

Vincenzo Cirimele

Curriculum Vitae

✉ www.linkedin.com/in/vincirimele



Short biography

Vincenzo Cirimele was born in [REDACTED] on [REDACTED]. In 2013, he received the Master degree in Electrical Engineering (*summa cum laude*) from the Politecnico di Torino, Turin, Italy where he held the position of Assistant Professor at the Department of Energy "Galileo Ferraris" from November 2017 to September 2020.

To date, he is Senior Assistant Professor (tenure track) of Electrical Engineering at the Department of Electrical, Electronic, and Information Engineering "Guglielmo Marconi" of the Alma Mater Studiorum - University of Bologna.

From September 2020 to November 2021, he was a technical responsible for the R&D and Innovation group of the company Movyon s.p.a. of Autostrade per l'Italia group where he supervised projects related to energy sustainability and electrification of the highway infrastructure for the development of electric mobility.

Since May 2019 he has been among the founders of the start-up Enermove s.r.l, a spin-off of the Politecnico di Torino dealing with wireless charging systems for electric vehicles in the industrial field.

From 2014 to 2017 he was a PhD student at the Department of Energy of the Politecnico di Torino and, from 2015 to 2016, he was a PhD student at the École Electrical, Optical, Bio -Physics and Engineering working at the CNRS laboratory of Génie électrique et électronique de Paris (GeePs) in France. In February 2017, he received the PhD degree in Electronics Engineering (*with honors*) from the Politecnico di Torino and the PhD degree in Electrical Engineering from the Université Paris-Saclay.

His research interests mainly concern technologies for electric mobility. He has been working on inductive power transmission systems for electric vehicle charging, also dealing with aspects related to the protection of people from exposure to industrial frequency magnetic fields, electromagnetic modeling and simulation and power conversion.

He is the author of several scientific articles for international journals and conferences. He received the qualification for the profession of Industrial Engineer in the year 2013. In 2020 he obtained the National Scientific Appointment as Associate Professor for the concursive sector 09/E1 - Electrical Engineering. In 2023 he obtained the National Scientific Appointment as Full Professor for the concursive sector 09/E1 - Electrical Engineering. In August 2023 he was elevated to the grade of Senior Member of the IEEE.

Education

- Jan. 2014 – **PhD degree in Electronic Engineering, with honors.**
- Feb. 2017 Politecnico di Torino
Thesis title: Design and integration of a dynamic IPT system for automotive applications.
Supervisors: Prof. Fabio Freschi from Politecnico di Torino, Turin, Italy and Dr. Lionel Pichon from CNRS – GeePs, Gif-sur-Yvette, France.
- Jan. 2014 – **PhD degree in Electrical Engineering (Doctorat en Génie Électrique).**
- Feb. 2017 Université Paris-Saclay
Degree awarded under a co-tutelage agreement with the Politecnico di Torino.
- Mar. 2013 **Master degree in Electrical Engineering, summa cum laude.**
Politecnico di Torino.
Thesis title: Design of power electronics for a full-electric racing vehicle.
Supervisors: Prof. Paolo Guglielmi and Prof. Eric Armando, Department of Energy, Politecnico di Torino.

Mar. 2010 **Bachelor degree in Electrical Engineering.**
Politecnico di Torino.
Thesis title: Numerical simulation of the heart-current factor during electric hazards.

