



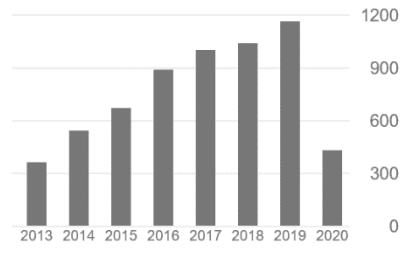
**Professor Pericle Zanchetta,  
Fellow IEEE**

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	All	Since 2015
Citations	7298	5198
h-index	35	30
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**Education**

- Ph.D. in Power Electronics, Technical University of Bari, Italy, 1997
- 5 years Laurea degree in Electronic Engineering (Mark 110/110 with distinction), Technical University of Bari, Italy, 1993.

**Academic Career**

- August 2013 – present
  - *Full Professor in Control and Power Electronics Systems*  
Dept. of Electrical and Electronic Engineering, University of Nottingham, UK
- November 2018 – present
  - *Part time Full Professor in Power Electronics*  
Dept. of Electrical, Computer and Biomedical Engineering, University of Pavia, Italy
- August 2009 – July 2013:
  - *Associate professor in Control and Power Electronics Systems*  
Dept. of Electrical and Electronic Engineering, University of Nottingham, UK.
- October 2003 – July 2009:
  - *Lecturer in Control of Power Electronics Systems*  
School of Electrical and Electronic Engineering, University of Nottingham, UK.
- October 2001 – September 2003:
  - *Visiting Lecturer in Power Electronics and Control*  
School of Electrical and Electronic Engineering, University of Nottingham, UK.
- October 1998 – September 2007:
  - *Assistant Professor in Power Electronics*  
Electrical and Electronic Engineering Department, Technical University of Bari, Italy.
- November 1997 to September 1998:
  - *Research Associate* (Converters, Electrical Machines and Drives Group)  
Electrical and Electronic Engineering Department, Technical University of Bari, Italy.
- November 1994 to October 1997:
  - *Research Assistant* (Converters, Electrical Machines and Drives Group)  
Electrical and Electronic Engineering Department, Technical University of Bari, Italy.
- February 1994 to November 1994:
  - *Software Development*  
IBM Italia.

**Scientific Publications (See attached Bibliography)**

- **99** Papers published in Scientific Journals
- **268** Papers Published in Refereed International Conferences

**Research Projects (budget as Principal investigator over 5.5Million Euro)**

- **Principal investigator:** ENI Italia Spa, Power conversion system for redox vanadium battery interface in PV applications, (around 200k Euro) 2020-2022
- **Principal investigator:** Phase Italia Spa, SiC Power converter for fast battery charger in automotive applications, (around 200k GPB) 2019-2021
- **Principal investigator:** Best Motion Technology Co. Ltd China: High performance PM servo drive control around 970k GPB) 2017-2022

