

All session rooms are located in the Muirhevna Building, DkIT, Main campus, and timings are based on Irish Standard Time (IST).

Tuesday 28 April: 11:30 – 13:00

Climate Change Mitigation and Adaptation 1		Circular Bioeconomy and Waste Management and Bioenergy 1		Environmental Monitoring and Remediation 1		Biodiversity Conservation and Ecosystem Restoration	
Room: M 128		Room: M 127		Room: M 126		Room: M 125	
11:30	Chair: Rory Sheehan (Louth County Council) Keynote: Rory Sheehan "Tackling Climate Action at a Local Government Level"	11:30	Chair: Siobhan Jordan (DkIT)	11:30	Chair: Paul McDonnell (Sonitus Systems) Keynote: Paul McDonnell (Sonitus Systems) "Something in the Air - use of Artificial Intelligence in Air Quality Monitoring"	11:30	Chair: Chris McEleney (ATU)
11:45	Samantha Tobias: Where Habits Meet Habitats: Rethinking Climate Vulnerability in Biocultural Landscapes	11:35	Anthony Oyeogbe: Shaping a Circular Nutrient Future: Co-Created Policy Instruments for Ireland's Recycled Fertiliser Market	11:45	Marcia Isabel Cadena Aizaga: Tracing legacy pollutants in the Irish marine environment using passive sampling techniques	11:35	Hugh Fitzpatrick: The extent of damaging activities from dumping on commonage habitats across West Connacht
12:00	Ben McCabe: Adapting Sustainable Practices in Regional Theatre						
12:15	Jimmy O'Keeffe: Farming Resilience and Management through Natural Capital (FARM-NC)	11:50	Oksana Avendano Flores: Social Life Cycle Analysis of the Bioeconomy Development: A systematic review	12:00	Shayan Kabiri: High-Resolution Modelling of Agricultural Ammonia Dispersion at Irish Natura 2000 Sites	11:50	Natalia Kosiuk: Comparative Analysis of Ant Communities within Different Habitats of Western Ireland
12:30	Xu Liu: Understanding Behavioral Drivers of Climate Adaptation in European Living Labs	12:05	Olayinka Franklyn Allison: Evaluation of the R-phycoerythrin pigment from <i>Furcellaria lumbriicalis</i> for application in cosmetic formulations	12:15	Flavia Melati Chiappara: Growth assays as novel biomarkers for environmental pollution using water fleas	12:05	Avril Hanbidge: Advancing aquatic biodiversity conservation, monitoring and innovation: Insights from EU-funded projects
12:45	Sara Ayoub: Coastal Vulnerability and Adaptation in the Caribbean under Climate Change: Oral presentation	12:20	Anna Kaskova: Hydrothermal carbonisation as a key step in a cascading biorefinery for valorisation of strongly alkaline residues after biostimulants extraction	12:30	Jingrou Chen: Agitation rate and hydraulic retention time influence the yield of <i>Azolla filiculoides</i> used to remediate an agri-food wastewater	12:20	Niall Walshe: Practitioner perspectives on biodiversity-friendly farming practices across Europe: A bottom-up analysis of uptake and prioritisation
		12:35	Jagdeep Kumar Nayak: Impacts of Mechanical Pre-Treatment Strategies on Green Juice Yield and Protein Precipitation in a Pilot-Scale Grass Biorefinery	12:45	Marguerite Nyhan: Leveraging Largescale Digital Data & AI for Understanding Greenspace & Air Pollution Exposure Inequalities in Urban Areas	12:35	Kofi Dua Agyei: Does NbS Performance Drive Investment? Stakeholder Perceptions and Financing Mechanisms for Freshwater Restoration.
		12:40	Caoimhe Grace: FOLOU: Quantifying Food Waste and Food Loss in the Primary Production sector of Meat and Dairy in Ireland			12:40	Eli Kane: Working towards a high-resolution hyperspectral database of blanket bog vegetation communities