Professional experience

- Nov. 2021 – **Assistant Professor (tenure track) (RTD-B).**
Present Department of Electrical, electronic and information engineering "Guglielmo Marconi", Alma Mater Studiorum Università di Bologna.
Activities linked to the development of the project entitled: "Galvanically isolated power supplies with high-frequency transformers". The project focuses on the development and implementation of novel isolated dc/dc converters, both single-phase and multi-phase, from the point of view of the electronic power converters and from the point of view of the design and optimization of ferromagnetic cores, with particular reference to the high-frequency characterization and the overall efficiency maximization.
- Sep. 2020 – **R&D Stream Specialist.**
Nov. 2021 R&D and Innovation, Movyon s.p.a.
Technical responsible for research projects related to the development of the technological infrastructure in support of electric mobility in the context of Italian highway managed by Autostrade per l'Italia group.
- May 2019 – **Co-founder.**
present Start-up Enermove s.r.l. spin-off of the Politecnico di Torino
Development, production and marketing of systems for wireless charging of industrial moving and stationary electric vehicles. Website: www.enermovesrl.it
- Nov. 2017 – **Assistant Professor with time contract (RTD-A).**
Sep. 2020 Department of Energy "Galileo Ferraris", Politecnico di Torino.
My main research activities focused on static and dynamic wireless charge of electric vehicles for public and private transports. Applicability in real urban and extra-urban environments with respect to the economic impact with particular emphasis on externalities and the aspects of accountability of the energy transfer.
- Mar. 2017 – **Research Fellow.**
Oct. 2017 Department of Energy "Galileo Ferraris", Politecnico di Torino.
Study of the aspects of human exposure to magnetic fields generated by inductive charging systems for electric vehicles.
Position funded through a scholarship granted by the Department of Energy of the Politecnico di Torino in the framework of the European project MICEV.
- Sep. 2015 – **PhD student.**
Feb. 2017 Laboratoire Génie électrique et électronique de Paris - GeePs, Gif-sur-Yvette, France
Electrical, Optical, Bio-physics and Engineering (EOBE) Doctoral School Université Paris-Saclay
Period of one year during the doctoral course in the framework of a co-tutelage agreement between the Politecnico di Torino and the Université Paris-Saclay.
- Jan. 2014 – **PhD student.**
Feb. 2017 PhD course in Electronics Engineering conducted at the Department of Energy of the Politecnico di Torino and funded by a scholarship of the Italian Ministry of University and Research.
- May 2013 – **Research Assistant.**
Dec. 2013 Department of Energy "Galileo Ferraris", Politecnico di Torino.
Research and development of an electrical and IT infrastructure for the management of electric mobility in the presence of wireless/inductive charging systems for electric vehicles. Activity conducted within the European project eCo-FEV funded by the 7th Framework Program of Research.

National and international collaborations

The following are public and private research institutions with which research activities were conducted that resulted in publications, patents, or other types of public documents.

National universities and research centres

- **Department of Energy "G. Ferraris", Politecnico di Torino.**
The undersigned has carried out at that department the predominant period of his research activity as evidenced by the various publications and patents reported in the respective sections of this CV.

- **Department of Mechanical and Aerospace Engineering, Politecnico di Torino.**
This collaboration involved research activities related to contactless motion transmission devices based on permanent magnets called magnetic gears. This collaboration led to the publication of paper 5 reported in the "Conference proceedings" section of this CV, papers 19 and 20 detailed in the "Journal articles" section of this CV, to the patents "Differential and vehicle comprising such differential" and "Magnetic gearshift system" detailed in the "Patents" section of this CV, and to the funding of the Proof of Concept project "Contactless magnetic gearbox between components or clutch elements" detailed in the "Other funded projects" section.
- **Department of Industrial Engineering, Università degli Studi di Padova.**
With the group of electrical engineering of the above mentioned institute, several joint research activities have been carried out. A series of activities, framed in the collaboration with the Department of Mechanical and Aerospace Engineering of the Politecnico di Torino, concerned the contactless motion transmission systems based on permanent magnets (magnetic gear) leading to the publication of the conference proceeding 5, and the journal article 19, and the filing of 2 patents. Another series of activities has been conducted in the field of wireless charging systems for electric vehicles and resulted in the publication of the four journal articles 8, 14, 15, 18. The referred documents are detailed in the respective sections "Conference proceedings", "Journal articles", and "Patents" of this CV.
- **Istituto Nazionale di Ricerca Metrologica (INRiM).**
The research activities carried out in collaboration with INRiM researchers have been performed within the European project MICEV detailed in the dedicated section of this CV. This collaboration led to the publication of work 12 reported in the section "Journal articles" and to works 9 and 12 reported in the section "Conference proceedings" of this CV.
- **Dipartimento di Ingegneria dell'Informazione ed Elettrica e Matematica applicata, Università degli studi di Salerno.**
- **Dipartimento di Ingegneria Elettrica e dell'Informazione "Maurizio Scarano", Università degli studi di Cassino e del Lazio Meridionale.**
Collaborations with the two institutions above were conducted as part of the European project MICEV, detailed in the dedicated section of this CV, and resulted in the publication of paper 11 reported in the "Journal articles" section and paper 12 reported in the "Conference proceedings" section of this CV.
- **Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano.**
The collaboration with the electrical engineering group of the aforementioned institute resulted in publication 15 reported in the "Journal articles" section of this CV.
- **Electrical, Electronics and Telecommunication Engineering and Naval Architecture Department, Università di Genova.**
The collaboration with the above mentioned institute has been developed within the European project FABRIC, detailed in the dedicated section of this CV, and has led to the publication of work 16 reported in the section "Journal articles" and work 20 reported in the section "Conference proceedings" of this CV.
- **Dipartimento di Energia, Politecnico di Milano.**
The collaboration with different researcher in the field of the electrical engineering covered the two main topics of electrification of private mobility in the highway context and the development of methodologies for the automatic identification of areas suitable for the installation of photovoltaic systems in areas belonging to the highway infrastructure. The mentioned activities resulted in the publication of the journal paper 3 and the conference proceedings 1 and 7 detailed in the related sections of this CV.
- **Department of Management and Production Engineering, Politecnico di Torino.**
The research activities with the aforementioned institute were carried out in joint collaboration with the startup Enernove, of which the undersigned is a co-founder. The results of the activities carried out have flowed into the article 5 reported in the section "Journal articles" of this CV.

