

Paulo Coelho

Curriculum Vitae (Short Version)**Personal Data**

Name: Paulo M. M. Coelho
Date and Place of Birth: December 20, 1964, Mirandela
Nationality: Portuguese

Address

Instituto Politécnico Tomar - ESTT
 Engineering Department - Electrical Section
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Education

2004	Ph.D in Electrical Engineering, specialization in Control and Instrumentation, University of Coimbra
1995	M.Sc. in Engineering Sciences, specialization in Industrial Engineering, University of Coimbra
1990	B.Sc. ("Licenciatura"- 5 years) in Electrical Engineering, University of Coimbra

Academic Positions

2021 - --	Full Professor (Professor Coordenador) at The Department of Engineering (Electrical Section) of the Polytechnic Institute of Tomar
1999 - 2021	Associate Professor (Professor Adjunto) at The Department of Engineering (Electrical Section) of the Polytechnic Institute of Tomar
1998 - 1999	Teaching Assistant 2nd Triennium at The Department of Engineering (Electrical Section) of the Polytechnic Institute of Tomar (IPT)
1996 - 1998	Teaching Assistant 1st Triennium at The Department of Engineering (Electrical Section) of the Polytechnic Institute of Tomar
1997 - 2010	Assistant Researcher at the Institute for Systems and Robotics – Coimbra Pole (ISR) – University of Coimbra
1991 - 1993	Research Grant (BI) for M.Sc. in University of Coimbra, funded by the National Board of Technological and Scientific Research (JNICT)

Industrial, Affiliate, and Consulting Positions

1996	Founding Partner of the company: "SENGIC, Lda."
1993 - 1995	Technical Director of the Company: "SOLCOA, S.A."
1990 - 1991	Independent worker

**Positions/
Appointments**

2021 - --	Secretary of the Scientific Council of ESTT (<i>since June 30, 2021</i>)
2019 - --	Member of the Board of Directors of the FCT research center, "Smart Cities Research Center (Ci2 -IPT)"

2016 - --	President of the M23 Jury, for the "special competition" for non-traditional university entrants, called M23 (targeted at people aged over 23), for the Engineering courses of ESTT.
2014 - --	Director of the Master Program in Electrical Engineering (IPT)
2014 - 2015	President of the Coordination Commission of ESTT's Middle Tagus Technological and Professional Training (<i>Rede de Formação Tecnológica e Profissional do Médio Tejo da ESTT</i>)
2012 - 2013	Member of the Coordination Committee of the Postgraduate in Mechatronics Engineering
2012 - --	Founding member of VITA.ipt
2011 - --	Member of Technical-Scientific Council of ESTT (<i>Escola Superior de Tecnologia de Tomar</i>)
2011 - --	Member of the Engineering Department Council
2009 - 2014	Director of the Master Program in Control and Industrial Electronics
2010 - --	Member of the Coordination Committee of the B.Sc Computer and Electrical Engineering
2009 - --	Member of the General Council of IPT
2009 - 2016	Member of the Coordination Committee of the Master in Technical Maintenance of Buildings
2009 - --	Head of Systems and Control Laboratory
2009 - 2010	President of Coordination Committee of the Master Course in Control and Industrial Electronics
2008 - 2011	President of Evaluation Committee for Integration and Accreditation of Academic Education of DEE (<i>Electric Engineering Department</i>)
2008 - 2011	Member of the Verification Committee of the Academic Education Plan of DEE
2006	Head of Technology Audits of the DEE, in ISM Project (Nersant)
2005 - 2010	Scientific Coordinator of the B.Sc. in Electrical and Computer Engineering
2004 - 2005	Adjunct of the Electrical Engineering Department Director
1999 - 2011	Member of Scientific Council of ESTT (<i>Escola Superior de Tecnologia de Tomar</i>)
1996 - 2011	Member of the Department Council of DEE
1996 - 2011	Head of Control and Automation Scientific Area – DEE/IPT
1996 - 2000	Head of Automation and Control Laboratory

Membership

- Member of IEEE (Institute of Electrical and Electronics Engineers)
- Member of the Order of Engineers (*Portuguese Association*)

Awards and distinctions

- "**Engineering prize**" (best robot design - BlueT) award in the national Portuguese Micro-robot contest 2000 (University of Aveiro - May 2000), attributed by an international jury. And 5th classified in the mobile robot

navigation competition. Participation of 29 teams. The team ("BlueT") was composed by students (Paulo Ferreira, Fernando Sousa, Paulo Inácio, Ezequiel Bráz) and teachers (Paulo Coelho and Gabriel Pires) from IPT.

