



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

Faculty of
Science + Engineering

PhD Graduations 2015



Faculty of Science + Engineering

Autumn Conferings

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Winter Conferings

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UNIVERSITY of LIMERICK
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Faculty of
Science + Engineering

Autumn Conferings

Bourke Andrea

Thesis:	Electrode kinetics in all-vanadium flow batteries: effects of electrochemical treatments
Internal Supervisor:	Prof. Noel Buckley / Dr. Robert Lynch
Internal Examiner:	Dr. Fernando Rhen
External Examiner:	Dr. Adam Whitehead, Industriezentrum No Sud strabe 3 Neudorf Austria
Chair:	Dr. Ian Clancy

Browne Leonard

Thesis:	Quantifying the Hemodynamic characteristics of an arteriovenous fistula used for Hemodialysis
Internal Supervisor:	Dr Philip Griffin / Dr. Michael Walsh
Internal Examiner:	Dr David Newport
External Examiner:	Prof. Umberto Morbiducci, Politecnico di Torino Turin, Italy
Chair:	Dr. Jeremy Robinson

Costelloe Jennifer

Thesis:	Towards the Use of Geometric Parameters and Blood-Borne Species Concentration in the Prediction of Cerebral Aneurysm Growth and Rupture
Internal Supervisor:	Dr Michael Walsh
Internal Examiner:	Dr David Newport
External Examiner:	Prof. Madhavan Raghavan, University of Iowa
Chair:	Dr. Jeremy Robinson

Cunha Neves Adriana

Thesis:	Extraction, purification and characterisation of biofunctional peptides from marine processing co-products
Internal Supervisor:	Prof Dick FitzGerald
Internal Examiner:	Dr Eibhlís M. O'Connor
External Examiner:	Prof. Hordur Kristinnsson, Icelandic food and biotech R&D, Iceland
Chair:	Dr. Ronan Courtney

Cunnane Eoghan

Thesis:	Towards the Development of Guidelines for the Endovascular Treatment of Peripheral Artery Disease: A Tissue Characterisation Approach
Internal Supervisor:	Dr Michael Walsh
Internal Examiner:	Dr. Eamonn De Barra
External Examiner:	Prof. Richard Leask
Chair:	Dr. Jeremy Robinson

McGill University, UK

Enright Deirdre

Thesis:	Development of a novel process for the removal of selected organic compounds from waste streams
Internal Supervisor:	Dr. Tom O'Dwyer / Dr. Teresa Curtin
Internal Examiner:	Dr Peter Davern
External Examiner:	Dr Brian Kelleher, Dublin City University
Chair:	Dr J.J. Leahy



Gahan Jacinta

Thesis:

Internal Supervisor:
Internal Examiner:
External Examiner:
Chair:

Bacterial and Arbuscular Mycorrhizal Fungal Interactions for Mobilisation of Organically Bound Sulfur in Soil

Dr Achim Schmalenberger
Dr Tom Harrington
Prof. Matthias Noll, University of Applied Science and Arts, Germany
Dr. Ken Byrne

Galvin Elaine

Thesis:

Internal Supervisors:
Internal Examiner:
External Examiner:
Chair:

To determine and overcome misconceptions in biology held by students and educators in the Irish schooling system

Dr Audrey O'Grady
Dr Geraldine Mooney Simmie
Dr Manfred Lang, University of Kiel, Germany
Dr Ronan Courtney

Heffernan Natalie

Thesis:

Internal Supervisor:
External Supervisor:
Internal Examiner:
External Examiner:
Chair:

Extraction, characterization and seasonal variation of bioactive compounds (polyphenols, carotenoids and polysaccharides) from Irish origin macroalgae with potential for including in functional food products

Prof. Dick FitzGerald
Dr. Thomas Smyth / Dr Nigel Brunton
Dr. Eibhlís M. O'Connor
Dr. Rena Barry-Ryan, Dublin Institute of Technology
Dr. Ronan Courtney

Ivashyn Uladzislau

Thesis:

Internal Supervisor:
Internal Examiner:
External Examiner:
Chair:

An Experimental and Numerical Investigation of the Biaxial Tensile Behaviour of Biomedical Alloys, Nitinol and SS304

Dr. Peter Tiernan
Dr. Seamus Gordon
DR. James Butler, Cook Medical Ltd Limerick Ireland
Dr. Peter Williams

Kleineberg Oliver

Thesis

Internal Supervisor:
Internal Examiner:
External Examiner:
Internal Supervisor:
Chair:

A new fault tolerant architecture for time sensitive automation networks

Dr. Donal Heffernan
Dr. Tom Newe
Dr. Mark Davis
Dublin Institute of Technology
Dr. Ciaran MacNamee

Kuhs Manuel

Thesis

Internal Supervisor:
External Examiner:

External Examiner:
Chair:

