

(BL133/2020-IST-ID)

### Research Studentships PhD students

Applications are open for 1 Research Studentship, within the framework of Centre for Management Studies of IST – CEG-IST, reference UIDP/00097/2020, financed by national funds through FCT/MCTES (PIDDAC), under the following conditions:

**Scientific Area:** Systems Engineering and Management

**Admission Requirements:** Valid enrolment in a Doctoral Program in the area of Engineering and Management or equivalent. Master's degree in Industrial Engineering and Management, Computer Science, Operational Research, or Applied Mathematics. Advanced knowledge of spoken and written English.

Academic degrees obtained in foreign countries shall be registered by a Portuguese institution, according to the Decree-Law nr. 66/2018, of August, 16th, and the Ordinance nr. 33/2019, of January, 25th. It is mandatory to present the certificate to sign the contract. More information is available on: <https://www.dges.gov.pt/pt/pagina/reconhecimento?plid=374>

**Workplan:** The work to be developed will be within the scope of the SHARE - SHAPing order fulfillment models for the phigital REtail logistics project, under development at CEG-IST, in the area of OpLog - Operations, Logistics and Supply Chain Management and under the supervision of Prof. Susana Relvas. The objective of the project is to develop planning methods for retail distribution (fulfilment network) that guarantee efficiency and effectiveness of the operation in view of the customer's specificity - optimizing the cost to serve each customer.

The work plan will have 4 phases: 1) Forecasting retail demand; 2) Modelling the retail order fulfilment network and its optimization; 3) Solution methods; 4) Validation and testing. It is intended that forecasting methods based on machine learning methods will be used, so that demand can be modelled at a detailed level of customer characteristics. It is intended that the candidate's work focuses on modelling the forecasting method (phase 1) and according to the modelling of the distribution network (phase 2).

**Legislation and Regulations:** Statute of Scientific Research Fellow, approved by Law nr. 40/2004, of August 18, as worded by Decree-Law nr. 123/2019, of August 28; FCT Regulation for Research Studentships and Fellowships, available on <https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2019.pdf> and <https://dre.pt/application/file/a/127230968>.

**Workplace:** The work will be developed at CEG-IST – Centre for Management Studies of Instituto Superior Técnico, under the scientific supervision of Susana Relvas.

**Duration:** The research fellowship(s) will have the duration of 12 months. It's expected to begin in January 2021 and may be eventually renewed up to the maximum of 36 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 € 1074,64, being the payment method an option of the Fellow by Wire Transfer/Check.

**Selection methods:** The selection methods to be used will be as follows:

- 50% - Curricular evaluation, taking into account the doctoral program that you attend, undergraduate and/or master's degrees, knowledge of English and other relevant information;
- 35% - Interview, to be conducted in English, may be by videoconference;
- 15% - Letter of motivation.

**Composition of the selection Jury:** Susana Relvas, Ana Póvoa, Ana Carvalho

**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 30 December 2020 until 13 January 2021.

It is mandatory to formalize applications with the submission of the following documents: i) B1 Form – Fellowship application ([www.ist-id.pt](http://www.ist-id.pt) ); ii) *Curriculum Vitae*; iii) academic degree certificate, where applicable; iv) proof of enrollment in PhD; v) motivation letter.

Applications must be submitted to the email: [susana.relvas@tecnico.ulisboa.pt](mailto:susana.relvas@tecnico.ulisboa.pt)