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MaREI Biofuels Symposium

29th April 2020 | 09.00-13.30

MaREI Researchers based in UCC and NUIGalway will present on the following 4 topics:

1. Circular bioenergy and biorefinery system
2. Hydrogen economy
3. Biogas production
4. Biogas upgrading and digestate valorisation

You can join the Mircosoft Teams Event Live

MaREI Biofuels Symposium Part 1
09.00-10.50

MaREI Biofuels Symposium Part 2
11.00-13.30

HOST INSTITUTION
UCC University College Cork, Ireland Coláiste na hOllscoile Corcaigh

PARTNER INSTITUTIONS
CIT Cork Institute of Technology · DIAS · Dundalk Institute of Technology Dhún Dealgan · ESRI Economic & Social Research Institute · Maynooth University · NUI Galway OÉ Gaillimh · Trinity College Dublin · Dublin Institute of Technology · Tyndall National Institute · University College Dublin An Coláiste Ollscoile, Baile Átha Cliath · University of Limerick Ollscoil Luimnigh

FUNDED BY:
Ireland's European Structural Fund Investment Funds Programmes 2014-2020 · European Union European Regional Development Fund · Science Foundation Ireland sfi For what's next

MaREI Biofuels Symposium Part 1 (09.00-10.50)

Start Time	Researcher	Title	Affiliation	Supervisor	Project
Topic 1: Circular bioenergy and biorefinery system					
9:00	Richen Lin	A perspective on cascading bioenergy systems with carbon capture and utilisation	UCC	Prof Jerry Murphy	Marie Curie/EPA
9:08	Richard O'Shea	Decarbonisation of Alcohol	UCC	Prof Jerry Murphy	MaREI (IDL)
9:16	Juan Castilla	Brewery spent grain waste as source of green chemicals	NUIG	Prof Piet Lens	SFI Research Prof
9:24	Simone Pau	Value addition to food waste by lactic acid fermentation	NUIG	Prof Piet Lens	SFI Research Prof
9:32	Sinead Morris	Duckweed biorefinery	NUIG	Prof Piet Lens	SFI Research Prof
9:40	Aoife Long	Emissions savings criteria for renewable energy in the EU Renewable Energy Directive (recast)	UCC	Prof Jerry Murphy	MaREI (GNI)
9:48	Yan Jiang	Life cycle assessment of pig manure and food waste management strategies in Ireland	NUIG	Prof Xinmin Zhan	SEFE (with Prof Jerry Murphy)
Coffee and discussion (20 minutes)					
Topic 2: Hydrogen economy					
10.16	Shane McDonagh	Future costs and sources of hydrogen	UCC	Prof Jerry Murphy	MaREI (GNI)
10:24	Nathan Gray	The role of hydrogen in decarbonising heavy duty transport	UCC	Prof Jerry Murphy	MaREI (with Prof Piet Lens)
10:32	Davis Rusmanis	Biological Hydrogen Methanation: Analysis of System Design and efficiency	UCC	Prof Jerry Murphy	MaREI (with Prof Piet Lens)
Coffee and discussion (10 minutes)					
BREAK					

MaREI Biofuels Symposium Part 2 (11.00-13.30)

Topic 3: Biogas production					
10:50	Benteng Wu	Application of carbon-based conductive materials to resist acidic shock and stabilize biomethane production from thin stillage	UCC	Prof Jerry Murphy	EPA
10:58	Zhongzhong Wang	Impact of total solids content on anaerobic co-digestion of pig manure and food waste: insights into shifting of methanogenic pathway	NUIG	Prof Xinmin Zhan	SEFE (with Prof Jerry Murphy)
11:06	Shun Wang	An important role of anaerobic digestion on the removal of antibiotic resistome	NUIG	Prof Xinmin Zhan	SEFE (with Prof Jerry Murphy); China Scholarship Council
11:14	Shasha Qi	Food waste fermentation for carbon source production and application in denitrification of wastewater	NUIG	Prof Xinmin Zhan	China Scholarship Council scholarship
11:22	Lea Tan	Addition of activated carbon to facilitate faster fat degradation and promoting faster methane production	NUIG	Prof Piet Lens	SFI Research Prof
11:30	Aramando Oliva	Anaerobic digestion of lignocellulosic materials	NUIG	Prof Piet Lens	SFI Research Prof
11:38	Mohan Logan	Performance investigation of internet of things based anaerobic digestion	NUIG	Prof Piet Lens	SFI Research Prof
11:46	Peyman Sadrimajd	Automatic control and AI for anaerobic digestors	NUIG	Prof Piet Lens	SFI Research Prof
Coffee and discussion (10 minutes)					
Topic 4: Biogas upgrading and digestate valorisation					
12:14	Archischman Bose	Cascading Algal Biomethane Biorefinery Systems (CABBS): Experiments and System Modelling	UCC	Prof Jerry Murphy	SEFE (with Prof Xinmin Zhan)
12:22	Yuansheng Hu	Auto-floating microalgae for CO2 sequestration, wastewater purification and biofuels production	NUIG	Prof Xinmin Zhan	SEAI
12:30	Jewel Das	Biogas clean-up for direct grid injection	NUIG	Prof Piet Lens	SFI Research Prof
12:38	Harish Ravishankar	Application of membrane processes for VFA recovery from digestates	NUIG	Prof Piet Lens	SFI Research Prof
12:46	Jizhong Meng	Recovery of ammonia from digested municipal sludge centrate	NUIG	Prof Xinmin Zhan	China Scholarship Council scholarship
12:54	Lin Shi	In situ anodic oxidation in electrodialysis for antibiotics removal during nutrient recovery from pig manure digestate	NUIG	Prof Xinmin Zhan	IRC with TCD
Coffee and discussion (20 minutes)					
END (13:30)					