



2025 Satellite Early Career Researcher Regional Symposium on Electrochemistry (SERRS)

TSI Building Room TSI039

Thursday 30th January 2025



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Virtual Labs
HCI P3 Initiative



Location

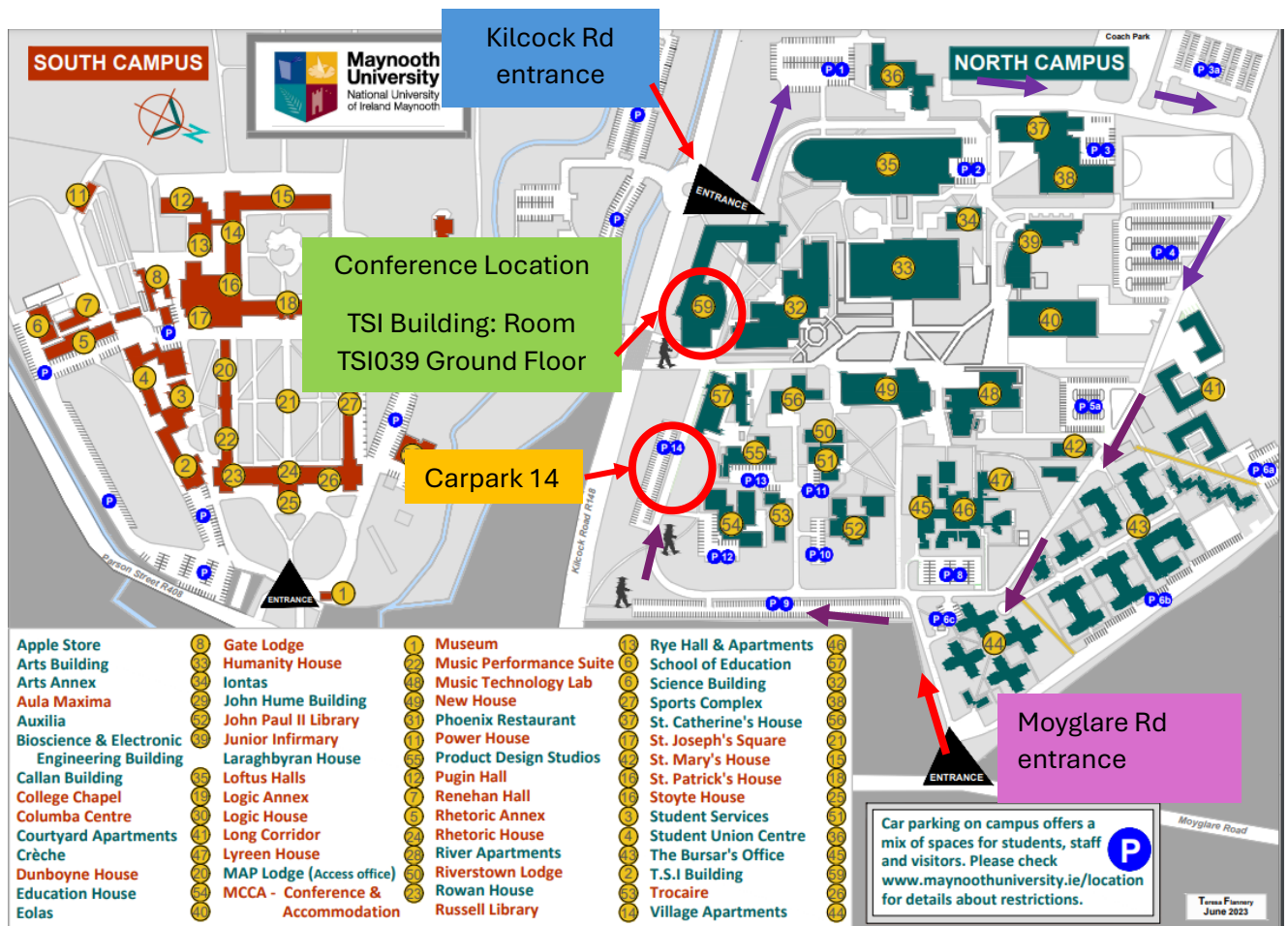
Room TSI039 (TSI building) North Campus Maynooth University, approx. 10 min. walk from the train station.

If arriving by car use Car park 14 or 9 via either Kilcock or Moyglare Rd. entrance

<https://www.maynoothuniversity.ie/campus-life/campus-map>

Registration, posters and breaks will be in the TSI Building Foyer Floor 1

Oral sessions will be in TSI039 Ground floor



Programme

8.45 Registration – Tea Coffee refreshments:
TSI building 1st floor foyer

09.30 Welcome and Opening: Prof Carmel Breslin

Chair: Eithne Dempsey

09.45 **Keynote Lecture:** Frontier Chemistries for Li-ion and K-ion Batteries comprising nanostructured alloying anodes and 3D current collectors Prof. Kevin Ryan (UL)

10.30 **Career:** From theory to practice; my career in electrochemistry at Dexcom Richard Bennett (Dexcom)

Theme 1: Biological Sensors and Systems

Chair: Shane O' Neill

10.50 **O1:** Advancements in sensing performance of enzymatic glucose and lactate biosensors for improved healthcare monitoring Kidayaveettil, Reshma (UG)

11.05 **O2:** Enabling early detection of ovarian cancer using a novel electrochemical sensing platform Atieh Mousavi (Tyndall)