- **Principal investigator:** Phase Italia Spa, Design and development of a 500kW Matrix converter for drives applications, (around 150k GBP) 2017-2020
- **Principal investigator:** EPSRC GCRF Institutional Sponsorship Awards “Smart Micro-grid Systems for Remote Islands in the South Pacific” (around 20k GBP) 2017-2018.
- **Principal investigator:** Nowforever Technology Co. Ltd China: Advanced high performance control of induction and PM motor drives, (around 800k GBP) 2012-2017
- **Principal investigator:** EPSRC: IeMRC-Cummins generators “Fuel consumption Optimization of diesel generator power packs” 3 years project (around 60k GBP) 2007 – 2010.
- **Principal investigator:** KTP with Water Research Centre (WRc): Non-Intrusive load and efficiency monitoring for in service induction motors, 2 years project (around 130k GBP) 2009 – 2011
- **Principal investigator:** Water Research Centre (WRc): “Controlling energy costs using non-intrusive monitoring” 2 years contract (around 20k GBP) 2006 - 2008.
- **Principal investigator:** University new lecturers fund “*Biologically Inspired System Identification for Materials Characterization in the Aerospace Industry*” (around 12k GBP) 2005 - 2006
- **Principal Investigator** of a “*Marie Curie Early Stage Training Area*” having University of Nottingham as leading partner, funded by the European Commission (around 1600k Euro) 2004 - 2008.
- **Principal investigator:** “*Investigation of the electromagnetic emissions produced by power converters in railway systems*”. Technical University of Bari, financed by the Italian Ministry of University and Scientific Research (MURST) and “Ansaldo Trasporti” Italy – (50K Euro). 1999 - 2000
- **Principal investigator:** “*Cluster 13 – Electromagnetic Compatibility*”, Technical University of Bari, financed by the Italian MURST (700K Euros).2000 – 2003
- **Co-investigator:** EPSRC Power Electronics centre. 2014-2019.  
**Principal investigator** for the development of a SiC open end winding PM machine drive for aircraft starter generator (value around 200k GBP).
- **Co-investigator:** “Project AMSRL-DS-E/R&D 9780-EE-01 (70-1s)” funded by US Army (180k USD yearly)  
**Principal investigator** for a part of the previous project: “GA optimisation of a 400kW induction motor drive using a SiC inverter” funded by US Army (about 50k USD) 2004 - 2006
- **Co-investigator:** EU JTI (CLEAN SKY) – 2009 – 2016
- **Co-investigator:** EU (MOET) – 2006 - 2009
- **Co-investigator:** EU (UNIFLEX) – 2006 - 2009
- **Co-investigator:** EPSRC: PEMC group Nottingham Platform grant – 2006 – 2009
- **Co-investigator:** “90kVA Matrix Converter Ground Power Unit” funded by AXA POWER (40k Euro) - 2004.
- **Co-Investigator/Manager** of a “*Marie Curie Early Stage Training Area*” having University of Nottingham as leading partner, funded by the European Commission (around 800k Euro) 2002 - 2006.
- **Co-investigator:** “*Low power electrical drives for home-applications*” financed at the Technical University of Bari by Italian MURST (50K Euro) 2001 - 2003.
- **Co-investigator:** “*LISAR: Development of Scientific Laboratory of Automation and Robotics*” Technical University of Bari, financed by Italian MURST (300k Euro) 2001 -2003.
- **Co-investigator** “*Development of a 40KVA matrix converter to provide aircraft ground power supply*” University of Nottingham and PEMS, financed by MOD (around 100K GBP) 2001 – 2003.
- **Other Grants:** Many travel grants from different funding bodies among which Royal society, Santander, University of Nottingham.

## Research Interests

***My general research interests are in the field of Power Electronics for transportation (Automotive and Aerospace) and Renewable energy systems, Electrical drives and Control.*** In particular:

- Power Electronics and drives for automotive and aerospace applications
- SiC converters design and implementation
- Innovative modelling and advanced control of power converters.
- Power quality, active filtering and impedance estimation
- AC power supplies
- Grid connected power converters
- Matrix and Multilevel converters
- Power electronics and power quality in aircraft and ship networks
- Control design, optimization and system identification using Heuristic Algorithms.
- Model Predictive Control and Repetitive Control

- Advanced control of electrical drives systems
- Stability and control of power electronics embedded networks, both in Energy and automotive/aerospace systems
- Reliability and diagnostic in power electronics and drives
- Modulation strategies for power electronics converters