Lunch break: 13:00 -14:00

ESAI Early Careers Network (ECN) Meeting 13.15-14.00 M128, Muirhevna Building, DkIT main campus. *Blue box is a poster with a 5-minute oral presentation

Tuesday, 28th April: 14:00 – 15:45

Climate Change Mitigation and Adaptation 2	Circular Bioeconomy, Waste Management and Bioenergy 2	Environmental Monitoring and Remediation 2	Microplastics and Emerging Contaminants in the Environment
Room: M 128	Room: M 127	Room: M 126	Room: M 125
14:00 Chair: Brian Gilmore (Cement Manufacturers Ireland)	14:00 Chair: Niamh Power (MTU)	14:00 Chair: Frances Lucy (ATU)	14:00 Chair: Clodagh King (DkIT)
14:05 Faisal Mahmood: Climate Change Impacts on Extreme Flood Events: Integrated Hydrological Modelling for the Crookstown River Basin, Co. Cork, Ireland	14:05 Lilian Atira: Effects of recycling derived fertilisers versus conventional fertilisers on soil nematode communities in Irish wheat field trials	14:05 Daniela Lopez: A Soil Chamber Platform for QEPAS Monitoring of Agricultural Greenhouse Gas Emissions Under Controlled Conditions	14:05 Junli Xu: DashMP software: Deep learning automated spectral high-throughput microplastic analysis
14:20 Sakshi Anand: Mapping the Bioeconomy Education Landscape in Ireland: Identifying Gaps and Building Skills for a Circular Bioeconomy Transition	14:20 Dónal Kinsella: Optimising sulphur nutrition of a grass-white clover sward increases apparent biological nitrogen fixation and reduces nitrate leaching in the local bioeconomy	14:20 Alejandra Vieyra-Ramirez: Ecological linkages between nematode and plant diversity in an Irish built environment: lessons on soil health	14:20 Jimena Barrientos-Paras: Application of lignocellulosic and anaerobic digestate-derived biochars for Microplastic adsorption
14:35 Beulah Lazarus: Mapping Energy Poverty: From European Policy to Local Action in Ireland	14:35 Shwe Yie Lin: Textile Waste Management in Ireland: A PESTEL-SWOT Analysis for Sustainable Transition	14:35 Deirdre Lynch: Hidden Exposure: An Inventory of Mercury Identifying Gaps in Irish Pollutant Tracking: Oral presentation	14:35 Swarna Halder: Microplastic Pollution in Marine Environments: A Global Review of Occurrence, Field Observation and Transport Modelling
14:50 Ana Julieth Calderon Marquez: Operational emissions and fuel transitions in farmed seaweed: implications for blue carbon assessments	14:50 An Hoang Luu: Pre-treatment strategy to valorise cotton-rich textile waste into fermentable sugars for bioconversion	14:50 Muhammad Inam Bari: Water Table Position Mapping in an Irish Blanket Bog Site Using Vegetation Metrics and Hydrological Monitoring	14:50 Hayley Corbett: Upgrading slow sand filtration: exploring the practicality of traditional technology for the 21st century
15:05 Ana Julieth Calderon Marquez: Wild seaweed systems in Europe: an evidence-based assessment of their relevance for blue carbon accounting	15:05 Hongkun Zhu: Impulse Responses of Biogenic CO ₂ Potential Supply and Fossil CO ₂ Consumption: A Panel VAR Approach considering nine EU Countries	15:05 Alexander Savelev: Detection of Chemicals of Concern in surface waters sampled via Citizen Science	15:05 Anne Leung: The Impact of Smoked and Non-smoked Cigarette Filters on Aquatic Ecosystems using Daphnia as Bioindicators
15:20 Rohankumar Solanki: Environmental Life Cycle Assessment of Irish Wool	15:20 Clodagh Carr: Establishing multi-actor transition groups to drive improved nutrient management at the regional scale in Europe	15:20 Akser Alam Siddiqua Maya: Preparation of Calibration Protocol to Characterize and Quantify Organic Matter in Synthetic Dairy Wastewater using Fluorescence Excitation–Emission Matrix.	15:20 Helen Burke: Urban Drains to Coastal Waters: Sub-Kilometre Analysis of PFAS from Stormwater Outfalls
	15:35 Soumya Padinjarakavil: Biodegradable foam synthesized from lignin rich brewers spent grain waste with potential use as a sustainable alternative for packaging applications	15:25 Georgina Mooney: Monitoring and assessing the effectiveness of small-scale wetland ponds as an ecological water quality restoration measure in agricultural catchments	15:35 Liana Zoumpouli: Impact of microplastic fibres on membrane-based wastewater treatment