11.20 Tea Coffee refreshments: TSI building 1st floor foyer

Chair: Kidayaveettil, Reshma

11.45 **O3:** 3D Bioprintable electrically Conductive Bioinks for Biosensing Applications Róisín Byrne (DCU)

12.00 **O4:** Impedimetric sensing of stimuli-responsive hydrogels for wearable sensors Rinki Singh (DCU)

12.15 **O5:** Redox-Active Copper Complexes and DNA Interactions: Pathways to Cancer Treatment Pei-Hsuan Wu (TUD)

12.30 **O6:** Surface modification of Quartz Nanopipettes for the detection of pathogenic DNA *Klebsiella pneumoniae*. Shane O'Neill (UCD)

12.45 **O7:** Multi-parametric electrochemical sensing platform for the detection of pH, temperature, nitrate and nitrite in livestock welfare C. Ferreira (UCC)

- 13.00 Lunch: TSI building 1st floor foyer
- 13.30 Group Photo South campus
Tour of Russell Library (limited numbers)

Russell Library

Theme 2: Materials, Electrocatalysis and Photocatalysts

Chair: Ana Claudia Ferreira

- 14.00 **O8:** One-Dimensional Modeling of Photocurrent Transients: Self-Assembled Porphyrins at the Liquid|Liquid Interfaces Smith Osorio.Jessica (UL)
- 14.15 **O9:** Simple and scalable synthesis of iron-nickel-boride trifunctional electrocatalyst for wastewater electrolysis Thomas Karagiannis (UCD)
- 14.30 **O10:** Electrosynthesis of free-standing PEDOT Thin Films using Fe(III) at polarised liquid-liquid interfaces Juliana Diaz Reyes (UL)
- 14.45 **O11:** In search of sensitivity for nanoscale sensing systems Dominik Duleba (UCD)
- 15.00 **O12:** Trimolybdate substituted Dawson polyoxometalates doped poly(3,4-ethylenedioxythiophene) films: A voltametric study Blondel Blanchard Ndoukeu Tchatat (DKIT)

15.15 Flash Poster session

Chair: Eithne Dempsey
2 min each

15.45 Tea Coffee refreshments: TSI building 1st floor foyer
Poster session/Networking

Theme 3: Electroanalysis, Electroplating/Corrosion

Chair: Jessica Smith Osorio

- 16.10 **O13:** Film Formation on electrochemical investigations of NSAIDs such as Diclofenac and Mefenamic Acid Kevin Kurian (TUD)
- 16.25 **O14:** Analysis of Copper-Zinc plating bath on macro and micro electrodes Neil Curtis (Tyndall)
- 16.40 **O15:** Investigation of Anti-Corrosion and Self-Healing Properties of Tannic-Based Epoxy Composite Coatings Aylin Ahmadina (MU)

Incorporating Eco-Friendly Cerium-Tyrosine Corrosion Inhibitors

16.55 Short break

17.10 Final engagement, awards ceremony and close

17.30 Gathering in O'Neill's

Event on campus 7.15 pm

Brigid, Spirit of Kildare is a festival of events to celebrate and commemorate St. Brigid “Her Spirit, Our Story” [Luxe Theatre Landscape Maynooth - Spirit of Brigid](#)

Posters

Posters should be presented in A0 size, portrait i.e. 841 x 1189 mm (33 X 47 inches).

Each poster presentation will be allocated a self-standing display board. There is no additional room for extra displays or equipment.

The display board will be covered in felt and Velcro stickers will be provided for attaching posters. Please do not use any other kind of adhesive.

Posters should be hung between 08.45 and 09.30 hrs on 30th January. All authors are requested to put up their posters during this time frame.

Displaying and removing posters is the responsibility of the presenter(s) i.e. at the commencement and end of the conference.

As part of the Poster Presentation, you will need to be available during break times to share information and answer queries.

All are welcome to participate in the Flash poster session and a slide template will be available for download (see website)

Poster Number	Title	Author Name
P01	Characterisation of Glassy Carbon Electrodes Aged in V^{IV}/V^V Electrolytes	Pupak Amin
P02	A solar powered potentiostat for the detection of nitrite and nitrate in environmental samples	Matthew McCole
P03	An electrochemical study of $[PV_2Mo_{10}O_{40}]^{5-}$ doped PEDOT film and its potential as an electrocatalyst towards bromate sensing	Muhammad Faisal Jamil
P04	Mechanistic Investigation of Electrode-Generated Photocatalysts	Nia Foster
P05	Photoelectrocatalysis for Resource Recovery from Wastewater	Saba Abdolalian
P06	Electrochemical Characterisation of Water-Based Deep Eutectic Solvent Electrolytes	Anna White
P07	Miniaturisation and characterisation of an amperometric glutamate oxidase-based composite biosensor for neurotransmitter L-Glutamate monitoring	Keane McNamee
P08	Glutathione Sensor Development with the aid of Electrosynthesised Nanogold	Alexandra Lapiy
P09	A Non-invasive Wearable Microfluidic Device for Capture and Quantitative Analysis of Glucose Coupled with Skin Electrodermal Activity	Aoife Newman
P10	Electrochemical Detection of Ornidazole by means of Copper-Iron layered double hydroxide and Carbon Black-modified electrode	Luke Glennon
P11	Synthesis of Layered Double Hydroxide – Transition Metal Dichalcogenide composites for OER	Colm Ennis

P12	Nickel boride/transition metal dichalcogenides as potential bifunctional electrocatalysts for water splitting	Conor Cassidy
P13	Combating prozone effect and predicting dynamic range of nanoplasmonic biosensors through capture bioentity optimisation	Zoe Bradley