

ENVIRON 2019 CONFERENCE PROGRAMME

ORAL PRESENTATIONS SESSIONS Tuesday April 16th 11.30 – 1.00			
	Water Quality & Resources 1 Room L114	Energy 1 Room K103	Biodiversity & Ecosystems Room L115
11:30 - 11.45	Chair: Mark Bowkett Managing Director, TE Laboratories Keynote presentation	Chair: Lucy Corcoran SEAI Research, Development & Demonstration Programme, SEAI Keynote presentation	Chair: Adriana Cunha Neves Genetic evaluation of a <i>Dactylorhiza maculata</i> urban population by RAPD analysis: implication for an evolutionary dynamic Stephanie Coakley IT Carlow
11:45 - 12.00	Nutrient dynamics in Lough Feeagh to understand the drivers of ecosystem productivity Maria Caldero Pascual DkIT	A decision support tool for energy use on dairy farms P. Shine CIT	Two-way engagement with stakeholders to improve biosecurity around invasive alien species in the workplace Eithne Davis IT Sligo
12.00 - 12.15	Seawater as a potential transmission route for clinically significant antimicrobial resistant bacteria Brigid Hooban NUIG	Greenhouse gas calculation tool for community-based biomass renewable energy projects Chi-Thang Phan-Tan CIT	Young commercial forests as a habitat for the hen harrier (<i>Circus cyaneus</i>); selection of a suboptimal habitat? Alan McCarthy UCC
12.15 - 12.30	<i>Asellus aquaticus</i> as a potential biomonitor of trace metal pollution in freshwaters Irene O'Callaghan UCC	Energy service demands projections in transport sector for SSPs Siddharth Joshi UCC	The diet of a predatory stonefly <i>Diura bicaudata</i> in Ireland Tara Joseph UCD
12.30 - 12.45	Association of potential human pathogens on microplastics in natural water systems Loriane Murphy ITC	Developing a regional energy balance; Case study from the Dingle peninsula Connor McGookin UCC	The role of motorway attenuation ponds as new habitats for mobile aquatic insects Roisin Normanly UCD

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ORAL PRESENTATIONS SESSIONS Tuesday April 16th 11.30 – 1.00 Cont.			
	Water Quality & Resources 1 Room L114	Energy 1 Room K103	Biodiversity & Ecosystems Room L115
12:45 - 13:00	Drinking water treatment and challenges in developing countries Josephine Treacy LIT	Effect of trace element supplementation on anaerobic digestion of chicken litter with enzyme treatment Navodita Bhatnagar IT Carlow	Eco-hydrogeology in Irish Calcareous Fens Ella Bijkerk TCD
13:00 - 13.15			Poster 1 Minute Oral Presentations BE1 Plant diversity effect on intensively managed grassland productivity and sustainability Guylain Grange Teagasc BE 64 Lough Arrow - Conservation status assessment and collaborative actions for the Natura Network Darren Garland IT Sligo BE 105 Managing the small stream network for improved water quality, biodiversity and ecosystem services protection (SSNet) Edward Cox UCD

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ORAL PRESENTATIONS SESSIONS Tuesday April 16th 14.00 – 15.30				
	Water Quality & Resources 2 Room L114	Energy 2 Room K103	Climate Change Room L115	Sustainable Transport, Infrastructure, Land Use & Agriculture Room K104
14:00 - 14:15	Chair: Thomas Confrey Antimicrobial resistant bacteria in the subsurface environment: a global systematic review Luisa Andrade UCC	Chair: Anne-Marie Enright An investigation and comparative study of the levels of particulate matter 2.5 (PM2.5) produced by different solid fuel burners and fuel in indoor ambient air at different stages of combustion Damian Smyth DIT	Chair: David Dowling The role of nitrogen in climate change and agriculture Vivien Pohl DIT	Chair: John Carroll Closing the nutrient cycle: what are the properties required by farmers, to encourage the use of recycling-derived fertilisers in North West Europe Niamh Power CIT
14:15 - 14:30	Science of the future? – Does citizen science provide a means of monitoring water quality for the Sustainable Development Goals (SDGs)? Lauren Quinlivan UCC	Engaging communities on future re-use options for decommissioned wind turbine blades Thomas Fergal Gough UCC	Soil management, carbon sequestration and climate change mitigation: The solution under foot Brian Murphy Enrich Environmental Ltd.	Characterisation of residual soil P indices using recovered P fertiliser as a comparison to TSP Ciaran O'Donnell CIT
14:30 - 14:45	Assessment of the potential environmental impacts arising from mercury-free dental restorative materials Hannah Binner UCC	An appraisal of <i>Miscanthus x giganteus</i> (Greef et Deu.) as a Negative Emissions Technology in Ireland Paul Rice TCD	An analysis of drought during the Irish summer in 2018 Simone Falzoi Univ. of Torino, Italy	Suitability of selected natural fibres for improving concrete performance Ana Caroline da Costa Santos AIT