Coffee break: 15:45-16:15

Networking, Poster Session & Meet the Exhibitors. **Blue box is a poster with a 5-minute oral presentation*

Tuesday, 28th April 16:15 – 17:30

	Climate Change Mitigation and Adaptation 3	Circular Bioeconomy, Waste Management and Bioenergy 3	Emerging Innovations in Agri-Environmental Management	AI, Machine learning and Modelling in Environmental Science
	Room: M 128	Room: M 127	Room: 126	Room: M 125
16:15	Chair: Pilar Marcos (DkIT)	16:15 Chair: Padraig McDonagh (ATU)	16:15 Chair: Joe Lynch (DkIT)	16:15 Chair: Abhishek Kaushik Keynote: Abhishek Kaushik (Department of Computing Science and Mathematics, DkIT). “Student Perspectives on Artificial Intelligence in Environmental Studies across Various Disciplines Bridging Sustainable Monitoring”
16:20	Ella Mulkerrins: Perennial ryegrass varietal selection for improved resilience to fungal disease as a climate adaptation strategy	16:20 Avinash Chauhan: Development of a Structured Techno-Economic Assessment Framework for Humic Substance Recovery from Anaerobic Digestate	16:20 Robert K. Tambudze: Effects of Cereal–Legume Intercropping on Protein and Land-Use Efficiency in a Whole-cropping System	16:35 Frederick Akpomie: Analytical Insights into Cyanobacterial Bloom: Lough Neagh Analysis for Water Management Case Study
16:35	Farjana Akter: Historical yield improvement trends for major tillage crops across Ireland relative to seasonal temperature and precipitation indices	16:35 William Horan: Sensitivity Analysis of Construction Timber Climate Change Impact Displacement Factors for Irish Residential Scheme Buildings	16:35 Remember Roger Adjei: From Risk to Resource: Evaluating Rainfall Impact and Harvesting Potential for Irish Harvest Operations	16:50 Avinash Nagarajan: AI-Powered Energy Profile Tool for Rural Energy Communities
16:50	Farjana Akter: Impacts of sowing date selection on Irish cereal yield simulations under future climate change	16:50 Shon George Shiju: Enhancing Humic Substance Recovery from Wastewater Digestates through Hydrothermal Processing	16:50 Ismaeel Abdulsalam: Interactive Effects of Arbuscular Mycorrhizal Fungi and Different Levels of Anaerobic Digestate on Phosphorus Uptake Efficiency of Perennial Ryegrass	17:05 Tuan Booso: Rescuing Lost Records: Virtual Gauging of a Decommissioned River Station Using a Hierarchical Machine-Learning Framework
17:05	Jonathan Leather: Advancing Regional Climate Resilience in County Louth: Findings from Phase 1 and Early Insights from Phase 2 of the CLIMAAX Programme	17:05 Daragh Cogley: Circular Bioeconomy as Reharmonisation: Interpreting the Double Spiral as Right Relationship Between Economic Activity and Natural Cycles.	17:05 Rakesh Rayapureddi: Why Sustainable Feed Innovations Struggle to Translate into Adoption: A Macro-Environmental Evidence Map of Duckweed-Derived Protein in Europe	17:20 Musfir Ameen: Integrated Molecular and Optical Assessment of Aged Paints: ATR-FTIR Characterisation and Transferable Colour Prediction Models for Reuse Applications.
17:20	Soliu O. Mustapha: Herbage dry matter yield and species composition of novel grassland swards in their establishment year	17:10 Michelle McMullan: Developing circular economy systems and new KPIs to promote green hydrogen production and other co-product and by-product utilisation in the water and wastewater sector	17:20 Beauty Ezinne Japhet: Life Cycle Sustainability of Gluten-Free Food Systems: A Systematic Review of Evidence Gaps and Nutritional Functional Unit Integration	

