

CURRICULUM VITAE

Patrícia de Carvalho Baptista

July 2017

Short biography

Dr. Patrícia Baptista received the Chemistry degree in 2006 and the Ph.D. degree in Sustainable Energy Systems within the MIT Portugal Program in 2011 from Instituto Superior Técnico, University of Lisbon, Portugal. She is currently an Assistant Researcher at IN+ Center for Innovation, Technology and Policy Research.

Her main research topics have been on the quantification of energy and environmental impacts of alternative options for the transportation and energy sectors and on how information and communication technologies can help characterizing vehicle use and influencing driver behavior to promote energy efficiency and road safety. In more detail, she has worked on energy and environmental fleet impacts, life-cycle assessment, driver behavior and feedback, vehicle monitoring, electric mobility, urban logistics, and policy analysis.

Patrícia has coordinated or participated in several R&D projects involving fleet life-cycle impacts, on-road monitoring of alternative technologies (namely, electric mobility) and urban logistics. The most relevant European projects have focused on last mile clustering (FP7 DOROTHY), the use of cleaner technologies (FP7 FR-EVUE) and the use of alternative fuels such as natural gas in the transportation sector (TEN-T LNG_PT).

In spite of being a young researcher, Patrícia has demonstrated a high research potential and capacities, with the objective of establishing a university teaching career. On the *scientific component*, Patrícia has published 34 peer-reviewed papers in international journals, along with 6 book chapters and 40 conference papers. She has also participated in 9 competitive scientific projects. On the *teaching component*, Patrícia has successfully supervised 21 M.Sc. and 1 Ph.D. students and taught in undergraduate courses (2 times), in M.Sc. (6 times) and Ph.D. level courses (3 times). Currently, she is supervising 1 Ph.D. students and 9 M.Sc. students. Regarding *knowledge transfer*, she has engaged with a wide range of stakeholders, including business and industry stakeholders, through 3 services projects and 16 industrial consultancy projects, reinforcing the importance of performing cutting-edge R&D activities with relevance and application in real world. As for *management activities*, Patrícia has participated in 8 examination boards, was the scientific coordinator of 5 fellowships, and participated in the organization of 7 scientific events.

Table 1 summarizes the main indicators regarding Patricia's activities.

Table 1 – Summary of indicators

<i>Scientific</i>	
Book chapters	6
Papers published in scientific journals	34
Papers published in international conferences proceedings	40
Conference presentations	48
Competitive scientific projects	10
<i>Teaching</i>	
Courses (number of semesters)	12
M.Sc. student supervision	21
Ph.D. student supervision	1
Pedagogical material	1
<i>Knowledge transfer</i>	
Rendering of services	3
Rendering of consulting	16
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1. Personal information

First name(s) / Surname(s): Patrícia de Carvalho Baptista

E-mail: patricia.baptista@tecnico.ulisboa.pt

Personal webpage: <http://patriciacbaptista.weebly.com/>

Nationality: Portuguese

Date of birth: 18/10/1983

Gender: Female

Address: Av Marechal Francisco Costa Gomes, 55, 3D, 1900-459 Lisboa, Portugal

Public profiles:

- ResearcherID: A-5356-2012; Scopus Author ID: 16202135300
- ORCID: <http://orcid.org/0000-0003-1559-9151>
- IST: <https://fenix.tecnico.ulisboa.pt/homepage/ist151313>
- LinkedIn: pt.linkedin.com/in/patriciacbaptista
- Google Scholar: <http://scholar.google.com/citations?hl=en&user=KZyZRP0AAAAJ>

1.1. Academic degrees

Date: 01/10/2007 → 04/11/2011

Title of qualification awarded: **Ph.D. in Sustainable Energy Systems** (Pass with Merit)

Principal subjects / occupational skills covered:

- Ph.D. Thesis: “Evaluation of the impacts the introduction of alternative fuelled vehicles in the road transportation sector”.
- Skills covered: life-cycle assessment and modelling applied to the road transportation sector either in terms of alternative vehicle technologies or alternative energy pathways; and energy and environmental impacts of alternative vehicle technologies and energy pathways at country’s level.

Supervisors:

- Prof. Tiago Farias and Dr. Carla Silva (IDMEC - Instituto Superior Técnico, Technical University of Lisbon, Portugal)
- Prof. John Heywood (Sloan Automotive Laboratory, Massachusetts Institute of Technology)

Name and type of organization providing education and training: MIT Portugal - Instituto Superior Técnico (Technical University of Lisbon), Av. Rovisco Pais 1, 1049-001 Lisboa (Portugal)

Date: 20/12/2006 → 31/07/2007

Title of qualification awarded: **M.Sc. in Chemistry**

Principal subjects / occupational skills covered:

- Development of new analytical methods for the prediction of several biodiesel (oils, glycerine and blendings) quality parameters using MIR (Mid-Infrared) and NIR (Near-Infrared) Spectroscopy.

Name and type of organization providing education and training: Instituto Superior Técnico, Technical University of Lisbon, Portugal, Av. Rovisco Pais 1, 1049-001 Lisboa (Portugal)

Level in national or international classification: 16/20, ISCED 5

Date: 10/09/2001 → 19/12/2006

Title of qualification awarded: **Bachelor's in Chemistry**

Principal subjects / occupational skills covered:

- Thesis: "Development of new analytical methods for the prediction of several biodiesel quality parameters using NIR Spectroscopy"
- Skills covered: Chemometrics, Spectroscopy, Environmental Chemistry, Analytical Chemistry, Supramolecular Chemistry and Materials' Chemistry

Name and type of organization providing education and training: Instituto Superior Técnico, Technical University of Lisbon, Portugal, Av. Rovisco Pais 1, 1049-001 Lisboa (Portugal)

Level in national or international classification: 16/20, ISCED 5

1.2. Professional experience

Date: 01/10/2016 → ...

Occupation or position held: **Assistant Researcher at IN+ Center for Innovation, Technology and Policy Research**

Main activities and responsibilities: Her main research interests range from alternative energy sources as a way of promoting resource efficiency, sustainable energy conversion technologies and the use of ICT to promote behavioral change.

Name and address of employer: IN+ Center for Innovation, Technology and Policy Research (<http://in3.dem.ist.utl.pt/>), Instituto Superior Técnico, Av. Rovisco Pais, 1, 1049-001 Lisboa (Portugal)

Date: 05/11/2011 → 30/09/2016

Occupation or position held: **LAETA/IDMEC-IST post-doctoral researcher**

Main activities and responsibilities: Her main research interests focus on energy efficiency in the transportation sector, in more detail in the shift and adaptation to more sustainable energy

conversion technologies, namely electric mobility; information and communication technologies as a trigger for user behavioral change; and innovative mobility solutions through the deployment/usage of more efficient energy conversions technologies and/or information and communication technologies. These areas are complemented with real on-road monitoring activities, as well as numerical models to perform a full life-cycle analysis.

Name and address of employer: DTEA - Transports, Energy and Environment (<http://dtea.ist.utl.pt/>), Instituto de Engenharia Mecânica – Pólo IST (<http://www.idmec.ist.utl.pt/>), Instituto Superior Técnico, Av. Rovisco Pais, 1 - Pav. de Mecânica I, 2º andar, 1049-001 Lisboa (Portugal)

Date: 15/03/2016 → 30/04/2016

Occupation or position held: **Visiting researcher at Carnegie Mellon University**

Main activities and responsibilities: Performing research on the assessment energy policies, focusing on energy planning and electric mobility at the Engineering and Public Policy department (<https://www.cmu.edu/epp/>).

Name and address of employer: Carnegie Mellon University, USA, 5000 Forbes Ave, Pittsburgh, PA 15213, United States

Date: 06/2014→ 09/2014

Occupation or position held: **Consultant for the European Commission, Directorate-General Joint Research Centre**

Main activities and responsibilities: Development of representative mobility basket-of-products (road, rail and air transport) for EU27 as well as the level of service provided; quantification of life-cycle impacts according to the ILCD methodology

Name and address of employer: European Commission, Joint Research Center, 21027 Ispra (VA), Italy

Date: 2013→ 2014

Occupation or position held: **Consultant for EDP Valor**

Main activities and responsibilities: Development of energy and environment audit to the fleets of EDP

Name and address of employer: EDP Valor, through contract with Livedrive

Date: October 2011 → December 2011

Occupation or position held: **IDMEC Research Fellow for the i2d Project**

Main activities and responsibilities: Development of feedback methodologies on driver behavior

Name and address of employer: IDMEC, through i2d Project

Date: 01/02/2009 → 30/07/2009

Occupation or position held: **Visiting student at Massachusetts Institute of Technology**

Main activities and responsibilities: Ph.D. student and involvement in research projects at the Sloan Automotive Laboratory (<http://web.mit.edu/sloan-auto-lab/>).

Name and address of employer: MIT, 77 Massachusetts Ave, Cambridge, MA 02139, United States

Date: 01/10/2007 → 04/11/2011

Occupation or position held: **MIT Portugal Doctoral Fellow** (<http://www.mitportugal.org/>) **and DTEA-IDMEC doctoral student** (<http://dtea.ist.utl.pt/>)

Main activities and responsibilities: Ph.D. student and involvement in research projects.

Name and address of employer: DTEA - Transports, Energy and Environment (<http://dtea.ist.utl.pt/>), Instituto de Engenharia Mecânica – Pólo IST (<http://www.idmec.ist.utl.pt/>), Instituto Superior Técnico, Av. Rovisco Pais, 1 - Pav. de Mecânica I, 2º andar, 1049-001 Lisboa (Portugal)

Date: 01/10/2007 → 04/11/2011

Occupation or position held: **MIT Portugal and Doctoral Fellow** (<http://www.mitportugal.org/>) **and DTEA-IDMEC doctoral student** (<http://dtea.ist.utl.pt/>)

Main activities and responsibilities: Ph.D. student and involvement in research projects.

Name and address of employer: DTEA - Transports, Energy and Environment (<http://dtea.ist.utl.pt/>), Instituto de Engenharia Mecânica – Pólo IST (<http://www.idmec.ist.utl.pt/>), Instituto Superior Técnico, Av. Rovisco Pais, 1 - Pav. de Mecânica I, 2º andar, 1049-001 Lisboa (Portugal)

Date: 10/09/2005 → 19/12/2006

Occupation or position held: **Trainee**

Main activities and responsibilities: Experience in biodiesel synthesis and its optimization, as well as in the purification of biodiesel; Implementation of classical analytical methods for biodiesel present in the European Standard 14214; Development of new analytical methods for the prediction of several biodiesel quality parameters (chemical and physical) using NIR (Near Infrared) Spectroscopy.

Name and address of employer: IBEROL - Sociedade Ibérica de Biocombustíveis e Oleaginosas, SA and Centre of Chemical Processes of Instituto Superior Técnico (Portugal)

1.3.Grants

1. Portuguese National Science Foundation Ph.D. scholarship reference SFRH/BD/35191/2007, October 2007 to September 2011.
2. Post-Doctoral scholarship in the i2d Project of IDMEC, October 2011 to December 2011.
3. Portuguese National Science Foundation Post-Doctoral scholarship reference SFRH/BPD/79684/2011, January 2012 – September 2016.

1.4.Awards

- L'Oréal Portugal Medals of Honor for Women in Science 2016: Patrícia Baptista developed the concept of an assessment tool that vulnerable users can use to choose the more accessible and sustainable routes, in a project entitled: "Assessing multi-modal urban mobility: energy, environmental and health perspectives", February 2017, Fundação para a Ciência e a Tecnologia, L'Oréal Portugal, Comissão Nacional da UNESCO (<http://www.lorealmulheresnaciencia.com.pt/>)

1.5.Personal skills and competences

Languages:

	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
English	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
French	B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	B2	Independent user

(*) [*Common European Framework of Reference \(CEF\) level*](#)

Certificates:

- First Certificate in English – University of Cambridge, Local Examinations Syndicate – International Examinations
- Certificate of Proficiency in English – University of Cambridge, Local Examinations Syndicate – International Examinations
- Diplômes d'Études en Langue Française D.E.L.F. 1er et 2eme Degrés, Ministère de l'Éducation Nationale, République Française

Social skills and competences

- Good ability to adapt to multicultural environments due to participation in international projects and experience abroad;
- Good communication skills gained through presentations in international conferences;
- Team spirit due to participation in several projects.

Technical skills and competences

- **Sustainable Energy Systems and Energy Planning background:** Alternative technologies, energy sources and ICT solutions as a way of reducing energy consumption and GHG impacts, mainly applied to the road transportation sector.
- **Life-Cycle Analysis:** Experience in developing life-cycle studies for obtaining energy and environmental impacts using commercial or non-commercial life-cycle software (Simapro, Gabi, GREET, Gabi) or vehicle micro-simulation software (Advisor, Ecogest, RVS).
- **Policy analysis:** Assessment of different alternative technologies and energy sources, by performing life-cycle cost benefit analysis from a user or society point of view.
- **Characterization of behavior and acceptance of alternative solutions:** Evaluation of driver behavior and assessment of impacts of feedback, as well as evaluation of the willingness to accept and pay for alternative mobility options.
- **Analytical Methods:** Experience in several analytical techniques: gas chromatography (GC) e high efficiency liquid chromatography (HPLC); Karl-Fischer method; and UV Spectroscopy. Experience in NIR and MIR Spectroscopy applied to biodiesel quality parameters, using several chemometric instruments like Principal Component Analysis, Partial Least Square Regression, Principal Component Regression.

Computer skills and competences

- Good command of Microsoft Office tools (Word, Excel, PowerPoint and Access);
- Knowledge at programming level of MATLAB, Mathematica and Visual Basic.
- User proficiency in SPSS.