International universities and research centres

- **Laboratoire Génie électrique et électronique de Paris (GeePs), France.**
The activities carried out with the group of the "Pôle Électromagnétisme" of this institute took place during the period of work of one year spent at this institute by virtue of the co-tutelage agreement for the doctoral thesis established between the Doctoral School of the Politecnico di Torino and the doctoral school École Doctorale Electrical, Optical, Bio: Physics and engineering (EOBE) of the Université Paris-Sud (now Paris-Saclay). During this period, the undersigned has carried out part of the research activities included in the doctoral thesis and in the publication of the paper 25, reported in the section "Journal articles", and papers 16 and 17 reported in the section "Conference proceedings" of this CV. Afterwards, the collaboration with GeePs continued within the European project MICEV and led to the publication of work 12 reported in the section "Conference proceedings" of this CV.
- **Technische Universität Berlin (TUB), Germany.**
The activities in collaboration with the above mentioned institute were born within the European project eCo-FEV, described in the dedicated section of this CV, and have been partially summarized in the paper 25 reported in the section "Conference proceedings" of this CV. The collaboration then continued within the European project FABRIC and led to the publication of work 16 reported in the section "Journal articles" of this CV.
- **Departamento de Ingeniería Eléctrica, Universidad de Zaragoza, Spain.**
The collaboration with that institute focused on wireless charging systems for electric vehicles and resulted in publication 8 reported in the "Conference proceedings" section and work 15 reported in the "Journal articles" section of this CV.
- **Electrical Department, Irvine Valley College, CA, USA.**
The collaboration with Prof. M. Mitolo, affiliated with that institute, resulted in the publication of paper 19 reported in the "Conference Proceedings" section and its extended version in a journal, i.e., paper 22 reported in the "Journal articles" section of this CV.
- **Fundación CIRCE - Centro de Investigación de Recursos y Consumos Energéticos, Spain.**
- **Group of Electromagnetic & Electrochemical Technologies, National Physical Laboratory (NPL), Teddington, UK.**
- **Research Institutes of Sweden (RISE), Sweden.**
The collaboration with the three above institutes was developed within the European project MICEV. Part of the results derived from these activities have been summarized in the works 9 and 12 reported in the section "Conference proceedings". The collaboration with the CIRCE institute also led to the publication of work 12 reported in the "Journal articles" section of this CV.
- **Transport Research Laboratory (TRL), UK.**
- **Institute of Communications and Computer Systems (ICCS), Greece.**
- **Institut du véhicule décarboné et communicant et de sa mobilité (VEDECOM), France.**
The collaboration with these three institutes was developed within the European project FABRIC and led to the publication of several public deliverables. Among these, the following have seen the undersigned as co-author:
D3.3.1 Review of existing power transfer solutions;
D3.7.1 Verification methodologies;
D3.7.2 Analysis of Results and Recommendations.
The first two deliverables are part of the public documents that can be downloaded from the project website: <http://www.fabric-project.eu>
A preliminary part of the research activities conducted in the project were presented in paper 26 reported in the "Conference proceedings" section of this CV.
- **Department of Industrial Electronics, University of Minho, Azurem, Guimarães, Portugal.**
The collaboration with that institute was devoted to the study of energy management systems for electric car sharing charging hubs and resulted in the publication 3 reported in the "Journal articles" section of this CV.

