

Department of Engineering
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Prof. Paolo Giangrande

Curriculum Vitae Prof. Paolo Giangrande

Education

- 2009 – 2012 **European PhD in Electrical Engineering, Electrical Machines and Drives**, *Technical University of Bari, Bari, Italy and University of Nottingham, Nottingham, UK.*
PhD thesis “*Position sensorless control of linear tubular permanent magnet motors using high frequency injection strategies*”
- 2006 – 2008 **MSc Degree in Electrical Engineering**, *Technical University of Bari, Bari, Italy.*
MSc thesis “*Position estimate of linear tubular permanent magnet synchronous motor with high frequency injection*”
- 2002 – 2005 **BSc Degree in Electrical Engineering**, *Technical University of Bari, Bari, Italy.*
BSc thesis “*Investigation on the dynamic performance of the three-phase transformer once connected to the grid*”

Professional Experience

- 2025 – Today **Associate Professor** in *Electrical Machines and Drives* at *University of Bergamo*, within the *Department of Engineering and Applied Science (DISA)*.
- 2022 – 2025 **Assistant Professor** at *University of Bergamo*, within the *Department of Engineering and Applied Science (DISA)*.
- 2019 – 2022 **Senior Research Fellow** at *University of Nottingham* within the *Power Electronics, Machines and Control Research Group, Nottingham, UK.*
Head of the *Accelerated Lifetime Testing Laboratory* at the *Institute of Aerospace Technology, Nottingham, UK.*
- 2012 – 2018 **Research Fellow** at *University of Nottingham*, within the *Power Electronics, Machines and Control Research Group, Nottingham, UK.*

Project Management and Research

- 2025 – Today **Co-Investigator** of the project “*REVIVE: Repurposing Electric Vehicle lithium-Ion batteries for Versatile Energy storage*” funded by Bergamo University through the Seedcorn Grant.
- 2024 – 2025 **Principal Investigator** for the scientific activity “*Feasibility study on linear motor for horizontal reciprocating compressor*” funded by SIAD Macchine e Impianti Spa.
- 2022 – Today **Team Leader** of the Work Package WP 2.3 “*Drivetrain*” within the project “*National Mobility Center*” funded by the Italian Government (PNRR).
- 2020 – 2022 **Team Leader** of the project “*PF008 – Hybrid Coatings for Conductors & Insulators*” funded by the Propulsion Futures Beacon of Excellence programme.
- 2019 – 2022 **Co-Investigator** of the project “*PF028 – Reliability of Electrical systems*”

- for Aircraft*” funded by the Propulsion Futures Beacon of Excellence programme.
- 2018 – 2022 **Principal Investigator** of the project “*QUICK*” funded by CleanSky2. Topic: design of a quick disconnect system for aerospace application.
- 2017 – 2022 **Team Leader** of the project “*PF045 – e-Fan Plus*” funded by the Propulsion Futures Beacon of Excellence programme.
- 2016 – 2019 **Co-Investigator** of the project “*MALET*” funded by CleanSky2.
- 2015 – 2017 **Team Leader** of the project “*FACRI*” funded by private company.
- 2014 – 2016 **Team Leader** of the project “*SPEARE*” funded by Innovative UK.
- 2012 – 2016 **Team Leader** of the Work Package WP 3.1 “*Multi-Physics Modeling and Simulation Methodology*”, within the project “*ACTUATION 2015 - Modular Electro Mechanical Actuators for ACARE 2020 Aircraft and Helicopters*” funded by the 7th RTD Framework Programme (EU).

Teaching Experience

- 2025 – Today **Professor** in “*Electrical Machines*” within the *Department of Engineering and Applied Science (DISA)* at *University of Bergamo*.
- 2023 – Today **Professor** in “*Electric Energy Conversion and Management*” within the *Department of Engineering and Applied Science (DISA)* at *University of Bergamo*.
- 2022 – Today **Professor** in “*Electrical Engineering*” within the *Department of Engineering and Applied Science (DISA)* at *University of Bergamo*.

Supervision and Mentorship

- 2022 – Today Supervisor of 1 PhD student at *University of Bergamo*.
- 2019 – 2022 Supervisor of 7 Research Fellows at *University of Nottingham*.
- 2014 – 2022 Supervisor of 13 PhD students at *University of Nottingham*.
- 2014 – 2022 Supervisor of 5 MSc students at *University of Nottingham*.