Other skills and competences

- Driving licence(s): B

2. Scientific research

The scientific indicators associated to the R&D activities developed are presented in detail next, focusing not only in scientific publications, but in other indicators such as participation in projects, coordination of fellowships, reviewing activities, etc.




2.1. Scientific publications

The detailed scientific publications summary is presented in Table 2 followed by an overview of the citation metrics in July 2017, presented in Table 3.

Table 2 – Summary of scientific publications

Scientific publications	Number of publications
Peer-reviewed articles in international journals	34
Submitted articles in international journals	7
Articles in preparation for international journals	4
International book chapters	6
Other publications	10
Conference papers	40
Invited communications	12
Conference presentations	48
Posters	20
Thesis	3

Table 3 – Overview of the citation metrics

Index database	Total number of citations	h-index	Citations trend												
Researcher ID / Thomson Reuters Web of Knowledge [TRWoK]	395	10													
Scopus [Scopus]	317	10													
Google Scholar [GS]	814	18	<div><div><p>Citation indices</p><table><thead><tr><th></th><th>All</th><th>Since 2012</th></tr></thead><tbody><tr><td>Citations</td><td>814</td><td>610</td></tr><tr><td>h-index</td><td>14</td><td>14</td></tr><tr><td>i10-index</td><td>18</td><td>16</td></tr></tbody></table></div></div>		All	Since 2012	Citations	814	610	h-index	14	14	i10-index	18	16
	All	Since 2012													
Citations	814	610													
h-index	14	14													
i10-index	18	16													

2.1.1. Peer-reviewed articles in international journals

The peer-reviewed articles in international journals are presented next, along with the Thomson Reuters Web of Knowledge, excluding self-citations (in brackets).

1. Melo, S., Baptista, P., Evaluating the impacts of using cargo cycles on urban logistics: integrating traffic, environmental and operational boundaries, *European Transport Research Review*, 2017. [TRWoK]: 0
Impact Factor: 0.962
2. Varella, R.A., Duarte, G., Baptista, P., Sousa, L., Mendoza Villafuerte, P., Comparison of Data Analysis Methods for European Real Driving Emissions Regulation, *SAE Technical Papers*, 2017. [TRWoK]: 0
Impact Factor:
3. Catarina Rolim, Patrícia Baptista, Gonçalo Duarte, Tiago Farias, João Pereira, Real-time feedback impacts on eco-driving behavior and influential variables in fuel consumption in a Lisbon urban bus operator, accepted in *European Journal of Transport and Infrastructure Journal*, January 2017. [TRWoK]: 0
Impact Factor: 1.023
4. Catarina Rolim, Patrícia Baptista, Gonçalo Duarte, Tiago Farias, João Pereira, Real-time feedback impacts on eco-driving behavior and influential variables in fuel consumption in a Lisbon urban bus operator, *Transactions on Intelligent Transportation Systems*, 99, 1-11, March 2017¹. [TRWoK]: 0
Impact Factor: 2.534
5. Sandra Melo, Joaquim Macedo, Patrícia Baptista, Improving urban freight transport sustainability: policy assessment framework & case study, accepted in *Research in Transportation Economics*, December 2016. [TRWoK]: 0
Impact Factor: 1.444
6. Catarina Rolim, Patrícia Baptista, Gonçalo Duarte, Tiago Farias, João Pereira, Impacts of delayed feedback on driving behavior, safety and environmental performance, *Transportation Research Part F – Traffic Psychology and Behavior*, Volume 43, November 2016, Pages 366–378, 2016². [TRWoK]: 0
Impact Factor: 1.444
7. J. Alves, P. Baptista, G. Gonçalves, G. Duarte, Indirect methodologies to estimate energy use in vehicles: application to battery electric vehicles, *Energy Conversion and Management*, Volume 124, Pages 116–129, 2016³. [TRWoK]: 0
Impact Factor: 4.801
8. G Duarte, C Rolim, P Baptista, How battery electric vehicles can [TRWoK]: 0

¹ <http://ieeexplore.ieee.org/document/7880643/>

² <http://www.sciencedirect.com/science/article/pii/S1369847816302868>

³ <http://www.sciencedirect.com/science/article/pii/S0196890416305842>

- contribute to sustainable urban logistics: A real-world application in Lisbon, Portugal, Sustainable Energy Technologies and Assessments, 15, 71-78, 2016⁴. Impact Factor: 1.089
9. Marta V. Faria, Gonalo O. Duarte, Patr cia C. Baptista, Tiago L. Farias, Scenario Based Analysis of Traffic Related PM2.5 Concentration: Lisbon Case Study, Environmental Science and Pollution Research, pp 1-12, October 2015⁵. [TRWoK]: 0
Impact Factor: 2.828
10. Gonalo Duarte, Gonalo Gonalves, Patr cia Baptista, Tiago Farias, Establishing bonds between vehicle certification data and real-world vehicle fuel consumption – a vehicle specific power approach, Energy Conversion and Management, Volume 92, 1 March 2015, Pages 251–265⁶. [TRWoK]: 1
Impact Factor: 4.801
11. Patricia Baptista, Andr  Pina, Gonalo Duarte, Catarina Rolim, Gonalo Pereira, Carlos Silva, Tiago Farias, From on-road trial evaluation of electric and conventional bicycles to comparison with others urban transport modes: case study in the city of Lisbon, Portugal, Energy Conversion and Management, Volume 92, 1 March 2015, Pages 10–18⁷. [TRWoK]: 1
Impact Factor: 4.801
12. Magno Mendes, Gonalo Duarte, Patricia Baptista Introducing specific power to bicycles and motorcycles: application to electric mobility, Transportation Research Part C, Volume 51, February 2015, Pages 120–135⁸. [TRWoK]: 1
Impact Factor: 3.075
13. P. Baptista, J. Tavares, G. Gonalves, Energy and environmental impacts of potential application of fully or partially electric propulsion vehicles: application to Lisbon and S o Miguel, Portugal, Transportation Research Procedia, Volume 3, 2014, Pages 750–759⁹. [TRWoK]: 0
Impact Factor: N/A
14. C. Rolim, P. Baptista, G. Duarte, T. Farias, Y. Shiftan. Quantification of the impacts of ecodriving training and real-time feedback on urban buses drivers’ behavior: a Lisbon case study, Transportation Research Procedia, Volume 3, 2014, Pages 70–79¹⁰. [TRWoK]: 1
Impact Factor: N/A
15. Marta V. Faria, Patr cia C. Baptista, Tiago L. Farias, Electric vehicle [TRWoK]: 0
Impact Factor:

⁴ <http://www.sciencedirect.com/science/article/pii/S221313881630011X>

⁵ <http://link.springer.com/article/10.1007%2Fs11356-015-5556-6>

⁶ <http://www.sciencedirect.com/science/article/pii/S0196890414010814>

⁷ <http://www.sciencedirect.com/science/article/pii/S0196890414010826>

⁸ <http://www.sciencedirect.com/science/article/pii/S0968090X14003283>

⁹ <http://www.sciencedirect.com/science/article/pii/S2352146514002178>

¹⁰ <http://www.sciencedirect.com/science/article/pii/S2352146514002555>

- parking in European and American context: Economic, energy and environmental analysis, *Transportation Research Part A: Policy and Practice*, Volume 64, June 2014, Pages 110-121¹¹. 1.994
16. Rolim C., Baptista, P. Farias, T and Rodrigues, Ó. (2014). Lisbon's EV adopters: motivation, utilization patterns and environmental impacts. *European Journal of Transport and Infrastructure Research*, 14 (3), 229-243, 2014¹². [TRWoK]: 1
Impact Factor: 1.023
17. Patrícia Baptista, Sandra Melo, Catarina Rolim, Energy, Environmental and Mobility Impacts of Car-sharing Systems. Empirical Results from Lisbon, Portugal, *Procedia - Social and Behavioral Sciences*, Volume 111, 5 February 2014, Pages 28-37¹³. [TRWoK]: 2
Impact Factor: N/A
18. Sandra Melo, Patricia Baptista, Álvaro Costa, Comparing the Use of Small Sized Electric Vehicles with Diesel Vans on City Logistics, *Procedia - Social and Behavioral Sciences*, Volume 111, 5 February 2014, Pages 350-359¹⁴. [TRWoK]: 3
Impact Factor: N/A
19. Catarina C. Rolim, Patricia C. Baptista, Gonçalo O. Duarte, Tiago L. Farias, Impacts of On-board Devices and Training on Light Duty Vehicle Driving Behavior, *Procedia - Social and Behavioral Sciences*, Volume 111, 5 February 2014, Pages 711-720¹⁵. [TRWoK]: 5
Impact Factor: N/A
20. André Pina, Patrícia Baptista, Carlos Silva, Paulo Ferrão, Energy reduction potential from the shift to electric vehicles: The Flores island case study, *Energy Policy*, Volume 67, April 2014, Pages 37-47¹⁶. [TRWoK]: 7
Impact Factor: 3.045
21. Patrícia C. Baptista, Carla M. Silva, J.A. Peças Lopes, Filipe J. Soares, Pedro R. Almeida, Evaluation of the benefits of the introduction of electricity powered vehicles in an island, *Energy Conversion and Management*, Volume 76, December 2013, Pages 541-553¹⁷. [TRWoK]: 6
Impact Factor: 4.801
22. Patrícia C. Baptista, Inês L. Azevedo, Tiago L. Farias, ICT solutions in transportation systems: estimating the benefits and environmental impacts in the Lisbon region, *Procedia - Social and Behavioral Sciences*, Volume 54, 4, Pages 716–725, 2012¹⁸. [TRWoK]: 0
Impact Factor: N/A

¹¹ <http://www.sciencedirect.com/science/article/pii/S0965856414000767>

¹² https://www.google.pt/url?sa=t&rc=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwjjw72RhKHOAhUL1hoKHlaCqsQFgkMAE&url=http%3A%2F%2Fwww.ejtir.tudelft.nl%2Fissues%2F2014_03%2Fpdf%2F2014_03_03.pdf&usq=AFQjCNF_J8GkOzyl_r8uX989I4ySILLWiq&sig2=age9bZsWbcNhg45ck_JyGw

¹³ <http://www.sciencedirect.com/science/article/pii/S1877042814000366>

¹⁴ <http://www.sciencedirect.com/science/article/pii/S187704281400069X>

¹⁵ <http://www.sciencedirect.com/science/article/pii/S1877042814001062>

¹⁶ <http://www.sciencedirect.com/science/article/pii/S0301421513007799>

¹⁷ <http://www.sciencedirect.com/science/article/pii/S0196890413004469>

¹⁸ <http://www.sciencedirect.com/science/article/pii/S1877042812042516>

23. Baptista, P.C., Silva, C.M., Farias, T.L., Heywood, J.B., Energy and environmental impacts of alternative pathways for the Portuguese road transportation sector. *Energy Policy*, Volume 51, December 2012, Pages 802–815¹⁹. [TRWoK]: 12
Impact Factor: 3.045
24. Patrícia Baptista, Catarina Rolim, Carla Silva, Plug-In Vehicle Acceptance and Probable Utilization Behaviour, *Journal of Transportation Technologies*, Vol. 2 No. 1, 2012, pp. 67-74²⁰. [TRWoK]: 0
Impact Factor: 1.29
25. Patricia Baptista, João Ribau, João Bravo, Carla Silva, Paul Adcock, Ashley Kells, Fuel Cell Hybrid Taxi Life Cycle Analysis, *Energy Policy*, Volume 39, Issue 9, September 2011, Pages 4683-4691²¹. [TRWoK]: 19
Impact Factor: 3.045
26. Patricia Baptista, João Ribau, João Bravo, Carla Silva, Paul Adcock, Ashley Kells, FUEL CELL HYBRID TAXI WELL-TO-WHEEL LIFE-CYCLE ANALYSIS, *World Electric Vehicle Journal* Vol. 4, Page 798-803, 2010²². [TRWoK]: 0
Impact Factor: N/A
27. Patrícia Baptista, Mário Tomás, Carla Silva, HYBRID PLUG-IN FUEL CELL VEHICLES MARKET PENETRATION SCENARIOS, *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY* - 35 (18) 2010²³. [TRWoK]: 39
Impact Factor: 3.205
28. Patrícia Baptista, Carla Silva, Tiago Farias, FULL LIFE CYCLE ANALYSIS OF ELECTRIC VEHICLES AND MARKET PENETRATION SCENARIOS, *World Electric Vehicle Journal* - (VOL 3) 2010²⁴. [TRWoK]: 0
Impact Factor: N/A
29. Gonçalo Gonçalves, João Bravo, Patrícia Baptista, Carla Silva, Tiago Farias, MONITORING AND SIMULATION OF FUEL CELL ELECTRIC VEHICLES, *World Electric Vehicle Journal* - (VOL 3) 2010²⁵. [TRWoK]: 0
Impact Factor: N/A
30. Patrícia Baptista, Pedro Felizardo, José C. Menezes, M. Joana Neiva Correia, MULTIVARIATE NEAR INFRARED SPECTROSCOPY MODELS FOR PREDICTING THE IODINE VALUE, CFPP, KINEMATIC VISCOSITY AT 40°C AND DENSITY AT 15°C OF BIODIESEL, *Talanta* Volume 77, Issue 1, Pages 144-151, 2008²⁶. [TRWoK]: 46
Impact Factor: 4.035

¹⁹ <http://dx.doi.org/10.1016/j.enpol.2012.09.025>

²⁰ <http://www.sciencedirect.com/journal/PaperDownload.aspx?paperID=17166&returnUrl=http%3a%2f%2fwww.sciencedirect.com%2fjournal%2fPaperInformation.aspx%3fpaperID%3d17166>

