

**Research Fellowship** available in the framework of the project INTERREG EUROPE PGI01611 CISMOB - Cooperative information platform for low carbon and sustainable mobility at the Center, for Mechanical Technology and Automation, Department of Mechanical Engineering, University of Aveiro, PORTUGAL.

This is an unofficial translation of the announcement available at:

<http://uaonline.ua.pt/pub/detail.asp?lg=pt&c=46433>).

**Fields of study:** Engineering / Transportation / ICT / Political Science / Environment.

**Requirements:** Master in Computer Science, Sustainable Energy Systems, Transportation, Engineering Systems, Physics, or any related field of direct interest to the project.

**Project summary:** The work will focus on supporting the activities of CISMOB project. CISMOB main vision is to promote innovative ways to reduce carbon footprint and increase the sustainability of urban areas by improving the efficiency in the use of urban transport infrastructure through ICT. In a context of increasing availability of sensor technology to monitor and record large amounts of data, a common challenge to policy makers is to identify the best practices to take advantage of these new sources of data and use them to prioritize intervention areas, to manage efficiently current road networks, to inform citizens and motivate them to choose more sustainable mobility options. CISMOB will focus on improving the implementation of regional policies and local mobility programmes by having a thorough understanding about the different transport related impacts and the main vulnerabilities associated to different zones of the territory. In CISMOB project policy and local mobility programs will not be focused in minimizing a particular parameter (ex. Levels of congestion), but rather to promote holistic approaches capable of responding to the questions: what (to minimize)? Why? When? Where? And how? Regional and Policy instruments should also provide a framework of indicators to assess and inform the costs and benefits of environmental effectiveness of different mobility solutions. CISMOB integrates a set of cities and regions of heterogenic characteristics, which are represented by institutions with complementary profiles. All partners will cooperate together in order to learn best practices of sustainable management of urban transport taking advantage of ICT. Workshops, staff exchange programs and dissemination actions will be carried out with the aim of exchanging local experiences, learning best practices and enhancing the citizen's participation.

**Activities/workplan:**

The work will focus on supporting the activities of CISMOB project. The main objective of the project is to promote the use of new communication technologies (NTC) to increase the efficiency and sustainability associated with the transport infrastructure. The following tasks are included:

a) To organize data related to the project and actively collaborate in the development of the Baseline assessment report (BAR). This document will explore the use of new communication technologies in the transport system of the 5 CISMOB regions. This work includes:

Conduct a SWOT analysis of partners' regional position(s) in the project main topics:

1. Online Traffic monitoring capacity
2. ICT penetration in multi modal mobility
3. Environmental and urban activity patterns monitoring
4. Available IT and ITS tools to promote lowcarbon and sustainable mobility
5. Policy frameworks, Sociopolitical awareness and readiness levels
6. Financial instruments and institutional capacity

b) To participate and collaborate in the organization of project meetings and events taking place in Portugal, Sweden, Spain and Romania;

c) To prepare articles for publication in scientific journals and / or international conferences;

d) Assist with the dissemination of project activities.

**Applicable laws and regulations:** Lei n.º. 40/2004, de 18 de Agosto (Estatuto do Bolseiro de Investigação Científica); Regulamento de Bolsas de Investigação da FCT, I. P. aprovado pelo Regulamento n.º 339/2015, de 17 de junho de 2015 (<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>); e o Regulamento de Bolsas de Investigação Científica da Universidade de Aveiro – Regulamento n.º 341/2011, publicado em Diário da República, 2ª série, n.º 98, de 20 de Maio.

**Workplace:** The work will be developed in the University of Aveiro.

**Duration of the Grant:** 6 months, starting in July 2016. It may be renewed until the end of the first phase of the project (31 March 2018).

**Value of grant:** The amount of the grant corresponds to € 980, per month.

**Selection Methods:** The selection methods used are the following: Curriculum Assessment, which will be assessed the knowledge mentioned below, with the respective valuation:

- Master classification ( in the scientific areas of the project) (20%);
- Number and quality of relevant scientific publications for the project (20%);
- Demonstration of basic knowledge on transport networks, intelligent transport systems, geographic information systems, energy efficiency, environmental sustainability analysis (20%);
- Previous experience in areas relevant to the project (10%);
- Good oral and writing skills in the English language - the candidate must write a motivation letter (maximum one page) in English about his/her abilities and motivations for participating in the project (20%);

- Interest in pursuing research in a PhD program (10%).

The jury may require an interview with the candidates. The jury may not choose any candidate, if it considers that they do not meet the quality level of the required criteria.

Selection Jury Composition: President: Jorge Filipe Marto Bandeira - Members: Margarida Isabel Cabrita Marques Coelho and José Paulo de Oliveira Santos; Substitute Member: Fernando José da Silva Neto.

Notification of results: The final evaluation results will be publicized through alphabetized list, posted on the bulletin board in the lobby of the Department of Mechanical Engineering, University of Aveiro, and the candidate approved will be notified through e-mail.

**Application deadline.** The contest is open from May 20 to June 8, 2016.

Applications must be formalized, necessarily, by sending application letter accompanied by the following documents:

- Curriculum Vitae, dated and signed;
- Certificate of academic degrees;
- Print of two important publications for the project;
- Photocopy of ID Card or Passport;
- Letter of interest;
- Two letters of recommendation, with commending contact;
- Other relevant elements.

Applications must be sent to the e-mail address of the Department of Mechanical Engineering Secretariat: [dem.bolsas@ua.pt](mailto:dem.bolsas@ua.pt) or delivered in person 09.00h - 12.00h, 14.00h - 17.00h, in the Secretary of the same Department located in the Campus of Santiago, 3810-193 Aveiro.

In addition, applicants should send scanned documents to the email address of Jorge M. Bandeira: [jorgebandeira@ua.pt](mailto:jorgebandeira@ua.pt)