

Title of the doctoral program

Urban and regional development

Title of the research activity

Transport and mobility

Short description of the research activity

Holistic approach to the people mobility in the smart cities through the analysis of people behaviour:

- analysis of the variables influencing the mobility and the related choices;
- analysis of the aspects (transport supply, information to users, communication and awareness of the environmental impacts and climate change produced by their modal choice) on which intervene to encourage users towards a more sustainable mobility

Evaluation of the effects of the info-mobility and Intelligent Transport System on transport users also thanks to the transport surveys to analyse:

- the users' attitude towards the real time information about traffic and public transport through the web and the application on smartphone;
- the effect of the use of the above applications on the modal choice and on the travel behaviour.

Analysis of the transport supply in the smart cities:

- analysis of the intermodality and of good practices to be implemented in urban contexts where different transport modes can be used;
- analysis of the barriers to use public transport for particular target users as elderly people or disabled people

Planning of transport systems for a sustainable mobility:

- analysis of use of the open data related to transport and land use to develop decision support tools both for decision makers and citizens;
- evaluation of the environmental impacts (air pollution and noise) and of climate change caused by transport systems;
- impact of the meteorological conditions on the management of the transport systems;
- innovative methods for the visualisation of the mobility patterns using GIS techniques and webmapping.

Transport economics and transport policy

- evaluation of the citizens' perception of the transport policies: for example road pricing and info-mobility;
- evaluation of the performance of the public transport and individuation of the Key Performance Indicators (KPIs) and visualisation with tools as webmapping.

Scientific responsible (name, surname, role, email)

Cristina Pronello, associate professor, cristina.pronello@polito.it

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Number of vacancies for XXXI cycle (3 years program)

3

Specific requirements (experiences, skills)

Skill in transport systems theories, in modeling, statistics and mathematics.

Website of the research group (if any)