²¹ <http://www.sciencedirect.com/science/article/pii/S0301421511005209>

²² <http://www.evs24.org/wevajournal/php/download.php?f=vol4/WEVA4-4113.pdf>

²³ <http://www.sciencedirect.com/science/article/pii/S0360319910001576>

²⁴ <http://www.evs24.org/wevajournal/php/download.php?f=vol3/WEVJ3-3660364.pdf>

²⁵ <http://www.evs24.org/wevajournal/php/download.php?f=vol3/WEVJ3-3660379.pdf>

²⁶ <http://www.sciencedirect.com/science/article/pii/S0039914008004517>

31. Patrícia Baptista, Pedro Felizardo, José C. Menezes, M. Joana Neiva Correia, MULTIVARIATE NEAR INFRARED SPECTROSCOPY MODELS FOR PREDICTING THE METHYL ESTERS CONTENT IN BIODIESEL *Anal. Chim. Acta* 607, 153-159, 2008 ²⁷. [TRWoK]: 55
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32. Patrícia Baptista, Pedro Felizardo, José C. Menezes, M. Joana Neiva Correia, Monitoring the quality of oils for biodiesel production using multivariate near infrared spectroscopy models, *JOURNAL OF NEAR INFRARED SPECTROSCOPY*, Volume 16, Issue 5, Pages 445-454, 2008 ²⁸. [TRWoK]: 11
Impact Factor: 1.480
33. Pedro Felizardo, Patrícia Baptista, José C. Menezes, M. Joana Neiva Correia, MULTIVARIATE NEAR INFRARED SPECTROSCOPY MODELS FOR PREDICTING METHANOL AND WATER CONTENT IN BIODIESEL *Analytica Chimica Acta* Volume 595, Issues 1-2, Pages 107-113, 2007 ²⁹. [TRWoK]: 66
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34. Pedro Felizardo, Patrícia Baptista, Margarida Sousa Uva, José C. Menezes, M. Joana Neiva Correia, MONITORING BIODIESEL FUEL QUALITY BY NEAR INFRARED SPECTROSCOPY, *Journal of Near Infrared Spectroscopy*, Volume 15, Issue 2, 97–105, 2007 ³⁰. [TRWoK]: 25
Impact Factor: 1.480

2.1.2. Submitted articles in international journals

1. Tiago Isidro, Gonalo Santos, Catarina Rolim, Gonalo Duarte, Sandra Melo, Patrícia Baptista, Challenges in urban sustainable mobility: definition of a mobility platform framework, submitted to *European Transport Research Review*, July 2017.
2. Gonalo Santos, Patrícia Baptista, Gonalo Duarte, Sandra Melo, Analyzing the impact of short-term parking in the reduction of congestion and pollutants emissions caused by double parking, submitted to *Transport Policy*, July 2017.
3. Marta Faria, Patrícia Baptista, Tiago Faias, João Pereira, Assessing the impacts of driving environment on driving behavior patterns, submitted to *Transportation*, June 2017.
4. Madalena Lopes, Patrícia Baptista, Elizabeth Duarte, Ant3nio L. N. Moreira, Enhanced biogas production from anaerobic co-digestion of pig slurry and horse manure with mechanical pre-treatment, submitted to *Environmental Technology*, June 2017.

²⁷ <http://www.sciencedirect.com/science/article/pii/S0003267007019290>

²⁸ http://www.impublications.com/content/abstract?code=J16_0445

²⁹ <http://www.sciencedirect.com/science/article/pii/S0003267007003881>

³⁰ http://www.impublications.com/nir/abstract/J15_0097

5. Felix Diawuo, André Pina, Patricia C Baptista, Carlos A Silva, Residential electricity characterization and end-use disaggregation for the analysis of future scenarios in Ghana, submitted to Energy, June 2017.
6. Marta Faria, Patrícia Baptista, Gonçalo Duarte, Tiago Faias, Assessing energy consumption impacts of traffic shifts based on real-world driving data, submitted to Transportation Research Part D: Transport and Environment; March 2017.
7. Diana Neves, Patrícia Baptista, Matilde Simões, Carlos A. Silva, José Rui Figueira, Sustainable municipal energy planning using multi-criteria decision analysis, submitted to Journal of Cleaner Production, February 2017.

2.1.3. Articles in preparation for international journals

1. Cristiano Rodrigues, Patrícia Baptista, André Pina, Assessing regional CO₂ effort distribution in the EU towards the achievement of environmental targets, to be submitted to Applied Energy, September 2016.
2. Cristiano Rodrigues, Patrícia Baptista, André Pina, Analyzing the impacts of electric vehicle in the electricity generation sectors in Europe, to be submitted to Energy, September 2016.
3. André Pina, Patrícia Baptista, Inês Azevedo, The cost-effectiveness of shifting energy efficiency incentives towards electric mobility in EU countries, to be submitted to Energy Policy, September 2016.
4. Patrícia Baptista, André Pina, Catarina Rolim, Inês Azevedo, Assessing the EU emissions reduction target in passenger cars in a WTW perspective: how do BEVs compare?, to be submitted to Environmental science & technology, September 2016.

2.1.4. International book chapters

1. Cecília Rocha, Sandra Melo, Catarina Rolim, Patrícia Baptista, Adoption of electric vehicles and impacts on noise, energy consumption and air pollution – a review from Portugal, Cost Action “NVH Analysis Techniques for Design and Optimization of Hybrid and Electric Vehicles” Book, Nuria Campillo-Davo and Ahmed Rassili (eds.), Shaker Verlag, 2016, Chapter 1, Annex 1B, pp 19-30.
2. Patrícia Baptista, Sandra Melo, Catarina Rolim, Chapter: Car sharing systems as a sustainable transport policy: a case study from Lisbon, Portugal, Sustainable Urban Transport Book, Emerald, May 2015 (ISBN: 978-1-78441-616-4)³¹.
3. Gonçalo Duarte, Patrícia Baptista, Chapter: Analysis of hybrid vehicle configurations based on real-world on-road measurements: energy management and environmental impacts for

³¹ <http://www.emeraldinsight.com/doi/abs/10.1108/S2044-994120150000007020>

urban and extra-urban driving contexts, *Hybrid Vehicles and Hybrid Electric Vehicles: New Developments, Energy Management and Emerging Technologies*, Nova Science Publishers, Inc., 2015³².

4. Sandra Melo, Patrícia Baptista, Álvaro Costa, Chapter 12 - The cost and effectiveness of sustainable city logistics policies using small electric vehicles, “Transport and Sustainability, Volume 6 - Sustainable Logistics”, by Emerald Group Publishing, 2014 (ISBN: 978-1-78441-062-9)³³.
5. Gonçalo Duarte, Magno Mendes and Patrícia Baptista, Chapter: Impact on biker effort of electric bicycle utilization: results from on-road monitoring in Lisbon, Portugal, *Physiological Computing Systems, Lecture Notes in Computer Science 2014*, pp 119-133, 28 Nov 2014³⁴.
6. P. Baptista, Chapter 11 On-road monitoring of electric bicycles and its use in bike-sharing systems, *Grid Electrified Vehicles: Performance, Design, and Environmental Impacts*, Nova Science Publishers, Inc., 2013³⁵.

2.1.5. Other publications

1. Filipe Moura, João Abreu, Amílcar Arantes, Patrícia Baptista, Gonçalo Duarte, Deliverable 4.1. Ex-ante evaluation of LNG for freight transport, LNG_PT TEN-T Project, December 2015.
2. Amílcar Arantes, Patrícia Baptista, Gonçalo Duarte, Rui Couchinho, Deliverable 3.1. Market study on LNG potential in Portugal for freight activities report, LNG_PT TEN-T Project, June 2015.
3. Paulo Ferrão, André Pina, Patrícia Baptista, Mobility Life Cycle Indicators, Report European Commission, Directorate-General Joint Research Centre, August 2014.
4. Patrícia Baptista, Gonçalo Duarte, Catarina Rolim, Samuel Granadeiro State of Practice of Electric Vehicles and Charging Solutions, Internal Report within the PRIO.E – IDMEC/IST Partnership, May 2014.
5. Last Mile Freight Delivery Use of Cleaner Mobility Vehicles - Final Report Prepared for THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY (NYSERDA) And THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) Prepared by University Transportation Research Center- Region 2 (UTRC) The

³² https://www.novapublishers.com/catalog/product_info.php?products_id=53782

³³ <http://www.emeraldinsight.com/doi/full/10.1108/S2044-994120140000006012>

³⁴ http://link.springer.com/chapter/10.1007%2F978-3-662-45686-6_8

³⁵ https://www.novapublishers.com/catalog/product_info.php?products_id=44970

- City College of New York (Camille Kanga, Alison Conway, Nadia Aslam, Penny Eickemeyer, Tiago Farias, Sandra Melo and Patrícia Baptista), October 2013³⁶.
6. Patrícia Baptista, Marta Faria, Tiago Farias, Cláudio Casimiro, “Auditoria Energética e Plano de Racionalização do Consumo de Energia da Frota da EDP Distribuição/EDP Gestão da Produção de Energia”/”Energy Audito of fleets of EDP Distribuição/EDP Gestão da Produção de Energia”, Internal Reports of Livedrive to EDP Valor, April 2013, August 2014.
 7. Patrícia Baptista, Catarina Rolim, Marta Faria, State of Practice of Bike-sharing, Internal Report within the PRIO.E – IDMEC/IST Partnership, November 2012.
 8. "No ambiente e nos incentivos está o ganho", article on the Supplement "Carro Eléctrico" of Jornal Público on the 16th of September 2010 ³⁷.
 9. Patrícia Baptista, Carla Silva, Gonçalo Gonçalves, Tiago Farias, SCENARIOS OF INTRODUCING NEW VEHICLE AND FUEL TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, Internal Report within the GALP – IDMEC/IST Partnership, December 2009.
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2.1.6. Conference papers

1. Marta Faria, Patrícia Baptista and Tiago Farias, Identifying driving behaviour patterns and its impacts in energy efficiency, EWGT 2017 Budapest | EURO Working Group on Transportation, Budapest, 4-6 September, 2017.
2. Madalena Lopes, Patrícia Baptista, Elizabeth Duarte, António Moreira, Assessment of biogas production pathways: application to Portugal; 25th European Biomass Conference and Exhibition (EUBCE 2017), Stockholm, 12-15 June, 2017.
3. Sandra Melo, Joaquim Macedo, Patricia Baptista, Capacity-sharing in logistics solutions: one way towards sustainability, 14th NECTAR International Conference: Transport in a networked society, Madrid, Spain, May 31, 2017 — June 2, 2017

³⁶ <http://www.utrc2.org/sites/default/files/pubs/Final-Report-NYSERDA-Freight-Conference.pdf>

³⁷ http://www.apren.pt/fotos/noticias/16_09_2010_no_ambiente_e_nos_incentivos_esta_o_ganho_publico_mobilidade_1284644531.pdf

³⁸ http://web.mit.edu/sloan-auto-lab/research/beforeh2/actionplan/ActionPlan_CombinedFinal_30Dec09.pdf

4. Marta Faria, Tiago Farias, Patricia Baptista, Driving behavior patterns: impacts in emissions and safety performance, 14th NECTAR International Conference: Transport in a networked society, Madrid, Spain, May 31, 2017 — June 2, 2017.
5. Sandra Melo, Patricia Baptista, Evaluating the impacts of cycle logistics on supplier operational performance and the transport network capacity, NECTAR Joint Cluster 2 and Cluster 3 International Workshop, “The role of planning towards sustainable urban mobility”, 17–18 May 2016, Brno, Czech Republic.
6. Patrícia Baptista, Catarina Rolim, Gonçalo Duarte, Assessment of electric mobility adequacy and energy requirements based on real world data, EVS29 Symposium, Montréal, Québec, Canada, June 19-22, 2016.
7. Marta Faria, Patrícia Baptista, Tiago Farias, The role of electric vehicles in low emission zones: potential impacts for the city of Lisbon, Portugal, EVS29 Symposium, Montréal, Québec, Canada, June 19-22, 2016.
8. Tiago Costa, Gonçalo Duarte, Sandra Melo, Patrícia Baptista, The role of integrated mobility management towards the concept of smart cities, International Conference on Engineering – Engineering for Society 2015, 2-4 December 2015, Covilhã, Portugal.
9. Ezequiel Carvalho, Jorge Sousa, André Pina, Patrícia Baptista, The renewable energy share that supplies the EV recharging: the case study of Portugal, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, September 27 - October 3, 2015, Dubrovnik, Croatia.
10. Sandra Melo, Ricardo Coimbra, Patrícia Baptista, "Impacts of vehicle technology shift and downsizing in urban logistics: application if Lisbon, Portugal", URBE - URban freight and BEhavior change, Roma Tre University, Rome, Italy, 1-2 October 2015.
11. Catarina Rolim, Gonçalo Duarte, Patricia Baptista, Tiago Farias, Impacts of feedback and ICT on driving behavior, energy consumption and pollutants emissions: a case-study of bus passenger drivers, 14th International Conference on Travel Behaviour Research (IATBR), London, 19 July 2015 – 23 July 2015.
12. Cristiano Rodrigues, Mário Martins, Filipa Amorim, Patrícia Baptista, André Pina, Analyzing the impacts of electric vehicles in the electricity generation sectors in Europe, 2nd International Conference on Energy and Environment: bringing together Engineering and Economics, Guimarães, Portugal, 18-19 June, 2015.
13. André Pina, Filipa Amorim, Patrícia Baptista, Assessing the impact of electricity interconnections to achieve the EU targets for CO₂ emissions reduction, 12th International Conference on the European Energy Market - EEM15, May 20-22, 2015, Lisbon, Portugal.
14. Mário Martins, Catarina Rolim, Patrícia Baptista and André Pina, Towards the electrification of the transportation sector: energy and environmental impacts in Portugal

