List of Publications

Gionata Cimini

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Journal Articles

[1] G. Cimini, G. Ippoliti, G. Orlando, and M. Pirro, "Sensorless PFC for Mixed Conduction Mode Boost Converter using Passivity-Based Control", *IET Power Electronics*, vol. 7, 2988–2995(7), 12 2014.

[2] G. Cimini, M. L. Corradini, G. Ippoliti, G. Orlando, and M. Pirro, "A rapid prototyping scenario for power factor control in permanent magnet synchronous motor drives: control solutions for interleaved boost converters", *Electric Power Components and Systems*, vol. 42, no. 6, pp. 639–649, 2014.

Book's Chapter

[3] G. Cimini, F. Ferracuti, A. Freddi, S. Iarlori, and A. Monteriˇ, "An odometry and qr code landmarks-based navigation system for impaired wheelchair users", in *Ambient Assisted Living: Italian Forum 2013*. G. M. M. A. Longhi S. Siciliano P., Ed., Berlin Heidelberg:Springer-Verlag, 2014.

Conference Proceedings

[4] G. Cimini, G. Ippoliti, G. Orlando, S. Longhi, and R. Miceli, "Robust current observer design for dc-dc converters", in *Renewable Energy Research and Application (ICRERA), 2014 International Conference on*, 2014, pp. 958–963.

[5] G. Cimini, A. Bemporad, G. Ippoliti, and S. Longhi, "FRAM evaluation as unified memory for convex optimization algorithms", in *Education and Research Conference (EDERC), 2014 6th European Embedded Design in*, 2014, pp. 187–191.

[6] G. Cimini, G. Ippoliti, S. Longhi, G. Orlando, and M. Pirro, "Synchronous buck converter control via robust periodic pole assignment", in *Control Conference (ECC), 2014 European*, 2014, pp. 1921–1926.

[7]   L. Ciabattoni, G. Cimini, M. Grisostomi, G. Ippoliti, and S. Longhi, "An interoperable framework for home automation design, testing and control", in *Control and Automation (MED), 2014 22nd Mediterranean Conference of*, 2014, pp. 1049–1054.

[8]   G. Calisse, G. Cimini, L. Colombo, A. Freddi, G. Ippoliti, A. Monteriu, and M. Pirro, "Development of a smart led lighting system: rapid prototyping scenario", in *Multi-Conference on Systems, Signals Devices (SSD), 2014 11th International*, 2014, pp. 1–6.

[9]   G. Cimini, V. Fossi, G. Ippoliti, S. Mencarelli, G. Orlando, and M. Pirro, "Model predictive control solution for Permanent Magnet Synchronous Motors", in *Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE*, 2013, pp. 5824–5829.

[10] E. Alidori, G. Cimini, G. Ippoliti, G. Orlando, and M. Pirro, "A passivity-based solution for CCM-DCM boost converter Power Factor Control", in *Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE*, 2013, pp. 7752–7757.

[11] G. Cimini, G. Ippoliti, G. Orlando, and M. Pirro, "Explicit sensorless model predictive control of synchronous buck converter", in *Renewable Energy Research and Applications (ICRERA), 2013 International Conference on*, 2013, pp. 1200–1205.

[12] ——, "Sensorless passivity-based control for Mixed Conduction Mode boost converter with power factor correction", in *Renewable Energy Research and Applications (ICRERA), 2013 International Conference on*, 2013, pp. 1194–1199.

[13] G. Cimini, M. L. Corradini, G. Ippoliti, G. Orlando, and M. Pirro, "Passivity-Based PFC for Interleaved Boost Converter of PMSM Drives", in *11th International Workshop on Adaptation and Learning in Control and Signal Processing - July 2013, Caen, France*, 2013, pp. 128–133.

[14] G. Cimini, G. Ippoliti, G. Orlando, and M. Pirro, "Current sensorless solution for PFC boost converter operating both in DCM and CCM", in *Control Automation (MED), 2013 21st Mediterranean Conference on*, 2013, pp. 137–142.

[15] ——, "Current sensorless solutions for PFC of boost converters with passivity-based and sliding mode control", in *Power Engineering, Energy and Electrical Drives (POWERENG), 2013 Fourth International Conference on*, 2013, pp. 1175–1180.

[16] ——, "PMSM control with power factor correction: Rapid prototyping scenario", in *Power Engineering, Energy and Electrical Drives (POWERENG), 2013 Fourth International Conference on*, 2013, pp. 688–693.

[17] G. Cimini, M. Corradini, G. Ippoliti, N. Malerba, and G. Orlando, "Control of variable speed wind energy conversion systems by a discrete-time sliding mode approach", in *Mechatronics (ICM), 2013 IEEE International Conference on*, 2013, pp. 736–741.

[18] L. Ciabattoni, G. Cimini, M. Grisostomi, G. Ippoliti, S. Longhi, and E. Mainardi, "Supervisory control of PV-battery systems by online tuned neural networks", in *Mechatronics (ICM), 2013 IEEE International Conference on*, 2013, pp. 99–104.

Forthcoming or Under Review

[19] G. Cimini, D. Bernardini, A. Bemporad, and S. Levijoki, "Online model predictive torque control for permanent magnet synchronous motors", in *Industrial Technology (ICIT), 2015 IEEE International Conference on*, 2015, **forthcoming**.

[20] G. Cimini, A. Freddi, G. Ippoliti, A. Monteriú, and M. Pirro, "A smart lighting system for visual comfort and energy savings in industrial and domestic use", *Electric Power Components and Systems*, **forthcoming**, 2015.

[21] G. Cimini, L. Ciabattoni, G. Ippoliti, G. Orlando, and S. Longhi, "Robust Observer Design for DC-DC Converters: The Synchronous Case", in *Power Engineering, Energy and Electrical Drives (POWERENG), 2015 Fifth International Conference on*, 2015, **submitted**.

[22] L. Ciabattoni, G. Cimini, F. Ferracuti, M. Grisostomi, G. Ippoliti, and M. Pirro, "Indoor thermal comfort control through fuzzy logic pmv optimization", in *Neural Networks, 2015. IJCNN '15. Proceedings. 2005 IEEE International Joint Conference on*, 2015, **submitted**.

[23] L. Ciabattoni, G. Cimini, F. Ferracuti, A. Freddi, G. Ippoliti, and A. Monteriú, "A novel lda-based approach for motor bearing fault detection", in *Industrial Informatics, 2015. INDIN 2015. Proceedings. IEEE International Conference on*, 2015, **submitted**.

[24] G. Cimini, M. Corradini, G. Ippoliti, G. Orlando, and M. Pirro, "A sliding mode observer for the load resistance estimation in a boost converter", in *Industrial Informatics, 2015. INDIN 2015. Proceedings. IEEE International Conference on*, 2015, **submitted**.

[25] L. Cavanini, G. Cimini, G. Ippoliti, A. Monteriú, and A. Freddi, "An open source ros tool for rapid prototyping in embedded control system design", in *Consumer Electronics (ISCE 2015), The 19th IEEE International Symposium on*, 2015, **submitted**.

[26] L. Ciabattoni, G. Cimini, F. Ferracuti, and G. Ippoliti, "Humidex based multi room thermal comfort regulation via fuzzy logic", in *Consumer Electronics (ISCE 2015), The 19th IEEE International Symposium on*, 2015, **submitted**.