## **Fellowships and Awards**

- *Elevated to IEEE Fellow class 2019*
- R Leuzzi, VG Monopoli, L Rovere, F Cupertino, P Zanchetta, “Effects of Electrical Ageing on Winding Insulation in High-Speed Motors: Analysis and Modelling”, 2018 IEEE Energy Conversion Congress and Exposition (ECCE).  
**Second prize IEEE-IAS Industrial Power Converters Committee Paper Award 2019**
- Tarisciotti, Luca; Lei, Jiaying; Formentini, Andrea; Trentin, Andrew; Zanchetta, Pericle; Wheeler, Patrick; Rivera, Marco “Fixed Frequency Finite-State Model Predictive Control for Indirect Matrix Converters with Optimal Switching Pattern” 2016 IEEE Energy Conversion Congress and Exposition (ECCE).  
**Third prize IEEE-IAS Industrial Power Converters Committee Paper Award 2017**
- Vazquez, S. ; Leon, J.I. ; Franquelo, L.G. ; Rodriguez, J. ; Young, H.A. ; Marquez, A. ; Zanchetta, P. “Model Predictive Control: A Review of Its Applications in Power Electronics” IEEE Industrial Electronics Magazine Volume 8, Issue 1, 2014, Page(s) 16-31.  
**Best IEEE Industrial Electronics Magazine paper award 2014**
- Trentin, A. ; Zanchetta, P. ; Wheeler, P. ; Clare, J.; “ Performance evaluation of 3-phase buck-type PWM rectifiers with integrated and symmetrical Boost converter using SiC MOSFETS for aircraft application”, 2013 IEEE Energy Conversion Congress and Exposition (ECCE 2013).  
**Second prize US Hybrid Transportation Paper Award 2013**
- February 2020  
Visiting professor at the University of Tampere Finland
- June 2019  
Visiting professor at the University of Talca, Chile
- May-June 2018  
Visiting professor at the University of Roma Tor Vergata, Rome Italy.
- May-July 2017  
Visiting professor at the University of Roma Tre, Rome Italy.
- April 2017  
Visiting professor at the University of Pavia, Italy
- December 2016  
Visiting professor at the University of Roma Tor Vergata, Rome Italy
- July 2016  
Visiting professor at the summer school of University of Roma Tre, Rome Italy
- May 2016  
Visiting professor at the University of Talca, Chile
- April 2016  
Visiting professor at the University of Pavia, Italy
- March 2016  
Visiting professor at the University of Talca, Chile
- December 2015  
Visiting professor at the University of Roma Tre, Rome Italy
- September 2015  
Visiting professor at NTNU, Trondheim, Norway
- July 2015  
Visiting professor at the summer school of University of Roma Tre, Rome Italy
- July 2014  
Visiting professor at the Technical University Federico Santa Maria, Valparaiso, Chile, University of Talca, Chile and University of Chile, Santiago – Chile
- May 2014  
Visiting professor at the University of Pavia, Italy
- April 2014  
Visiting professor at CPES, Virginia Tech, VA, USA
- March 2014

- Visiting professor at the University of Nottingham – Ningbo Campus China
- May-July 2013  
Visiting professor at the University of Roma Tre, Rome Italy. Period funded by the University of Roma Tre.
- April 2012  
Visiting professor at CPES, Virginia Tech, VA, USA
- May 2011  
Visiting professor at the Technical University Federico Santa Maria, Valparaiso, Chile.
- November - December 2010:  
Visiting professor at the Technical University Federico Santa Maria, Valparaiso, Chile.
- 2007-2010  
Invited lecturer every January for a 10 hours module “Control of Power Electronics Systems”, University of Rome Tor Vergata – Italy
- June – October 2000:  
Visiting Fellow at the “School of Electrical and Electronic Engineering” in the University of Nottingham, UK.
- December 1999 – March 2000:  
Visiting Fellow at the “School of Electrical and Electronic Engineering” in the University of Nottingham, UK, financed by a “Short Term Mobility” grant for researchers from the Italian CNR (National Research Council).
- July 1999:  
Research Fellow at “ANSALDO Trasporti” Naples (Italy) funded within the program “EU TRAIN”.

