

PhD Position in Urban Mobility & Tactical Urbanism Fall 2022

Facts Sheet:

Location: Barcelona

Department / Research Group: Civil and Environmental Engineering Department / BIT-
Barcelona Innovative Transport (<https://bit.upc.edu/en>)

Contract: 3 years

Hours: 37.5 hours per week

Salary: 21.043,32 € per year gross

Education: Master degree

About employer: Universitat Politècnica de Catalunya ([UPC – BarcelonaTech](https://upc.edu))

Short link to the announcement: <https://fsoriguera.com/> (click on **PhD position 2022**).

Closing date: Open until the successful candidate is selected.

Position Summary: The Barcelona Innovative Transport (BIT) research group in the Department of Civil and Environmental Engineering at the *Universitat Politècnica de Catalunya* (UPC-BarcelonaTech) invites applications for a PhD position in traffic modelling and simulation. The position should be covered during next fall 2022 in the area of urban mobility and tactical urbanism. The selected candidate will be hired temporarily for a maximum duration of 3 years, or until he/she receives a 3-year PhD fellowship from any national or international program, to which he/she will be encouraged to apply.

Research group summary: The BIT research group (<https://bit.upc.edu/en>) works in several topics in the transportation engineering field, ranging from transport operations to city planning. The candidate is expected to join the sub-group led by Prof. Francesc Soriguera (fsoriguera.com) whose main research directions currently focus on the analysis of freeway traffic and on the modeling of vehicle sharing systems in urban mobility. In the freeway traffic operations research field, Dr. Soriguera has worked in travel time estimation, the effects of dynamic speed limits, and has conducted real life experiments in the Barcelona Highway Lab. Lately, the focus of Dr. Soriguera's research moved towards the platooning strategies of connected autonomous vehicles in freeway traffic, and to the interaction between urban mobility and tactical urbanism.

Primary Responsibilities: Cities have generally been created by the progressive accumulation of buildings and roads. Some areas with more planning, others with less... and all different. Some cities are scattered, others concentrated. Some have large arteries, others a network of streets with less capacity. Do some behave better than others in terms of urban mobility? Is there an optimal city design? The candidate will develop these concepts, deepening in the design of the city, the density of origins and destinations and the necessary endowment of urban space to the different transportation modes. This will ultimately define an urban density and a specific city layout, optimal, if any, in terms of mobility. This research needs to be made with the higher quality standards in order to be published in top tier scientific journals in the field. The final goal will be to complete a PhD thesis. This work will be under the direct supervision of Dr. Soriguera.

Requirements

- To hold a master degree in engineering, mathematics or physics.
- High interest in transportation engineering, urban mobility and tactical urbanism.
- Strong computer coding skills to process data and implement models.
- Excellent English communication skills. Spanish will be appreciated.
- Some experience or knowledge in transport modeling methodologies.
- Experience using traffic simulation tools as AIMSUN, VISSIM, VISUM, etc. and GIS platforms will be appreciated.
- The candidate will apply to be admitted in the [Civil Engineering PhD Program](#) at the UPC. Only if he/she is accepted will be hired.

Application Submission:

To apply please send the following documents to francesc.soriguera@upc.edu along with a letter of application in a single PDF file entitled "PhD_PLATOON_Lastname.pdf"

- Download and fill the following form: [PhD Application Form](#)
- A detailed CV/resume
- Proof of English language proficiency
- Abstract of your MSc thesis (max 1/2 page)
- 1 page describing your ideas of an approach and methodology to assess the relationship between urban mobility and tactical urbanism, elaborating on data and modelling aspects, if possible.
- Recommendation letters may be asked during the selection process. They are not necessary at this stage, but you may add them if already available.