Area of Scientific Activity

- Electrical Engineering. The principal research interests are: control theory, intelligent control systems, renewable energies, smart grids/cities, wheeled mobile robotics, aerial robotics, intelligent vehicles and mechatronics, namely on: kinematics and dynamics of WMRs, Path-Following, environment perception, autonomous navigation, sensor fusion, motion control of mobile robots, integration of renewable energy in autonomous and semi-autonomous vehicle and in smart grids/cities, and ambient-assisted living.

M.Sc. Students Supervising

- Afonso da Silva Batista, M.Sc. Thesis: *Railway Embedded Software Validation – Component Testing*, (2020-2021). 07/2021
- André Filipe Ferreira Lagarto, M.Sc. Thesis: *Automação e Controlo Industrial*, (2018-2021). 02/2021
- Fábio João Esgueira dos Santos, M.Sc. Thesis: *Manutenção e Gestão de Ativos de Centrais Hidroeléctricas – Testes de Capacidade de Baterias e Projeto de Carregadores de EVs*, (2019-2021). 02/2021.
- Eduardo António da Costa Dias Ribeiro, M.Sc. Thesis: *Desenvolvimento e Métodos de Reparação – Equipamentos Eletrónicos Críticos em Material Circulante Ferroviário*, (2019-2020). 12/2020.
- Paulo Jorge Borges da Costa, M.Sc. Thesis: *Bosch-Garantia de Qualidade de Software (SQA) - Projecto e Implementação do Processo de Automatização de Release de Software*, (2017-2019), 12/2019.
- Eduardo Manuel Carvalho Pinheiro, M.Sc. Thesis: *Cooperação entre múltiplas microrredes industriais autónomas*, (2018-2019). 12/2019.
- José Carlos Pereira Mendes, M.Sc. Thesis: *Manutenção e Melhoria de Sistemas Industriais - Chassis Brakes International*, (2018-2019). 12/2019.
- Emanuel Tiago Mendes Duarte, M.Sc. Thesis: *Micafluid - Engenharia da Produção*, (2018-2019). 12/2019.
- Filipe Alexandre Guido Bandeiras, M.Sc. Thesis: *Microrredes industriais: arquiteturas e protocolos de consumo nulo de energia*, (2016 - 2017). 12/2017
- Tiago Filipe Dias Cascalheira, M.Sc. Thesis developed in Training Period: *EDP Distribuição – Energia S.A.*, (2016 - 2017). 07/2017
- José Rafael da Costa Batista, M.Sc. Thesis: *Kit Ball and Beam - B&B II*, (2015 - --). - *Suspended*
- Tiago Miguel de Sousa Carvalho, M.Sc. Thesis: *Energias Renováveis-Armazenamento e arquitetura da rede de comunicações em Microrredes industriais*, (2015 - --). - *Suspended*
- Ricardo Raimundo Silvestre, M.Sc. Thesis: *Energias Renováveis- Caracterização da rede de energia em Microrredes industriais*, (2015 - 2019). 12/2019
- Paulo A. S. Coutinho, M.Sc. Thesis: *Veículo Robotizado*, (2015 - --). - *Suspended*
- Odair Patrick Coimbra Dos Reis, M.Sc. Thesis: *Interface Gráfica para Monitorização e Controlo de uma Instalação de Iluminação Inteligente*, (2014 - --). - *Suspended*
- Luís Filipe S. G. Lopes, M.Sc. Thesis: *Desenvolvimento de aplicação/hardware de controlo da iluminação do Bloco I*, (2014 - --). - *Suspended*