### **IEEE Career and Activities**

- Member of the IEEE-IAS board of directors from January 2020
- IEEE IAS IPCSD chair 2020-2021
- IEEE Fellow class 2019
- IEEE –IAS IPCC Transactions chair 2018-2022
- IEEE IAS IPCSD vice-chair 2018-2019
- Technical Program Chair of the IEEE-ECCE 2018 conference, Portland USA.
- 2016-2017 Chair of the IAS Industrial Power Converter Committee (IPCC)
- 2014-2015 Vice-Chair of the IAS Industrial Power Converter Committee (IPCC)
- 2012-2013 Secretary of the IAS Industrial Power Converter Committee (IPCC)
- 2010-2011 European Liaison of the IAS Industrial Power Converter Committee (IPCC)
- Vice Chair of IEEE ECCE Conferences from 2012 to 2017
- Associate Editor for IEEE transactions on Industry Applications from 2009
- Associate Editor for IEEE transactions on Industrial Informatics from 2011
- Member of the Technical Program Committee and Track Chair for IEEE ISIE 2010
- Member of the Technical Program Committee and Track Chair for IEEE IECON 2016
- Member of the Technical Program Committee and Track Chair for “Control Systems and Applications” IEEE ISIE 2010 International Conference. Member of the organizing committee for the same conference.
- Invited speaker at the predictive control workshop, IEEE ICIT conference, Vina del Mar, Chile (March 2010)
- Session organizer and chairman at many IEEE international conferences.
- Organizer and lecturer of the Tutorial “Automated Intelligent Control design for Power Electronic Systems and Drives” IEEE IECON 2006 International Conference, Paris, France, 2006, IEEE ISIE 2007 International Conference, Vigo, Spain, 2007.
- IEEE member since 2000. IEEE Senior Member since 2015: Industrial Electronics Society, Power Electronic Society, Industry Application Society
- Member of the IAS Industrial Power Converter Committee, IAS Industrial Drives Committee and IAS Electrical machines Committee.
- Guest editor of the IEEE transactions on Industrial Electronics. Special Section on “Optimization in Power Electronics, Electrical Machines and Drives” (2010-2011).
- Guest editor of the IEEE transactions on Industrial Informatics / Industrial Electronics. Special Section on “Digital Control in Power Electronics and Drives” (2011-2012-2013).
- Topic Chair at ECCE conferences and IAS annual meetings from 2006 to 2011

### **Other International Involvement**

- Member of the Executive committee (Voting member) of EPE (European Power Electronics) Association 2016-now
- Member of the International Scientific Committee of EPE (European Power Electronics) Association 2016- now

- Invited talk “Co-ordinated control of power converters in power electronics embedded grids” University of Talca, Chile May 2019
- 12 hours course on Control of Power Electronics Systems, University of Pavia, Italy, April 2017
- Invited talk “Power Electronics for smart grids”, University of Talca, Chile May 2016
- 12 hours course on Control of Power Electronics Systems, University of Pavia, Italy, April 2016
- 12 hours course on Control of Power Electronics Systems, University of Talca, Chile, March 2016
- Invited talk “the importance of Power Electronics for future smart grids”, NTNU Trondheim, 9<sup>th</sup> September 2015
- Lectures at the summer school of University of Roma Tre, Italy on 1) Power Electronics in Aerospace systems and 2) Control of Power Electronics Systems. July 2016 and 2016.
- Part of the British Council funded delegation to Texas A&M University, Doha Qatar, March 2015.
- Invited talk “Power Electronics for smart grids”, University of Trento, Italy, 26<sup>th</sup> January 2015
- Invited talk “The importance of Power Electronics in future electrical networks”, University of Pavia, Italy, 16<sup>th</sup> May 2014
- Keynote speaker at the The Third IASTED Asian Conference (*AsiaMIC 2013*) on Modelling, Identification and Control, April 10 – 12, 2013, Phuket, Thailand
- Member of the Technical Program Committee of the Energycon 2012 conference, Florence, Italy, September 2012
- Invited talk on “repetitive control systems”, University of Santiago, Chile, December 2010 and May 2011.
- Session organizer and chairman at many IET and EPE international conferences.
- Research collaboration (joint publications and/or research grants) with Technical University of Turin (Italy), University of Harbin (China), Technical University of Bari (Italy), University of Zilina (Slovakia), University of Cork (Ireland), University of Malta, University and CNR of Palermo (Italy), University of Padova, (Italy), University of Rome “Tor Vergata” (Italy), University of Roma Tre, Rome Italy, University of Zagreb (Croatia), University of Pisa, Italy, Technical University Federico Santa Maria, Valparaiso, Chile, Virginia Tech, USA, Norwegian University of Science and Technology, Throndeim, Norway, University of Talca Chile, University of Chile, Santiago- Chile, University of Genova, Italy, University of Grenoble, France, University of Southampton UK, University of Exeter UK, Texas A&M University, Doha Qatar, University of Newcastle (Australia), University of Tampere, Finland.
- Reviewer for IET, EPE, ELSEVIER journals and different international conferences.