Private companies

- **Movyon s.p.a..**
The collaboration with the company Movyon remained active after the period of work spent in the company's R&D and Innovation group. The Movyon company has been the founder of research contracts, PhD positions, and has also resulted in joint publications as visible from papers 1, 6 and 7 reported in the "Conference Proceedings" section of this CV, the journal paper 1 and 3. In addition to the activities conducted in the field of electrical engineering, a specific collaboration focused on the development of a quantitative and repeatable procedure for assessing the environmental impact of road pavement maintenance work. The result of this collaboration was published in the work 2 reported in the "Journal articles" section of this CV.
- **Metasonixx Ltd.**
The collaboration with the company Metasonixx started during the period as technical responsible in Movyon. This collaboration resulted in the publication of the work 6 reported in the "Conference Proceedings" section of this CV.
- **Tecnositaf s.p.a..**
The collaboration with the company Tecnositaf has been developed within the European project eCo-FEV and then in the European project FABRIC both detailed in the dedicated section of this CV. The collaboration with this company has led to the filing and obtaining of the patent entitled "Method for direct roadway installation of inductors for inductive electric power transfer" described in the "Patents" section of this CV.
- **Saet s.p.a..**
The collaboration with the company Saet, of the Saet Emmedi Group, focused on the development of a system for wireless charging in motion of electric vehicles within the European project FABRIC and led to the publication of the work 14 reported in the section "Conference proceedings" of this CV.
- **CRF - Centro Ricerche Fiat - FCA Research Centre.**
The collaborations with the Fiat Research Centre were conducted within the European project eCo-FEV and then in the European project FABRIC both detailed in the dedicated section of this CV. These activities were aimed at the integration on board of a light-duty electric vehicle of a prototype system for wireless charging. Part of these activities are summarized in the public deliverable "D3.7.1 Verification methodologies" that can be downloaded from the project website: <http://www.fabric-project.eu>
- **Italcementi s.p.a..**
The collaboration with the above mentioned company has been developed in the contract for research activities called "Experimental verification of the behavior of inductors embedded in cement for inductive power transfer" reported in the section "Industrial research contracts" of this CV. In this project the undersigned was involved in the study of the electromagnetic interaction between cements used in paving works and coils used for inductive power transfer directly embedded in these cements. The study led to the development of a series of devices suitable for electromagnetic characterization of cements at industrial frequencies and highlighted the main problems of electromagnetic interaction that can affect the power transfer in the presence of the tested cements. Part of the results of this activity have been described in work 19 reported in the "Journal articles" section of this CV.
- **Amet s.r.l..**
The collaboration with the company Applied Mechatronic Engineering & Technologies - Amet s.r.l. of Turin, Italy was born in the context of the European project FABRIC. This collaboration involved the development of a model for the simulation of the mechanical aspects of the integration of the receiver structure of a wireless charging system in motion on board of a light electric commercial vehicle. The results of this collaboration were presented during the CO2 reduction for Transportation Systems Conference held in Turin from June 6 to 8, 2018 through the contribution entitled "Structural Performance Analysis of vehicle equipment for the FABRIC dynamic power transfer system".

European projects

The following are the European projects in which the undersigned has collaborated by carrying out its research activities.