- Tiago Alexandre Martins Fernandes, M.Sc. Thesis: *SISGE - Sistema Integrado de Segurança e Gestão de Energia*, (2013 - 2015). 12/2015
- Carlos Alberto da Conceição Pereira, M.Sc. Thesis developed in Training Period: - *Critical-Kinetics, Lda.*, (2012 - 2015). 12/2015
- Júlio Cesar Moita Jorge Ruivo da Silva, M.Sc. Thesis: *Web Domotic Control - Soluções Inteligentes de Monitorização*, (2012 - --)
- David Sérgio de Oliveira Peneireiro, M.Sc. Thesis developed in Training Period: - *RenPad (Renova, S.A)*, (2012 - 2014). 12/2014
- David Nuno Da Graça Ferreira, M.Sc. Thesis developed in Training Period: - *Mitsubishi Fuso Truck Europe, S.A*, (2012 - 2014). 09/2014
- Fábio A. F. Silva, M.Sc. Thesis developed in Training Period: *Sinergiae*, (2011 - 2013). 12/2013
- Oscar C. Pires, M.Sc. Thesis developed in Training Period: *Embedded Systems Solutions - Camiões e Contentores refrigerados - Controlo de Sistemas de Refrigeração*, (2011 - 2013). 09/2013
- Marco S. M. Pedro, M.Sc. Thesis: *Sistema de Supervisão de Linhas de Produção em Série - Schaeffler Portugal*, (2010 - 2012). 12/2012
- Jorge M. R. Cunha, M.Sc. Thesis: *Desenvolvimento de Sistema de Estacionamento Automático*, (2010 - 2013). 12/2013
- Afonso D. Antunes, M.Sc. Thesis: *Desenvolvimento de Kit para Conversão de Veículos com motor a Combustão em Eléctricos*, (2010 - 2015). 12/2015
- Paulo J. M. Silva, M.Sc. Thesis: *Controlo de um Pêndulo Invertido de Base Móvel Linear*, (2009 - 2011). 11/2011
- Bruno M. F. Grácio, M.Sc. Thesis: *Análise e Implementação de métodos numéricos para resolução de sistemas de equações lineares de grandes dimensões*, (2009 - --) - *Suspended*
- António M. D. Sirgado, M.Sc. Thesis: *Simulação Dinâmica de Estratégias de Controlo*, (2009 - --) - *Suspended*
- Marco A. A. Mendes, M.Sc. Thesis: *Controlo de um Helicóptero*, (2009 - --)
- André F. M. Carrilho, M.Sc. Thesis: *Re-ajuste Simples de Malhas de Controlo por PID*, (2009 - 2011). 12/2011
- Pedro H. F. Gonçalves, M.Sc. Thesis: *Kit Didáctico Ball & Beam*, (2009 -2011). 12/2011
- Orlando M.V. Lino, M.Sc. Thesis: *Laboratório Virtual: da Instrumentação ao Controlo*, (2009 - 2011). 03/2011
- Charly R. Silva, M.Sc. Thesis: *Controlo de Motores DC, aplicado a veículos Electricos*, (2009 - 2011). 05/2011

Academic Juries

Member of more than 60 Juries of Master (as President, Examiner, or Supervisor). Not listed in this short CV.

Research Projects

- Member of "Smart Cities Research Center (Ci2) Basic funding", supported by FCT, under the research project FCT UIDB/05567/2020 (2020/01 - --)
- Member of "Smart Cities Research Center (Ci2) Programatic funding", supported by FCT, under the research project FCT UIDP/05567/2020 (2020/01 - --)
- Member of "Powerup MyHouse", supported by Erasmus Plus, under the research project 2020-1-TR01-KA202-093467 (2020/12 - --)

- Member of "Sustainable treatment and valorization of wastewater", supported by FCT, under the research project FCT/DGES-18691.2 (2020/07 – 2020/10)
- Member of INDUGRID: "Gestão eficiente de energia em microrredes industriais com elevada penetração de tecnologia fotovoltaica", supported by FCT and by PIDDAC, under the research project ERANETLAC/0006/2014 (2016 - 2019)
- Member of RIGMEI - *Red Iberoamericana de Generación Distribuida y Microrredes Eléctricas Inteligentes* - CYTED (Red 713RT04752012). (2012 - 2016)
- Member of VITA.IPT - Life Quality – Ambient Assisted Living – IPT (2012 - 2013)
- Principal Investigator of HELI – Development of a Helicopter for civil protection and military applications - MCEI/IPT/03/2011 (2011 - 2015)
- Principal Investigator of Research project for "Development of KITS in Control, Electronics and Electrical fields" – MCEI/IPT/02/2011 (2011 - 2015)
- Member of Research project of "Development of a KIT to convert vehicles with combustion engines in electric vehicles" – MCEI/IPT/01/2011 (2011 - 2015)
- Principal Investigator of Research project for "Building, Simulating and Programming a Wheeled Mobile Robot" – DEE/IPT/02/2006 (2006-2007)
- Member of Research project GreEn Power – DEE/IPT/01/2006 (2006-2010)
- Member of NCT04: Nonlinear control techniques applied in path following of WMRs and autonomous, vehicles with high precision localization system. FCT and POSI, project POSI/EEASRI/58016/2004 (2005-2008)
- Member of TSM02: Trajectory planning and tracking of mechanical systems with nonholonomic constraints, Project POSI, project POSI/41618/SRI/2001 (2002-2005)
- Member of CTR2001: Robot Force and Motion Control, Linking Sensory and Intelligent Levels, Project POSI, project POSI/33594/SRI/2000 (2001-2004)
- Member of MENTOR: Teaching and Exploratory Skill Learning Methods for Human-Oriented Robots, Project PRAXIS, project PRAXIS/P/EEI/13141/1998 (1999-2001)