### Teaching and Supervision

- ❖ *More than 50 Ph.D research students supervised in control, power electronics and drives (12 on-going), more than 30 Visiting Scholars Line manager of 15 Research fellows, currently 4 research fellows.*
  - ❖ *Tutor of several BEng, MEng and MSc project students each year in control, power electronics and drives. Personal tutor to first and second year BEng and MEng students in Electrical and Electronic Engineering, University of Nottingham UK.*
  - ✓ *“Teaching Excellence Award 2015” from the Faculty of Engineering University of Nottingham*
- COURSES
- *Currently:*
    - Lecturer - 20 credit level 4 module “Advanced Control Systems Design” for MSc and MEng students in electrical and electronic engineering subjects, University of Nottingham –UK (Since 2001).
    - Lecturer - 20 credit level 3 module “Power Electronics and Control” for MSc and BEng students in electrical and electronic engineering subjects, University of Nottingham –UK (Since 2018)
    - Lecturer – 6 credit 3<sup>rd</sup> year module “Conversione statica dell’energia” for BEng students in industrial Engineering, University of Pavia, Italy (since 2019)
    - Lecturer – 6 credit 4<sup>th</sup> year module “Elettronica di Potenza” for MEng students in electrical and electronic engineering subjects, University of Pavia, Italy since 2019.
  - 2003 – 2018
    - Lecturer - 10 credit course “Control systems” for BEng, MEng and MSc students in electrical and electronic engineering subjects, University of Nottingham - UK.
    - Lecturer - 15 credits level 4 module “Control design” for MSc students in electrical and electronic engineering subjects, University of Nottingham - UK.
  - 2001-2003:
    - Joint lecturer - 10 credit module “Electronic Drives” for BEng and MEng students in electrical and electronic engineering, University of Nottingham (UK).
    - Laboratory supervisor - “Microprocessor Design laboratory” for first year BEng and MEng students of electrical and electronic engineering, University of Nottingham (UK).
  - 1998 – 2003:

- Lecturer – 10 credits module in Power Electronics for both the Electrical Engineering and the Electronic Engineering Diploma degrees at the Technical University of Bari (Italy).
- Lecturer – 10 credits module “Industrial Electronics” Electrical Engineering degree at the Technical University of Bari (Italy).
- 1998 – 2001:
  - Joint lecturer – 20 credits modules in Power Electronics and Electrical Drives for the Laurea degrees in Electrical and Electronic Engineering at the Technical University of Bari (Italy).
  - Supervisor of several Ph.D. students in Power Electronics and Power Quality at the Technical University of Bari (Italy).
  - Supervisor of 12 projects (per year) for final year students in Power Electronics, Power Quality and Electrical Drives at the Technical University of Bari (Italy).
- 1994-1998
  - Teaching assistant on the courses in Power Electronics and Electrical drives for Diploma and Laurea degrees in Electrical and Electronic engineering at the Technical University of Bari (Italy).

### **Academic Administration**

- 2009 – 2014: Examination Officer at the .Dept. of Electrical and Electronic Engineering, University of Nottingham
- Internal PhD examiner for more than 25 candidates at the University of Nottingham
- External PhD examiner for more than 20 candidates in UK, Italy and Norway
- 2003 - 2008
  - Principal Manager of the EU “Marie Curie” FP5 ECON project and of “Marie Curie Early Stage Training Area” FP6 ECON2 project involving 5 European Universities having University of Nottingham as leading partner.
  - Member of the Professors Committee for the Ph.D. courses in Electrical Engineering at the Technical University of Bari (Italy).
- 1999 – 2003:
  - Responsible for the Power Electronics laboratory and for the Electro-Magnetic Compatibility laboratory at the Technical University of Bari (Italy).
  - Member of the scientific committee of Industrial Engineering at the Technical University of Bari (Italy).

