Report of President 2010/2011

School of Mechanical & Materials Engineering

Peer Reviewed Journals

Dr David Browne


Dr Michel Destrade


during the plasma treatment of carbon weave composite materials'. *Journal of Materials Science and Engineering*.


**Dr Donal Patrick Finn**


**Professor David Fitzpatrick**


**Professor Michael D Gilchrist**


Colgan NC, Gilchrist MD, Curran KM (2010) 'Applying DTI white matter orientations to
finite element head models to examine diffuse TBI under high rotational accelerations'. Progress in biophysics and molecular biology, 103 (2-3):304-309.


Professor Alojz Ivankovic


Professor Chen-Ching Liu


Dr David McKeown


Dr Neal Murphy


Dr William O'Connor


Dr Feidhlim O'Neill


Dr William Smith


Dr Kenneth Thomas Stanton


Dr David Timoney


Conference Publications

Dr David Browne

Transition in Solidification Processing of AlSi alloys in Microgravity. CETSOL 4th International Symposium on Physical Sciences in Space - ISPS4, Bonn - Bad Godesberg, Germany.

Mooney, R., McFadden, S., Rebow, M., Browne, D.J. (2011) A front tracking model of the MAXUS-8 microgravity solidification experiment on a Ti-46at.%Al-8at.%Nb alloy Third International Conference on Advances in Solidification Processes, Rolduc Abbey, Kerkrade, The Netherlands.


Stratton, D.J., Byrne, C., Mulcahy, J., Browne, D.J. (2011) Sub-micron feature patterning of thermoplastics using multi-scale BMG tooling MRS Fall meeting, Boston, MA, USA, mrsf10-1300-u02-

Dr Denis Dowling

Donegan, M. and Dowling, D. P. (2011) Protein adhesion on atmospheric plasma deposited quaternary ammonium salt coatings 14th Annual Sir Bernard Crossland Seminar,


Dr Donal Patrick Finn

Edwards, K.C., Jones, A.T. and Finn, D.P. (2011) Evaluation of a ground source heat pump system with varying loads and return water temperatures using different system performance factors 23rd IIR Int. Cong. on Refrigeration, Prague,


Professor David Fitzpatrick


Cardiff P, Ivankovic A, Flavin R, FitzPatrick, D., Karac A. (2011) Contact Stress Analysis in OpenFOAM - Aplication to Hip Joint Bones 6th OpenFOAM Workshop, Penn State University,


Professor Michael D Gilchrist

Gilchrist, M.D. (2011) A weapon of choice: Replication of damage in Irish Early Bronze Age halberds Warfare in Antiquity: Approaches and Controversies, Dublin, -.


Ni Annaidh, A., Bruyere, K., Destrade, M., Gilchrist, M.D., Maurini, C., Ottenio, M. &


Rashid, B., Destrade, M. & Gilchrist, M.D. (2011) Mechanical properties of brain tissue in tension at high strain rates IUTAM Symposium on Impact Biomechanics in Sport, Dublin, -.


Forero Rueda, M.A. & Gilchrist, M.D. (2011) Computational protective helmet component analysis IUTAM Symposium on Impact Biomechanics in Sport, Dublin, -.


**Mr Vincent Joseph Hargaden**

Hargaden, V. & Ryan, J. (2011) Workforce Analytics: Matching Supply and Demand in Professional Service Firms *Manufacturing and Service Operations Management (MSOM) Annual Conference*, Ann Arbor, Michigan, USA,


**Professor Alojz Ivankovic**


J. Mohan, A. Karac, N. Murphy and A. Ivankovic (2011) An experimental and numerical investigation of the mixed-mode fracture toughness and lap shear strength of aerospace grade composite joints *34th Annual Meeting of the Adhesion Society*, Savannah, Georgia, USA,


Petrovic, M., Carolan, D., Ivankovic, A. and Murphy, N. (2010) Role of Rate and Temperature on Fracture and Mechanical Properties of PCD *The 9th International Conference on Fracture and Damage Mechanics*,


**Dr Valentine Kanyanta**


**Professor Chen-Ching Liu**

S. S. Wu, C. C. Liu, A. Shosha, and P. Gladyshev (2011) Cyber Security and Information Protection in a Smart Grid Environment *IFAC Congress, Invited Session on Emerging EMS Features and Functions Needed for the Future Control Center in the Smart Grid Environment*, Milan, Italy,


J. Yan, C. C. Liu, and M. Govindarasu (2011) Cyber Intrusion of Wind Farm SCADA
System and Its Impact Analysis *IEEE PES Power Systems Conference and Exposition*, Phoenix, USA,


**Dr Neal Murphy**


Petrovic, M., Carolan, D., Ivankovic, A. and Murphy, N. (2010) Role of Rate and Temperature on Fracture and Mechanical Properties of PCD *The 9th International Conference on Fracture and Damage Mechanics*,

**Dr William O'Connor**


Hossein Habibi, William J. O'Connor (2011) Wave-based control of under-actuated two-
dimensional mass-spring arrays *Multibody Dynamics 2011, ECCOMAS Thematic Conference*, Brussels,

O'Connor, W.J. (2011) Control of under-actuated lumped flexible systems subject to external viscous damping forces *Multibody Dynamics 2011, ECCOMAS Thematic Conference*, Brussels,

**Dr William Smith**


**Dr Kenneth Thomas Stanton**


**Dr David Timoney**


**Other Publications**

**Dr Denis Dowling**