ESAI AGM featuring Postgraduate Researcher of the Year 2026; 17:15 - 17:45, M128, Muirhevna Building, DkIT main campus. The Gateway Hotel for the Conference Dinner, 19:00 – 20:00. **Blue box is a poster with a 5-minute oral presentation.*

Wednesday, 29th April: 10:00 – 11:35

	Environmental Education	Policy, Governance and Sustainable Development 1	Marine and Coastal 1	Sustainable water: management and water conservation 1
	Room: M 128	Room: M 127	Room: M 126	Room: M 125
10:00	Chair: Caroline Gilleran Stephens (DkIT) Keynote: Jeanette Gill (Skillnet Offshore Wind Academy and GTS) “Green Tech SkillnetCo creation and partnerships in lifelong learning”	10:00 Chair: Ciaran Lavin Keynote: Ciaran Lavin (SEAI) “Public support for energy sufficiency policies in Ireland”	10:00 Chair: Lubna Ahmed (DkIT)	10:00 Chair: Mark Bowkett (T.E. Laboratories) Keynote: Mark Bowkett “Moving Environmental analysis into the field. Challenges and opportunities”
10:15	Daisy Odunze: Mapping Bioeconomy Integration and Measuring Transition Readiness: A structural review of Environmental Sciences / Management degree programmes curricular in the context of Ireland’s National Bioeconomy Strategy	10:15 Aiza Ahmad: Aligning Building Geometry with Environmental Conditions: A Spatial Assessment of Rooftop PV Performance in Ireland	10:05 Saule Akhmetkaliyeva: Where does organic matter come from in Irish saltmarshes?	10:15 David Greaney: Shiga toxin-producing E. coli (STEC) serogroups in private groundwater wells: frequent and persistent detection in increasingly vulnerable hydrogeological settings
10:30	Aminah Dastan: Toward Regenerative Festivals; salutogenic celebration for holistic well-being	10:30 Daniel Burke: Planning for sustainable, low-carbon, and healthy food access in Ireland: empirical evidence from a national survey	10:20 Emily Schwalbe: Community Engaged Research for Coastal Challenges	10:30 Valerie McCarthy: Potential Source Water Protection Measures to Mitigate Against Organic Matter Using Ireland as A Case Study
10:45	Cathal Flood: Tales from the watering hole: How citizen science influenced an Irish farmers practice and aims to inspire behavioural change with landowners for water quality and river habitat improvement via the Cross border CALM (Catchment Action for Local Management) initiative on the Glyde.	10:45 Ailish. M. O’ Brien: Making a Splash: Environmental Sustainability Policy Integration in Irish Water-Based Sporting Bodies	10:35 Ragna Hoogenboom: The Effect of Elevated CO2 and Temperature on the Carbon Sequestration Potential of Saltmarsh Grasses Puccinellia maritima and Spartina anglica	10:45 Liton Chandra Mazumder: Catchment-to-Reach Scale Modelling of Sediment Dynamics using Integrated SWAT and HEC-RAS: Application to the River Mulkear Catchment, Ireland
10:50	Stephanie Woods: Environmental Education for Empowerment – A Response to Eco-anxiety Among Young People in Ireland	11:00 Jamie Murray: BioCultúr - Proposing the need for a biocultural bioeconomy	10:50 Eliza Fairchild: Investigating Spatial Distribution of Soil Carbon in an Irish Saltmarsh Ecosystem	11:00 Prosper Kebaya: Erosion-driven soil carbon dynamics in a headwater agricultural catchment dominated by microtopography
			11:05 Tuan Booso: Toward a Hydrological Digital Twin: Basin-Scale Availability-Adaptive Reconstruction of Streamflow	11:15 Nathan Maréchal: Catchment Communities: Development of an Interdisciplinary Framework for Citizen Science-Based Monitoring of Water Quality in Ireland

