PhD Newsletter, School of Engineering (December 2014)

PhD newsletter is to report PhD student activities and achievements, which cover

Thesis submissions and PhD completions,
Journal paper publications,
Conference presentations,
Awards,
Societal engagements,
Anything you consider of importance to other colleagues

Please report those items to Jack Carter-Hallam (jch@liv.ac.uk).

**Thesis submissions and PhD completions:**

Michael Jones (Supervisors: Jump and Walker) passed his PhD Viva with minor corrections on 10th December. Thesis was entitled ‘Rotorcraft pilot couplings - tools and techniques for alleviation and detection’

Liwei Fu (supervisors Dearden and Edwardson) passed his PhD Viva with minor corrections on 19th November. Thesis was entitled ‘Smart Functional Components for Aerospace Applications’

**Journal papers:**

(1) de Angelis, M., Patelli, E., Beer, M. "Advanced Line Sampling for efficient robust reliability analysis." Structural Safety


(4) Li, M., Liu, W., Short, T., Qing, X., Dong, Y., He,Y., Zhang, H. “Pre-treatment of remanufacturing cleaning by use of supercritical CO2 in comparison with thermal cleaning” Clean Technologies and Environmental Policy

**Conference presentations:**


(2) Wen, C., Poole, R., Dennis, D. “New insights into the nature of the asymmetrical flow of shear-thinning polymer solutions in transitional pipe flow” 67th Annual Meeting of the APS Division of Fluid Dynamics, San Francisco, CA

(3) Nieto-Cerezo, O., Patelli, E., Wenzelburger, J., Beer, M. “Mechanism design for risk allocation and benefit sharing in the development of a Geological Disposal Facility for nuclear radioactive waste” The European Safety and Reliability Conference (ESREL) in Wroclaw (Poland)

(4) de Angelis, M., Patelli,E., Beer, M. "A generalized numerical framework of imprecise probability to propagate epistemic uncertainty", Proceedings of the 6th International Workshop on Reliable Engineering Computing, IIT, Chicago, IL, USA.


**New PhD Starters (December 2014)**

(1) Manar Herez - Probabilistic modelling of asphalt degradation – Hussain Al-Khalid

**Current PhD Projects**
(1) Shancheng Cao - Structural identification of aeronautical/aerospace structures using non-classical methods – Ouyang
(2) Zhuo Chang - Multi-scale structural modelling of vascular stiffening – Riaz Akhtar
(3) Geng Feng - Reliability and availability of industrial systems – Michael Beer
(4) Hui Gao - 3D Laser Forming - Development of an advanced manufacturing process – Stuart Edwardson
(5) Antonio Jimenez Garcia - Development of predictive methods for tilt-rotor flows – George Barakos
(6) Jiangning Li - Precision laser surface texturing for controlled biological interactions - Stuart Edwardson
(7) Uchenna Oparaji - Radiological safety evaluation and uncertainty analysis related to spent fuel storage installation or nuclear decommissioning – Edoardo Patelli
(8) Benjamin Peek - ALD of functional coatings – Paul Chalker
(9) Paolo Pizzol - Superconducting thin films for RF cavities – Paul Chalker
(10) Hay Wong - Rapid manufacture of antimicrobial alloys – Christopher Sutcliffe
(11) Haonan Xu - Novel technologies for marine turbine blades – Robert Poole
(12) Guangyu Zhu - Mechanisms in the formation of laser induced period surface structures – Geoffrey Dearden
(13) Zhuola - Multi-scale mechanical property mapping of the sclera – Riaz Akhtar
(14) Andrew Alvin - Collective behaviours in robotic and natural systems – Paolo Paoletti
(15) Ksenija Dvurecenska - Validation of computational mechanics models – Eann Patterson
(16) Nikolaos Gazis - Efficient uncertainty quantification techniques for offshore engineering applications – Edoardo Patelli
(17) David Opeyemi - Design for robustness – Michael Beer