Optimisation of Autonomous Control Systems
PhD

Start Date: 5 February 2017
Project Supervisors: Dr Stewart Birrell, and Dr Matthew Higgins
Funding: 3.5 years

Project aims

WMG’s Intelligent Vehicles group, in partnership with RDM – the UK’s only designer and manufacturer of driverless ‘Pods’ – are offering a rare opportunity to someone with a passion for Connected and Autonomous Vehicle (CAV) technologies to be part of this next stage in development with a fully funded 3.5 year PhD Scholarship.

The science and engineering behind the rapid and dynamic development in the area of Connected and Autonomous Vehicles (CAVs) is perhaps at its most exciting from a research and development perspective. We are at a stage in the development cycle where the first concept vehicles have been produced, and results from the real-world trials are being iterated back into the cycle as part of the next generation of CAV designs that will impact our lives in the years to come.

One topic in particular, that of the CAV inference engine between the sensors and control system, is presenting new challenges daily in the general area of Autonomous Control System resilience. This area includes more specific challenges in (Reconfigurable) embedded processors, low power computing, functional safety, EMC testing, and the noise management of sensor technologies.

Entry requirements:

We are actively seeking an enthusiastic individual to join our team with the following:

- An undergraduate (BEng, MEng) and/or postgraduate Master’s qualification (MSc) in a science and technology field. e.g. Engineering, Computer Science, Physics, etc.
- An understanding and/or experience in embedded processors, coding for embedded systems, sensor technologies, communications systems, resilient systems, electronic systems, data compression and/or algorithm design. This list is neither exhaustive, or required, but we would hope the candidate could provide a breakdown of their degree and/or interests to provide us with a general picture of their knowledge and experience.
- Experience building computing systems which operate mechanical systems, or have a real-world application would be beneficial.
- A passion and enthusiasm to challenge the state of the art in a rapidly changing technology space!

Funding:

This position provides an enhanced tax free stipend of £17k per annum with all fees paid for UK/EU nationals, for up to 3.5 years.

To apply:

This is a COMPETITIVE application process and a formal application must be completed. The information supplied, will then be sent for review to assess your suitability and interviews will be conducted.

As part of the application, please supply your CV, grades and qualifications (achieved and/or expected), and a project plan and/or personal statement on why you think you should be considered
for this position. Written references do not need to be supplied but may be sought after shortlisting with your permission. The awardee will however be required to supply satisfactory references at the acceptance stage.

Informal enquires can be addressed to Dr Matthew Higgins or Dr Stewart Birrell in the first instance. Please also note, as the PhD is funded in part by RDM, over the duration of the award, you will be expected to engage with them and also to work on their premises.

To submit your application, please complete our online enquiry form.