Q-ERND 2022 - List of Posters

Note: Not all 7 areas receive sufficient submissions of posters, so posters from those areas were reassigned to some of the other themes where they also fit. A first-place prize and honourable mention will be awarded for posters in each of the themes below.

Intelligent Systems and Robotics and ICT		
1	Mohammedkia Zamiri-Jafarian	Graph-based Hyperspectral Unmixing Using Deep CNN with Homogeneous and Heterogeneous Classification
2	Anan Zhang	A Low-Modulus, Soft-Stretchable Wearable Electrocardiography (ECG) Sensor-Circuit System
3	Telema Harry	Autonomous Navigation and Station Keeping of High-Altitude Balloon Platforms
4	Pritam Sarkar	The First Large Scale Audio-Visual Dataset of Cognitive Load and Affect for Remote Work
5	Emily Taylor	Distributed Multi-Robot Collaborative Localization
6	Thomas Sears	Making Waves: Mapping Spatiotemporal Phenomena with Mobile Robots
7	Hadi Panahi	A Machine-Learning-based Model for Seismic Performance Assessment of Interior Slab-Column Connections
8	Hayden Banting	Robust Evolutionary Algorithm for Antenna Design and Optimization
9	Ciaran Byles-Ho	Scintillating Bubble Chamber: Using Machine Learning for Silicon Photomultiplier Pulse Analysis
10	David Morton	Tissue sensor tracking for tumour bed inspection
11	Leonam Pecly	Analog Position using Sensor Fusion for Robotic Systems

Materials, Resources, and Manufacturing		
12	Opeyemi Ajogbeje	Polymerization and Hydrolysis Kinetics of Ionizable 2 - (Dimethylamino) ethyl Methacrylate
13	Aditya Kamath	There are Zr(Nb,Fe)2 intermetallic precipitates in CANDU reactor pressure tubes. Do they possess an FCC or HCP structure? Multi-scale materials modeling to the rescue.
14	Michael Jaansalu	Thermodynamic Evaluation of Pyrometallurgical Processes for Nickel Recovery from Nickeliferous Pyrrhotite
15	Haritha Haridas	Surface modification of graphene nanoplatelets and their applications in thermoplastic composites
16	Severus Gao	The First Full-Size Bridge Deck Rolling Load Fatigue Test Completed in North America

17	Isaac Thevathasan	Exploring the potential of butyrate-functionalized trimethylene carbonate for peptide drug delivery
18	Hesam Pouraliakbar	On the Microstructure Evolution, Thermal Stability and Oxidation resistance, Structural Integrity, and Mechanical Properties of Thin-Strip Cast AA5182 Al-Mg Sheets
19	Shabnam Ahmadi Andevari	Dual-band Uniazial Dielectric Anisotropy Sensor Using Coupled-line Resonators
20	Sandra Smeltzer	Corticosteroid Delivery
21	Mehmet Emircan Emci	Stability and Failure Analysis of Excavations Used for Underground Mining of a Heavy Oil Reservoir
22	Adib Salandari-Rabori	Structure-Properties Relationship in As-built Laser Powder Bed Fusion A1Si10Mg

Engineering for Climate Change and Resilience

23	Erica Treflik-Body	Physical Modelling of Liquefaction, Retrogression, Granular Collapse and Wave Generation Processes During Coastal Slope Failures
24	Rohit Shukla	The Impact of Climate Change on lake Erie's Water Quality and Ecology
25	Abdul Watfa	Segmental Hollow Concrete Filled FRP Tubes (CFFT) for Wind Turbine Towers
26	Megan McKeller	Pore pressure generation and mobility of liquefied fine sand observed in large scale dam break experiments
27	Branna MacDougall	A Comparative Study of the Compressive Strength of Ultra-High Performance Concrete Under Elevated Temperatures
28	Rachel Burns	Application of a High-Resolution Hydrodynamic Model for Simulating Tidal Flooding of a Dyke Managed Realignment Site in the Bay of Fundy

