



PhD Studentship in Automated Mobility: To research future resilient transport System of Systems architectures

Loughborough University

Qualification type:	PhD	Placed on:	14th January 2015
Location:	Loughborough	Closes:	31st March 2015
Funding for:	UK Students, EU Students	Reference:	GS15CBE2/M3
Funding amount:	£13,863		
Hours:	Full Time		

(part of 'Developing a safer and smarter transport system through advances in automation and intelligent mobility mini-CDT')

The Project:

The vision of future transport is increasingly based on the concept of Intelligent Mobility (IM) where the connected capabilities of partially and fully autonomous vehicles, road infrastructure and traffic management systems place people and goods at the heart of the transport system. Together, road accidents and congestion cost the UK £50 billion a year. New intelligent technologies could deliver a step change in safety and mobility but they bring many research challenges. This mini-CDT will focus on five strategically selected areas of research in particular:

- (1) [Systems of systems architecture](#)
- (2) [Safe and smart mobility](#)
- (3) [Connected vehicle technologies](#)
- (4) [Smart highways](#)
- (5) [Human factors](#)

Aim/objectives:

The aim of this exciting PhD is to focus specifically on areas 1 and 3 in order to derive a detailed set of requirements (driven from a Systems of Systems perspective) in order to drive the enabling systems architecture and potential engineering solutions comprising 'in-vehicle-technology', 'vehicle-to-vehicle-interaction' and 'vehicle to infrastructure interaction'. In addition, development of demonstrable resilient transport system architectures that can adapt to, and accommodate legacy and future automated transport systems comprising road infrastructure, vehicles, people, traffic management systems and regulatory constraints will be a key goal. An important aspect of the PhD is the creation of an executable model based systems engineering architecture to explore the impact of different architectural solutions.

This PhD will be based within the School of Electronic, Electrical and Systems Engineering in collaboration with the School of Aeronautical and Automotive Engineering. The studentship is for three years and is intended to start in October 2015. The studentship provides a stipend of £13,863 per annum plus tuition fees at the UK/EU rate (currently £3,996 p.a.) for up to three years. International (non-EU) students may apply but will need to find the difference in fees between those for a 'UK/EU' and 'international' student themselves. Non-UK applicants must meet the minimum English language requirements, details available here: <http://www.lboro.ac.uk/international/englang/index.htm>

The studentship is open to graduates from disciplines including Civil Engineering, Systems Engineering, Electrical and Electronic Engineering, Computer Science and Statistics who are interested in autonomous transport systems, data fusion and statistical modelling. The minimum entry qualification is a 2.1 Honours degree or equivalent. Please add this outline proposal to your application.

For an informal discussion, please contact Prof Roy Kalawsky at R.S.Kalawsky@lboro.ac.uk

To apply, please complete the online application using the following link: https://luis.lboro.ac.uk/web_apx/f?p=100:1

The closing date for applications is 31 March 2015

Interviews will take place week commencing 20 April 2015

Please quote the following reference when applying: **GS15CBE2/M3**

[Apply](#)

Advert information

Type / Role:

PhD

Subject Area(s):

[Mathematics and Statistics](#) [Statistics](#) [Computer Science](#) [Computer Science](#)