Research Projects in Collaboration with Industries

- Member of Research project of "Software Flowmeter 2000" – Software development in Delphi 4, to measure and control flow rates, taking into account the different types of tubes and diaphragms, among other restrictions. Partners: DEE-ESTT-IPT, "Alcântara- refinarias Açucares S.A" (Industry) (1999-2000)

Refereeing Activity

Referee of several journals (for example):

- Applied Sciences, MDPI
- Energies, MDPI
- Electronics, MDPI
- IET Renewable Power Generation
- Sensors, MDPI
- Sustainable Energy Technologies and Assessments, Elsevier
- IEEE Transactions on Robotics
- IEEE Transactions on Automatic Control
- IEEE Latin America Transactions
- IEE/IET Control Theory & Applications.
- Mechatronics (The Science of Intelligent Machines), IFAC, Elsevier
- International Journal of Control, Elsevier

- International Journal of Hydrogen Energy, Elsevier
- Machine Intelligence & Robotic Control (MIROC), Cyber Scientific, Japan
- UIS Ingenierías, Colombia

Referee of several conferences (for example):

- ICREGA'16 – 4th International Conference on Renewable Energy: Generation and Applications UTBM, February 8-10, 2016, Belfort, France
- SBAI 2007 - Simpósio Brasileiro de Automação Inteligente, October 8-11, 2007, Florianópolis - Santa Catarina, Brazil
- IROS 2005 - IEEE/RSJ International Conference on Intelligent Robots and Systems, 2005.
- IAV2004–5th IFAC/EURON Symposium on Intelligent Autonomous Vehicles. July 5-7, 2004, Lisboa, Portugal.
- SICICA 2003 – 5th Ifac International Symposium on Intelligent Components and Instruments for Control Applications, July 9-11, 2003, Aveiro, Portugal.

Teaching

Lecturer at IPT

M.Sc. in Electrical Engineering

- Digital Control
- Optimal and Adaptive Control

M.Sc. in Chemical Technology

- Energy and Environment
- Dynamics and Control of Processes

M.Sc. in Technical Maintenance of Buildings

- Control Systems and Domotics (*)

M.Sc. in Urban Rehabilitation

- Technical Installations I (Domotics) (*)

B.Sc. in Computer and Electrical Engineering

- Control Theory
- Systems Theory
- Engineering Laboratories
- Mobile and Autonomous Robotics (*)
- Automatic Control (*)
- CAD/CAM (*)
- Signals and Systems I (*)
- Special Installations and Domotics (*)
- Industrial Automation (*)
- Telecommunications and Integrated Networks (*)
- Digital Systems (*)
- Complements of Electronics (*)
- Signal Theory (*)
- Microelectronics (*)
- Computational Methods in Design and Manufacturing - CAD/CAM (*)
- Control and Automation II (*)
- Telecommunications Systems (*)

B.Sc. In Informatics Engineering

- Introduction to Telecommunications (*)
- Control and Automation (*)
- CAD/CAM (*)
- Signals and Systems (*)

B.Sc in Mechanical Engineering

- Systems Control and Robotics (*)

CTeSP in Industrial Automation

- Engineering Laboratories

CTeSP in Integrated Industrial Production Technologies

- Instrumentation and Control

CET in Electrical Installations and Industrial Automation

- Industrial Automation (*)

