

EMERGING TECHNOLOGIES FOR SUSTAINABLE ENERGY SOLUTIONS

August 29-30, 2019

Venue: August 29 -Taylor Institute for Teaching and Learning (TI 160)

Venue: August 30 - Hunter Hub for Entrepreneurial Thinking (MSC171)

University of Calgary

NSERC CREATE ME² Program in Materials for Electrochemical Energy Solutions
Annual Conference 2019

Conference Program

Thursday, August 29, 2019		
08:00 – 08:30	Registration & Breakfast	TI Lobby
08:30 – 8:45	Opening Remarks Dr. Bill Rosehart Dean – Schulich School of Engineering	TI Forum
08:45 – 9:00	Introduction Dr. Edward Roberts Professor & Associate Head - Research CREATE ME ² Program Director University of Calgary	TI Forum
09:00 – 9:45	Current Status of Technical Aspects of Key Fuel Cell Components and Future Directions Dr. Rajesh Bashyam Ballard Power Systems Inc.	TI Forum
09:45 – 10:15	Quantifying Impacts of Marginal Changes in Electricity Grids – A Storage Perspective Matt Tierney MSc Student & CREATE ME ² Trainee Mechanical Engineering – University of Calgary	TI Forum
10:15 – 10:30	Coffee Break	TI Lobby
10:30 – 11:15	Development of Hydrogen and Fuel Cell Technology Dr. Huyen Dinh Senior Scientist, US National Renewable Energy Laboratory (NREL)	TI Forum
11:15 – 11:45	An Open-Source Transient Model for Numerical Characterization of Water Management in Proton Exchange Membrane Fuel Cells Aslan Kosakian PhD Student & CREATE ME ² Trainee Mechanical Engineering – University of Alberta	TI Forum
11:45 – 12:00	Summary of the Morning Session	TI Forum

	Dr. Marc Secanell Gallart Professor & CREATE ME ² PI Energy Systems Design Laboratory Department of Mechanical Engineering University of Alberta	
12:00 – 13:00	Networking & Lunch	TI Lobby
13:00 – 13:45	High Energy Low Cost Redox Flow Batteries Dr. Fikile Brushett, Associate Professor Chemical Engineering Massachusetts Institute of Technology (MIT)	TI Forum
13:45 – 14:15	Composite Polymer-Garnet Electrolytes for All-Solid-State Lithium-Sulfur Batteries Chengtian Zhou PhD Student & CREATE ME ² Trainee Chemistry – University of Calgary	TI Forum
14:15 – 15:00	Linking Energy Technological Advances to Commercially Viable Markets Francois Blouin Director Innovation ATCO Electric Global Business	TI Forum
15:00 – 15:15	Coffee Break	TI Lobby
15:15 – 15:45	Polyaniline-coated Nanoporous Carbon Scaffolds with Enhanced Electrochemical Performance for Energy Storage and Water Deionization Chengying (Arlene) Ai MSc Student & CREATE ME ² Trainee Petroleum & Chemical Engineering - University of Calgary	TI Forum
14:45 – 16:00	Closing Remarks Dr. M Anne Naeth Future Energy Systems University of Alberta	TI Forum
16:00 – 16:15	Introducing the Innovation Fair Dr. Edward Roberts Program Director	TI Forum
16:15 – 17:30	Poster Session & Networking Host Bar & Reception	TI Lobby
17:30 – 18:00	Award Ceremony for Best Oral and Poster Presentation Derrick Bakuska CREATE ME ² HQP Association President	TI Forum

Friday, August 30, 2019

09:30 – 10:00	Registration & Coffee	Hunter Hub for Entrepreneurial Thinking
10:00 – 10:20	Opening Remarks & The Collaboration between the University of Calgary and University of Waterloo Dr. Jeff Gostick Associate Professor & CREATE ME ² PI Department of Chemical Engineering University of Waterloo	Hunter Hub for Entrepreneurial Thinking
10:20 – 10:40	Introduction - A Message to Inventors Dr. Viola Birss Professor – Chemistry & CREATE ME ² PI Tier 1 CRC (Fuel Cells and Related Clean Energy Systems) Director, Calgary Advanced Energy Storage and Conversion Research Technologies (CAESR-Tech) University of Calgary	Hunter Hub for Entrepreneurial Thinking
10:40 – 11:10	Entrepreneurship and Innovation at the University Dr. Stephen Larter Associate Vice-President (Research – Innovation) University of Calgary	Hunter Hub for Entrepreneurial Thinking
11:10 – 11:40	Alberta Innovates Role in Supporting Entrepreneurship and Innovation, and the Alberta Context Alberta Innovates	Hunter Hub for Entrepreneurial Thinking
11:40 – 12:00	NSERC CREATE ME² Program & Innovation Professor & Associate Head - Research CREATE ME ² Program Director University of Calgary	Hunter Hub for Entrepreneurial Thinking
12:00 – 13:00	Networking & Lunch	Hunter Hub for Entrepreneurial Thinking
13:00 – 15:30	Researchers will showcase their latest sustainable energy technology. Attendees will be able to learn about the latest emerging innovations, and interact directly with project teams	Hunter Hub for Entrepreneurial Thinking