Publications

- 2009 – Today Author and Co-Author of more than 65 journal and 103 conference papers. Scopus Webpage:
<https://www.scopus.com/authid/detail.uri?authorId=25927940200>

Paper Awards

- 2024 The paper entitled “*Temperature Impact on Insulation Lifetime During Electrical Endurance Test*” was awarded with the *ICEMS2024 Excellent Paper Award* at the 27th International Conference on Electrical Machines and Systems (ICEMS 2024), 26-29 November 2024, Fukuoka, Japan.
- 2021 The paper entitled “*Thermal Overload and Insulation Aging of Short Duty Cycle, Aerospace Motors*” published in *IEEE Transactions on Industrial Electronics*, vol. 67, no. 4, pp. 2618-2629, April 2020 was awarded with the *2021 Student Best Paper Award* by the IEEE Industrial Electronics Society (IES).
- 2020 The paper entitled “*Development and Testing of Soft Magnetic Rotor for a Switched Reluctance Motor Built Through Additive Manufacturing Technology*” was awarded with the *ICEMS2020 Excellent Paper Award* at the 23rd International Conference on Electrical Machines and Systems (ICEMS 2020), 24-27 November 2020, Hamamatsu, Japan.

- 2020 The paper entitled “*Weibull Distribution and Geometrical Size Factor for Evaluating the Thermal Life of Electrical Machines’ Insulation*” was awarded with the *First Prize Paper Award* by the Industrial Electronics Society (IES) Electrical Machines Technical Committee (EMTC) at 46th Annual Conference of the IEEE Industrial Electronics Society (IECON 2020), 18-21 October 2020, Marina Bay, Singapore.
- 2018 The paper entitled “*On the effects of advanced end-winding cooling on the design and performance of electrical machines*” was awarded with the *ICEM Brian J. Chalmers Best Paper Award* at the 23rd International Conference on Electrical Machines (ICEM 2018), 3-6 September 2018, Alexandroupoli, Greece.

Associate Editor Records and Special Sessions

- 2025 Guess Editor of the special issue “*Reliability and Condition Monitoring of Electric Motors and Drives (2nd Edition)*” on *Energies* (ISSN 1996-1073).
- 2025 Technical Program Committee Member at 2025 Workshop on Electrical Machines Design, Control and Diagnosis (WEMDCD 2025), Valletta, Malta, 9-10 April 2025.
- 2024 – 2025 Guess Editor of the special issue “*Reliability and Condition Monitoring of Electric Motors and Drives (1st Edition)*” on *Energies* (ISSN 1996-1073).
- 2021 – 2022 Associate Editor for *IEEE Transactions on Industrial Electronics* (ISSN: 0278-0046).
- 2021 Guess Editor of the special issue “*Design for reliability in rotating electrical machines: Insulation Degradation and Lifetime Consumption*” on *Energies* (ISSN 1996-1073).
- 2020 – Today Associate Editor for *IEEE Transactions on Transportation Electrifications* (ISSN: 2332-7782).
- 2019 Co-organizer and Co-chair of the Special Session (SS-45) “*Ultra-Reliable Power Electronics Converters, Electrical Machines and Drives*” at the 45th Annual Conference of the IEEE Industrial Electronics Society (IECON 2019), October 14-17 2019, Lisbon, Portugal.
- 2019 – Today Associate Editor for *IEEE Access* (ISSN: 2169-3536).
- 2018 Technical Committee Member of the International Conference “*Electro-Mechanical and Systems Integration in the Aero/Auto World*”, organized by the UK Magnetic-Society, Nottingham, UK, 11-12 June 2018.

Intellectual Property

- 2021 Connecting/Disconnecting Device, Patent No. GB2574278A, Country United Kingdom, Status Active.
Google Patents Webpage:
<https://patents.google.com/patent/GB2574278A/en>
- 2020 Connecting/Disconnecting Device, Patent No. CN108599526B, Country China, Status Active.
Google Patents Webpage:
<https://patents.google.com/patent/CN108599526B/en>

Membership and Fellowship

- 2020 – Today Institute of Electrical and Electronics Engineers (*IEEE*) Senior Member.
- 2020 – Today IEEE Industrial Electronics Society (*IES*) Member.

2009 – 2019 Institute of Electrical and Electronics Engineers (*IEEE*) Member.
2008 Marie Curie Fellowship ECON2 within the European Programme “*Marie Curie Early-Stage Research Training Fellowship*” (University of Malta).

Bergamo 02/12/2025