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ORAL PRESENTATIONS SESSIONS Tuesday April 16th 14.00 – 15.30 Cont.				
	Water Quality & Resources 2 Room L114	Energy 2 Room K103	Climate Change Room L115	Sustainable Transport, Infrastructure, Land Use & Agriculture Room K104
14:45 - 15:00	Sulphate detection using Raman spectroscopy from Dublin rivers Patricia Loren CIT	Preliminary evaluation of functional coatings for marine based renewable energy applications M. Hedge IT Carlow	Assessing Ireland's energy CO2 emissions under the first (draft) National Energy and Climate Plan (NECP) Barry McMullin DCU	Fin embedded composite phase change material (PCM) thermal management system for li-ion battery packs FS Hwang IT Carlow
15:00 - 15:15	Arsenic detection in water using microfluidic detection systems Annija Lace IT Carlow		Observing the impacts of extreme precipitation events on wastewater systems Sukanya D Saikia NUIG Poster 1 Minute Oral Presentations CC21 Climate change attribution: extreme weather events and their impacts from the perspective of the stakeholder (EUPHEME) Jevon Keane-Brennan Met Office	Poster 1 Minute Oral Presentations S 85 Recycling-derived fertilisers as alternative to triple super phosphate in Irish grassland Lea Johanna Deinert UL S99 Analysis of local pollutant dispersion through full scale three-dimensional modelling of wind flows in Dublin City Centre N Kut IT Carlow

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ORAL PRESENTATIONS SESSIONS TUESDAY APRIL 16TH 16.15 – 17.30				
	Water Quality & Resources 3	The Human Built Environment and Nature Based Solutions for Resilient Communities	Smart Technology and Nanotechnology for the environment	Ecotoxicology
	Room L114	Room L115	Room K103	Room K104
16.15 - 16.30	<p>Chair: Rosemary O'Hara New and traditional methods to determine the impacts of river fragmentation on salmonids</p> <p>Siobhán Atkinson UCD</p>	<p>Chair: Brian Gilmore Sustainability Manager, Cement Manufacturers Ireland</p> <p>Keynote presentation</p>	<p>Chair: Jean O'Dwyer Development of a lab-on-chip electrochemical immunosensor for detection of Polycyclic Aromatic Hydrocarbons (PAH) in environmental water</p> <p>Shifa Felemban Tyndall</p>	<p>Chair: Stephen Whelan Microplastics bound to the duckweed Lemna minor are ingested by the amphipod Gammarus pulex: an unexplored microplastic trophic transfer route in freshwater systems</p> <p>Mateos-Cárdenas Alicia UCC</p>
16.30 - 16.45	<p>Microfluidic analysis of chemical oxygen demand</p> <p>Jaime Edwards IT Carlow</p>	<p>A wetland efficiency index was developed using constructed wetland sampled data, combining Principal Component Analysis and Fuzzy indices to realise the wetlands efficiency</p> <p>John L. Byrne IT Carlow</p>	<p>An event-triggered fault detection for non-residential water distribution system: a case-study</p> <p>Hafiz M. Hashim NUIG</p>	<p>Nematode identification using artificial neural networks</p> <p>Jason Uhlemann IT Carlow</p>
16.45 - 17.00	<p>Fat-anaerobic digestion to energy: unlocking the forgotten resource</p> <p>B. Conall Holohan NUIG</p>	<p>BioPack Project: The use of concurrent design in the generation of bioplastics with high environmental impact</p> <p>Colin Eyer IT Carlow</p>	<p>Introducing GRAppLE: Groundwater Risk Application for Local Evaluation</p> <p>Jean O'Dwyer UCC</p>	<p>Molecular and behavioural characterisation of neonicotinoid exposure on bumblebees reveals trends between chemical effect and their mode of action</p> <p>Felipe Guapo MU</p>

