MARIE SKŁODOWSKA-CURIE POSTDOCTORAL FELLOWSHIPS 2025

EXPRESSION OF INTEREST FOR HOSTING MARIE CURIE FELLOWS

HOST INSTITUTION

NOVA Information Management School (NOVA IMS)

RESEARCH GROUP AND URL

Information Systems Research line: https://magic.novaims.unl.pt/en/about-us/research-lines/

Information Systems & Analytics Lab: https://magic.novaims.unl.pt/en/labs-innovation/nova-analytics-labs/nova-information-systems-analytics-lab/

SUPERVISOR (NAME AND E-MAIL)

Tiago Oliveira, toliveira@novaims.unl.pt

SHORT CV OF THE SUPERVISOR

Tiago Oliveira is a Full Professor of Information Management and President of the Scientific Council at NOVA Information Management School (NOVA IMS), Universidade NOVA de Lisboa. His research focuses on technology adoption, the digital divide, and privacy. He has published extensively in leading academic journals and conferences, including Information & Management, Tourism Management, Decision Support Systems, Government Information Quarterly, Computers in Human Behavior, Journal of Business Research, Information Technology & People, Information Systems Frontiers, International Journal of Information Management, Journal of Global Information Management, Industrial Management & Data Systems, Computers in Industry, among others. Professor Oliveira has authored over 200 scientific articles in journals and conference proceedings and has accumulated more than 37,000 citations (Google Scholar profile). **He has been recognized as a Highly Cited Researcher by Clarivate Analytics since 2021, an honour awarded to researchers ranking in the top 1% globally by citations for their field, according to Web of Science data**

5 SELECTED PUBLICATIONS

- Neves, C., Oliveira, T., & Sarker, S. (2025). Citizens' participation in local energy communities: the role of technology as a stimulus. European Journal of Information Systems, 34(1), 122-145.
- Neves, J., & Oliveira, T. (2021). Understanding energy-efficient heating appliance behavior change: The moderating impact of the green self-identity. Energy, 225, 120169.
- Rodrigues, J., Ruivo, P., & Oliveira, T. (2021). Mediation role of business value and strategy in firm performance of organizations using software-as-a-service enterprise applications. Information & Management, 58(1), 103289.
- Oliveira, T., Barbeitos, I., & Calado, A. (2021). The role of intrinsic and extrinsic motivations in sharing economy post-adoption. Information Technology & People.
- Oliveira, T., Thomas, M., & Espadanal, M. (2014). Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors. Information & Management, 51(5), 497-510.

Consumer behaviour change journey for technology Adoption

1) Heating Appliances Retrofit Planning
HARP (H2020 Project) (call H2020-LC-SC3-EE-2018, Project ref. 847049)

The EU-funded HARP project will motivate consumers to plan and replace their old and inefficient heating systems with a modern solution combining energy efficiency and renewable sources, accelerating the modernization of the EU's heating stock and significantly contributing to the compliance of EU's energy efficiency targets.

In this project we lead the **Consumer behaviour change journey** task. We developed a tailor-made conceptual model to assess consumer behaviour change and estimate it by using partial least squares structural equation modelling (PLS-SEM). Data was collected from 5 European countries.

2) Intelligent interconnection of prosumers in positive energy communities with twins of things for digital energy markets
TwinERGY (H2020 Project) (call LC-SC3-EC-3-2020, Project ref. 957736)

The EU-funded TwinERGY project will introduce a new digital twin framework for the energy market. It will incorporate the required intelligence for optimising demand response at the local level without compromising the well-being of consumers and their daily schedules and operations. The project will ensure that a wide range of consumers/prosumer interests will be represented and supported in the energy marketplace. Key use cases will be trialled in four pilot regions, and the project will develop, configure, and integrate an innovative suite of tools, services and applications for consumers.

In this project we lead the **Consumers' behavioural analysis** task. By, combining findings about behaviours, attitudes and habits in energy consumption in homes with an innovative approach (which includes the IoT dimensions and interactions between devices) a tailor-made conceptual model is developed. The use of multi-group analysis enables the identification of consumers' homogeneous energy behaviour/attitudes and clustering according to the different levels of individual traits, providing insights about the drivers and inhibitors to the adoption of the technological solutions and the perceived value of each group. Data is collected from different European countries.

