.
- [127] O. Honorati, F. Caricchi, F. Crescimbinì, L. Solero, *Comparison of Motor Drive Arrangements for Single-Phase PM Motors*, Proceedings of the ICEM'98, International Conference on Electrical Machines, Istanbul (Turkey), Sept. 2-4, 1998, vol. 2, pp. 1261-1266.
- [128] A. Di Napoli, F. Giulii Capponi, L. Solero, *Bi-Directional Buck-Boost and Buck-Boost Cascade Converter Topologies: Experimental Comparison in EV Motor Drives Applications*, Proceedings of the SPEEDAM'98, Sorrento (Italy), June 3-5, 1998, pp. P2 29-P2 34.
- [129] A. Di Napoli, F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *Microprocessor Control of a Power Electronic Interface for Ultracapacitor Tank Employment in EV Drives*, Proceedings of the International Conference on Automatic Control, Piura (Perù), April 2-4, 1998, pp. 271-276.
- [130] A. Di Napoli, F. Giulii Capponi, L. Solero, *Control Strategies for a Bi-Directional Buck-Boost Cascade DC/DC Converter in EV Applications*, Proceedings of the International Conference on Automatic Control, Piura (Perù), April 2-4, 1998, pp. 265-270.
- [131] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *Study of Bi-Directional Buck-Boost Converter Topologies for Application in Electrical Vehicle Motor Drives*, Proceedings of the APEC'98, 13th IEEE Applied Power Electronics Conference and Exposition, Anaheim-CA (USA), Feb. 15-19, 1998, vol. 1, pp. 287-293.

- [132] F. Caricchi, F. Crescimbinì, F. Giulii Capponi, L. Solero, *Ultracapacitors Employment in Supply Systems for EV Motor Drives: Theoretical Study and Experimental Results*, Proceedings of the EVS 14, 14th International Electric Vehicle Symposium, Orlando (USA), Dec. 15-17, 1997, cd-rom.
- [133] F. Caricchi, A. Di Napoli, F. Giulii Capponi, L. Solero, *Il Motopropulsore Elettrico della Vettura CNR T2*, III Convegno Nazionale CNR - Progetto Finalizzato Trasporti 2, Taormina (Italy), Nov. 10-12, 1997, cd-rom.
- [134] A. Di Napoli, F. Giulii Capponi, L. Solero, *Analysis of EMI Sources Inside Power Electronic Converters*, Proceedings of the EPE'97, 7th European Conference on Power Electronics and Applications, Trondheim (Norway), Sept. 8-10, 1997, vol. 2, pp. 840-844.
- [135] G. Lo Bianco, F. Caricchi, F. Crescimbinì, L. Solero, *Power Electronic Interface for Unconventional Small-Size Stand-Alone Wind Energy Conversion System*, Proceedings of the EPE'97, 7th European Conference on Power Electronics and Applications, Trondheim (Norway), Sept. 8-10, 1997, vol. 2, pp. 659-663.
- [136] A. Di Napoli, O. Honorati, F. Caricchi, F. Crescimbinì, F. Giulii Capponi, E. Santini, L. Solero, *Sistema di Propulsione Elettrica per un Veicolo Dual-Power Innovativo*, Rendiconti 97 Riunione Annuale AEI, Baveno (Italy), May 7-10, 1997, vol. 3, pp. 133-138.
- [137] O. Honorati, G. Lo Bianco, A. Abdi Musse, L. Solero, *High-Efficiency Low-Cost Direct Drive Generator for Small-Size Stand-Alone Power Generation*, CRES European Congress on Renewable Energy Implementation, Athens (Greece), May 5-7, 1997, pp. 844-851.
- [138] O. Honorati, G. Lo Bianco, A. Abdi Musse, L. Solero, *A Wind-Photovoltaic Generating System for Rural-User Power Supply in Developing Countries*, CRES European Congress on Renewable Energy Implementation, Athens (Greece), May 5-7, 1997, pp. 677-684.
- [139] L. Solero, F. Caricchi, F. Crescimbinì, O. Honorati, F. Mezzetti, *Performance of a 10 kW Power Electronic Interface for Combined Wind/PV Isolated Generating Systems*, Proceedings of the 27th Annual IEEE Power Electronics Specialists Conference, Baveno (Italy), June 23-27, 1996, vol. 2, pp. 1027-1032.
- [140] O. Honorati, G. Lo Bianco, F. Mezzetti, L. Solero, *Power Electronic Interface for Combined Wind/PV Isolated Generating Systems*, Proceedings of the EWEC, European Wind Energy Conference, Goteborg (Sweden), May 20-24, 1996, pp. 321-324.
- [141] F. Crescimbinì, F. Caricchi, L. Solero, B.J. Chalmers, E. Spooner, Wu Wei, *Electrical Equipment for a Combined Wind/PV Isolated Generating System*, Proceedings of the IEE International Conference on Opportunities and Advances in International Electric Power Generation, Conference Publication n. 419, Durham (UK), March 18-20, 1996, pp. 59-64.