Report of President 2013/2014 - School of Mechanical & Materials Engineering

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Book Chapters

Professor Denis Dowling


Professor Alojz Ivankovic

Kanyanta, V. Ivankovic, A., Murphy, N. (2013) 'Biomedical Applications of Elastomers, their Blends, IPNs and Composites' In: Thomas, S., Mathew, A.P., Visakh, P.M., Chandra, A.K (eds). Advances in Elastomers II. Berlin, Germany: Springer-Verlag GmbH.

Dr Neal Murphy

Kanyanta, V. Ivankovic, A., Murphy, N. (2013) 'Biomedical Applications of Elastomers, their Blends, IPNs and Composites' In: Thomas, S., Mathew, A.P., Visakh, P.M., Chandra, A.K (eds). Advances in Elastomers II. Berlin, Germany: Springer-Verlag GmbH.

Peer Reviewed Journals

Dr Eamonn Ambrose

Marshall, Donna; Ambrose, Eamonn; McIvor, Ronan; Lamming, Richard (2014) 'Self-interest or the greater good: How political and rational dynamics influence the outsourcing process'. International Journal of Operations & Production Management.

Dr David Browne


**Dr Declan Carolan**


**Professor Denis Dowling**


Muhammad M. Iqbal, Charlie P. Stallard, Denis P. Dowling, Miles M. Turner (2014) 'Three Dimensional Coupled Fluid-Droplet Model For Atmospheric Pressure Plasmas'. *PLASMA PROCESSES AND POLYMERS*.

M. Donegan and D. P. Dowling (2013) 'Protein adhesion on water stable atmospheric plasma deposited acrylic acid coatings'. *Surface and Coatings Technology*.


Dr Donal Patrick Finn


Professor Michael D Gilchrist

Rashid, B., Destrade, M. & Gilchrist, M.D. (2013) 'Mechanical characterization of brain tissue in tension at dynamic strain rates'. *Journal of the Mechanical Behavior of Biomedical Materials*.


Professor Alojz Ivankovic


Professor Chen-Ching Liu


Dr Neal Murphy


Dr Aisling Nó Annaidh


Dr Eoin O'Cearbhaill


Dr William O'Connor


Dr James O'Donnell


Dr Kenneth Thomas Stanton


Conference Publications

Dr Eamonn Ambrose

Harke, K; Goelz, D R ; Ambrose, E (2014) Service operations resilience: A capability analysis based on firms¿ experiences with catastrophic events *European Operations Management Association Conference,*

Dr Donal Patrick Finn


Simulatio

n Association - Canada (IBPSA-Canada) eSim conference, Ottawa, Canada,
Neu, O., Sherlock, B. Oxizidis, S., Flynn, D. and Finn, D.P (2014) Developing building
archetypes for electrical load shifting assessment: Analysis of Irish residential stock
Chartered Institution of Building Services Engineers (CIBSE) & American Society of
Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Technical
Symposium, Dublin, Ireland,

Professor Alojz Ivankovic

P. Alveen, D. McNamara, D. Carolan, N. Murphy, A. Ivankovic (2014) An embedded
microstructural model for predicting the strength and toughness of multi-phase ceramics
20th European Conference on Fracture, Trondheim, Norway,
D. McNamara, P. Alveen, D. Carolan, N. Murphy, A. Ivankovic (2014) Micromechanical study of strength and toughness of advanced ceramics 20th European Conference on Fracture, Trondheim, Norway,
D. Quan, A. Ivankovic (2014) Role of particle volume fraction on properties and
toughness of epoxy modified by core-shell rubber particles Irish Polymer & Materials
Conference, UCD, Dublin,
T. Stefanov, A. Ivankovic, N. Murphy (2014) Mechanical and fracture characterization
of rubber-toughened cyanoacrylate adhesive joints Irish Polymer & Materials
Conference, UCD, Dublin,
M. Leonard, N. Murphy, A. Ivankovic (2014) Modelling nano-particle loading and
debonding in a rubber-toughened adhesive using the finite volume method Irish Polymer
& Materials Conference, UCD, Dublin,
Investigation of Mode-Mixity in Beam Like Geometries Proceedings of the 37th Annual
Meeting of the Adhesion Society, San Diego, CA,
Optimization of Nano-Toughened Structural Adhesives: A Representative Volume
Element Approach Proceedings of the 37th Annual Meeting of the Adhesion Society, San
Diego, CA,
D. Quan, Z. Tukovic, D. McAuliffe, N. Murphy and A. Ivankovic (2014) An
Investigation of Toughness Mechanisms and Synergistic Effects in Nano-Toughened
Epoxy Adhesives Proceedings of the 37th Annual Meeting of the Adhesion Society, San
Diego, CA,
D. Quan, M. Leonard, D. McAuliffe, N. Murphy, A. Ivankovic (2013) The effect of
particle volume fraction on the fracture toughness of nano-toughened epoxy adhesives
IMS/ISSEC Symposium, UCD, Dublin,
assessment of mixed mode partitioning in beam-like geometries IMS/ISSEC Symposium,
UCD, Dublin,
D. Carolan, D. McNamara, P. Alveen, N. Murphy, A. Ivankovic (2013) A combined
experimental numerical investigation into the role of microstructure on the fracture pf
polycrystalline Cubic Boron Nitride IMS/ISSEC Symposium, UCD, Dublin,
computational solid mechanics IMS/ISSEC Symposium, UCD, Dublin,
A. Safari, Z. Tukovic, E. Casey, A. Ivankovic (2013) Cohesive Zone Modelling of
Biofilm-Glass Interfacial failure IMS/ISSEC Symposium, UCD, Dublin,
M. Conroy, A. Ivankovic, A. Karac, N. Murphy, J.G Williams (2013) Numerical Analysis of mode mixity in Beam Like Geometries using cohesive zone 12th International Conference on the Science and Technology of Adhesion and Adhesives, York, UK,

P. Alveen, D. McNamara, D. Carolan, N. Murphy, A. Ivankovic (2013) Micromechanical modelling of superhard materials using statistically representative microstructures 12th International Conference on Fracture and Damage Mechanics, Sardinia, Italy,

D. McNamara, P. Alveen, D. Carolan, N. Murphy, A. Ivankovic (2013) The role of microstructure on the fracture behaviour of super-hard materials 12th International Conference on Fracture and Damage Mechanics, Sardinia, Italy,


D. Quan, D. McAuliffe, A. Karac, N. Murphy, A. Ivankovic (2013) The Fracture Behaviour of a Nano-modified Structural Epoxy Adhesive 12th International Conference on the Science and Technology of Adhesion and Adhesives, York, UK,

**Professor Chen-Ching Liu**


**Dr James O’Donnell**


Pieter Pauwels Edward Corry and James O’Donnell (2014) Representing the SimModel in the Web Ontology Language CCCBE2014 and 2014 CIB W078, Walt Disney World in Orlando, Florida, USA,

**Dr William O’Connor**

McKeown, David; O’Connor, William (2013) Wave Based Control of the DELIAN Arm. ESA, Estec.