## Bibliography

Professor Pericle Zanchetta

### Papers published in Scientific Journals (99)

Kang Li; Andrea Formentini; David Dewar; Pericle Zanchetta "Controller Design of an Active Front-End Converter Keeping in consideration Grid Dynamic Interaction" **IEEE Transactions on Industrial Electronics**, Year: 2022, Volume: 69, Issue: 5

- [1] Mi Tang; Shafiq Odhano; Andrea Formentini; Pericle Zanchetta "Reuse of a Damaged Permanent Magnet Synchronous Motor for Torque Ripple and Acoustic Noise Elimination using a Novel Repetitive Observer", **IEEE Transactions on Industry Applications**, 2020, Early Access Article.
- [2] A. Amerise; L. Rovere; A. Formentini; M. Mengoni; L. Zarri; P. Zanchetta "Electric Drive Based on an Open-End Winding Surface PM Synchronous Machine with a Floating Capacitor Bridge"; **IEEE Transactions on Industry Applications**, 2020, Early access.
- [3] M. Tang; S. Bifaretti; S. Pipolo; S. Odhano; P. Zanchetta "A Novel Repetitive Controller Assisted Phase-Locked Loop with Self-learning Disturbance Rejection Capability for Three-phase Grids"; **IEEE Journal of Emerging and Selected Topics in Power Electronics**, 2020, Early access.
- [4] M. Tang; A. Formentini; S. A. Odhano; P. Zanchetta "Torque Ripple Reduction of PMSMs Using a Novel Angle-Based Repetitive Observer"; **IEEE Transactions on Industrial Electronics**, 2020, vol. 67, issue 4, 2689-2699.
- [5] G. Sala; G. Valente; D. Gerada; P. Zanchetta; C. Gerada "Post-Fault Operation of Bearingless Multisector SPM Machines by Space Vector Control"; **IEEE Transactions on Power Electronics**, 2020, vol. 35, issue 4, 4168-4177.
- [6] L. Bigarelli; M. di Benedetto; A. Lidozzi; L. Solero; S. A. Odhano; P. Zanchetta "PWM-Based Optimal Model Predictive Control for Variable Speed Generating Units"; **IEEE Transactions on Industry Applications**, 2020, vol. 56, issue 1, 541-550.
- [7] L. Chen; L. Tarisciotti; A. Costabeber; F. Gao; P. Wheeler; P. Zanchetta "Advanced Modulations for a Current-Fed Isolated DC/DC Converter With Wide-Voltage-Operating Ranges"; **IEEE Journal of Emerging and Selected Topics in Power Electronics**, 2019, vol. 7, issue 4, 2540-2552.
- [8] L. Rovere; A. Formentini; P. Zanchetta "FPGA Implementation of a Novel Oversampling Deadbeat Controller for PMSM Drives"; **IEEE Transactions on Industrial Electronics**, 2019, vol. 66, issue 5, 3731-3741.
- [9] V. Salis; A. Costabeber; S. M. Cox; F. Tardelli; P. Zanchetta "Experimental Validation of Harmonic Impedance Measurement and LTP Nyquist Criterion for Stability Analysis in Power Converter Networks"; **IEEE Transactions on Power Electronics**, 2019, vol. 34, issue 8, 7972-7982.
- [10] R. Leuzzi; V. G. Monopoli; L. Rovere; F. Cupertino; P. Zanchetta "Analysis and Detection of Electrical Aging Effects on High-Speed Motor Insulation"; **IEEE Transactions on Industry Applications**, 2019, vol 55, issue 6, 6018-6025.
- [11] L. Chen; L. Tarisciotti; A. Costabeber; Q. Guan; P. Wheeler; P. Zanchetta "Phase-Shift Modulation for a Current-Fed Isolated DC/DC Converter in More Electric Aircrafts"; **IEEE Transactions on Power Electronics**, 2019, vol. 34, issue 9, 8528-8543.
