# Short Curriculum Vitae

Name / Birth year	João Pedro Fernandes Trovão / 1975
Gender	Male
Title (year degree obtained) / Prof. status	Academic degrees:  Ph. D. in Electrical Engineering, University of Coimbra, 2013  M.Sc. Degree in Automation and Systems, University of Coimbra, 2004  Licentiate (5-Year) Degree in Electrical Engineering, University of Coimbra, 1999  Professional Positions:  Researcher, INESC Coimbra, 2007
	<ul> <li>Professor, Polytechnic Institute of Coimbra, 2000</li> </ul>
Address	Department of Electrical Engineering Polytechnic Institute of Coimbra Rua Pedro Nunes - Quinta da Nora 3030-199 Coimbra Tel: + 351 239 790 200; Fax: +351 239 790 201 Email: jtrovao@isec.pt
Area of expertise	Energy Management; Energy Storage Systems; Railway electric traction and Electric Vehicles; Electromechanical drives; Power Quality; Renewable Energy
Polougut (host)	Danawa in referend intermetional egientific journals
Relevant (best) publications	Papers in refereed international scientific journals TROVÃO, J.P.F.; SANTOS, V.D.N.; PEREIRINHA, P.G.; JORGE, H.M.; ANTUNES, C.H., "A Simulated Annealing Approach for Optimal Power Source Management in a Small EV," IEEE Transactions on Sustainable Energy, vol.PP, no.99, pp.1,10, 0. doi: 10.1109/TSTE.2013.2253139 JOÃO P. TROVÃO, PAULO G. PEREIRINHA, HUMBERTO M. JORGE, CARLOS HENGGELER ANTUNES, A multi-level energy management system for multi-source electric vehicles — An integrated rule-based meta-heuristic approach, Applied Energy, Volume 105, May 2013, Pages 304-318, ISSN 0306-2619. doi: 10.1016/j.apenergy.2012.12.081. DE CASTRO, R.; ARAUJO, R.E.; TROVÃO, J.P.F.; PEREIRINHA, P.G.; MELO, P.; FREITAS, D., "Robust DC-Link Control in EVs With Multiple Energy Storage Systems," IEEE Transactions on Vehicular Technology, vol.61, no.8, pp.3553,3565, Oct. 2012. doi: 10.1109/TVT.2012.2208772 PEREIRINHA, P. G.; TROVÃO, J. P.; SANTIAGO, A: "Set Up and Test of a LifePO4 Battery Bank for Electric Vehicle", Electrical Review — Przeglad Elektrotechniczny, Warsowa, Polland, ISSN PL 0033-2097, R. 88 NR 1a/2012, pp. 193-197, 2012. TROVÃO, J. P.; PEREIRINHA, P.; JORGE, H.: "Design Methodology of Energy Storage Systems for a Small Electric Vehicle", World Electric Vehicle Journal, Volume 3 (2009), ISSN 2032-6653. J. P. TROVÃO, P. PEREIRINHA, H. JORGE: "IEEE Standard 519-1992 Application in Industrial Power Distributions Networks with a New Monitoring Approach", WSEAS Transactions on Power Systems, Issue 8, Volume 1, pp. 1411-1416, August 2006.  **Book Chapters** PEREIRINHA, P. G. and TROVÃO, J. P. (2012). Multiple Energy Sources Hybridization: The Future of Electric Vehicles?, New Generation of Electric Vehicles, Prof. Zoran Stevic (Ed.), ISBN: 978-953-51-0893-1, InTech, DOI: 10.5772/53359.  **Papers in refereed international conference proceedings** M. S. PERDIGÃO, JOÃO P. TROVÃO, J. M. ALONSO, PAULO G. PEREIRINHA AND E. S. SARAIVA, "Experimental Large-signal Characterization of Power Inductors in Bidirectional Electric Vehicle D

MÁRIO A. SILVA, JOÃO P. TROVÃO, PAULO G. PEREIRINHA AND HUMBERTO M. JORGE, "Application of a Decoupling Method Based on Online Filtering Technique for Multi-Source Electric Vehicles", 15th European Conference on Power Electronics Applications, EPE'13 ECCE Europe, pp 1-10, 3-5 September 2013, Lille, France.