The influence of solvent on the nucleation of medium-sized flexible organic molecules from solution

Prof. Ake Rasmuson
Dr. Stephane Veesler, Centre de nanosciences et de technologie de marseille
Dr. Simon Lawrence, University College Cork
Prof. Kieran Hodnett

Lanning Ivor

Thesis:

Modelling of Information Sharing in Capacitated Assembly Supply Chains Using Simulation

Internal Supervisor:

Prof. Cathal Heavey

Internal Examiner:

Dr Peter Williams

External Examiner:

Dr Paul Young, Dublin City University

Chair:

Dr Seamus Gordon

McCarthy Conor

Thesis

On the utilization of taylor flows for automated cell to signal

Internal Supervisor:

Dr. Tara Dalton

Internal Examiner:

Dr. Patrick Kiely

External Examiner:

Dr. Darren Link Raindance Technologies Inc Billerica USA

Chair:

Prof.Noel O'Dowd

Mc Alea Eamonn

Thesis

Mitigating Employer Liability for Producers and Users of Engineered Nano Materials

Internal Supervisor:

Dr. Finbarr Murphy / Dr. Syed Tofail / Dr. Martin Mullins

Internal Examiner:

Dr. Fergal O'Brien

External Examiner:

Dr. Elena Semenzin, University ca'Foscari Venice Italy

Chair:

Dr. Sheila Killian

McCarthy Denis

Thesis

Optical fibre X-ray radiation dosimeter sensor for low dose applications

Internal Supervisor:

Prof. Elfed Lewis / Dr. Sinead O'Keeffe

Internal Examiner:

Dr. Colin Fitzpatrick

External Examiner:

Prof. Francis Berghmans, Vrije Universiteit Brussels, Belgium

Chair:

Dr. Tom O'Dwyer

McCarthy Marguerita

Title

Integral voltage-gated sodium channels: production, characterisation and investigation into oligomeric state detergent dependence

Internal Supervisor:

Dr. Tewfik Soulimane

Internal Examiner:

Dr. Patrick Kiely

External Examiner:

Prof. Susanne Arnold, Radboud University Medical Center, The Netherlands

Chair:

Dr. Ning Liu

Mc Cormack Allison

Title

A Bayesian Study of Safety Conditions at United States Navy Shipyards: Exploration of Statistical Models for the Severity of Injuries and safety Deficiencies

Internal Supervisor:

Dr. Thomas Waldmann

Internal Examiner:

Dr. Mikael Fernstrom

External Examiner:

Prof. Neville Stanton, University of Southampton, UK

Chair:

Dr. Seamus Gordon

Moore James

Title	Aerodynamic and thermal characteristics of a novel modular air-cooled condenser
Internal Supervisor:	Dr. Ronan Grimes
Internal Examiner:	Dr. Jeff Punch
External Examiner:	Prof. Oronzio Manca, Seconda Universita Degli Studi di Napoli, Italy
Chair:	Dr. Andy Niven

Nishio Naoto

Title	Predicting the Quality of a Translation from Attributes of a Translator
Internal Supervisor:	Dr. Richard Sutcliffe
Internal Examiner:	Dr. Nikola Nikolov
External Examiner:	Dr. Lucia Specia, University of Sheffield, UK
Chair:	Dr. Patrick Healy

O'Dwyer Jean

Title	Microbiological Contamination of Private Water Wells in the Midwest Region of Ireland: Investigation of Water Quality, Public Awareness and the Application of Logistic Regression in Contaminant Modelling.
Internal Supervisor:	Dr. Catherine Adley
Internal Examiner:	Dr. Tom O'Dwyer
External Examiner:	Dr. Enda Cummins, UCD Smurfit Graduate Business School
Chair:	Prof. Gary Walsh

Richardson David

Title	Nanotubes prepared by electroless deposition: investigation of the nanostructure formation mechanism and characterization of physical properties
Internal Supervisor:	Dr. Fernando Rhen
Internal Examiner:	Dr. Christophe Silien
External Examiner:	Prof. Mike Lyons, Trinity College Dublin
Chair:	Dr. Ian Clancy





Walsh Richard

Title

A Purpose-Built Model for the Effective Teaching of Trigonometry: A Transformation of the van Hinle Model

Internal Supervisor:
 Internal Examiner:
 External Examiner:
 Chair:

Dr. Olivia Fitzmaurice / Prof. John O'Donoghue
 Dr. Patrick Johnson
 Prof Juergen Maasz, University of Linz, Austria
 Dr. Alan Hegarty

Wnetrzak Renata

Title

Clean and Environmentally Friendly Animal Waste Technologies for Fertilizer and Energy Production

Internal Supervisor:
 Internal Examiner:
 External Examiner:

Dr. Witold Kwapinski / Dr. JJ Leahy
 Prof. Michael H Hayes
 Dr. David Figueiro, Universidade de Lisboa, Tapada da Ajuda Portugal
 Dr. Noreen Hanly

Zhernovaya Olga

Title

Optical clearing of blood

Internal Supervisor:
 Internal Examiner:
 External Examiner:
 Chair:

Prof. Martin J. Leahy / Dr. Ning Liu
 Dr. Syed Tofail
 Prof. Igor Meginski, University of Oulu, Finland
 Dr. Ian Clancy

Winter Conferrings

Balandeh Mehrdad

Thesis:

Effects of Electrochemical Pretreatments on the Kinetics of Some Electrode Reactions on Carbon and Palladium

Internal Supervisors:

Prof. Noel Buckley / Dr Robert Lynch

Internal Examiner:

Prof. Ursel Bangert

External Examiner:

Dr Shafaat Ahmedm, GlobalFoundries, New York, USA

Chair:

Dr Ning Liu

Barlas Panagiotis

Thesis:

Automating Simulation: An Open Source Software for Automated Input Data in Discrete Event Simulation Projects

Internal Supervisor:

Prof. Cathal Heavey

Internal Examiner:

Dr Peter Williams

External Examiner:

Dr Stefan Onggo, Lancaster University Management School, UK

Chair:

Dr Seamus Gordon

Brennan James Edmund

Thesis:

Adoption of National Electronic Prescribing Services in Primary Care in Europe: Policy Lessons for Ireland

Internal Supervisors:

Ms Annette McElligott / Dr Norah Power

Internal Examiner:

Dr Dermot Shinnars-Kennedy

External Examiner:

Prof. Wendy Currie, Audencia Nantes, School of Management, France

Chair:

Dr Michael English

Chennupati Gopinath

Thesis:

Grammatical Evolution + Multi-Cores = Automatic Parallel Programming!

Internal Supervisors:

Prof. Conor Ryan / Mr Atif Azad

Internal Examiner:

Dr Malachy Eaton

External Examiner:

Dr John Woodward, University of Stirling, Scotland

Chair:

Mr J.J. Collins

Dagkakis Georgios

Thesis:

ManPy: Research into the Development of a Modular Open Source Discrete Event Simulation Engine

Internal Supervisor:

Prof. Cathal Heavey

Internal Examiner:

Dr Alan Ryan

External Examiner:

Dr Simon Taylor, Brunel University, UK

Chair:

Dr Seamus Gordon

Daniels Emma

Thesis:

The Removal of CO from Gaseous Streams Using Solid Sorbents

Internal Supervisor:

Dr Teresa Curtin

Internal Examiner:

Dr Tom O'Dwyer

External Examiner:

Dr Andoni Gil, Public University of Navarre, Spain

Chair:

Dr Noreen Hanly



Doyle Tony

Thesis:	Spectral Precedence Methodologies in Spatial Auditory Research Perceptual Evaluation of Spatial Attributes in 2D and 3D Virtual Auditory Display Environments
Internal Supervisor:	Dr Kerry Hagan
Internal Examiner:	Dr Mikael Fernstrom
External Examiner:	Prof. Eric Lyon, School of Performing Arts, Virginia Tech, USA
Chair:	Dr Jim Buckley

Duggirala Naga Kiran

Thesis:	Crystal Engineering of Ionic Cococrystals
Internal Supervisor:	Prof. Michael Zaworotko
Internal Examiner:	Dr Denise Croker
External Examiner:	Dr Magali Hickey, Alkermes Inc, Massachusetts, USA
Chair:	Dr Emmet O'Reilly

Fennell Peter Gerard

Thesis:	Stochastic Processes on Complex Networks: Techniques and Explorations
Internal Supervisor:	Prof. James Gleeson
Internal Examiner:	Dr Mark Burke
External Examiner:	Prof. Peter Mucha, University of North Carolina, USA
Chair:	Dr Romina Gaburro

Ghadimihamzehkoulai Pezhman

Thesis:	Research into Developing Intelligent Sustainable Supplier Selection and Order Allocation Using Multi-Agent Systems in a Partnership Supply Chain
Internal Supervisor:	Prof. Cathal Heavey
Internal Examiner:	Dr Peter Williams
External Examiner:	Prof. Agostino Villa, Politecnico di Torino, Italy
Chair:	Dr Seamus Gordon

Ju Xiaoming

Thesis:	An Experimental Investigation into the List Colouring Problem
Internal Supervisor:	Dr Patrick Healy
Internal Examiner:	Prof. Conor Ryan
External Examiner:	Prof. Cathal Brugha, University College Dublin
Chair:	Dr Norah Power