(*) – Past Courses

Short Courses

- Mobile Robotics for teachers'18 - (16 hours), ref: CCPFC/ACC-93508/17, IPT, Jan. 2018
- Mobile Robotics for teachers'16 - (16 hours), ref: CCPFC/ACC-81469/15, IPT, Feb. 2016
- Mobile Robotics for teachers'15 - (16 hours), ref: CCPFC/ACC-81469/15, IPT, Feb. 2015
- Distributed Generation and Micro Smart Grids - (18 hours), ref: CCPFC/ACC-77843/14, IPT, July 2014.
- Brief formation in CNC Machines - (4 hours), IPT, July 2006
- CAD/CAM, (FOCO course) - (24 hours), IPT, May 1999
- Digital Systems and Microprocessors (FOCO Course)-(16 hours),IPT, June 1999
- Software Applications (FOCO course) - (32 hours), IPT , March/April 1999
- Introduction to R.I.T.A. projects - (8 hours), IPT, July 1999

Publications**Thesis**

Paulo Manuel Machado Coelho, "Path following control of wheeled mobile robots in presence of uncertainties" (in Portuguese), Ph.D. Thesis, University of Coimbra, 2004

Paulo Manuel Machado Coelho, "Computerized Control of Industrial Processes" (in Portuguese), M.Sc. Thesis, University of Coimbra, 1995

P. Coelho, J. Anastácio, J. Fernandes, "Integrated Fault Diagnostics System - Digital Filter" (in Portuguese), "Licenciatura" graduation (5 years programme) Thesis, University of Coimbra, 1990

Book (editor)

Mário Gomes; Paulo Coelho. (Eds.) (2019). Towards Microgrids: Concepts and Approaches. Instituto Politécnico de Tomar. Tomar, Portugal. (edição impressa, ISBN: 978-989-8840-43-1; ebook, ISBN: 978-989-8840-42-4)

M. Castilla, M. Gomes, P. Coelho, J. Fernandes, editors, "2.as Jornadas Ibero-Americanas: Geração Distribuída e Microredes Eléctricas Inteligentes", Vol.1, Editor IPT, 2014 (ISBN: 978-972-9473-82-1)

J. Guilherme; A. Vieira; C. Ferreira; F. Nunes; G. Pires; H. Ribeiro; J. Carvalheiro; P. Coelho; P. Correia; P. Granchinho; R. Maia. (Eds.) (2006). *Atas das III Jornadas de Engenharia Eletrotécnica – Energia sem Limites*. Instituto Politécnico de Tomar. Tomar, Portugal. (ISBN: 972-9473-35-8)

Book Chapters

Paulo Coelho; Filipe Bandeiras; José Fernandes. (2019). "Introduction to Microgrids". In *Towards Microgrids: Concepts and Approaches*, 01-14. Instituto Politécnico de Tomar. (ISBN: 978-989-8840-43-1)

Paulo Coelho; Filipe Bandeiras; Mário Gomes. (2019). "Architecture Concepts for Microgrids". In *Towards Microgrids: Concepts and Approaches*, 15-50. Instituto Politécnico de Tomar. (ISBN: 978-989-8840-43-1)

Filipe Bandeiras; Mário Gomes; Paulo Coelho. (2019). "Zero Net Energy Approaches". In *Towards Microgrids: Concepts and Approaches*, 51-84. Instituto Politécnico de Tomar. (ISBN: 978-989-8840-43-1)

Mário Gomes; Filipe Bandeiras; Paulo Coelho. (2019). "Autonomous Microgrids Cooperation". In *Towards Microgrids: Concepts and Approaches*, 85-130. Instituto Politécnico de Tomar. (ISBN: 978-989-8840-43-1)

Paulo Coelho; Mário Gomes; Carlos Moreira. (2018). "Smart Metering Technology". In *Microgrids Design and Implementation*, 97-137. Springer International Publishing. http://dx.doi.org/10.1007/978-3-319-98687-6_4.

Mário Gomes; Paulo Coelho; Carlos Moreira. (2018). "Microgrid Protection Schemes". In *Microgrids Design and Implementation*, 311-336. Springer International Publishing. http://dx.doi.org/10.1007/978-3-319-98687-6_12.

Mário Gomes; Paulo Coelho; José Fernandes. (2018). "Electricity Markets and Their Implications". In *Microgrids Design and Implementation*, 369-406. Springer International Publishing. http://dx.doi.org/10.1007/978-3-319-98687-6_14.

