



The  
University  
Of  
Sheffield.

Automatic  
Control and  
Systems  
Engineering

The Department of Automatic Control & Systems Engineering  
is pleased to announce the following seminar:

## **Designing and implementing of an autonomous ground vehicle for UK Autodrive project by Tata Motors**

**Dr Mark Tucker**

*Lead Engineer, Electrical Engineering Group  
Tata Motors European Technical Centre*

**Wednesday, 12 December 2018 at 14:00**

Sir Henry Stephenson Building, LT02

### **Abstract**

Tata motors are developing autonomous (self-driving) cars. Initially using an Electric Tata Ace and more recently on a Tata Hexa as part of UK Autodrive, a three-year project that is trialing autonomous vehicles on the roads of Milton Keynes and Coventry. This talk will discuss the autonomous vehicle development and specifically the sensing, robotic operating system (ROS) architecture, planning algorithms, motion control and drive-by-wire systems.

### **Biography**

Dr. Mark Tucker is currently a Lead Engineer in the Electrical Engineering group at Tata Motors European Technical Centre. Mark has previously worked in research, development and application roles across marine, aerospace and automotive industries. He has applied Kalman filtering to sensor fusion, simultaneous localization and mapping and electric vehicle state-of-charge estimation. He is currently responsible for the autonomous vehicle motion control platform that is being developed by Tata Motors as part of the UK Autodrive (UKAD) project. Mark has a Bachelor of Engineering from the University of Bristol, and a PhD in Control Engineering from the University of Leicester.