



Venice
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University

**Venice International University
International PhD Academy
Global Challenges Initiatives:
Mobility Challenges for Future Society**

**Venice International University
May 13 – 17, 2019**

Faculty

- Patrizio Antici, Institut National de la Recherche Scientifique, Canada
- Daniele Archibugi, National Research Council of Italy
- Antonio Comi, University of Rome “Tor Vergata”
- Pietro Lanzini, Ca’ Foscari University of Venice
- Neil Maiden, Ca’ Foscari University of Venice and CITY London
- Marco Mazzarino, Iuav University of Venice (Coordinator)
- Agostino Nuzzolo, University of Rome “Tor Vergata”
- Riccardo Rossi, University of Padua
- Lucio Rubini, Venice International University (Co-coordinator)
- Andrea Stocchetti, Ca’ Foscari University of Venice
- Pieter Vansteenwegen, KU Leuven

Day One, Monday, May 13

Morning:

9.30

Welcome coffee & Registration

10.00 – 11.00

Opening & participants presentation (*Venice International University & students*)

Introduction to the course (Lucio Rubini, *Venice International University*)

11.00 – 12.00

Lecture

Mobility challenges for future society

Domenico Patassini, *Iuav University of Venice*

Afternoon:

13.30 – 14.15

Poster Session 1 (Students)



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14.30 – 16.30

Site visit

Rowing in Venice: slow mobility through the Lagoon to the Giudecca Island

17.00 – 18.30

Lecture

Challenges of mobility in the historical city centers, the over-tourism phenomena and the Venice case: 30 years of the Venice Project Center

Guest speaker: Fabio Carrera, *Venice Project Center / Worcester Polytechnic Institute*

Venue: Giudecca, H3 (Ex-Herion)

Day Two, Tuesday, May 14

Morning:

9.30 – 12.30

Lecture

The approach of management studies to urban sustainable mobility: research methods, new perspectives and emerging trends

Andrea Stocchetti, Pietro Lanzini, *Ca' Foscari University of Venice*

The seminar will deal with mainstream research questions and topics related to sustainable mobility management, with a specific focus on the urban environment.

As introduction, an overview on the evolution of emerging principles in sustainable mobility will be provided. Among emerging themes, we will focus on those that are currently considered as most relevant, from a management perspective, both by scholars and by practitioners.

Specifically:

- a) on the systemic nature of urban mobility issues, which implies the need to involve stakeholders since the early planning stages. In this regard, students will be actively involved in case-studies for the collaborative identification of problems and possible solutions in a situation where the relationships between variables are complex to represent.
- b) The importance of considering commuters' behavior and decisions as crucial determinants of urban policies effectiveness. Urban mobility planning has been dominated by a supply-side / technological perspective, while the demand is typically seen as a group of decision makers who choose according to price-&-travel-time-based economic rationality. There is a growing literature emphasizing the complexity of the issue, and the relevance of individual decision making: commuters' decisions are often taken according to complex decisional processes envisaging the interplay of rational and habit-related variables, overcoming the mere "time & money" paradigm.

Learning objective

The seminar will provide students with an overview of research questions, methods and suggestions for the development of new researches within mainstream topics in the field of sustainable urban mobility management. The seminars will also include a phase of concrete application of involvement techniques for the representation and discussion of a case study.

Afternoon:

14.00 – 14.45

Poster session 2 (Students)



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15.00 – 17.30

Lecture

Innovation issues on public transport: operational planning and management

Pieter Vansteenwegen, *KU Leuven*

This talk will mainly focus on the “bus line planning” (or “bus network design”) problem. The line planning problem decides for each bus line which stops it will serve and in which order, considering a given demand for transportation and one or more objectives about passenger service and operator costs for the entire network. Different variants and recent developments, such as considering emissions, flexible bus services in smart cities and on-demand services will be discussed. Moreover, appropriate optimization techniques efficiently addressing these planning problems will be explained.

Day Three, Wednesday, May 15

Morning:

9.30 – 11.30

Lecture

Decision support for personalized city trip planning

Pieter Vansteenwegen, *KU Leuven*

How can decision support help you as a tourist to get the most out of your city trip, in a truly personalized way. This talk will introduce the City Trip Planner, an online tool suggesting personalized city trips based on limited input about your practical constraints and preferences. Different variants modelling your planning problem as accurately as possible will be discussed. Appropriate and efficient algorithms to calculate your personal trip will be presented. Along the way, decision support techniques in general and the field of Operations Research are introduced to a broader audience.

12.00 – 12.45

Poster session 3 (Students)

Afternoon:

14.00 – 17.30

Soft-skill seminar

Creativity and design thinking

Neil Maiden, *University of London*

This seminar will highlight the importance of creativity and creative thinking in all aspects of scientific endeavour, then introduce different forms of tools and techniques for structured creative thinking to use during scientific and doctoral research. It will draw on creativity science, and in particular on structuralist models that frame creative work as one of discovering, reflecting and learning. The seminar will also draw parallels with design practices, and encourage participants to adopt some of the practices to enhance their creativity and learning for science and scientific work.

18.30

Social event

Aperitivo and cicheti in Venice



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Day Four, Thursday, May 16

Morning:

9.30 – 12.30

Soft-skill seminar

Project management

Patrizio Antici, *INRS*

Afternoon:

14.00 – 17.30

Lecture

Human factors in road safety. Innovative methods for reducing crashes risk.

Riccardo Rossi, *University of Padua*

The policies of the European Union in recent years have been strongly oriented to encourage the application of measures of various kinds aimed at reducing the number of road accidents. Over the last decade, there has been a sharp reduction in the number of fatalities (deaths and injuries) and this is a success, but this does not allow us to stand still because the phenomenon still has worrying magnitude. In 2017, about 25,600 people died in road accidents and about 1.4 million were injured on the roads of the EU member states. Knowledge of the skills and limitations of the driver is then central to identifying useful actions interventions to reduce the likelihood of an accident. These actions belong to two main classes: engineering/infrastructural and enforcement/educational. In such contexts, driving simulators is a widely used tools for the design and evaluation of infrastructure components and advanced driver support systems. During the seminar will be presented several experiments designed and conducted at the Driving Simulation Laboratory of DICEA (University of Padova) highlighting both the potential of the research methods and of the tool and the results obtained for their practical value.

Day Five, Friday, May 17

Morning:

9.30 – 12.30

Lecture

Emerging approaches of data analytics to support urban transportation system analysis and modelling

Lecture

Innovative mobility policies for last mile people and goods transport in historical cities

Antonio Comi , Agostino Nuzzolo, *University of Rome Tor Vergata*

Afternoon:

14.00 – 17.00

Soft-skill seminar

Publish and evaluate research results, peer review skills. Are there any laws in the scientific production?

Daniele Archibugi, *CNR*

The motto of academic life is more and more “Publish or perish”, but young scholars often find it difficult to understand the procedure to access to good journals. While how-to do-good-research

is far beyond the scope of this lecture, it will be discussed what are the key points to consider when you are planning to submit an article to a journal.

The discussion will be interactive and practical examples will be offered. The use of bibliometric indicators will be discussed. A general discussion on the laws of scientific production will follow.

17.00 – 18.00

Workshop and Sum-up

Lucio Rubini (*Venice International University*), Marco Mazzarino (*Iuav University of Venice*)



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