- Sep. 2017 – **MICEV - Metrology for inductive charging of electric vehicles**, EMPIR 16ENG08.
 Sep. 2020 The undersigned has dealt with the circuit and electromagnetic modeling of the main components of inductive charging systems for electric vehicles, has provided support to partners in the metrological institutes for the development of systems for the measurement and validation of the transfer of electrical energy without contact and has dealt with the development of methodologies for the evaluation of the issues related to human exposure to magnetic fields generated by these wireless charging systems.
- Oct. 2017 – **ASSURED - fAst and Smart charging solutions for full size URban hEavy Duty applica-**
 Sep. 2020 **tions**, Horizon 2020, Grant Agreement no. 769850.
 The undersigned was involved in the study, modeling, design, and development of the magnetic components of a three-phase static charging system for ultra-fast charging of public transportation vehicles.
- Jan. 2014 – **FABRIC - FeAsiBility analysis and development of on-Road charging solutions for future**
 Jul. 2017 **electric vehiCles**, 7th Framework Programme for research, Grant Agreement no. 605405.
 In this project, the research activities of the undersigned were aimed at the creation of a prototype infrastructure on the road dedicated to the charging of electric vehicles in motion. These activities have involved, specifically, the development of models for electromagnetic and circuit simulation, optimization and engineering of some of the key components of the prototype. Also as part of the project, the undersigned has been dedicated to the development of a methodology dedicated to the assessment of exposure of people to magnetic fields generated by the application.
- 01/01/2014 – **eCo-FEV - efficient Cooperative infrastructure for Fully Electric Vehicles**, 7th Framework
 31/05/2015 Programme for research, Grant Agreement no. 314411.
 In this project the activities of the undersigned have been devoted to the design and coupled field-circuit modeling of the magnetic structure of a prototype for inductive charging in motion of a light commercial vehicle. The undersigned has also contributed to the development of electrical and IT infrastructure to support the handling of an environment oriented to the management of electric mobility in the presence of different systems for charging electric vehicles.

Editorial Board of international journals

- Jan. 2024 – **Deputy Editor**, for the journal IET Power Electronics.
 present
- Jan. 2024 – **Associate Editor**, for the journal Wireless Power Transfer, Maximum Academic Press.
 present
- Oct. 2022 – **Lead Guest Editor**, *Special Issue "Advances in conductive and wireless powering and charging*
 Nov. 2023 *technologies for transportation applications"*, for IET Power Electronics, Co-guest editors Dr. Jianning Dong from Delft University of Technology (NL), Ahmed A.S. Mohamed from Eaton Corporation (USA), Jinhao Meng from Sichuan University (CN).
- Jun. 2022 – **Guest Editor**, *Special Issue "Modeling and Control in Power Electronics and Electric Drives"*,
 present for MDPI Electronics, Co-guest editor Dr. Riccardo Ruffo from Texas Instruments, SEM Grid Infrastructure, Freising, Germany.
- Sep. 2021 – **Review Editor**, *Editorial Board of the journal Engine and Automotive Engineering*, speciality
 present section of Frontiers in Mechanical Engineering.
- May 2020 – **Guest Editor**, *Special Issue "Inductive Charging for Electric Vehicles: Towards a Safe and*
 Jul. 2021 *Efficient Technology"*, for MDPI Sustainability, Co-guest editor Dr. Mauro Zucca from INRIM, Torino, Italy.

Session chairmanship at international conferences

- 2022 **Chair**, *Special Session "Conductive and wireless powering and battery charging technologies for electric mobility"*, 48th Annual Conference of the IEEE Industrial Electronics Society, IECON 2022, October 17–20, 2022, Brussels, Belgium.
- 2022 **Session Chair**, *Oral Session "WB4 - Advances in Heavy-Duty Transportation Electrification "*, 2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM 2022, June 22–24, 2022, Sorrento, Italy.

- 2021 **Session Chair**, *Session 3 part 2 "Non-linear Devices and Systems"*, XXVI Symposium Electromagnetic Phenomena in Nonlinear Circuits, EPNC 2020, Virtual event April 7–9, 2021.
- 2019 **Promoter and Chairman**, *Special Session "Wireless Charging for EVs"*, 2019 AEIT International Conference of Electrical and Electronic Technologies for Automotive, AEIT AUTOMOTIVE 2019, July 2–4, 2019, Torino, Italy.
- 2018 **Track and Session Chair**, *Oral Session "Applications – Smart Grids & Electrical Machines"*, 15th International Workshop on Optimization and Inverse Problems in Electromagnetism, OIPE 2018, September 11–13, 2018, Hall in Tirol, Austria.
- 2017 **Track and Session Chair**, *Oral Session "Wireless EV Charging"*, 3rd IEEE Southern Power Electronics Conference, SPEC 2017, December 4–7, 2017, Puerto Varas, Chile.