- and Belgium, Energy for Sustainability 2015 - Sustainable Cities: Designing for People and the Planet, Coimbra, 14-15 May, 2015.
15. Gonalo Duarte, Catarina Rolim, Patr cia Baptista, Real world application of EV in urban logistics: case study in Lisbon, Portugal, City Logistics and Sustainable Freight Transport Workshop, Algarve, 6-17, 2015.
 16. P. Baptista, G. Duarte, G. Gonalves, C. Rolim, ICT for mobility pattern and driver behaviour characterization: trial case-study in the city of Lisbon, Portugal, VPPC 2014 - IEEE Vehicle Power and Propulsion Conference, October 27-30, 2014.
 17. P. Baptista, J. Tavares, G. Gonalves, Energy and environmental impacts of potential application of fully or partially electric propulsion vehicles: application to Lisbon and S o Miguel, Portugal, 17th Meeting of the European Working Group on Transportation, Seville, Spain, 2-4 July 2014³⁹.
 18. C. Rolim, P. Baptista, G. Duarte, T. Farias, Y. Shiftan, Quantification of the impacts of eco-driving training and real-time feedback on urban buses drivers' behaviour: a Lisbon case study, Portugal, 17th Meeting of the European Working Group on Transportation, Seville, Spain, 2-4 July 2014.
 19. G. Duarte, A. Rosca, G. Gonalves, P. Baptista, T. Farias, Test cycles for electric vehicles based on real world driving, FISITA 2010 World Automotive Congress, Maastricht, The Netherlands 2-6 June 2014.
 20. M. Mendes, G. Duarte, P. Baptista, Influence of electric bicycle usage on biker effort: on-road monitoring application in Lisbon, Portugal, PhyCS 2014 – International Conference on Physiological Computing Systems, 7-9 January 2014, Lisbon, Portugal ⁴⁰.
 21. P. Baptista, G. Duarte, G. Gonalves, T. Farias, Evaluation of low power electric vehicles in demanding urban conditions: an application to Lisbon, EVS-27 - The 27th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Barcelona, Spain, Nov. 17-20, 2013 ⁴¹.
 22. C. Rolim, P. Baptista, O. Rodrigues, T. Farias, Lisbon's EV adopters: motivation, utilization patterns and environmental impacts, EVS-27 - The 27th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Barcelona, Spain, Nov. 17-20, 2013 ⁴².
 23. P. Baptista, S. Melo, C. Rolim, Energy, environmental and mobility impacts of car-sharing systems. Empirical results from Lisbon, Portugal, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013⁴³.

³⁹ <http://congreso.us.es/ewgt2014/ewgt2014/images/Abstracts%20Book%20%20V20140715.pdf>

⁴⁰ <http://www.scitepress.org/DigitalLibrary/Index/DOI/10.5220/0004701202650274>

⁴¹ <http://papers.evs27.org/dasession.php?sessID=1>

⁴² <http://papers.evs27.org/dasession.php?sessID=46>

⁴³ <http://www.sciencedirect.com/science/article/pii/S1877042814000366>

- 24.S. Melo, P. Baptista, A. Costa, T. Farias, Comparing the use of small sized electric vehicles with diesel vans on city logistics, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013⁴⁴.
- 25.C. Rolim, P. Baptista, G. Duarte, T. Farias, Impacts of on-board devices and training on Light Duty Vehicle Driving Behavior, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013⁴⁵.
- 26.Patrícia C. Baptista, Inês L. Azevedo, Tiago L. Farias, ICT solutions in transportation systems: estimating the benefits and environmental impacts in the Lisbon region, submitted to 15th Meeting of the European Working Group on Transportation, Paris, 10-12 September 2012 ⁴⁶.
- 27.Patricia Baptista, João Ribau, João Bravo, Carla Silva, Paul Adcock, Ashley Kells, FUEL CELL HYBRID TAXI WELL-TO-WHEEL LIFE-CYCLE ANALYSIS, EVS-25 - The 25th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Shenzhen, China, Nov. 5-9, 2010⁴⁷.
28. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACTS OF ALTERNATIVE VEHICLE TECHNOLOGIES AND ENERGY SOURCES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, 12th World Congress on Transport Research (WCTR), 11-15 July 2010, Lisbon.
29. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACTS IN THE PORTUGUESE LIGHT-DUTY ROAD TRANSPORTATION SECTOR OF INCREASING MARKET ELECTRIFICATION SCENARIOS, FISITA 2010 World Automotive Congress – Automobiles and Sustainable Mobility, Budapest, 30 May – 4 June 2010 ⁴⁸.
30. A. F. Ferreira, P. Baptista and C. Silva. BIO-HYDROGEN PATHWAYS FOR THE PORTUGUESE ROAD TRANSPORTATION SECTOR, FISITA 2010 World Automotive Congress – Automobiles and Sustainable Mobility, Budapest, 30 May – 4 June 2010 ⁴⁹.
31. Ana Filipa Ferreira, Patrícia Baptista and Carla Silva. ANALYSIS OF ENERGY CONSUMPTION AND CO2 EMISSIONS OF THE LIFE CYCLE OF BIOHYDROGEN APPLIED TO THE PORTUGUESE ROAD TRANSPORTATION SECTOR. WHEC - World Hydrogen Energy Conference, May 16 - 21, 2010, Essen, Germany ⁵⁰.
32. Patrícia Baptista, Carla Silva, Tiago Farias, ENERGY AND CO2 EMISSIONS SCENARIOS OF INTRODUCING NEW VEHICLE TECHNOLOGIES IN THE

⁴⁴ <http://www.sciencedirect.com/science/article/pii/S187704281400069X>

⁴⁵ <http://www.sciencedirect.com/science/article/pii/S1877042814001062>

⁴⁶ <http://www.sciencedirect.com/science/article/pii/S1877042812042516>

⁴⁷ <http://www.evs24.org/wevjournal/php/download.php?f=vol4/WEVA4-4113.pdf>

⁴⁸ <http://www.fisita2010.com/programme/programme/pdf/F2010A129.pdf>

⁴⁹ <http://www.fisita2010.com/programme/programme/F2010A113>

⁵⁰ http://user.fz-juelich.de/record/135619/files/SA2_pp_Fer_da-Silva-Ferreira_rev0607.pdf

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33. C. Camus, P. Baptista, C. Silva and T. Farias. STRATEGIC MARKETING PLAN FOR BATTERY ELECTRIC VEHICLES. THE PORTUGUESE CASE, International Advanced Mobility Forum, Geneva International Motor Show, Geneva, 9 - 10 March 2010.
 34. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF NEW VEHICLE TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, 1st Transatlantic NECTAR Conference 2009, Arlington, Virginia USA, 18-20 June, 2009.
 35. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC BASED VEHICLES IN SÃO MIGUEL ISLAND, Second International Engineering Systems Symposium, The Emerging Field of Engineering Systems: Achievements and Challenges, June 15-17, 2009 @ Massachusetts Institute of Technology ⁵¹.
 36. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC BASED VEHICLES IN SÃO MIGUEL ISLAND, 10th International Conference on Energy for a Clean Environment, Lisbon Portugal, 7 - 10 July 2009.
 37. J. A. Peças Lopes, F. J. Soares, P. M. Rocha Almeida, P. C. Baptista, C. M. Silva and T. L. Farias, QUANTIFICATION OF TECHNICAL IMPACTS AND ENVIRONMENTAL BENEFITS OF ELECTRIC VEHICLES INTEGRATION ON ELECTRICITY GRIDS, 8th International Symposium on Advanced Electromechanical Motion Systems, Lille France, 1 - 3 July 2009 ⁵².
 38. Patrícia Baptista, Carla Silva, Tiago Farias, FULL LIFE CYCLE ANALYSIS OF ELECTRIC VEHICLES AND MARKET PENETRATION SCENARIOS, 24th International Battery, Hybrid and Fuel-cell Electric Vehicle Symposium and Exhibition, 13-16 May 2009 ⁵³.
 39. Gonçalo Gonçalves, João Bravo, Patrícia Baptista, Carla Silva, Tiago Farias, MONITORING AND SIMULATION OF FUEL CELL ELECTRIC VEHICLES, 24th International Battery, Hybrid and Fuel-cell Electric Vehicle Symposium and Exhibition, 13-16 May 2009 ⁵⁴.
 40. Patrícia Baptista, Mário Tomás, Carla Silva, HYBRID PLUG-IN FUEL CELL VEHICLES MARKET PENETRATION SCENARIOS, HYPOTHESIS VIII: HYdrogen

⁵¹ <http://esd.mit.edu/symp09/presentations/day3.session2c.baptista.pdf>

⁵² <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05259139>.

⁵³ <http://www.evs24.org/wevjournal/php/download.php?f=vol3/WEVJ3-3660364.pdf>.

⁵⁴ <http://www.evs24.org/wevjournal/php/download.php?f=vol3/WEVJ3-3660379.pdf>.

POwer - Theoretical and Engineering Solutions - International Symposium, Lisbon - Portugal, 1 – 3 April 2009.

2.1.7. Invited communications

1. Seminar on “The role of research in changing the road transport paradigm”, Mechanical Engineering Department Seminars 2017, IST, 20 June 2017.
2. Seminar on “Challenges on the transport sector: which alternatives?”, Renewable Energy and Environment Seminars 2017, ISEC, 31 May 2017.
3. Lecture on “Gestão operacional da mobilidade em ambiente urbano”, Workshop Programa de Investigação 2016, Brisa Inovação, 3 November 2016.
4. Seminar on "The quantification of energy and environmental impacts of the introduction of alternative technologies on the Lisbon municipality fleet", Lisboa Enova Ponto de Encontro, Lisbon, Portugal, 26th January 2016.
5. Seminar on "The state of the art of the use of LNG in Portugal", Final event of the LNG_PT project, Lisbon, Portugal, 11th December 2015.
6. Invited lecturer on the Renewable Energies Post-Graduate Seminar, Instituto Superior de Engenharia de Lisboa, Portugal, 25th June 2015.
7. Invited lecturer on Urban Logistics Monitoring in the FREVUE European Project Lisbon Meeting, Lisbon, Portugal, 14th May 2015.
8. Invited lecturer on Sustainable mobility, Energy Sustainability Course, Faculdade de Ciências, Universidade de Lisboa, 20th May 2015.
9. Invited lecturer on Sustainable mobility: alternatives for the road transport sector, DEGGE Seminars, Faculdade de Ciências, Universidade de Lisboa, 19th March 2015.
10. Invited lecturer at the 2nd Armand Peugeot Chair Conference 2014, “From on-road monitoring to the quantification of energy and environmental impacts of car-sharing systems: case-study in Lisbon, Portugal”, 18-19 December 2014.
11. Patrícia C. Baptista, Reserach on Electric Mobility, Workshop on Electric Mobility, Instituto Superior Técnico, 7 December 2012.
12. Patrícia Baptista, Carla Silva, Tiago Farias, ENVIRONMENTAL IMPACTS OF ELECTRIC VEHICLES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, CIÊNCIA 2010 - Encontro com a Ciência em Portugal, Centro de Congressos de Lisboa, 4-7 de Julho de 2010.

2.1.8. Conference presentations

1. Patrícia Baptista, Sandra Melo, Using on-road monitoring data to characterize mobility and assess new solutions, 14º Encontro Anual do Grupo de Estudos em Transportes, Fátima, Portugal, 20-21 Fevereiro 2017.
2. Diana Neves, Carlos A. Silva, Patrícia Baptista, Matilde Simões, José Rui Figueira, Development of a sustainable energy strategy using a multi-criteria analysis: the case study of Odemira municipality, 84th Meeting of Euro Working Group on Multicriteria Decision Aiding, September 22nd - 24th, 2016.
3. André Silva, Gonçalo Duarte, Patrícia Baptista, Quantifying the potencial of eco-driving based on real world data, Behave2016 - 4th European Conference on Behaviour and Energy Efficiency, 8 - 9 September 2016, University of Coimbra, Portugal.
4. Catarina Rolim, Patrícia Baptista, Comparing driver self-evaluation with real world driving performance: an analysis of the influence of driver feedback, Behave2016 - 4th European Conference on Behaviour and Energy Efficiency, 8 - 9 September 2016, University of Coimbra, Portugal.
5. Sandra Melo, Patricia Baptista, Evaluating the impacts of cycle logistics on supplier operational performance and the transport network capacity, NECTAR Joint Cluster 2 and Cluster 3 International Workshop, "The role of planning towards sustainable urban mobility", 17–18 May 2016, Brno, Czech Republic.
6. Tiago Costa, Gonçalo Duarte, Sandra Melo, Patrícia Baptista, The role of integrated mobility management towards the concept of smart cities, International Conference on Engineering – Engineering for Society 2015, 2-4 December 2015, Covilhã, Portugal.
7. Ezequiel Carvalho, Jorge Sousa, André Pina, Patrícia Baptista, The renewable energy share that supplies the EV recharging: the case study of Portugal, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, September 27 - October 3, 2015, Dubrovnik, Croatia.
8. Sandra Melo, Ricardo Coimbra, Patrícia Baptista, "Impacts of vehicle technology shift and downsizing in urban logistics: application if Lisbon, Portugal", URBE - URban freight and BEhavior change, Roma Tre University, Rome, Italy, 1-2 October 2015.
9. Catarina Rolim, Gonçalo Duarte, Patricia Baptista, Tiago Farias, Impacts of feedback and ICT on driving behavior, energy consumption and pollutants emissions: a case-study of bus passenger drivers, 14th International Conference on Travel Behaviour Research (IATBR), London, 19 July 2015 – 23 July 2015.
10. Cristiano Rodrigues, Mário Martins, Filipa Amorim, Patrícia Baptista, André Pina, Analyzing the impacts of electric vehicles in the electricity generation sectors in Europe, 2nd International Conference on Energy and Environment: bringing together Engineering and Economics, Guimarães, Portugal, 18-19 June, 2015.

