

## Mrs Samaneh Arabi BSc, MSc

Ph.D. Student in Mechanical Engineering

School of Mechanical Engineering

### Contact details

**Telephone** [+44 \(0\)121 414 4167](tel:+44%201214144167) (tel: [+44 121 414 4167](tel:+441214144167))

**Email** [sxa098@bham.ac.uk](mailto:sxa098@bham.ac.uk) (mailto: [sxa098@bham.ac.uk](mailto:sxa098@bham.ac.uk))

Vehicle Dynamics Laboratory  
University of Birmingham  
Edgbaston  
Birmingham  
B15 2TT  
UK



### Qualifications

- MSc in Mechanical Engineering, Iran University of Science & Technology, Tehran, Iran, 2009
- BSc in Mechanical Engineering, K.N.Toosi University of Technology, Tehran, Iran, 2005

### Biography

Samaneh Arabi graduated from the K.N.Toosi University of Technology in Iran with a BSc in Mechanical Engineering in 2005. Then she completed an MSc in Automotive Engineering in Iran University of Science & Technology in 2009 before moving on to the University of Birmingham to join the Automotive Research Group in 2011.

Samaneh is currently working on Investigation of Vibration Characteristics of Diesel Engine EGR Coolant Rail in collaboration with Jaguar-Land Rover (JLR) to develop computer aided analysis/numerical techniques capable of accurately representing the vibration testing of body and power unit mounted components, particularly those involving rubber hoses and therefore provide a virtual testing platform for such components in the early stages of system design and development.

### Research

- Vehicle dynamics and control
- Mechanical vibration and NVH
- Finite Element Analysis
- Control of mechanical systems
- Intelligent Transportation Systems
- Optimization methods
- Computational Mechanics for optimization and design

### Publications

- A. Goodarzi, S. Arabi, (2010), A Fuzzy Logic Strategy for Control of Intelligent 4WD Systems, Proceedings of AVEC, 10th International Symposium on Advanced Vehicle Control, Loughborough, UK
- A. Goodarzi, S. Arabi, E. Esmailzadeh, (2010), Design of an integrated AFS/ACD control system to enhance 4WD vehicles dynamics and stability, Proceedings of the ASME, International Design Engineering Technical Conferences & Computers and Information in Engineering Conference IDETC/CIE 2010, Canada.
- S. Arabi, M.Behroozi, (2010), Design of an Integrated Active Front Steering and Active Rear Differential, International Conference of Mechanical Engineering (ICME'10), UK.
- S. A. Hassandokht, S. Arabi, (2009), Fault Diagnosis of Intake System of a Spark Ignition Engine using Neural Network, Proceeding of the Third International Conference on Modelling, Simulation and Applied Optimization, January 2009, Sharjah, UAE
- M. Behroozi, Kh.Alipour, B. Mashhadi, S.Arab, (2008), Robust Near Optimal Sub-Motions for Differentially-Driven Mobile Robots, International Conference on Control, Automation and Systems, (ICCAS 2008), October 2008, Seoul, KOREA
- M. Behroozi, B. Mashhadi, N.Najafi, S.Arab, (2010), a new guidance method for the collision avoidance of Intelligent road vehicles. Paper F2010-SC-P-38, FISITA 2010 World Congress, Budapest, 30th May to 4th June 2010.