Organization international conferences

- 2023 **Tutorials Chair**, 2023 IEEE 97th Vehicular Technology Conference VTC2023-Spring, June 18–21, 2023, Florence, Italy.
- 2022 **Member of the Technical Program Committee**, EAI International Conference on Sustainable Energy for Smart Cities, SESC 2022, November 16–18, 2022, Braga, Portugal.
- 2022 **Organizer**, *Special Session "Conductive and wireless powering and battery charging technologies for electric mobility"*, 48th Annual Conference of the IEEE Industrial Electronics Society, IECON 2022, October 17–20, 2022, Brussels, Belgium.
- 2021 **Publication Chair and member of the Executive Committee**, 2021 International Conference of Electrical and Electronic Technologies for Automotive, AEIT Automotive 2021, Virtual conference November 17-19, 2021.
- 2021 **Technical co-chair**, XXVI Symposium Electromagnetic Phenomena in Nonlinear Circuits, EPNC 2020, Virtual conference April 7-9, 2021.
- 2020 **Publication Chair and member of the Executive Committee**, 2020 International Conference of Electrical and Electronic Technologies for Automotive, AEIT Automotive 2020, Virtual conference November 18-20, 2020.
- 2019 **Member of the Local Committee**, 2019 International Conference of Electrical and Electronic Technologies for Automotive, AEIT Automotive 2019, July 2-4, 2019, Torino, Italy.

Awards and recognitions

- Mar. 2022 **Finalist of the Intellectual Property Awards (IPA) at Expo Dubai 2020.**
with the patent "Magnetic gearshift system". The IPA award has been organized by the Ufficio Brevetti e Marchi del Ministero dello Sviluppo Economico (Patent and Trademark Office of the Ministry of Economic Development) in collaboration with the Netval association to highlight Italian innovations in the setting of the Italian Pavilion at Expo Dubai 2020.
- Dec. 2020 **Premio Innovazione 4.0 (Innovation 4.0 Award), for the category start-up.**
Award sponsored by Fiat Chrysler Automobiles (FCA) and awarded by the Industrial Scientific Committee of Automation & Testing (A&T), a technology fair held in Turin, Italy, February 10-12, 2020.
- Nov. 2019 **Finalist of the Premio Nazionale per l'Innovazione (National Award for Innovation).**
Admission to the award conferred as an awardee among the three best projects of the 2019 edition of Start-CUP Piemonte Valle d'Aosta with the start-up Enermove s.r.l. of which the undersigned is co-founder and partner.
- Oct. 2019 **Second place in the final of the XV edition of Start-CUP Piemonte Valle d'Aosta.**
Competition between innovative business ideas and projects, created to stimulate entrepreneurship and support economic development. Award won by presenting the innovative idea on the basis of which was created the start-up Enermove s.r.l. of which the undersigned is co-founder and partner.

Nov. 2016 **2015 Quality award.**

Awarded by the Doctoral School of the Politecnico di Torino. The assignment of this award was decided by majority vote of the board of the PhD course in Electronic Engineering in its plenary composition on the basis of the evaluation of the scientific and academic activities carried out among all the PhD students of the XXIX cycle in the year 2015.

Patents

Co-inventor of the patent for industrial invention, "Capacitor for resonant circuits in power applications".

Patent granted in Italy with publication code IT201700032290A1, European publication code EP3602585A1 and international publication code WO2018172949A1. Patent granted in the USA with publication code US20200143993A1. An extension to an International PCT application has been filed for the same patent with code PCT/IB2018/05188.

Co-inventor of the patent for industrial invention, "Method for direct roadway installation of inductors for inductive electric power transfer".

Patent jointly owned by the Politecnico di Torino and the company Tecnositaf s.p.a. granted in Italy with publication code IT201800006495A1, European publication code EP3810455A1 and international publication code WO2019244070A1. For the same patent, an extension to the International PCT Application has been filed with code PCT/IB2019/055162. The patent was fully acquired by Tecnositaf in the year 2022 for its exclusive use.

Co-inventor of the patent for industrial invention, "Differential and vehicle comprising such differential".

Patent owned by the University of Padua and granted in Italy with publication code IT201800010648A1 and international publication code WO2020110064A1. For the same patent, an extension to an International PCT application has been filed with code PCT/IB2019/060284.

Co-inventor of the patent for industrial invention, "Magnetic gearshift system".

Patent owned by the Politecnico di Torino and the University of Padua and granted in Italy with publication code IT202000017512A and international publication code WO2022013774A1. Patent granted in the USA with publication code US20230283159A1. An extension to an International PCT application has been filed with code PCT/IB2021056344W. The patent was among the finalists of the Intellectual Property Awards (IPA) at Expo Dubai 2020.