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ORAL PRESENTATIONS SESSIONS TUESDAY APRIL 16TH 16.15 – 17.30 <i>Cont.</i>			
	Water Quality & Resources 3	The Human Built Environment and Nature Based Solutions for Resilient Communities	Smart Technology and Nanotechnology for the environment
	Room L114	Room L115	Room K103
17.00 - 17.15	<p>Developing historic and predictive groundwater flood maps for Ireland</p> <p>Owen Naughton IT Carlow</p>	<p>Achieving resilient cities and communities - Science or science fiction?</p> <p>Liam McCarton DIT</p>	<p>Cost effective sensing platform for the detection of phosphate in fresh and marine waters</p> <p>Andrew Donohoe DCU</p> <p>Poster 1 Minute Oral Presentation ST 30 Effect of praseodymium (Pr) for high temperature anatase stability of titania and its visible light photocatalytic activity</p> <p>Snehamol Mathew IT Sligo</p>
17.15 - 17.30	<p>Poster 1 Minute Oral Presentation WR 84 Raman probe on chip</p> <p>Madhumidha Murugan CIT</p>	<p>Poster 1 Minute Oral Presentation NB 61 A strategic look at natural water retention measures in Ireland</p> <p>Mary Bourke TCD</p> <p>NB 74 Effects of different gelatin sources on characteristics of starch and gelatin blend bioplastic</p> <p>Marta Mroczkowska IT Carlow</p> <p>NB 127 Development of natural bioplastics with applicability in the packaging industry</p> <p>Hui Ming Tew IT Carlow</p>	

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ORAL PRESENTATIONS SESSIONS WEDNESDAY APRIL 17TH 10.00 – 11.00				
	Waste Management 1 Room L114	Environmental Policy and Communication Room K103	Marine and Coastal 1 Room L115	Sustainable Crop science Room K104
10.00 - 10.15	Chair: Kieran Germaine Dairy processing wastewater as a potential feedstock for microbial bioplastic production Arno Fricke UCC	Chair: Dan McInerney , Carlow County Council Irish Climate Policy Evaluation: The value of social and environmental impacts in policy uptake Sabrina Dekker DCU	Chair: Niall McDonough , Director of Policy, Innovation & Research Support Services, Marine Institute Keynote presentation	Chair: David Ryan Role of Alltech crop science formulations in biological control of root-knot nematodes. Anusha Pulavarty IT Carlow
10.15 - 10.30	Influence of density and light on the capacity of Lemna minor to treat dairy processing wastewater Éamonn Walsh UCC	Towards knowledge transfer and stakeholder alignment in development of private well risk communication interventions: A qualitative interview study of national and international experts Simon Mooney DIT	Impact of processing on total and inorganic arsenic content in edible seaweeds Jenny Smith The Marine Institute	Exploring the demand for recycling-derived nutrients and organic matter in Northwest Europe Imke Harms NMI-Agro, The Netherlands
10.30 - 10.45	VALOR - Valorisation alternatives to landfill for organic residues Jessica Graça DCU	Circular economy framework on recycling-derived fertilisers Laura van Schöll NMI-Agro, The Netherlands	Microplastics in Galway Bay: preliminary results from the benthos Elena Pagter GMTI	Plant growth promoting bacteria biocontrol of the plant parasitic nematode <i>Meloidogyne javanica</i> Aoife Egan IT Carlow

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ORAL PRESENTATIONS SESSIONS WEDNESDAY APRIL 17TH 10.00 – 11.00 <i>Cont.</i>				
	Waste Management 1 Room L114	Environmental Policy and communication Room K103	Marine and Coastal 1 Room L115	Sustainable Crop science Room K104
10.45 - 11.00	<p>Low-cost physicochemical treatment for removal of ammonia, phosphate and nitrate contaminants from landfill leachate</p> <p>Sinead Morris IT Carlow</p>	<p>Poster 1 Minute Oral Presentation</p> <p>EP 73 Environmental compliance requirements: awareness in Irish SMEs</p> <p>Margaret Savage IT Sligo</p> <p>EP 126 Irish shortfall in achieving the SDGs: business responsibility and opportunity</p> <p>Angela Nagle UCC</p>	<p>Development and testing of "ecologically friendly" concrete for use in marine artificial structures</p> <p>Bryan J. Thompson UCD</p>	

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ORAL PRESENTATIONS SESSIONS WEDNESDAY APRIL 17TH 11.45 – 12.45		
	Environmental Management Room K103	Marine and Coastal 2 Room L115
11.45 - 12.00	Chair: Prof. Tasman Crowe UCD Earth Institute Peat-based biochar as an additive in the control of greenhouse gas emissions in manure management systems Josephine Getz DIT	Chair: Niall McDonough Marine Institute The development of a biomarker to monitor fish health in aquaculture Sandra Bohan IT Carlow
12.00 - 12.15	The AREST Project - Antimicrobial Resistance and the Environment – Sources, Persistence, Transmission and Risk Management B. Hooban NUIG	Poster 1 Minute Oral Presentation MC 32 A baseline study of the variability of pCO ₂ in Irish coastal and shelf waters – preliminary results Aedín McAleer NUIG MC 113 Rays and Skates in the Irish Sea Danielle Crowley UCD
12.15 - 12.30	Remote sensing for mapping groundwater floods in the Republic of Ireland Joan Campanyà GSI	
12.30 - 12.45	Poster 1 Minute Oral Presentation EM 43 Environmental change in Ireland's small marl lakes Raymond Wilson Univ. of Ulster	