11. André Pina, Filipa Amorim, Patrícia Baptista, Assessing the impact of electricity interconnections to achieve the EU targets for CO₂ emissions reduction, 12th International Conference on the European Energy Market - EEM15, May 20-22, 2015, Lisbon, Portugal.
12. Mário Martins, Catarina Rolim, Patrícia Baptista and André Pina, Towards the electrification of the transportation sector: energy and environmental impacts in Portugal and Belgium, Energy for Sustainability 2015 - Sustainable Cities: Designing for People and the Planet, Coimbra, 14-15 May, 2015.
13. Gonçalo Duarte, Catarina Rolim, Patrícia Baptista, Real world application of EV in urban logistics: case study in Lisbon, Portugal, City Logistics and Sustainable Freight Transport Workshop, Algarve, April 16-17, 2015.
14. P. Baptista, G. Duarte, G. Gonçalves, C. Rolim, ICT for mobility pattern and driver behaviour characterization: trial case-study in the city of Lisbon, Portugal, VPPC 2014 - IEEE Vehicle Power and Propulsion Conference, October 27-30, 2014.
15. G. Duarte, C. Rolim, P. Baptista, Research in energy in transports: from large scale mobility pattern and driver behavior characterization to alternative vehicle technologies, Energy at IST Conference, 12th September 2014.
16. P. Baptista, J. Tavares, G. Gonçalves, Energy and environmental impacts of potential application of fully or partially electric propulsion vehicles: application to Lisbon and São Miguel, Portugal, 17th Meeting of the European Working Group on Transportation, Seville, Spain, 2-4 July 2014.
17. C. Rolim, P. Baptista, G. Duarte, T. Farias, Y. Shiftan, Quantification of the impacts of eco-driving training and real-time feedback on urban buses drivers' behaviour: a Lisbon case study, Portugal, 17th Meeting of the European Working Group on Transportation, Seville, Spain, 2-4 July 2014.
18. G. Duarte, A. Rosca, G. Gonçalves, P. Baptista, T. Farias, Test cycles for electric vehicles based on real world driving, FISITA 2010 World Automotive Congress, Maastricht, The Netherlands 2-6 June 2014.
19. M. Mendes, G. Duarte, P. Baptista, Influence of electric bicycle usage on biker effort: on-road monitoring application in Lisbon, Portugal, PhyCS 2014 – International Conference on Physiological Computing Systems, 7-9 January 2014, Lisbon, Portugal ⁵⁵.
20. P. Baptista, G. Duarte, G. Gonçalves, T. Farias, Evaluation of low power electric vehicles in demanding urban conditions: an application to Lisbon, EVS-27 - The 27th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Barcelona, Spain, Nov. 17-20, 2013.

⁵⁵ <http://www.scitepress.org/DigitalLibrary/Index/DOI/10.5220/0004701202650274>

- 21.C. Rolim, P. Baptista, O. Rodrigues, T. Farias, Lisbon's EV adopters: motivation, utilization patterns and environmental impacts, EVS-27 - The 27th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Barcelona, Spain, Nov. 17-20, 2013 ⁵⁶.
- 22.P. Baptista, S. Melo, C. Rolim, Energy, environmental and mobility impacts of car-sharing systems. Empirical results from Lisbon, Portugal, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013.
- 23.S. Melo, P. Baptista, A. Costa, T. Farias, Comparing the use of small sized electric vehicles with diesel vans on city logistics, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013⁵⁷.
- 24.C. Rolim, P. Baptista, G. Duarte, T. Farias, Impacts of on-board devices and training on Light Duty Vehicle Driving Behavior, 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013⁵⁸.
- 25.Patrícia Baptista, Gonçalo Duarte, Magno Mendes, Catarina Rolim, Tiago Farias, Scenarios for electric bicycle use: from on-road monitoring to possible impacts of large introduction, NECTAR Conference on Dynamics of Global and Local Networks, São Miguel Island, Azores (Portugal), 16-18 June 2013.
- 26.Catarina Rolim, Patrícia Baptista, Gonçalo Duarte, Tiago Farias, Yoram Shiftan, Impacts of on-board devices and training in urban passengers bus drivers – application to a case study, NECTAR Conference on Dynamics of Global and Local Networks, São Miguel Island, Azores (Portugal), 16-18 June 2013.
- 27.Melo, S., Baptista, P., Costa, Á, Farias, T. Using electric commercial vehicles for urban logistics and city distribution: in what conditions can it succeed?. NECTAR Conference St. Miguel, Azores, 16-18 June 2013.
- 28.Melo, S., Baptista, P. Small sized electric mobility solutions in urban mobility. 10º Encontro do Grupo de Estudos em Transportes, Alcobaca, 3 - 4 January 2013.
- 29.Patrícia C. Baptista, Inês L. Azevedo, Tiago L. Farias, ICT solutions in transportation systems: estimating the benefits and environmental impacts in the Lisbon region, 15th Meeting of the European Working Group on Transportation, Paris, 10-12 September 2012.
- 30.Patrícia Baptista, Tiago Farias, Energy, environmental and economic impact evaluation of the massification of ICT solutions in urban mobility, 9º Encontro Anual do Grupo de Estudos em Transportes, Tomar, Portugal, 5th to 6th January 2012.

⁵⁶ <http://papers.evs27.org/dasession.php?sessID=46>

⁵⁷ <http://www.sciencedirect.com/science/article/pii/S187704281400069X>

⁵⁸ <http://www.sciencedirect.com/science/article/pii/S1877042814001062>

31. Patrícia Baptista, Carla Silva, Tiago Farias, Evaluation of the impacts the introduction of alternative fuelled vehicles in the road transportation sector, 8º Encontro Anual do Grupo de Estudos em Transportes, Ílhavo, Portugal, 6 and 7th January 2011.
32. Patricia Baptista, João Ribau, João Bravo, Carla Silva, Paul Adcock, Ashley Kells, FUEL CELL HYBRID TAXI WELL-TO-WHEEL LIFE-CYCLE ANALYSIS, EVS-25 - The 25th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium & Exhibition, Shenzhen, China, Nov. 5-9, 2010⁵⁹.
33. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACTS OF ALTERNATIVE VEHICLE TECHNOLOGIES AND ENERGY SOURCES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, 12th World Congress on Transport Research (WCTR), 11-15 July 2010, Lisbon.
34. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACTS IN THE PORTUGUESE LIGHT-DUTY ROAD TRANSPORTATION SECTOR OF INCREASING MARKET ELECTRIFICATION SCENARIOS, FISITA 2010 World Automotive Congress – Automobiles and Sustainable Mobility, Budapest, 30 May – 4 June 2010.
35. A. F. Ferreira, P. Baptista and C. Silva. BIO-HYDROGEN PATHWAYS FOR THE PORTUGUESE ROAD TRANSPORTATION SECTOR, FISITA 2010 World Automotive Congress – Automobiles and Sustainable Mobility, Budapest, 30 May – 4 June 2010 ⁶⁰.
36. Ana Filipa Ferreira, Patrícia Baptista and Carla Silva. ANALYSIS OF ENERGY CONSUMPTION AND CO2 EMISSIONS OF THE LIFE CYCLE OF BIOHYDROGEN APPLIED TO THE PORTUGUESE ROAD TRANSPORTATION SECTOR. WHEC - World Hydrogen Energy Conference, May 16 - 21, 2010, Essen, Germany ⁶¹.
37. Patrícia Baptista, Carla Silva, Tiago Farias, ENERGY AND CO2 EMISSIONS SCENARIOS OF INTRODUCING NEW VEHICLE TECHNOLOGIES IN THE PORTUGUESE FLEET, International Advanced Mobility Forum, Geneva International Motor Show, Geneva, 9 - 10 March 2010.
38. C. Camus, P. Baptista, C. Silva and T. Farias. STRATEGIC MARKETING PLAN FOR BATTERY ELECTRIC VEHICLES. THE PORTUGUESE CASE, International Advanced Mobility Forum, Geneva International Motor Show, Geneva, 9 - 10 March 2010.
39. Carla Silva, Patrícia Baptista, CENÁRIOS PARA O SECTOR DOS TRANSPORTES NO HORIZONTE 2010-2050, ENERGIA 2020, Faculdade de Ciências, Lisboa, 8 de Fevereiro 2010.

⁵⁹ <http://www.evs24.org/wevajournal/php/download.php?f=vol4/WEVA4-4113.pdf>

⁶⁰ <http://www.fisita2010.com/programme/programme/F2010A113>

⁶¹ http://user.fz-juelich.de/record/135619/files/SA2_pp_Fer_da-Silva-Ferreira_rev0607.pdf

40. Patrícia Baptista, Carla Silva, Tiago Farias, SCENARIOS OF INTRODUCING NEW VEHICLE AND FUEL TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, 7º Encontro Anual do Grupo de Estudos em Transportes, Nazaré, Portugal, 4th to 5th January 2010.
41. Patrícia Baptista, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF NEW VEHICLE TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, 1st Transatlantic NECTAR Conference 2009, Arlington, Virginia USA, 18-20 June, 2009.
42. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC BASED VEHICLES IN SÃO MIGUEL ISLAND, Second International Engineering Systems Symposium, The Emerging Field of Engineering Systems: Achievements and Challenges, June 15-17, 2009 at Massachusetts Institute of Technology ⁶².
43. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC BASED VEHICLES IN SÃO MIGUEL ISLAND, 10th International Conference on Energy for a Clean Environment, Lisbon Portugal, 7 - 10 July 2009.
44. J. A. Peças Lopes, F. J. Soares, P. M. Rocha Almeida, P. C. Baptista, C. M. Silva and T. L. Farias, QUANTIFICATION OF TECHNICAL IMPACTS AND ENVIRONMENTAL BENEFITS OF ELECTRIC VEHICLES INTEGRATION ON ELECTRICITY GRIDS, 8th International Symposium on Advanced Electromechanical Motion Systems, Lille France, 1 - 3 July 2009 ⁶³.
45. Patrícia Baptista, Carla Silva, Tiago Farias, FULL LIFE CYCLE ANALYSIS OF ELECTRIC VEHICLES AND MARKET PENETRATION SCENARIOS, 24th International Battery, Hybrid and Fuel-cell Electric Vehicle Symposium and Exhibition, 13-16 May 2009.
46. Patrícia Baptista, Mário Tomás, Carla Silva, HYBRID PLUG-IN FUEL CELL VEHICLES MARKET PENETRATION SCENARIOS, HYPOTHESIS VIII: HYdrogen POver - THeoretical and Engineering Solutions - International Symposium, Lisbon - Portugal, 1 – 3 April 2009.
47. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC VEHICLES IN THE ISLAND OF SÃO MIGUEL, 6º Encontro Anual do Grupo de Estudos em Transportes, Mira, Portugal, 5th to 6th April 2009.

⁶² <http://esd.mit.edu/symp09/presentations/day3.session2c.baptista.pdf>.

⁶³ <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=05259139>.

48. Pedro Felizardo, Patrícia Baptista, João Bordado, M. Joana Neiva Correia, RECOVERY OF METHANOL FROM THE METHYL-ESTERS AND GLYCEROL PHASES OBTAINED IN BIODIESEL PRODUCTION, 2nd International Congress of Energy and Environment Engineering and Management (IICHIEM2007).

2.1.9. Posters

1. Madalena Lopes, Patrícia Baptista, Elizabeth Duarte, António Moreira, Assessment of biogas production pathways: application to Portugal; 25th European Biomass Conference and Exhibition (EUBCE 2017), Stockholm, 12-15 June, 2017.
2. Patrícia Baptista, Catarina Rolim, Gonçalo Duarte, Assessment of electric mobility adequacy and energy requirements based on real world data, EVS29 Symposium, Montréal, Québec, Canada, June 19-22, 2016.
3. Marta Faria, Patrícia Baptista, Tiago Farias, The role of electric vehicles in low emission zones: potential impacts for the city of Lisbon, Portugal, EVS29 Symposium, Montréal, Québec, Canada, June 19-22, 2016.
4. Ezequiel Carvalho, Jorge Sousa, André Pina, Patrícia Baptista, The renewable energy share that supplies the EV recharging: the case study of Portugal, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, September 27 - October 3, 2015, Dubrovnik, Croatia.
5. Ezequiel Carvalho, Jorge Sousa, André Pina, Patrícia Baptista, The renewable energy share that supplies the EV recharging: the case study of Portugal, 10th Conference on Sustainable Development of Energy, Water and Environment Systems, September 27 - October 3, 2015, Dubrovnik, Croatia.
6. Marta V. Faria, Gonçalo O. Duarte, Patrícia C. Baptista, Tiago L. Farias, Scenario Based Analysis of Traffic Related PM_{2.5} Concentration: Lisbon Case Study, 7th International Workshop on Biomonitoring of Atmospheric Pollution (BIOMAP 7), Lisbon, Portugal, June 14th to 19th 2015.
7. Patricia Baptista, Sandra Melo, Amilcar Arantes, Dorothy: towards sustainability in urban logistics, Grupo de Estudos em Transportes, 5-6 January 2015, Tomar, Portugal.
8. G. Pereira, P. Baptista, A. Pina, C. Rolim, G. Duarte, C. Silva, Fast charging electrical bicycles using the existing electric car charge network, Energy Night, Lisbon, May 2012.
9. Patrícia Baptista, Carla Silva, Tiago Farias, ENVIRONMENTAL IMPACTS OF ELECTRIC VEHICLES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, CIÊNCIA 2010 - Encontro com a Ciência em Portugal, Centro de Congressos de Lisboa, 4-7 de Julho de 2010.