Conferences, seminars and workshops

Nov. 2023 **Invited speaker, e-Charge EV Charging Industry Exhibition & Conference.**

Conference session "La ricarica wireless per i veicoli, soluzioni statiche e dinamiche - Wireless charging for vehicles, static and dynamic solutions".

Date and place: 16 November 2023, Bologna, Italy

Sep. 2023 **Invited public lecture, at the invitation of Professor Lei Zhao, The School of Automation Engineering at Chongqing University.**

Title of the lecture: Challenges on road implementation of dynamic inductive charging for electric vehicles.

Date and place: September 13, 2023, Chongqing, China

Dec. 2018 **Invited public lecture, at the invitation of Professor Li Kui, Deputy Director of the School of Electrical Engineering at Hebei University of Technology.**

Title of the lecture: Inductive power transfer for moving vehicles: the Polito Charge While Driving

Date and place: December 13, 2018, Tientsin, China

Apr. 2022 **Invited speaker, Industrial fair A&T Automation and Testing.**

Round table "Smart Mobility: Sostenibilità e Resilienza".

Date and place: 6–8 April 2022, Turin, Italy

Jun. 2020 **Invited speaker, Annual meeting Italy Chapter IEEE Magnetic Society.**

Title of the speech: Inductive power transfer for electric vehicles. From basic concepts to the real case of the Polito Charge While Driving.

Date and place: meeting held online on June 15, 2020

- Nov. 2019 **Speaker**, workshop “Wireless Charging of Vehicles – Measurements, modeling and human exposure (WCV 2019)”, within the European project Metrology for inductive charging of electric vehicles (MICEV). The workshop counted 40 participants from 13 countries, of which 23 attended in person and 17 via webinar.
Title of the speech: A dynamic IPT system for private transports: the PoliTO Charge While Driving
Date and place: November 27, 2019, Braunschweig, Germany
- Jun. 2019 **Invited speaker**, seminar “La sicurezza elettrica nel XX secolo” (Electrical safety in the 20th century), organized by AEIT (Italian Association of Electrotechnics, Electronics, Automation, Informatics and Telecommunications) Piedmont and Aosta Valley Chapter in collaboration with the Department of Energy “G. Ferraris” of the Politecnico di Torino, INAIL, Terna spa, E-distribuzione spa and Avio Aero.
Title of the speech: Results of measurements for model validation on human body impedance
Date and place: June 26, 2019, Torino, Italy
- Dec. 2018 **Invited public lecture**, at the invitation of Professor Li Kui, Deputy Director of the School of Electrical Engineering at Hebei University of Technology.
Title of the speech: Inductive power transfer for moving vehicles: the Polito Charge While Driving
Date and place: December 13, 2018, Tientsin, China
- Nov. 2017 **Invited speaker**, seminar – 7th Edition “Train with EMC!” – EMC design, organized by the Antenna and Electromagnetic Compatibility Laboratory (LACE)..
Title of the speech: Assessment of human exposure to electromagnetic fields in wireless power transfer applications for electric vehicles
Date and place: November 3 2017, Torino, Italy
- Jun. 2016 **Speaker**, for the Youth Researchers session of the XXXII Annual Meeting of Italian Electrical Engineering Researchers ET 2016..
Title of the speech: Challenges of inductive power transmission for electric vehicles in motion
Date and place: June 17, 2016, Palermo, Italy

Academic appointments

- Dec. 2021 – **Elected member of the Department’s Board**, for the Department of Electrical, Electronic, and Information Engineering “G. Marconi” of the Alma Mater Studiorum University of Bologna.
present
- Nov. 2021 – **Responsible for Erasmus exchanges**, between the University of Bologna and the University of Zaragoza, Spain.
present
- Nov. 2021 – **Responsible for Erasmus exchanges**, between the University of Bologna and the Budapest University of Technology and Economics, Hungary.
present

Participation in international commissions

- 2018 – **Member of the International Electrotechnical Commission**, Technical Committee 68 –
present *Magnetic alloys and steels.*
- 2018 – **Member of the International Electrotechnical Commission**, Technical Committee 14 – Power
present *transformers.*

Languages

- Italian **Native speaker**
- English **Upper intermediate**
- French **Upper intermediate**