HUGO NEVES DE MELO, JOÃO P. TROVÃO, PAULO G. PEREIRINHA AND HUMBERTO M. JORGE, "Power Adjustable Electric Vehicle Charger under Energy Box Purpose", 15th European Conference on Power Electronics Applications, EPE'13 ECCE Europe, pp 1-10, 3-5 September 2013, Lille, France.

DE MELO, H.; TROVÃO, J. P.; PEREIRINHA, P. G.; JORGE, H.: "Electric Vehicles' Intelligent Charger for Automated Energy Management System", International Workshop on Energy Efficiency for a More Sustainable World, Azores, Portugal, September 2012.

H. NEVES DE MELO, J.P. TROVÃO, P.G. PEREIRINHA, H.M. JORGE. "Energy Profits with Controllable Electric Vehicle's Charger under Energy Box Decisions", 7th International Conference on on Energy Efficiency in Domestic Appliances and Lighting, EEDAL'13, Coimbra, Portugal, September 11-13, 2013.

P.G. PEREIRINHA, J.P. TROVÃO, H. NEVES DE MELO, H.M. JORGE, C.H. ANTUNES. "A Perspective of Urban Electric Mobility: Daily Electric Vehicle Scenario Analysis Using Energy Box Technology", Energy for Sustainability Multidisciplinary Conference, EfS 2013, Coimbra, Septembre 8-10, 2013.

TROVÃO, J. P.; PEREIRINHA, P. G.; TROVÃO, L.; JORGE, H.: "Electric Vehicles Chargers Characterization: Load Demand and Harmonic Distortion", 11th International Conference on Electrical Power Quality and Utilization (EPQU'11), Lisbon, Portugal, 17-19 October 2011

JOÃO P. TROVÃO AND PAULO G. PEREIRINHA, HUMBERTO M. JORGE, "Analysis of Operation Modes for a Neighborhood Electric Vehicle with Power Sources Hybridization", 6th IEEE Vehicle Power and Propulsion Conference, VPPC 2010, September 1-3, 2010, Lille, France.

#### Citations

119 known citations in literature, h index is 7

#### Other

### **Member of Networks**

- Member of Portuguese Engineering Association
- Member of Portuguese Electric Vehicle Association
- Member of IEEE

## **Project Member**

- MIT/SET/0018/2009, Energy Box development and implementation of a demand-responsive energy management system, funding by MIT Portugal Program (Member).
- PTDC/EEA-EEL/121284/2010 MESMO-EV: Multiple Energy Storage systems Management Optimization for Electric Vehicles, funding by FCT (Member).
- CENTRO-07-0224-FEDER-002004, EMSURE Energy and Mobility for SUstainable Regions, funding by *Mais Centro* Program (Member).

#### Prizes/awards:

"Prémio Engenheiro Monteiro Leite 2006" (In English: Eng. Monteiro Leite Prize), Best Article Published in the "Manutenção" international magazine, Portuguese and Brazilian Edition, Portuguese Maintenance Association (A.P.M.I.), Porto, 2007;

# Teaching (since 2000)

- Electrical Machines.
- Complements of Electrical Machines.
- Electromechanical Drives.
- Computer Aided Design.
- Final Project and Seminar.
- MSc Dissertation/Project/Internship.

## **Scientific Responsabilities**

# • Reviewer:

<u>Conferences:</u> EVS24, IECON09, VPPC 2010, EPQU'11, EVS26, EVS27, IECON13, VPPC 2013;

<u>Journals:</u> Applied Energy, Engineering Optimization, Energy Policy, Proc. IMechE, Part D: Journal of Automotive Engineering, Journal of Zhejiang University-SCIENCE A; Renewable Energy; IEEE Journal of Emerging and Selected Topics.

#### • Organizer:

Conferences: SmartMILE 2013, IEEE VPPC 2014;