3) Digital Twins Enabled Indoor Air Quality Management for Healthy Living
TwinAir (HorizonEurope) (call HORIZON-HLTH-2021-ENVHLTH-02, Project ref. 101057779)

The EU-funded TwinAIR aims to improve urban life by tackling the challenge of indoor air quality (IAQ) improvement by understating its complex interrelationship with external factors. This is achieved by introducing a novel set of tools for identifying sources and tracing a variety of pollutants and pathogens, for enhancing understanding of their effects and assessing their impact on health, for controlling building management systems and services in ways that mitigate part of the impacts and for helping citizens to develop better insights into pollution impacts, along with encouraging healthier, more sustainable choices.

In this project we lead the **Citizens environmental behavioural analysis** task. The use of multi-group analysis will enable the identification of homogeneous groups of citizens/environment and clustering according to the different levels of individual traits, and therefore more customized recommendations towards pro-environmental behaviour engagement. By combining findings about environmental behaviours, attitudes and habits in different microenvironments (residences, workplaces, hospitals, schools and transportation modes), a tailor-made conceptual model will be developed.

4) DE-RISK the adoption of Local Flexibility Markets to unlock the safe and reliable mass deployment of Renewable Energy Systems
DeRisk (HorizonEurope) (call HORIZON-CL5-2021-D3-02, Project ref. 101075515)

DE-RISK aims at supporting the market uptake of renewable energy systems by fostering the adoption of Local flexibility markets (LFMs) and unlocking up to 100GW of flexibility in 2030 which will allow a safe and reliable

integration of RES in the grid. DE-RISK will achieve this ambitious objective by minimizing the investments and implementation risk through an innovative customer behaviour change journey that will increase end users' trust and willingness to participate in the flexibility markets. DE-RISK integrates building, citizen and grid digital twins in its flexibility platform capable of reducing the gap between simulation and real implementation thus mitigating potential technical risks during the deployment and operational phase. To maximize DE-RISK impact, innovative multi-sided business models will be developed ensuring multi-benefits, fairness and sustainability for all actors while disruptive financial schemes will be validated for democratizing access to sustainable investments. Finally, a set of experts will develop regulatory recommendations to support a fair, clear and transparent adoption of LFMs.

In this project we lead the **Consumer Behaviour Analysis in relation to the LFMs** task. Where a consumer analysiswill be conducted to understand the relevant factors that influence behaviour change and their implications in theengagement process. Based on prior findings of the attitudes and habits in energy consumption and inner motivations for behaviour change an innovative approach will be conducted for the development of a tailor-made conceptual model to analyze consumer behaviour in the energy markets and use of RES technologies. Data will be collected from 4 European countries and data will be analyzed using structural equation modelling techniques.

5) FARCLIMATE: Moving ForwARd to achieving CLIMATE-resilient and sustainable European regional economic systems
FARCLIMATE (Horizon Europe) (call HORIZON-MISS-2022-CLIMA-01-04; Project ref. 101112860)

FARCLIMATE will address the difficult challenges of developing and expanding climate-resilient measures, making them available and understandable to everyone, while also paying special attention to the social, political and economic barriers that are commonly found. FARCLIMATE actions will be implemented in at least 20 regions and communities, i.e., case studies, in Europe, where we will address transformative solutions in the path to climate resilience. In order to achieve such a great challenge, FARCLIMATE has set the following work program: 1) Initial work on engaging with all relevant stakeholders in each region, setting management mechanism; 2) Establishment of Living Labs to perform co-creation, testing and scaling-up innovative activities in real-life environments; 3) A deep research of the main value chains, of the socioeconomic and environmental characteristics and of the existing economic sectors, through indicators to be monitored, of all investigated regions and communities; 4) Establishment of the transversal actions to be performed in all case studies: tailor-made training activities for communities empowerment, targeting different types of stakeholders and based among climate change and related hazards and risks; 5) The implementation of technical but also socially feasible innovative solutions in the agriculture, forestry and fisheries economic sectors, with specific solutions to increase their capacity to adapt to climate change impacts on their fields. Nature-based solutions will be the guiding thread in FARCLIMATE innovative actions; 6) The creation of different tools to spread the obtained learnings, found barriers, and successful results, among others, during FARCLIMATE, such as policy recommendations, guidelines, management plans and the innovative Transformation Hub.

In this project we lead the **Consumer Behaviour and Empowerment assessment** task to understand the relevant factors that influence consumers' acceptance/behaviour and change behaviour. Namely, the analysis of factors that influence the decision process towards the transition of climate resilience solutions, including the consumer's capabilities. Data will be collected from different European countries and will be analyzed using structural equation modelling techniques.

SCIENTIFIC AREA WHERE THE PROJECT FITS BEST*

Management Information Systems: Information Science and Engineering (ENG), and Social Sciences and Humanities (SOC).