- [12] L. Rovere; A. Formentini; G. L. Calzo; P. Zanchetta; T. Cox "Zero-Sequence Voltage Elimination for Dual-Fed Common DC-Link Open-End Winding PMSM High-Speed Starter Generator Part I: Modulation"; **IEEE Transactions on Industry Applications**, 2019, vol. 55, issue 6, 7804-7812.
- [13] L. Rovere; A. Formentini; G. L. Calzo; P. Zanchetta; T. Cox "Zero-Sequence Voltage Elimination for Dual-Fed Common DC-Link Open-End Winding PMSM High-Speed Starter-Generator Part II: Deadtime Hysteresis Control of Zero-Sequence Current"; **IEEE Transactions on Industry Applications**, 2019, vol 55, issue 6, 7813-7821.
- [14] F. Stella; A. Yousefi-Talouki; S. Odhano; G. Pellegrino; P. Zanchetta "An Accurate Self-Commissioning Technique for Matrix Converters Applied to Sensorless Control of Synchronous Reluctance Motor Drives"; **IEEE Journal of Emerging and Selected Topics in Power Electronics**, 2019, vol 7, issue 2, 1342-1351.
- [15] G. Valente; A. Formentini; L. Papini; C. Gerada; P. Zanchetta "Performance Improvement of Bearingless Multisector PMSM With Optimal Robust Position Control"; **IEEE Transactions on Power Electronics**, 2019, vol 34, issue 4, 3575-3585.
- [16] C. F. Garcia; C. A. Silva; J. R. Rodriguez; P. Zanchetta; S. A. Odhano "Modulated Model-Predictive Control With Optimized Overmodulation"; **IEEE Journal of Emerging and Selected Topics in Power Electronics**, 2019, vol 7, issue 1, 404-413.
- [17] Q. Ni; M. Yang; S. A. Odhano; M. Tang; P. Zanchetta; X. Liu; D. Xu "A New Position and Speed Estimation Scheme for Position Control of PMSM Drives Using Low-Resolution Position Sensors"; **IEEE Transactions on Industry Applications**, 2019, vol. 55, issue 4, 3747-3758.
- [18] C. Blanco; F. Tardelli; D. Reigosa; P. Zanchetta; F. Briz "Design of a Cooperative Voltage Harmonic Compensation Strategy for Islanded Microgrids Combining Virtual Admittance and Repetitive Controller"; **IEEE Transactions on Industry Applications**, 2019, vol. 55, issue 1, 680-688.
- [19] G Sala, G Valente, A Formentini, L Papini, D Gerada, P Zanchetta, A Tani, "Space Vectors and Pseudoinverse Matrix Methods for the Radial Force Control in Bearingless Multisector Permanent Magnet Machines", **IEEE Transactions on Industrial Electronics** 65 (9), 6912-6922, 2018
- [20] G Valente, L Papini, A Formentini, C Gerada, P Zanchetta, "Radial Force Control of Multisector Permanent-Magnet Machines for Vibration Suppression", **IEEE Transactions on Industrial Electronics** 65 (7), 5395-5405, 2018
- [21] G Giglia, G Ala, MC Di Piazza, GC Giaconia, M Luna, G Vitale, P Zanchetta "Automatic EMI filter design for power electronic converters oriented to high power density", **Electronics** 7 (1), 2018
- [22] R Broglia, KS Choi, P Houston, L Pasquale, P Zanchetta, "Output feedback control of flow separation over an aerofoil using plasma actuators", **International Journal of Numerical Analysis and Modeling**, 2018
- [23] Sandro Rubino, Shafiq Odhano, Radu Bojoi, Pericle Zanchetta, "Model predictive direct flux vector control of multi three-phase induction motor drives", **IEEE Transactions on Industry Applications**, Year: 2018.