Coffee break: 11:35 - 12:15. Networking, Poster Session & Meet the Exhibitors. *Blue box is a poster with a 5-minute oral presentation

Wednesday, 29th April. 12:15 – 13:15

	Policy, Governance, and Sustainable Development 2	Sustainable water: management and water conservation 2	Marine and Coastal 2	Advancements in renewable and sustainable energy technology
	Room: M 128	Room: M 127	Room: M 126	Room: M 125
12:15	Chair: Pilar Marcos (DkIT)	12:15 Chair: Suzanne Linnane (DkIT)	12:15 Chair: Graece Tan (SETU)	12:15 Chair: Fergal O'Rourke (DkIT)
12:20	Marie Taylor: Cultivating Sustainable Habits: Education and Innovation for Sustainable Market Gardening	12:20 Patti Roche: Contrasting phosphorus build-up and drawdown dynamics in grasslands with differing soil structure	12:20 Naga Venkata Sudha Rani Nalakkurthi: Data-Driven Coastal Resilience: Integrating FAIR Data, Environmental Monitoring, and Digital Tools to Support Nature-Based Climate Adaptation	12:20 Mohammad Sameti: Biomass estimation multi-sectoral computational framework for Ireland 12:35 Mohadeseh Naderi: Modelling of an Alkaline Water Electrolyser in Aspen Plus
12:35	Zack Twamley: Meeting in the middle? The interplay of targets and institutional support in Ireland's phase out of hydrofluorocarbons	12:35 Mahak Sharma: Analysing the role of stakeholder engagement within the Irish water governance system	12:35 Patrick Sode: Anthropogenic activity in a coastal urban area: Occurrence of pesticides, pharmaceuticals, and UV filters in Dublin Bay	12:50 Daniel Dransfield: Analysis of Solar PV Usage and Subsequent Optimisation to Maximise the Benefits for Residential Properties in Ireland
12:50	Michelle Burke: Creative Climate Action as a Catalyst for Transformative Community Change	12:50 Armando Corona Ramirez: The role of individuals in driving sustainable water consumption behaviour within regulatory institutions in Ireland	12:50 Nicolette Sale: Analysis of Seawater and Oysters from Dublin Marine Coasts for Contaminants of Emerging Concern	13:05 Zak Hawthorne: Comprehensive modelling methodology for a Wells turbine through computational fluid dynamics
13:05	Jeovan A. Araújo: Advancing Sustainable Transition in Maritime SMEs: The Impact4Mar Transnational Approach in the Atlantic Area		13:05 Sergio Sanchez-Carrillo: From Effluent to Beach: Metagenomic Mapping of Clinically Relevant Antibiotic Resistance Gene Hotspots in a Coastal System	13:20 Mahamad Yousif: Co-Digestion of Grass Silage and Cattle Slurry for Grid Decarbonisation and Phosphorus Sequestration
13:20	Aon Waqas Awan: Just Transition Indicators in Agri-Food Systems: A Systematic Literature Review		13:20 Juan Esteban Quintero-Marin: Smart Pebbles in Coastal Citizen Science: Lessons from Environmental Co-Monitoring with Local Communities at Killiney Beach, Ireland	13:35 Conor Cassidy: Evaluation of ternary iron nickel boride electrocatalysts in sustainable electrochemical energy production

Lunch break: 13:15 – 14:00

14:00 -14:45: Student Prize Giving Ceremony "Best in Conference", Close of Conference **Blue box is Poster with 5-minute oral presentation*