10. Patrícia Baptista, Carla Silva, Tiago Farias, EVALUATION OF THE IMPACT OF NEW ENERGY SOURCES AND VEHICLE TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORT SECTOR, Young European Arena Research YEAR 2010, Finalist on the YEAR Competition on Pillar Future Visions of Transport, Brussels, June 2010.
11. Patrícia Baptista, Carla Silva, Tiago Farias, ENERGY AND CO2 EMISSIONS SCENARIOS OF INTRODUCING NEW VEHICLE TECHNOLOGIES IN THE PORTUGUESE FLEET, International Advanced Mobility Forum, Geneva International Motor Show, Geneva, 9 - 10 March 2010.
12. Patrícia Baptista, Carla Silva, Tiago Farias, EVALUATION OF THE IMPACT OF NEW VEHICLE AND FUEL TECHNOLOGIES IN THE PORTUGUESE ROAD TRANSPORTATION SECTOR, First Annual MIT-Portugal Program Conference: Engineering for Better Jobs, July 07 2009.
13. Patrícia Baptista, Cristina Camus, Carla Silva, Tiago Farias, IMPACT OF THE INTRODUCTION OF ELECTRIC VEHICLES IN THE ISLAND OF SÃO MIGUEL, Second Transatlantic Renewable Energy Conference (TREC09), Angra do Heroísmo, Azores, 2nd-4th April 2009.
14. Cristina Camus, Patrícia Baptista, Carla Silva, Tiago Farias, IMPACT ON ELECTRICITY LOAD PROFILES OF THE INTRODUCTION OF ELECTRIC VEHICLES IN THE ISLAND OF SÃO MIGUEL, 2nd Transatlantic Renewable Energy Conference (TREC09), Angra do Heroísmo, Azores, 2nd-4th April 2009.
15. Patrícia Baptista, Carla Silva, Tiago Farias, BIODIESEL FUEL PATHWAYS FOR THE PORTUGUESE ROAD TRANSPORT SECTOR, Smart Energy Strategies Conference 2008, Zurich – Switzerland, 8-10 September 2008.
16. Pedro Felizardo, Patrícia Baptista, José C. Menezes, M. Joana Neiva Correia, USING NIR SPECTROSCOPY TO MONITER BIODIESEL FUEL QUALITY, Bioenergy, Guimarães, 2008.
17. Pedro Felizardo, Patrícia Baptista, José C. Menezes, M. Joana Neiva Correia, PREDICTING THE IODINE NUMBER AND THE COLD FILTER PLUGGING POINT OF BIODIESEL BY NEAR INFRARED SPECTROSCOPY, Euroanalysis XIV Antwerp September 2007.
18. Pedro Felizardo, Patrícia Baptista, M. Joana Neiva Correia, João Bordado, Ana Paula Soares Dias, BIODIESEL FROM SOYBEAN OIL BY METHANOLYSIS OVER POTASSIUM MODIFIED MgO, Europacat-VIII, Finland, August 2007.
19. Pedro Felizardo, Patrícia Baptista, José C. Menezes, M. Joana Neiva Correia, THE PREDICTION OF FATTY ACID METHYL ESTERS COMPOSITION OF BIODIESEL BY NEAR INFRARED SPECTROSCOPY, 6º Encontro da Divisão de Química Analítica (Analítica'07) Lisboa.

20. Pedro Felizardo, Patrícia Baptista, José C. Menezes, M. Joana Neiva Correia, PREDICTING METHANOL AND WATER CONTENT IN BIODIESEL BY NEAR INFRARED SPECTROSCOPY, 10th International Conference on Chemometrics in Analytical Chemistry.

2.1.10. *Thesis*

1. PhD thesis: Patricia Baptista, Evaluation of the impacts the introduction of alternative fuelled vehicles in the road transportation sector, Instituto Superior Técnico, Lisboa, Portugal, 2011.
2. M.Sc. thesis: Patricia Baptista, Use of NIR and MIR Spectroscopies for analytical characterization of biodiesel, Instituto Superior Técnico, Lisboa, Portugal, 2007.
3. Bachelor's thesis: Patricia Baptista, Development of new analytical methods for the prediction of several biodiesel quality parameters using NIR Spectroscopy, Instituto Superior Técnico, Lisboa, Portugal, 2006.

2.2. Other scientific activities

2.2.1. Coordination and Participation in Research Projects

Table 4 presents an overview of the participation in projects, followed by a more detailed description of each project.

Table 4 – Summary of participation in projects

Type of Project	Number of Projects
International R&D Projects	4
National R&D Projects	3
Privately funded projects	3
Total	10

International R&D Projects

Year: 2016-2018

1. Project title: REgenerating mixed-use MED urban communities congested by traffic through Innovative low carbon mobility sOlutions - REMEDIO (Interreg Mediterranean)

Project description: The goal of the Project is to fasten the implementation of low-carbon mobility solutions in mediterranean cities where the process is at an early stage, starting from urban hot spots characterized by traffic congestion in high-density areas surrounding the city centers

Role in Project: Participation in the IST technical team

Funding: Not available, approved but under signing procedures

Year: 2014-2015

2. Project title: LNG_PT - Fast tracking the deployment of a European low carbon transport system: the Portuguese Roadmap for LNG in TEN-T corridors (2013-PT-92081-S)

Project description: The goal of the Project is to set out a national policy framework for LNG in road transport to accelerate the uptake of LNG as an alternative fuel for freight transport in the context of the TEN-T network corridors, and in line with the proposal of Directive on the deployment of alternative fuels infrastructure.

Partners: ADENE and IST

Role in Project: Coordination of IST technical team for the state of the art on use of LNG for road freight transport and energy and environmental scenario analysis

Funding: IST ≈30 k€; Total ≈150 k€, funded by the trans-European transport network.

Year: 2014-2015

3. Project title: FR-EVUE Freight Electric Vehicles in Urban Europe

Project description: The project will demonstrate solutions to the barriers currently inhibiting uptake of EVs in the sector and includes leading European researchers who will design and then implement a common pan-European assessment framework to understand the impacts of these solutions.

Role in Project: Coordination of IDMEC technical team of EV monitoring in urban logistics in the city of Lisbon, sub-contracted for this purpose

Funding: IDMEC ≈6 k€

Year: 2013-2016

4. Project title: DOROTHY - Development of research and planning for sustainable urban logistics including electromobility services for the implementation of an energy-efficient transport system in Europe (319918)⁶⁴

Project description: The European Project DOROTHY has the mission to enhance the distribution process of urban goods by reducing the number of vehicles and enhancing environmental standards, with a final objective of improving the quality of life in European cities.

Role in Project: Coordination of IST technical team

Funding: IST ≈50 k€; Total ≈196 k€, funded by FP7

National R&D Projects

Year: 2015-2017

1. Project title: SusCity: Urban data driven models for creative and resourceful urban transitions (FCT project reference MITP-TB/C S/0026/2013)

Project description: SusCity focuses on developing and integrating new tools and services to promote urban resource efficiency with minimum environmental impacts while contributing to promote economic development and preserving actual levels of reliability. SusCity takes an integrated and application-oriented research approach by focusing on urban interventions in Lisbon, at the “Parque das Nações” testbed.

Partners: IST, IDMEC, University of Coimbra, INESC TEC, Faculdade de Ciências, University of Minho, LNEG

Role in Project: Coordination of IDMEC WP4 activities

Funding: IDMEC ≈100 k€; Total ≈1.250 k€

⁶⁴ <http://www.clusterdorothy.com/>

Year: 2009-2011

2. Project title: “MOBI-MPP - Assessment and Development of Integrated Systems for Electric Vehicles”⁶⁵

Project description: The Portuguese government is committed to promote the development of sustainable vehicles as part of a strategy to accomplish new paradigms of mobility. This gives the opportunity to the MIT-Portugal Program to develop research activities in relevant technological areas.

Partners: Minho University, FEUP, IST

Role in Project: Participation in the IDMEC research activities

Funding: IDMEC N/A; Total ≈340 k€

Year: 2009-2011

3. Project title: Power demand estimation and power system impacts resulting of fleet penetration of electric/plug-in vehicles⁶⁶

Project description: This research project aims at deriving a forecast/backcast fleet model to estimate the impact in global energy consumption, CO₂ emission and power system grid resulting from the penetration of alternative vehicle technologies in the road vehicle fleet.

Partners: IDMEC, IST and INESC-Porto

Role in Project: Participation in the IDMEC research activities

Funding: IDMEC ≈76 k€; Total ≈196 k€

Privately funded projects

Year: 2014-2015

1. Project title: Efficient Fleet Challenge

Project description: Eco-driving competition between 10 companies with 10 drivers each

Partners: IDMEC, IST, ITDS, GALP Energia

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC ≈10 k€; Total ≈50 k€, funded by Portuguese Innovation Support Fund (FAI)

⁶⁵ <http://www.mitportugal.org/2008-projects/mobi-mpp-assessment-and-development-of-integrated-systems-for-electric-vehicles.html>

⁶⁶ <http://www.mitportugal.org/2008-projects/power-demand-estimation-and-power-system-impacts-resulting-of-fleet-penetration-of-electricplug-in-vehicles.html>

Year: 2013

2. Project title: *The Use Of Small Sized Mobility Solutions As A Cleaner Mobility Option: The Last Mile Problem*

Project description: Organization of event to discuss topics associated to last mile delivery such as the use of electric mobility and cargo-bikes

Partners: IDMEC and University Transportation Research Center - New York

Role in Project: Participation in the IDMEC team

Funding: IDMEC ≈5 k€; Total ≈20 k€, funded by New York State Energy Research and Development Authority

Year: 2011-2013

3. Project title: *i2d - intelligence to drive Project*

Project description: Technological development of on-board monitoring device and application in demo tests

Partners: IDMEC, ITDS and FAI

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC ≈50 k€, funded by Portuguese Innovation Support Fund (FAI)

2.2.2. Establishment and strengthening of laboratorial activities

As a team member of the Vehicle and Propulsion Laboratory (VP_LAB) of the Department of Mechanical Engineering of Instituto Superior Técnico, the researcher has played a leading role in important laboratorial activities focused mainly on alternative vehicle technologies and on driver monitoring. A more detailed description of these activities is presented next:

1. Expansion of vehicle monitoring laboratory to alternative vehicle technologies, in particular to electric mobility, with the inclusion of light-duty vehicles, quadricycles, scooters and bicycles.
2. Large scale monitoring of vehicles using on-board monitoring devices in the Lisbon area and implementation of feedback demonstration projects.
3. Expansion of driver monitoring laboratory to include physiological responses such as heart rate and stress signals.

2.2.3. Reviewing activities in international journals

Revision of up to 25 papers for international peer-reviewed journals namely:

- Accident Analysis and Prevention (<http://www.journals.elsevier.com/accident-analysis-and-prevention/>)
- Challenges (<http://www.mdpi.com/journal/challenges>)

- Energies (<http://www.mdpi.com/journal/energies>)
- Energy Strategy Reviews (<http://www.journals.elsevier.com/energy-strategy-reviews/>)
- International Journal of Hydrogen Energy (<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>)
- International Journal of Sustainable Transportation (<http://www.tandfonline.com/toc/ujst20/current>)
- Journal of Near Infrared Spectroscopy (<http://www.impublications.com/content/journal-near-infrared-spectroscopy>)
- Journal of Power Sources (<http://www.journals.elsevier.com/journal-of-power-sources/>)
- Journal of Transportation Technologies (<http://www.scirp.org/journal/jtts/>)
- Sustainability (<http://www.mdpi.com/journal/sustainability>)
- Sustainable Energy, Grids and Networks (<http://www.journals.elsevier.com/sustainable-energy-grids-and-networks/>)
- Transport Policy (<http://www.journals.elsevier.com/transport-policy/>)
- Transportation Research Part A (<http://www.journals.elsevier.com/transportation-research-part-a-policy-and-practice/>)
- Transportation Research Part D (<http://www.journals.elsevier.com/transportation-research-part-d-transport-and-environment/>)

2.2.4. *Reviewing activities in international conferences*

- Revision of 3 conference papers for the 17th Meeting of the European Working Group on Transportation 2014
- Revision of 9 conference papers for the 16th Euro Working Group on Transportation 2013
- Revision of 9 conference papers for EVS30 Symposium Stuttgart, Germany, October 9 - 11, 2017
- Revision of 1 conference papers for EURO Working Group on Transportation Meeting (EWGT), Budapest, 4-6 September 2017

2.2.5. *Member of Research Units*

- Member of LAETA - Associated Laboratory for Energy, Transports and Aeronautics (<http://www.idmec.ist.utl.pt/laeta/>) from 2009 – 2010 as a PhD student.
- Integrated Member of LAETA - Associated Laboratory for Energy, Transports and Aeronautics (<http://www.idmec.ist.utl.pt/laeta/>) in 2014- September 2015 as a post-doctoral researcher.

- Integrated Member of LARSYS – Laboratório de Robótica e Sistemas de Engenharia (<http://larsys.pt/>) from October 2016 to present as an assistant researcher.

3. Teaching

3.1. Teaching activities

Teaching has been an important component along with R&D activities, in order to pass on technical knowledge and instill strong work ethics on engineering students. Table 5 presents a summary of the teaching activities performed.

Table 5 – Summary of teaching activities

Course		Number of semesters teaching
Undergraduate	Energy Management, LEGI, IST	2
	Management of Energy Systems, LEGI, IST	1
M.Sc.	Energy in Transports, MEMEC, IST	3
	Energy in transports and sustainable mobility, EGER, ISEL	2
	Management operations in public road passenger transport, FEUP	1
Ph.D.	Energy Management, SES PhD, IST	2
	Energy in Transports, SES PhD, IST	1
Total		12

Dates:

1. Fall Semester 2015/2016
2. Fall Semester 2016/2017

Course: “Energy in transports and sustainable mobility” within “Pós-graduação em engenharia e gestão de energias renováveis (EGER)”, Instituto Superior de Engenharia de Lisboa

Main responsibilities: Course responsible. Concepts on sustainable mobility and different concept for energy efficiency. Methodologies to estimate energy consumption and pollutants emissions.