U. Nunes, G. Pires, P. Coelho, "Assistive Navigation Control Architecture", in *Book: System and Control: Theory and Applications*, World Scientific and Engineering Society (WSES)- Press, 2000

International Journals

Bandeiras, F.; Pinheiro, E.; Gomes, M.; Coelho, P.; Fernandes, J.. "Review of the cooperation and operation of microgrid clusters". *Renewable and Sustainable Energy Reviews* 133 (2020): 110311. <http://dx.doi.org/10.1016/j.rser.2020.110311>.

Bandeiras, F.; Gomes, M.; Coelho, P.; Fernandes, J.. "Towards net zero energy in industrial and commercial buildings in Portugal". *Renewable and Sustainable Energy Reviews* 119 (2020): 109580. <http://dx.doi.org/10.1016/j.rser.2019.109580>.

Pinheiro, E.; Bandeiras, F.; Gomes, M.; Coelho, P.; Fernandes, J.. "Performance analysis of wind generators and PV systems in industrial small-scale applications". *Renewable and Sustainable Energy Reviews* 110 (2019): 392-401. <http://dx.doi.org/10.1016/j.rser.2019.04.074>.

Bandeiras, Filipe; Gomes, Mário; Coelho, Paulo; Fernandes, José. "Net Zero Energy for Industrial and Commercial Microgrids: Approaches and Challenges". *Proceedings* 2 23 (2018): 1472. <http://dx.doi.org/10.3390/proceedings2231472>.

Bandeiras, Filipe; Gomes, Mário; Coelho, Paulo; Fernandes, José; Moreira, Carlos. "Protection Systems and Earthing Schemes for Microgrids: Main Aspects and Fault Analysis". *International Journal of Emerging Electric Power Systems* 19 4 (2018): <http://dx.doi.org/10.1515/ijeeps-2017-0176>.

Bandeiras, Filipe; Gomes, Mário; Coelho, Paulo; Fernandes, José; Camacho, Antonio; Castilla, Miguel. "Microgrid Architecture Evaluation for Small and Medium Size Industries". *International Journal of Emerging Electric Power Systems* 19 2 (2018): <http://dx.doi.org/10.1515/ijeeps-2017-0174>.

Camacho, Antonio; Castilla, Miguel; Canziani, Franco; Moreira, Carlos; Coelho, Paulo; Gomes, Mario; Mercado, Pedro. "Performance Comparison of Grid-Faulty Control Schemes for Inverter-Based Industrial Microgrids". *Energies* 10 12 (2017): 2096.

<http://dx.doi.org/10.3390/en10122096>.

Pereira, C.A.; Coelho, P.M.; Fernandes, J.F.; Gomes, M.H.. "Study of an energy mix for the production of hydrogen". *International Journal of Hydrogen Energy* 42 2 (2017): 1375-1382. <http://dx.doi.org/10.1016/j.ijhydene.2016.07.182>.

Coelho, P.; Nunes, U.. "Path-following control of mobile robots in presence of uncertainties". *IEEE Transactions on Robotics* 21 2 (2005): 252-261. <http://dx.doi.org/10.1109/tro.2004.837240>.

Paulo Coelho. "Path following control of a robotic wheelchair". *IFAC Proceedings Volumes (IFAC-PapersOnLine)* (2004). [https://doi.org/10.1016/S1474-6670\(17\)31972-9](https://doi.org/10.1016/S1474-6670(17)31972-9)

Coelho, Paulo; Nunes, Urbano. "Lie algebra application to mobile robot control: a tutorial". *Robotica* 21 5 (2003): 483-493. <http://dx.doi.org/10.1017/s0263574703005149>.

National Journals

P. Coelho e U. Nunes, "Mobile Robots Dynamics: Robotic Wheelchair" (in Portuguese), *Ingenium*, 2ª Série, Nº 77, September 2003, pp. 70-73

Conferences, Seminars and Workshops

F. Bandeiras; M. Gomes; P. Coelho. (2020). "Net zero energy approaches for industrial microgrids". In *Ciência 2020 - Encontro com a ciência e Tecnologia em Portugal*. FCT Organization. (Lisboa (Portugal), 3 November 2020.

Mário Gomes; Paulo Coelho; José Fernandes. (2019). "Projeto INDuGRID / Enquadramento da temática". In *Workshop of Cooperação entre Múltiplas Microrredes industriais*. (Com o apoio da FCT e do IPT). Tomar (Portugal), 11 dezembro 2019.