- [24] Valerio Salis; Alessandro Costabeber; Stephen M. Cox; Andrea Formentini; Pericle Zanchetta, "Stability Assessment of High-Bandwidth DC Voltage Controllers in Single-Phase Active-Front-Ends: LTI vs LTP Models", **IEEE Journal of Emerging and Selected Topics in Power Electronics**, Year: 2018.
- [25] Alexander L. Julian; Giovanna Oriti; Chao Ji; Pericle Zanchetta, "Single Phase Energy Management System Operating in Islanding Mode with Repetitive Control and Active Damping", **IEEE Transactions on Industry Applications**, Vol 54, issue 5, 2018.
- [26] Valerio Salis; Nicolas Chiappinelli; Alessandro Costabeber; Pericle Zanchetta; Stefano Bifaretti; Patrizio Tomei; Cristiano M. Verrelli, "Learning Position Controls for Hybrid Step Motors: from Current-fed to Full-Order Models", **IEEE Transactions on Industrial Electronics**, 65 (8), 6120-6130, Year: 2018.
- [27] Valerio Salis; Alessandro Costabeber; Stephen Cox; Pericle Zanchetta; Andrea Formentini, "Stability Boundary Analysis in Single-Phase Grid-Connected Inverters with PLL by LTP Theory", **IEEE Transactions on Power Electronics**, 33 (5), 4023-4036, 2018
- [28] Shafiq Odhano; Radu Bojoi; Andrea Formentini; Pericle Zanchetta; Alberto Tenconi, "Direct flux and current vector control for induction motor drives using model predictive control theory", **IET Electric Power Applications**, Year: 2017, Volume: 11, Issue: 8, Pages: 1483 – 1491
- [29] Seang Shen Yeoh; Tao Yang; Luca Tarisciotti; Christopher Ian Hill; Serhiy Bozhko; Pericle Zanchetta, "Permanent-Magnet Machine-Based Starter-Generator System With Modulated Model Predictive Control", **IEEE Transactions on Transportation Electrification**, Year: 2017, Volume: 3, Issue: 4, Pages: 878 – 890
- [30] Mi Tang; Alberto Gaeta; Andrea Formentini; Pericle Zanchetta, "A Fractional Delay Variable Frequency Repetitive Control for Torque Ripple Reduction in PMSMs", **IEEE Transactions on Industry Applications**, Year: 2017, Volume: 53, Issue: 6, Pages: 5553 – 5562
- [31] Valerio Salis; Alessandro Costabeber; Stephen M. Cox; Pericle Zanchetta, "Stability Assessment of Power-Converter-Based AC systems by LTP Theory: Eigenvalue Analysis and Harmonic Impedance Estimation", **IEEE Journal of Emerging and Selected Topics in Power Electronics**, Year: 2017, Volume: 5, Issue: 4, Pages: 1513 – 1525.
- [32] Manjusha Vijayagopal; Pericle Zanchetta; Lee Empringham; Liliana de Lillo; Luca Tarisciotti; Patrick Wheeler, "Control of a Direct Matrix Converter With Modulated Model-Predictive Control", **IEEE Transactions on Industry Applications**, Year: 2017, Volume: 53, Issue: 3, Pages: 2342 - 2349
- [33] Luca Tarisciotti; Andrea Formentini; Alberto Gaeta; Marco Degano; Pericle Zanchetta; Roberto Rabbeni; Marcello Pucci, "Model Predictive Control for Shunt Active Filters With Fixed Switching Frequency", **IEEE Transactions on Industry Applications**, Year: 2017, Volume: 53, Issue: 1, Pages: 296 – 304.
- [34] Luca Tarisciotti; Jiaxing Lei; Andrea Formentini; Andrew Trentin; Pericle Zanchetta; Patrick Wheeler; Marco Rivera, "Modulated Predictive Control for Indirect Matrix Converter", **IEEE Transactions on Industry Applications**, Year: 2017, Volume: 53, Issue: 5, Pages: 4644 - 4654
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