Institution: Instituto Superior de Engenharia de Lisboa, Portugal

Dates:

1. Spring Semester 2014/2015
2. Spring Semester 2015/2016

Course: Energy Management within the Sustainable Energy Systems Ph.D., MIT Portugal Program

Main responsibilities: Teacher on Energy systems and energy prices, energy demand management, monitoring and energy businesses, Portuguese Energy Balance, Primary, Final and Useful Energy, Energy flow Diagrams (Sankey Diagrams), Methodologies to compute primary Energy, Energy use in transports and legislation.

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Dates:

1. Spring Semester 2015/2016
2. Spring Semester 2016/2017

Course: Management of Energy Systems within the M.Sc. in Industrial Engineering and Management

Main responsibilities: Teacher on Energy use in transports and legislation, alternative energy pathways and technologies for the transportation sector, fleet energy audits and life-cycle analysis applications in transports.

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Dates:

1. Spring Semester 2014/2015

Course: Energy Management within the M.Sc. in Industrial Engineering and Management

Main responsibilities: Teacher on Energy use in transports and legislation, alternative energy pathways and technologies for the transportation sector, fleet energy audits and life-cycle analysis applications in transports.

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Dates: 24th July 2014

1. Course: Management operations in public road passenger transport

Main responsibilities: Invited lecturer on Energy Efficiency on public road passenger transport

Institution: Faculdade de Engenharia da Universidade do Porto, Portugal

Dates:

1. Fall Semester 2011/2012
2. Fall Semester 2012/2013
3. Fall Semester 2013/2014

Course: Energy in Transports within the Sustainable Energy Systems Ph.D., MIT Portugal Program

Main responsibilities: Teacher of alternative energy pathways and technologies for the transportation sector, fleet energy audits and life-cycle analysis applications in transports, including laboratorial classes

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Dates: Fall Semester 2012/2013

1. Course: Energy in Transports within Mechanical and Environmental Engineering M.Sc. degree

Main responsibilities: Teacher of alternative energy pathways and technologies for the transportation sector, fleet energy audits and life-cycle analysis applications in transports, including laboratorial classes

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

3.2. Supervision of students

Table 6 presents the number of student that were supervised or co-supervised by the researcher, followed by the title and institution of all the supervising activities.

Table 6 – Summary of supervision of students

Degree	Number of students	
	Concluded	On-going
Ph.D.	1	1
M.Sc.	20	7
Final work	1	1
Total	22	8

3.2.1. Ph.D.

Concluded

1. *Dates:* January 2012 – February 2016

Student: Catarina Rolim

Title: Impacts of adopting on board ICT and training on driving behavior, safety, energy and environment: application to light duty vehicles and buses

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: Ph.D. in Sustainable Energy Systems

Role: Co-supervisor

On-going

1. *Dates:* October 2015 – ...

Student: Marta Faria

Title: Assessing the influences between driving environment and driving performance

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: Ph.D. in Transportation Systems

Role: Co-supervisor

3.2.2. M.Sc.

Concluded

1.Dates: September 2016 – June 2017

Student: Madalena Lopes

Title: Anaerobic co-digestion of horse manure and pig slurry for biogas production

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

2.Dates: February 2016 – November 2016

Student: Pedro Preto

Title: Development of energy efficiency measures for the Lisbon municipality fleet

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

3.Dates: February 2016 – June 2017

Student: João Saraiva

Title: Development of energy efficiency measures for a heavy-duty cargo fleet

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

4.Dates: September 2016 – June 2017

Student: Raquel Castanheira

Title: Assessment of energy intensity trends in Portuguese municipalities

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

5.Dates: February 2016 – November 2016

Student: Miguel Santiago

Title: Assessment of potential applications for electric mobility

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

6.Dates: February 2016 – November 2016

Student: Ruben Guerra

Title: Impacts of alternative vehicle technologies in European countries

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

7.Dates: February 2016 – November 2016

Student: Rui Fiuza

Title: Assessing energy efficiency measures in bus fleet

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

8.Dates: June 2015 – July 2016

Student: Filipe Paulino

Title: Life cycle analysis of the EU transportation sector

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

9.Dates: February 2015 – July 2016

Student: Cristiano Rodrigues

Title: Assessment of policies to promote alternative energy sources in the electricity generation sector

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

10. Dates: February 2015 – July 2016

Student: Hugo Martins

Title: Definition and evaluation of representative driving cycles of real world conditions in different urban contexts

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

11. Dates: February 2015 – July 2016

Student: Rafael Reis

Title: Impacts of eco-driving and energy efficiency measures for heavy-duty freight fleet

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

12. Dates: October 2014 – ...

Student: Hélder Lima Ferreira

Title: Urban logistics applications using electric mobility

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

13. Dates: October 2014 – June 2015

Student: Patrícia Ribeiro

Title: Evaluation of the vehicle dynamics, energy and environmental impacts of traffic calming measures

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Environmental Engineering

Role: Supervisor

14. Dates: February 2014 – June 2015

Student: Mário Martins

Title: Energy and environmental impacts assessment of electric vehicles in different EU countries

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

15. Dates: March 2013 - June 2014

Student: Eduardo Mendonça

Title: ICT in the transportation sector: potential market, impact quantification, implementation scenarios in the Lisbon region

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Environmental Engineering

Role: Supervisor

16. Dates: March 2013 – October 2013

Student: Magno André Nunes Mendes

Title: Experimental evaluation of conventional and electric bicycles and motorcycles in urban context

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

17. Dates: March 2013 – October 2013

Student: José Tavares

Title: Application potential and energy and environmental impacts of EV and PHEV in São Miguel

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

18. Dates: March 2011 – October 2011

Student: Maria Rosário Crujo

Title: Refueling/recharging infrastructure life-cycle assessment

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Environmental Engineering

Role: Co-supervisor

19. Dates: October 2010 – October 2011

Student: Manuel Valente

Title: Cost-benefit analysis of alternative technologies

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Industrial Engineering and Management

Role: Co-supervisor

20. Dates: March 2010 – October 2010

Student: Manuel Branco Nery Nina

Title: Introduction of Electric Vehicles in Portugal - A Cost-benefit Analysis

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

On-going

1. Dates: March 2017 – ...

Student: Grzegorz Zamojski

Title: Domestic crude oil extraction, as a pathway to sustainable low carbon economy

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

2. Dates: February 2017 – ...

Student: André Ferreira

Title: Energy efficiency measures in agro-industrial factory

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

3. *Dates: February 2017 – ...*

Student: Hugo Fernandes

Title: Evaluation of real world performance of electric bus

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

4. *Dates: September 2016 – ...*

Student: Tiago Malhão

Title: Assessment of the influence of external factors on energy consumption and emissions of light duty vehicles

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

5. *Dates: February 2016 – ...*

Student: André Silva

Title: Quantification of impacts of alternative services and technologies urban mobility

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

6. *Dates: June 2015 – ...*

Student: Hugo Bairos

Title: Energy and environmental evaluation of urban logistics solutions

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Supervisor

7. *Dates: February 2015 – ...*

Student: Miguel Meirinhos

Title: Analysis of real world driving profiles for alternative technology adequacy

Institution: Instituto Superior Técnico, University of Lisbon, Portugal

Area: M.Sc. thesis in Mechanical Engineering

Role: Co-supervisor

3.2.3. Post-graduation final work

Concluded

1.Dates: July 2016 – September 2016

Student: Pedro Matos

Title: Introduction of Renewable Energies in Lisbon's Logistics Sector

Institution: Instituto de Engenharia de Lisboa, Portugal

Area: Post-graduation in renewable energies

Role: Supervisor

On-going

1.Dates: April 2017 – September 2017

Student: Tiago Gonçalves

Title: Cost-benefit analysis of the use of natural gas vehicle in HDV

Institution: Instituto de Engenharia de Lisboa, Portugal

Area: Post-graduation in renewable energies

Role: Supervisor

3.3.Pedagogical material

1. Farias, T, Baptista, P., Gonçalves, G., Faria, A.M., Duarte, G., Energy and Emissions in Road Transportation – Support material for Energy in Transports Course, Fall semester 2013.

4. Knowledge transfer

The activities regarding Knowledge transfer are presented next.

4.1.Provision of services

1.Years: 01/2016→ 02/2016

Service: Follow-up of energy and environment audit to the fleets of EDP

Funding institution: EDP Valor

2.Years: 06/2014→ 09/2014

Service: Development of representative mobility basket-of-products (road, rail and air transport) for EU27 as well as the level of service provided; quantification of life-cycle impacts according to the ILCD methodology

Funding institution: European Commission, Directorate-General Joint Research Centre

3.Years: 2013→ 2014

Service: Development of energy and environment audit to the fleets of EDP

Funding institution: EDP Valor, through contract with Livedrive

4.2.Provision of consultancy

1.Year: 2016

***Project title:* Quantification of impacts of urban mobility platforms**

Project description: Characterize existing urban mobility platforms and define best architecture according to stakeholder's interests

Partners: Brisa Inovação e Tecnologia and IDMEC

Role in Project: Coordination of IDMEC team

Funding: IDMEC ≈25 k€; Total ≈25 k€, funded by Brisa Inovação e Tecnologia

2. Year: 2015-2016

Project title: Energy efficiency measure for the municipality of Odemira

Project description: Development and analysis of scenarios for sustainable energy development of the municipality of Odemira

Partners: Câmara Municipal de Odemira and IST

Role in Project: Assessment of measures in mobility work package

Funding: N/A

3. Year: 2014-2015

Project title: Urban mobility platform

Project description: Characterize existing urban mobility platforms and define best architecture according to stakeholder's interests

Partners: Brisa Inovação e Tecnologia and IDMEC

Role in Project: Coordination of IDMEC team

Funding: IDMEC ≈30 k€; Total ≈30 k€, funded by Brisa Inovação e Tecnologia

4. Year: 2014-2015

Project title: Energy and Environmental Impacts Quantification of the Lisbon Municipality Fleet

Project description: Perform the characterization of the energy and environmental impacts of the Lisbon Municipality Fleet

Partners: Lisboa E-Nova and IDMEC

Role in Project: Coordination of IDMEC team

Funding: IDMEC ≈4 k€; Total ≈4 k€, funded by Lisboa E-Nova

5. Year: 2014-2015

Project title: State of Practice of Electric Vehicles and Charging Solutions

Project description: Characterize the current market of electric vehicles and of charging equipment

Partners: Prio.e and IDMEC

Role in Project: Coordination of IDMEC team

Funding: IDMEC ≈2 k€; Total ≈2 k€, funded by Prio.e

6. Year: 2013

Project title: Douro Cruiser ship emissions report

Project description: On-board monitoring of emissions resulting of the operation of the Douro Cruiser ship

Partners: IDMEC and Douro-Azul

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC \approx 1 k€ funded by Douro Azul

7. Year: 2012-2013

Project title: Support in activities for the projects: Electric mobility, Remote sensing, Smart meters for efficient decisions

Project description: Provide support in electric mobility activities related to the Lisbon's Mobi.e network deployment and with smart meter information data-processing

Partners: IDMEC and Lisboa E-Nova

Role in Project: Coordination of IDMEC team

Funding: IDMEC \approx 4 k€ funded by Lisboa E-Nova

8. Year: 2012

Project title: Monitoring the use of electric vehicles by early adopters

Project description: Monitor the use of privately owned and company owned electric vehicles by survey before and after the adoption of the alternative vehicle technology

Partners: IDMEC and EMEL

Role in Project: Coordination of IDMEC team

Funding: IDMEC \approx 2 k€ funded by EMEL

9. Year: 2012

Project title: Impacts of on-board devices and eco driving training on urban passengers bus drivers' behavior

Project description: Develop data-processing methodologies related to driver monitoring information from the 100 instrumented vehicles in the Lisbon region

Partners: IDMEC and Rodoviária de Lisboa

Role in Project: Coordination of IDMEC team

Funding: N/A

10. Year: 2012

Project title: Characterization of worldwide usage of bike sharing systems Project - State of Practice of Bike-sharing systems

Project description: Perform a worldwide characterization of bike-sharing systems and development of analysis metrics

Partners: IDMEC and Prio.e

Role in Project: Coordination of IDMEC team

Funding: IDMEC \approx 1 k€ funded by Prio.e

11. Year: 2011

Project title: Monitoring of 5 pre-production Plug-in Toyota Prius in real world usage conditions

Project description: Monitoring the deployment in real word usage condition of 5 Toyota Prius Plug-in

Partners: IDMEC and Galp Energia

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC \approx 10 k€, funded by Galp Energia

12. Year: 2010-2011

Project title: Development of the platform MOBILE MAPS for the comparison of vehicle technologies

Project description: Development of life-cycle characterization metrics of vehicle technologies to be applied in the platform MOBILE MAPS

Partners: IST/IN+, IDMEC and INTELLI, NOVABASE

Role in Project: Participation in the technical team

Funding: N/A

13. Year: 2010

Project title: Roteiro Nacional das Energias Renováveis - Aplicação da Directiva 2009/28/CE, collaboration in the transportation sector focus group

Project description: Participation in transportation sector focus group for the development of the renewable energy national roadmap

Partners: IDMEC and APREN

Role in Project: Participation in the IDMEC technical team

Funding: N/A

14. Year: 2010

Project title: Location of Lisbon's electric vehicle's recharging points

Project description: Definition of an analysis algorithm for the analysis of the optimal location of EV recharging points in the city of Lisbon

Partners: IDMEC and Lisboa E-Nova

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC \approx 4 k€ funded by Lisboa E-Nova

15. Year: 2010

Project title: Fuel Cell Hybrid Taxi Life Cycle Analysis Study

Project description: Quantification of life-cycle analysis associated to different powertrain options for a London taxi

Partners: IDMEC and Intelligent Energy

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC \approx 7.5 k€ funded by Intelligent Energy

16. Year: 2009-2011

Project title: Development of scenarios on the Portuguese vehicle stock and impacts on its energy consumption

Project description: Development of a fleet model methodology for the Portuguese transportation sector and evaluation of future scenarios

Partners: IDMEC and Galp Energia

Role in Project: Participation in the IDMEC technical team

Funding: IDMEC \approx 10 k€ funded by Galp Energia

4.3. Supervision of industrial internships

1. Supervision of GALP2020 activities with Rações Porto Alto on Energy efficiency measures in agro-industrial factory, February 2017 – ...;
2. Supervision of GALP2020 activities with Câmara Municipal de Lisboa on Development of energy efficiency measures for the Lisbon municipality fleet, February 2016 – November 2016;
3. Supervision of GALP2020 activities with EGEO on Development of energy efficiency measures for a heavy-duty cargo fleet, February 2016 – November 2016;

4. Supervision of GALP2020 activities with Transportes Paulo Duarte on Impacts of eco-driving and energy efficiency measures for heavy-duty freight fleet, February 2015 – July 2016.