Kennedy Tadhg Gerard

Thesis:	Nano-Structuring of Silicon and Germanium: A Viable Route to High Capacity, Long Cycle Life Lithium-Ion Battery Electrodes
Internal Supervisor:	Dr Kevin M. Ryan
Internal Examiner:	Dr Tom O'Dwyer
External Examiner:	Prof. Mike Lyons, Trinity College, Dublin
Chair:	Dr Denise Croker

Kredzinski Lukasz

Thesis:	1550 nm Super Luminescent Diode and Anti-Stokes Effect CCD Camera-based Optical Coherence Tomography for Full-Field Optical Metrology
Internal Supervisor:	Dr Michael Connelly
Internal Examiner:	Dr David Corcoran
External Examiner:	Prof. Arnaud Dubois, University of Paris 11, France
Chair:	Dr Donal Heffernan

Krzczanowicz Lukasz Daniel

Thesis:	Optical Phase Modulated Data Wavelength Conversion Using Four Wave Mixing in Bulk and Quantum Dash Semiconductor Optical Amplifiers
Internal Supervisor:	Dr Michael Connelly
Internal Examiner:	Dr Ciaran MacNamee
External Examiner:	Dr Antonella Bogoni, CNIT Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy
Chair:	Dr Richard Conway

Murphy Joseph Andrew

Thesis:	Development of Stress during Electrodeposition of Nano-Scale Copper Metallization: An In-Situ Study Using Real-Time Wafer-Curvature Measurements, Electrochemical Characterization, and AFM Imaging
Internal Supervisors:	Prof. Noel Buckley / Dr Robert Lynch
Internal Examiner:	Dr Ian Clancy
External Examiner:	Prof. Greg Hughes, Dublin City University
Chair:	Dr David Corcoran

O'Donovan Alan James

Thesis:	On the Thermal and Fluidic Characteristics of Steam Condensation in an Air-Cooled Condenser
Internal Supervisor:	Dr Ronan Grimes
Internal Examiner:	Dr David Newport
External Examiner:	Dr Hussam Jouhara, Brunel University, UK
Chair:	Dr Conor McCarthy

Panahifar Farhad

Thesis:	Development of Models for the Successful Implementation of Collaborative Planning, Forecasting and Replenishment (CPFR) in High-tech Industries
Internal Supervisor:	Prof. Cathal Heavey
External Supervisor:	Prof. PJ Byrne
Internal Examiner:	Dr Ann Ledwith
External Examiner:	Prof. Brian Fynes, University College Dublin
Chair:	Dr Peter Williams

Poeggel Sven

Thesis:	Development of an Optical Fibre-based Pressure and Temperature Sensor System for Urodynamic and Other Medical Applications
Internal Supervisors:	Dr Gabriel Leen / Prof. Deirdre McGrath / Prof. Elfed Lewis
Internal Examiner:	Dr Tom Newe
External Examiner:	Prof. Andrea Cusano, University of Sannio, Italy
Chair:	Prof. JJ Leahy



Ryan Marie

Thesis:

An Investigation into the Role of Language in Science Education at Junior Cycle Level in Ireland

Internal Supervisors:

Dr Peter Childs / Dr Teresa Curtin

Internal Examiner:

Dr Joanne Broggy

External Examiner:

Dr Silvija Markic, University of Bremen, Germany

Chair:

Dr Peter Davern

Singh Shalini

Thesis:

Colloidal Synthesis of Multinary Metal Chalcogenide Nanocrystals with Composition, Shape and Crystal Phase Control

Internal Supervisor:

Dr Kevin M. Ryan

Internal Examiner:

Prof. Michael Pomeroy

External Examiner:

Dr Liberato Manna, Italian Institute of Technology, Italy

Chair:

Dr Peter Davern

Waddell Alistair Martin

Thesis:

The Characterization of Obstructed Laminar Channel Flows for Local Heat Transfer Enhancement in Microfluidic Cooling Applications

Internal Supervisor:

Dr Jeff Punch

External Supervisor:

Dr Jason Stafford

Internal Examiner:

Dr Vanessa Egan

External Examiner:

Prof. Amy Fleischer, Villanova University, USA

Chair:

Dr Andy Niven

Zawawi Mohd Anwar

Thesis:

An Optical Fibre Sensor for Physiological Bending Monitoring in Clinical Environment

Internal Supervisors:

Prof. Elfed Lewis / Dr Sinead O'Keeffe

Internal Examiner:

Dr Richard Conway

External Examiner:

Dr Kate Sugden, Aston University, Birmingham, UK

Chair:

Dr Tom Newe

Zhang Zhuxiu

Thesis:

Organic-Inorganic Hybrid Supramolecular Building Blocks for the Design and Synthesis of Metal-Organic Materials

Internal Supervisor:

Prof. Michael Zaworotko

Internal Examiner:

Dr Kevin M. Ryan

External Examiner:

Dr Wolfgang Schmit, Trinity College Dublin

Chair:

Dr Witold Kwapinski

