MARIE SKŁODOWSKA-CURIE INDIVIDUAL FELLOWSHIPS 2018

EXPRESSION OF INTEREST FOR HOSTING MARIE CURIE FELLOWS

HOST INSTITUTION

School of Sciences and Technology | UNIDEMI - Research and Development Unit in Mechanical and Industrial Engineering

RESEARCH GROUP AND URL

Systems Engineering and Management
http://www.unidemi.com/researchgroups/group/id/1

SUPERVISOR (NAME AND E-MAIL)

Helena Carvalho
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SHORT CV OF THE SUPERVISOR

Helena Carvalho is Assistant Professor in the Department of Mechanical and Industrial Engineering at the Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa (FCT/UNL), Portugal. She is a physics engineer and it holds a MSc in Industrial Engineering both degrees from Universidade Nova de Lisboa. In the end of 2012 she completed her PhD in Industrial Engineering at the Universidade Nova de Lisboa, where she undertook research in the domain of supply chain resilience. She lectures several courses on topics related to industrial engineering including logistics, quantitative methods, decision models, economic engineering, production planning and control, among others. She develops her research activities in UNIDEMI (R&D Unit in Mechanical and Industrial Engineering), being part of the research team of several projects including: "European Manufacturing Survey" Portuguese consortium, "Lean, Agile, Resilient and Green Supply Chain Management", and "Supply Chain Management: design for resilient systems". She had special research interests in the supply chain management topic, namely on how to make supply chains and respective organizations more sustainable by deploying lean and green practices, and at the same time assuring system resilience. As an extension of these research topics, currently she is developing research on eco-efficiency and eco-innovation subjects as a mean to achieve more sustainable business ecosystems. She had been developing her research work using analytical tools like simulation but also by means of the exploitation of qualitative methods such as case study, Delphi methodology and interpretative structural modeling. She has several papers, from conceptual and theoretical research to empirical research, published in international journals, international conferences proceedings, and book chapters.

5 SELECTED PUBLICATIONS

- Carvalho, H., Govindan, K., Azevedo, S. A., and Cruz-Machado, V. (2017). Modelling green and lean supply chains: An eco-efficiency perspective. Resources, Conservation and Recycling, 120, 75-87. DOI: 10.1016/j.resconrec.2016.09.025;

- Azevedo, G., Carvalho, H., Ferreira, L.M., Matias, J.C.O. (2017). A proposed framework to assess upstream supply chain sustainability. Environment, Development and Sustainability, 19(6), 2253-2271. DOI: 10.1007/s10668-016-9853-0;

- Govindan, K., Azevedo, S. A., Carvalho, H., and Cruz-Machado, V. (2015). Lean, green and resilient practices influence on supply chain performance: interpretive structural modeling approach. International Journal of Environmental Science and Technology, 12(1), 15-34. DOI: 10.1007/s13762-013-0409-7;

- Govindan, K., Azevedo, S. A., Carvalho, H., and Cruz-Machado, V. (2014). Impact of supply chain management practices on sustainability. Journal of Cleaner Production, 85, 212-225. DOI: 10.1016/j.jclepro.2014.05.068;

- Azevedo, S. G., Carvalho, H., Duarte, S., and Cruz-Machado, V. (2012). Influence of Green and Lean Upstream Supply Chain Management Practices on Business Sustainability. Engineering Management, IEEE Transactions on, 59(4), 753–765. doi:10.1109/TEM.2012.2189108

PROJECT TITLE AND DESCRIPTION

Lean to be green in a circular economy setup (Lean2Green)

The project Lean2Green address the following question: "How can lean/green supply chain management strategies promote the Circular Economy within the European industry?" The Lean2Green pretend to attain the two main objectives: 1) to characterize the adoption level of lean/green strategies and Circular Economy principles in representative sectors. The objective is to identify synergies regarding supply chain operations, resources usage, technology and business models. 2) to develop a Circular Economy maturity model. It implies the compilation of regulatory, operational, and organizational barriers and strategies to overcome them.

SCIENTIFIC REQUIREMENTS
PhD in Operations Management, Industrial Engineering, Logistics or Supply Chain. The fellow should have experience in: supply chain modelling if possible with application in sustainability topics. Also, previous experience in the Circular Economy topic will be valorised.

SCIENTIFIC AREA WHERE THE PROJECT FITS BEST

Information Science and Engineering (ENG) • Environment and Geosciences (ENV)