

(BL191/2018_IST-ID)

CALL FOR 1 ASSISTANT RESEARCH FELLOWSHIPS

Applications are open for 1 Assistant Research Fellowship(s) (BIM), within the framework of project/R&D institution (Transport Infrastructure and Urban Spatial Structure: Economic, Social and Environmental Effects/CERIS), (PTDC/EGE-ECO/28805/2017), financed by national funds through FCT/MCTES (PIDDAC) and co-financed by the European Regional Development Fund (FEDER) through COMPETE – “Programa Operacional Fatores de Competitividade (POFC)” (when applicable)/ with the financial support of FCT/MCTES through national funds and, when applicable, co-financed by the FEDER, under the Partnership Agreement PT2020, under the following conditions:

Scientific Area: Urban and Regional Systems

Admission Requirements: Candidates must hold a master’s degree in civil engineering, transport planning, geography and spatial planning or similar fields. Essential requirements are:

- Experience using GIS modelling applied to spatial planning;
- Experience using transport accessibility modelling in GIS software;
- Experience handling/managing large datasets;
- High standard of written and spoken English;
- Good communication and interpersonal skills.

Desirable requirements include:

- Evidence of published research in one or more of the relevant project topic areas;
- Experience working in a project team;
- Project management skills;
- Experience with statistical modelling.

Workplan: The main aim of TiTuSS is to create new knowledge on the relationship between transport improvements and urban spatial structure in Portugal, and how changes in this relationship can be better managed to enhance regional and national productivity together with more sustainable and inclusive growth. The key objectives are:

1. To provide new evidence for Portugal on the effects of transport improvements on the urban spatial structure, particularly location patterns of the population and economic activities.
2. To provide new evidence for Portugal on the relationship between productivity and urban agglomeration externalities resulting from improvements to the transport network (i.e. wider economic impacts);

3. To provide new evidence for Portugal on the contribution of transportation infrastructure, particularly improvements in regional accessibility resulting from the expansion of the road network, to spatial cohesion, particularly a more sustainable and inclusive growth.

The objectives will be achieved by addressing the following research questions:

- To what extent has the expansion of Portugal's road network over the last 30 years altered patterns of urban spatial structure? How much has it contributed to patterns of suburbanisation and dispersion of economic activity?
- What is the magnitude of the productivity benefits from urban agglomeration economies induced through transport improvements, and have the benefits enlarged or reduced over time as a result of the expansion of the motorway network and associated changes in regional accessibility?
- To what extent have the improvements in regional accessibility levels that followed the extension of the motorway road network contributed to greater territorial cohesion, particularly to sustainable and inclusive growth?

Considering the project objectives and research questions, the main duties of the post holder are:

1. Create a GIS database describing the evolution of Portugal's road and rail networks over the last 30-35 years. Besides geocoding the evolution of the national transport system, there will also be a more localized analysis of Lisbon's metropolitan area transport system;
2. Develop indicators of the urban spatial structure and transport accessibility at the national and regional/local levels;
3. Manage and handle large GIS datasets and other non-GIS secondary datasets;
4. Carry out and develop collaborative research with other project colleagues and research groups;
5. Prepare academic papers and presentations;
6. Contribute to the organization of project events and activities (e.g. seminars, workshops).
7. Contribute to small-scale project management activities under supervision of project's PI (Patricia Melo) and Co-PI (João de Abreu e Silva).

Legislation and Regulations: Lei n.º 40/2004, de 18 de agosto (Estatuto do Bolseiro de Investigação Científica) (*Statute of Scientific Research Fellow, approved by Law n. 40/2004, of August 18*); Regulamento de Bolsas de Investigação da Fundação para a Ciência e a Tecnologia em vigor (*Research Fellowships Regulation of the Foundation for Science and Technology in force*) (www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf); e Regulamento de Bolsas de investigação do IST-ID (Research Fellowships Regulation of IST-ID).

Workplace: The work will be developed at CERIS (research unit's name) of Instituto Superior Técnico, Universidade de Lisboa (host institution's name), under the scientific supervision of Dr João de Abreu e Silva.

Duration: The research fellowship(s) will have the duration of 6 months. It's expected to begin in January 2019 (month/year), and may be eventually renewed up to the maximum of 18 months.

Monthly maintenance allowance: According to the values for Research Fellowships awarded by FCT in Portugal (<http://www.fct.pt/apoios/bolsas/valores>), the amount of the monthly maintenance allowance is € 980, being the payment method an option of the Fellow by Wire Transfer/Check.

Selection methods: The selection methods will be the following. Applications will be ranked based on curricular evaluation. A maximum of five applicants will be shortlisted and may be invited for an interview(*Curriculum evaluation, individual interview**, *knowledge tests, others*), Curriculum Vitae (50%), Evidence of experience using GIS modelling applied to spatial and transportation planning (30%), Previous experience in research activities (5%) and Interview (optional) (15%).;

It allows the selection of citizens from Third Countries, in accordance with article 14 of the Research Fellowships Regulation of the Foundation for Science and Technology, IP – 2015.

Composition of the selection Jury: Dr João de Abreu e Silva, Dr Filipe Moura and Dr^a Rosário Macário.

Announcement/ notification of the results: The final evaluation results will be communicated to all applicants by email.

Application deadline and formalization: The call is open from 5/11/2018 until 15/11/2018

It is mandatory to formalize applications with the submission of the following documents: B1 Form – Fellowship application (<http://ist-id.pt/documentos/bolsas-de-investigacao/>) *Curriculum Vitae, academic degree certificate and motivation letter*. Applications must be submitted to the email: jabreu@tecnico.ulisboa.pt **with the reference “02/SAICT/2017-TiTuSS/BIM/applicants surname”**