4.4. Jury collaboration

- Blue Auto Trophy for the more environmental vehicle in the market in the 2010, 2011 and 2012 editions⁶⁷.

⁶⁷ <http://www.automotor.xl.pt/microsites/blueauto/index.shtm>

5. Management

The management activities developed are presented in the following sections.

5.1. Scientific coordination of fellowships

1. IST-ID, IN+, M.Sc. Research fellowship, Madalena Lopes, Assessment of biogas production potential in Portugal, May 2017-October 2017.
2. IDMEC Research fellowship, Gonalo Santos, Impact Quantification of Urban Mobility Platform funded by Brisa Inovao e Tecnologia, September 2016-March 2017.
3. IDMEC Research fellowship, Catarina Rolim, Urban Mobility Platform Project funded by Brisa Inovao e Tecnologia, January 2016-April 2016.
4. IDMEC Post-Doctoral Research fellowship, Gonalo Nuno Duarte, SusCity Project funded by FCT, January 2015-July 2016.
5. IDMEC Research fellowship, Tiago Isidro da Costa, Urban Mobility Platform Project funded by Brisa Inovao e Tecnologia, February 2015-December 2015.

5.2. Participation in academic degrees' examination boards

1. Madalena Lopes Anaerobic co-digestion of horse manure and pig slurry for biogas production, M.Sc. in Mechanical Engineering, Instituto Superior Tcnico, 2017 (co-supervisor).
2. Rafael Reis, Impacts of eco-driving and energy efficiency measures for heavy-duty freight fleet, M.Sc. in Mechanical Engineering, Instituto Superior Tcnico, 2016 (co-supervisor).
3. Filipe Paulino, Life cycle analysis of the EU transportation sector, M.Sc. in Mechanical Engineering, Instituto Superior Tcnico, 2016 (supervisor).
4. Catarina Rolim, Impacts of adopting on board ICT and training on driving behavior, safety, energy and environment: application to light duty vehicles and buses, Ph.D. in Sustainable Energy Systems, Instituto Superior Tcnico, 2016 (co-supervisor).
5. Ricardo Coimbra, Evaluation of urban logistics measures in downtown Lisbon, Portugal, M.Sc. in Civil Engineering, Faculdade de Engenharia da Universidade do Porto, 2015.
6. Eduardo Mendona, ICT in the transportation sector: potential market, impact quantification, implementation scenarios in the Lisbon region, M.Sc. in Environmental Engineering, Instituto Superior Tcnico, 2014 (supervisor).
7. Magno Mnedes, Experimental evaluation of conventional and electric bicycles and motorcycles in urban context, M.Sc. in Mechanical Engineering, Instituto Superior Tcnico, 2013 (supervisor).

8. José Tavares, Application potential and energy and environmental impacts of EV and PHEV in São Miguel, M.Sc. in Mechanical Engineering, Instituto Superior Técnico, 2013 (supervisor).

5.3. Organization of national or international events

1. Organization of "Workshop on electric mobility ", 28-29th July 2016, IST.
2. Scientific coordination of BEST Lisbon Summer Course 2015, Creative Engineering and Design Thinking Boot Camp: becoming a modern tourist in old Lisbon, July-August 2015, Lisbon, Portugal⁶⁸.
3. Organization of "Workshop on electric mobility ", 27-28th July 2015, IST.
4. Organization of "Sustainable urban mobility solution: the success cases of New York and Lisbon", 15th November 2013.
5. Co-organization of Conference on the subject Last Mile Freight Delivery; Use of Cleaner Mobility Vehicles, together with University Transportation Research Center - REGION II and New York State Energy Research and Development Authority (NYSERDA), 4th October 2013, NY, USA⁶⁹.
6. Collaboration in the organization of the 16th Meeting of the European Working Group on Transportation, Porto, 4-6 September 2013.
7. Organization of Workshop on Electric Mobility, Instituto Superior Técnico, 7th December 2012.

Lisbon, 12th July 2017

Patrícia Baptista


Patrícia de Carvalho Baptista

⁶⁸ <http://in3.dem.ist.utl.pt/best-lisbon-summer-course-2015/overview/>

⁶⁹ <http://www.utrc2.org/events/lastmilefreightdelivery.com>

Annexes

Annex – Certificates: Graduate



INSTITUTO
SUPERIOR
TÉCNICO

Núcleo de
Graduação

Impresso.... 0,12 Eur
Emº da Cert. 15,00 Eur
Urgência.... 0,00 Eur
Total 15,12 Eur

Registo Nº 15313

Conferido por: [Signature]

**A TÉCNICA SUPERIOR DA SECÇÃO DE GRADUAÇÃO DO INSTITUTO
SUPERIOR TÉCNICO DA UNIVERSIDADE TÉCNICA DE LISBOA**

CERTIFICA, em cumprimento do despacho exarado em requerimen-
to arquivado nesta Secretaria , que dos livros competentes consta
PATRÍCIA DE CARVALHO BAPTISTA -----
portador do Bilhete de Identidade 12338950 -----
natural de ALVALADE,LISBOA -----
filho de JOSÉ FERNANDES BAPTISTA -----
e de MARIA DOS ANJOS DIAS DE CARVALHO BAPTISTA -----
concluiu o curso de QUÍMICA -----
deste Instituto, em 19 de DEZEMBRO de 2006 -----
com a classificação final de 16 (dezassex) valores.-----
pelo que tem direito ao grau académico de licenciado,tendo reque-
rido a respectiva carta.-----

Secretaria dos Serviços Académicos do Instituto Superior Técnico,
em Lisboa, 12 de FEVEREIRO de 2007

Rel' A Técnica Superior
Maria Ada Chagas

Aluno 51313

Pag. 1 de 1

Annex – Certificates: M.Sc.



INSTITUTO
SUPERIOR
TÉCNICO

Stationery..	0.12 Eur
Cert. Amount	20.00 Eur
Urgency.....	0.00 Eur
Total	20.12 Eur

Núcleo de
Graduação

Maria Cristina de Oliveira Santos Matos David Ezra,
Coordinator of the NÚCLEO DE GRADUAÇÃO of INSTITUTO SUPERIOR
TÉCNICO, TECHNICAL UNIVERSITY OF LISBON

CERTIFIES that,

PATRÍCIA DE CARVALHO BAPTISTA -----

with Identity Card Nr. 12338950 -----

born in Alvalade, Lisboa -----

and nationality PORTUGUESE -----

concluded the 2nd Cycle, of the course of MASTER (MSC) in
CHEMISTRY, in 31 July 2007, with the final grade of 16 (sixteen)
values having received a total of 120.0 ECTS, has the right to
the degree of Master in Chemistry, having been issued the
registry number 5836/ISTCM/11.



Maria Cristina de Oliveira Santos Matos David Ezra
Coordinator of the Núcleo de Graduação

Instituto Superior Técnico, in Lisboa, 24 June 2011

Student Nr. 51313
Request ID 7680/2011
Verified by: _____

Page 1 of 1

Annex – Certificates: Post-graduation

 INSTITUTO SUPERIOR TÉCNICO	<table border="0"><tr><td>Impresso....</td><td>0.24 Eur</td></tr><tr><td>Em^a da Cert.</td><td>29.00 Eur</td></tr><tr><td>Urgência....</td><td>0.00 Eur</td></tr><tr><td>Total</td><td>29.24 Eur</td></tr></table>	Impresso....	0.24 Eur	Em ^a da Cert.	29.00 Eur	Urgência....	0.00 Eur	Total	29.24 Eur	
Impresso....	0.24 Eur									
Em ^a da Cert.	29.00 Eur									
Urgência....	0.00 Eur									
Total	29.24 Eur									

Núcleo de
Pós-Graduação e
Formação Contínua

Nuno Miguel Ramos Riscado, Coordenador do NÚCLEO DE PÓS-GRADUAÇÃO E FORMAÇÃO CONTÍNUA do INSTITUTO SUPERIOR TÉCNICO, UNIVERSIDADE TÉCNICA DE LISBOA

CERTIFICA que,

PATRÍCIA DE CARVALHO BAPTISTA -----
com Bilhete de Identidade N° 12338950 -----
natural de Alvalade, Lisboa -----
nacionalidade PORTUGUESA -----

concluiu o 3° Ciclo, do DIPLOMA DE ESTUDOS AVANÇADOS em SISTEMAS SUSTENTÁVEIS DE ENERGIA, em 19 Julho 2008, com a classificação final de 16 (dezassex) valores tendo obtido o total de 48.0 ECTS com aproveitamento nas seguintes unidades curriculares:

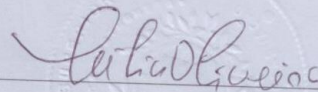
DESENVOLVIMENTO SUSTENTÁVEL, ENERGIA E AMBIENTE -----	6.0 ECTS, com 17(dezassex) valores
ECONOMIA DOS RECURSOS NATURAIS E DO AMBIENTE -----	6.0 ECTS, com 16(dezassex) valores
ECONOMIA E POLITICA DA ENERGIA E DO AMBIENTE -----	6.0 ECTS, com 17(dezassex) valores
ENERGIA NOS TRANSPORTES -----	4.5 ECTS, com 18(dezoito) valores
INTRODUÇÃO À ECONOMIA -----	6.0 ECTS, com 13(treze) valores
ECONOMIA ECOLÓGICA -----	6.0 ECTS, com 17(dezassex) valores

Aluna N° 51313
Identificador Pedido, 8152/2010
Verificado por: Alcace

Pág. 1 de 2

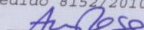
OPTIMIZAÇÃO DE SISTEMAS ENERGÉTICOS -----
----- 6.0 ECTS, com 16(dezasseis) valores
RECURSOS ENERGÉTICOS RENOVÁVEIS -----
----- 6.0 ECTS, com 16(dezasseis) valores
SISTEMAS AVANÇADOS DE CONVERSÃO DE ENERGIA -----
----- 6.0 ECTS, com 17(dezassete) valores

NP



Nuno Miguel Ramos Riscado
Coordenador do Núcleo de Pós-Graduação e Formação Contínua

Instituto Superior Técnico, em Lisboa, 28 Julho 2010

Aluna N° 51313
Identificador Pedido 8152/2010
Verificado por: 

Pág. 2 de 2

Annex – Certificates: Ph.D.



Cert. Amount 20.00 Eur
Urgency..... 0.00 Eur
Total 20.00 Eur

Núcleo de
Pós-Graduação e
Formação Contínua

**Júlia da Conceição Pacífico de Oliveira, Post-Graduation
Coordinator Unit of INSTITUTO SUPERIOR TÉCNICO, UNIVERSIDADE
TÉCNICA DE LISBOA**

CERTIFIES that,

PATRÍCIA DE CARVALHO BAPTISTA -----
Identity Card Nr. 12338950 -----
nationality Portuguese -----
daughter of JOSÉ FERNANDES BAPTISTA -----
and MARIA DOS ANJOS DIAS DE CARVALHO BAPTISTA -----
obtained the Doctorate Degree in SUSTAINABLE ENERGY SYSTEMS, on
2011/11/04 with the presentation of the thesis entitled
"Evaluation of the impacts of the introduction of alternative
fuelled vehicles in the road transportation sector", to which
the legally constituted jury awarded the final qualification of
Pass with Merit.

Júlia Oliveira
Post-Graduation Coordinator Unit

Instituto Superior Técnico, in Lisboa, December 14th, 2011

Student Nr. 51313/D

Verified by: Carla Amaral

Page 1 of 1

CERTIFICATE

This is to certify that

Patrícia de Carvalho Baptista

Has successfully completed the

Doctoral Program in Sustainable Energy Systems

Jointly offered by the

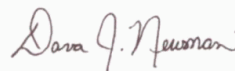
Instituto Superior Técnico – Technical University of Lisbon
School of Economics and Management – Technical University of Lisbon
University of Coimbra
Faculty of Engineering of the University of Porto
Faculty of Sciences of the University of Lisbon

And with the support of the Massachusetts Institute of Technology
through the MIT Portugal Program

November 4, 2011



Paulo Ferrão, Director of MIT Portugal in Portugal



Dava Newman, Director of MIT Portugal at MIT



School of Economics and Management
TECHNICAL UNIVERSITY OF LISBON



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UNIVERSIDADE DO PORTO



Massachusetts Institute of Technology
Engineering Systems Division