

PhD Position in Future Mobility Systems: design and societal impact

Topic and Requirements

Applications are invited for PhD candidates that are excited to shape the next generation of mobility systems and shed light on their societal impact. Towards this goal, you will be working under the supervision of [Dr Dario Paccagnan](#), develop and analyze theoretically-sound tools/models/algorithms.

Autonomous Mobility on Demand - a mode of transportation wherein fleets of self-driving vehicles transport passengers on demand within a city - is forecasted to revolutionize the way we move. Yet its impact on our society is not fully understood. For example, how will autonomous vehicles integrate with the existing public transportation infrastructure? Will competition between multiple operators worsen the congestion?

You will have the opportunity to tackle these questions (and many more) in a principled way, and at the same time develop novel tools and algorithms to shape the future of intelligent transportation systems. As the interests of different parties are involved (e.g., traffic authority, municipalities, systems' operators), you will exploit models and tools in game theory, optimization, control theory.

To apply for this position, we are looking for outstanding PhD candidates with a strong mathematical / computer science background. Familiarity with any of the following is desirable: convex optimization, algorithms, game theory, control theory.

Applicants are expected to have a First Class or Distinction Masters level degree, or equivalent, in Computer Science, Applied Mathematics, Systems and Control, Electrical or Mechanical Engineering. Applicants must be fluent in spoken and written English. The position is **fully funded**, covering tuition fees, travel funds and a stipend/bursary.

How to Apply

Informal inquiries about this position are encouraged and can be directed to [Dr Dario Paccagnan](#).

To apply for this position, please follow the [application guidelines](#). In the application form, please write Future Mobility Systems in the "Proposed Research Topic" field, and Dr Dario Paccagnan in the "Proposed Research Supervisor" field. This position is based at South Kensington in central London.

Applicants are advised to visit the [departmental webpage](#) for general information on becoming a PhD student in the Department of Computing.

We are committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Two Ticks Employer, and are working in partnership with GIRES to promote respect for trans people.

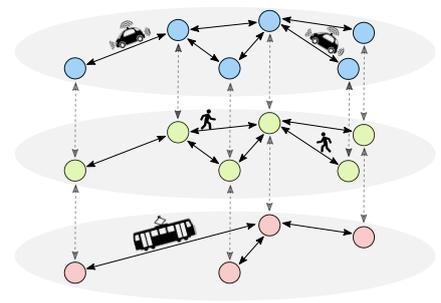


Figure 1: Overview of a future mobility system where multiple transportation modes need to be coordinated.