F. A. Bandeiras; E. M. Pinheiro; M. H. Gomes.; P. M. Coelho; J. F. Fernandes. (2019). "Review of the cooperation and operation of microgrids clusters". In *International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA'19, Istanbul, Turkey)*, pp. 1-6, Oct. 2019.

E. M. Pinheiro; F. A. Bandeiras; M. H. Gomes; P. M. Coelho; J. F. Fernandes. (2019). "Study of the cooperation among multiple microgrids in islanded operation mode". In *International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA'19, Istanbul, Turkey)*, pp. 1-6, Oct. 2019.

Mário Gomes; Paulo Coelho; José Fernandes. (2018). "Projeto INDuGRID / Enquadramento da temática". In *Workshop of Microrredes Industriais: Abordagens de Consumo nulo de energia*. (Com o apoio da FCT e do IPT). Tomar (Portugal), 12 dezembro 2018.

Eduardo Pinheiro; Filipe Bandeiras; Mário Gomes, Paulo Coelho; José Fernandes. (2018). "Performance Analysis of Wind Generators and PV Systems in Industrial Small-Scale Applications". In *ICEREGA' 18 - 6th International Conference on Emerging and Renewable Energy: Generation and Automation, Sousse, Tunisia*. pp. 1-6, Oct. 2018.

Filipe Bandeiras; Mário Gomes; Paulo Coelho; José Fernandes. (2018). "Towards Net Zero Energy in All-Electric Industrial and Commercial Buildings". In *ICEREGA' 18 - 6th International Conference on Emerging and Renewable Energy: Generation and Automation, Sousse, Tunisia*.

Filipe Bandeiras; Mário Gomes; Paulo Coelho; José Fernandes. (2018). "Net zero Energy for Industrial and Commercial Microgrids: Approaches and Challenges". *2nd International Research Conference on Sustainable Energy, Engineering, Materials and Environment (IRCSEEME'18), Mieres, Espanha*. In *Proceedings 2 (23): 1472*. <http://dx.doi.org/10.3390/proceedings2231472>.

C. Pereira, P. Coelho, J. Fernandes, M. Gomes. (2018). "Produção de Hidrogénio a partir de um mix de fontes de energia renovável". In *Workshop Médio Tejo Região de Hidrogénio (Promovido pela AP2H2), Tomar (Portugal), 22 de fevereiro 2018*.

Mário Gomes; Paulo Coelho; José Fernandes. (2017). "Apresentação do projeto INDuGRID". In Workshop of Arquiteturas de Microrredes Eléctricas Industriais. (FCT and IPT). Tomar (Portugal), 13 dezembro 2017.

Filipe Bandeiras; Mário Gomes; Paulo Coelho; José Fernandes. (2017). "Overview of Protection Systems and Earthing Schemes for Microgrids". In International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA'17), Belfort, França.

Filipe Bandeiras; Mário Gomes; Paulo Coelho; José Fernandes. (2017). "Microgrid Architecture Evaluation for Small and Medium Size Industries". In International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA'17), Belfort, França.

Pereira, C., Coelho, P., Fernandes, J., Gomes, M. (2016). Energy Mix in the Production of Hydrogen. In Proceedings of International Conference on Renewable Energy 2016 (ICEREGA'16), paper ID: SS1004-ID132, Belfort, France, 8-10 February 2016.

Coelho, P., Gomes, M., Fernandes, J. (2016). Redes Eléctricas Inteligentes: Conceptos y Desafíos. In Proceedings of Cuartas Jornadas Iberoamericanas de Generación Distribuida y Microrredes Eléctricas Inteligentes, Bucaramanga, Colombia, 13-16 junho 2016.

Gomes, M., Coelho, P., Fernandes, J. (2016). Mercados de Energia Eléctrica: Fundamentos e Aplicação. In Proceedings of Cuartas Jornadas Iberoamericanas de Generación Distribuida y Microrredes Eléctricas Inteligentes, Bucaramanga, Colombia, 13-16 junho 2016.

Paulo Coelho; Mário Gomes. (2016). "Mesa de discussão - Experiencias en energías renovables en Europa". In Cuartas Jornadas Iberoamericanas de Generación Distribuida y Microrredes Eléctricas Inteligentes, Bucaramanga, Colômbia, 16 junho de 2016.

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