Biomedical Engineering

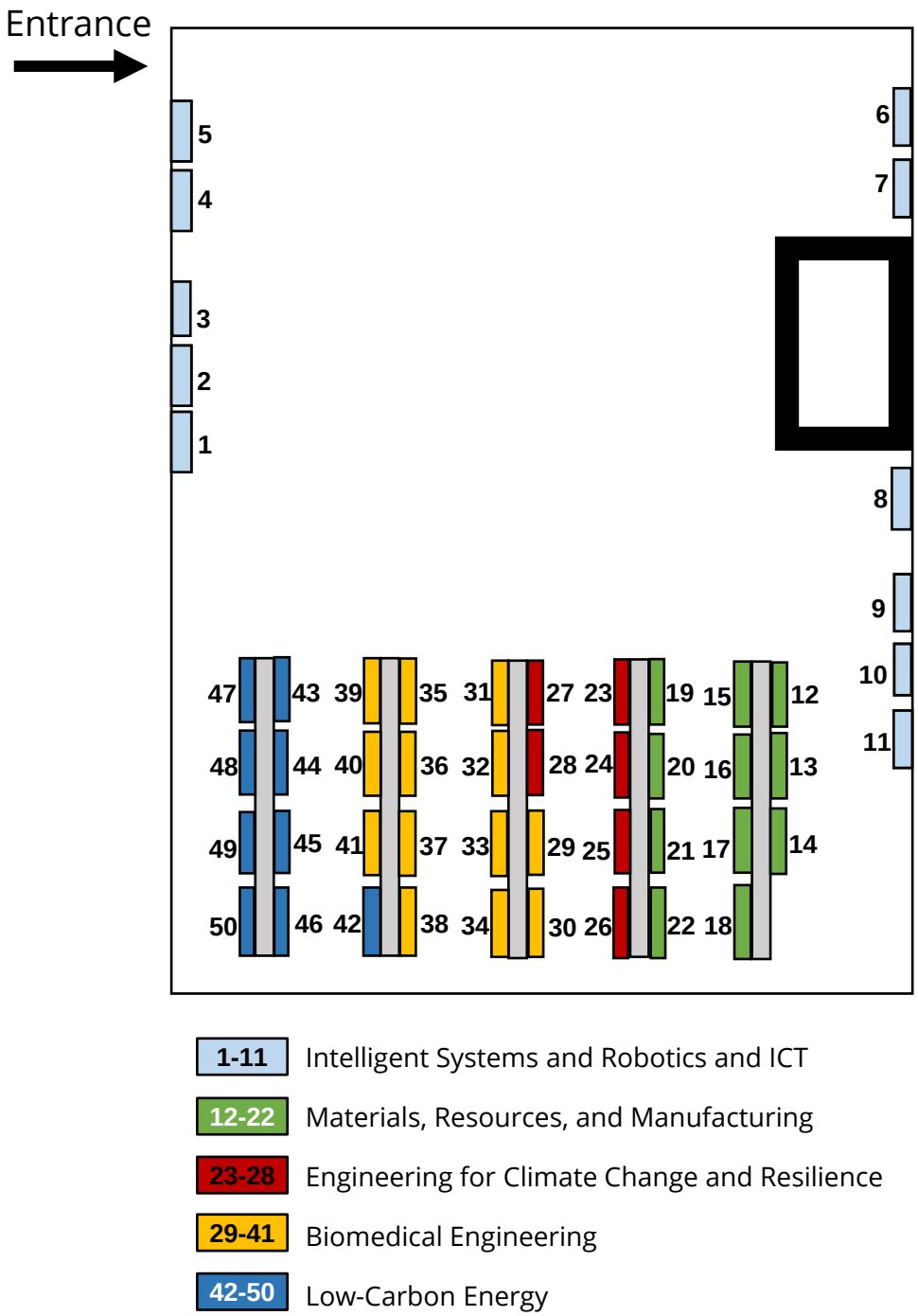
29	Yuxi Zhang	Effect of exogenous insulin on macrophage pro-inflammatory response
30	Hayley Galsworthy	Role of irisin in promoting resistance in chondrocytes to pro inflammatory cytokine-mediated damage
31	Laura Connolly	Robot-assisted breast conserving surgery
32	Nathan Holwell	Biomimetic Scaffold for ACL Replacement
33	Shane Forbrigger	Requirements for at-home post-stroke rehabilitation therapy robots: Stakeholders' perspectives
34	Anastasija Mihic	Feasibility of Markerless Motion Capture in Clinical Settings

35	Mahsa Zojaji	Quantifying the Contribution of Dietary Mineral Intake to Cortical Bone Mechanical Properties under Compressive Loading Using Finite Element Analysis".
36	Shamimeh Azimi	A novel “sandwich” assay for multiplexed detection of proteins in physiologically relevant media
37	Aaron Best	Contributions of multiple strategies to mediolateral gait stability
38	Chris Williams	Strain-insensitive 2D transistors for Fully Integrated Wearable Sensors
39	Jereme Outerleys	Towards Population-Level Biomechanical Research Through Large Scale Data Collection with Markerless Motion Capture
40	Bexi Bustillo	An oviduct-on-a-chip microfluidic platform to evaluate cilia beating with exposure to cisplatin
41	Quinn Yetman	A computational model of the ankle joint complex to evaluate the influence of passive tissues on foot-ankle coordination

Low-Carbon Energy

42	Katie Sciborski	A Non-Aqueous Hybrid Battery-Supercapacitor
43	Maryam Ghazizade Fard	Application of Various Techniques for Anaerobic Digestion Modelling
44	Yalda Pedram	Investigating the effect of Cu2+ adsorption on bentonite clay using molecular dynamics and density functional theory.
45	Cornelius Obasanjo	In situ regeneration of copper catalysts for long-term electrochemical CO2 reduction to multiple carbon products
46	Yu Luo	Moment tensor potentials from point to extended defects in zirconium
47	Keyvan Ferasat	He bubble formation and growth in Ni using object kinetic Monte Carlo
48	Mahdi Mohsini	A hybrid rate theory model for analysis of radiation-induced growth
49	Behnam Nourmohammadi Khiarak	Boosting formic acid production from CO2 electroreduction at high current densities
50	Yasaman Ghaffari	Oxidation Studies of Ni-Cr-Al Model Alloys at Low Homologous Temperature

Q-ERND 2022 Poster Map



1-11	Intelligent Systems and Robotics and ICT
12-22	Materials, Resources, and Manufacturing
23-28	Engineering for Climate Change and Resilience
29-41	Biomedical Engineering
42-50	Low-Carbon Energy