

**Draft AGENDA**  
**UNENE R&D Workshop**

**Four Points by Sheraton Toronto Airport Hotel  
Room – Windsor Hall ABC**

**Day 1: Monday, December 12, 2022**

<b>Time</b>	<b>Meeting and Discussions</b>	<b>Chair</b>
<b>8:30 am – 9:30 am</b>	<b>Coffee/Continental Breakfast</b>	
9:30 am – 9:35 am	<b>Welcome and Introductions</b>	Paul Spekkens <i>UNENE RAC Chair</i>
9:35 am - 9:50 am	<b>UNENE Update</b> Jerry Hopwood, President	Paul Spekkens or TBA
9:50 am – 10:50 am	<b>Keynote Speakers: R&amp;D, Nuclear Education</b> 1. John Jackson (NSERC) 2. Amy Gottschling (AECL) 3. Tiffany Dunbar (CNSC)	Jerry Hopwood <i>UNENE President</i>
<b>10:50 – 11:20 am</b>	<b>Coffee break [30 Min]</b>	
11:20 am – Noon	<b>Keynote Speakers: Equity, Diversity and Knowledge Sharing</b> 1. Peter Keech and Rebekah Wilson (NWMO): “Aligning Indigenous Knowledge and Western Science to find a shared understanding of the Safety of Canada’s Plan to Manage Nuclear Waste” 2. Lisa McBride and Sonia Qureshi (Women in Nuclear)	Jerry Hopwood <i>UNENE President</i>
<b>Noon – 1:00 pm</b>	<b>Lunch [60 min]</b>	
1:00 pm – 1:10 pm	<b>Introduction to Student Sessions &amp; Poster</b>	Paul Spekkens <i>UNENE RAC Chair</i>
1:10 pm – 2:40 pm	<b>Student Symposium Presentation Session 1</b> 1. Plasma-Based Mass Separation for High-Level Radioactive Waste Treatment - <i>Sharif Abu Darda and Hossam A. Gabbar</i> 2. Do precipitates in Zr-2.5Nb possess a hexagonal or cubic structure? A multi-scale materials modelling study - <i>Aditya Kamath, Segun Aiveru, Artur Tamm, Fei Long, Mark R. Daymond and Laurent K. Beland</i> 3. A subcritical Assembly Experiments to Validate the Kinetics Parameters of a Similar Critical Reactor - <i>Peter Kriemadis</i> 4. Novel Electrochemical-Raman/SERS Channel Flow Cell Design for High $T,p$ Electrochemical Studies - <i>Owen Purdy, P.F.D. Bennett, and T.W. Krause</i> 5. Novel Electrochemical-Raman/SERS Channel Flow Cell Design for High $T,p$ Electrochemical Studies - <i>Muna Abdulaziz, Ariel Petruk, Germán Sciaini and Liliana Trevani</i>	Nik Popov <i>UNENE Program Chair</i>
<b>2:40 – 3:00 pm</b>	<b>Coffee break [20 Min]</b>	

3:00 pm - 4:30 pm	<p><b>Student Symposium Presentation Session 2</b></p> <p>6. Oxidation Studies of Ni-based Model Alloys in a Simulated Primary Water Environment - <i>Yasaman Ghaffari, K. Daub, M. Topping, F. Long, S.Y. Persaud</i></p> <p>7. Summary of McMaster's Machine Learning Studies to Support Risk Informed Computational Methods - <i>Basma Foad and David R. Novog</i></p> <p>8. Optimal Planning of Nuclear-Renewable Hybrid Energy System using Nuclear Reactor Load Following Strategies - <i>Otavio Lopes Alves Esteves</i></p> <p>9. Assessment of local geometrically necessary dislocations (GNDs) using high angular resolution electron backscatter diffraction (HR-EBSD) - <i>Ronit Roy, Matthew Topping and Mark Daymond</i></p> <p>10. Tritium Breeding in Molten Salt Reactors - <i>Hadeel Al-zubaidi</i></p>	Nik Popov <i>UNENE Program Chair</i>
<b>4:30 pm- 5:30 pm</b>	<b>Break [60 min]</b>	
5:30 pm – 7:30 pm	Student posters and Reception with Food & Cash Bar	
<b>7:30 p.m (?)</b>	<b>Adjourn</b>	



**UNENE**  
University Network of  
Excellence in Nuclear  
Engineering

**Draft AGENDA**  
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**Day 2: Tuesday, December 13, 2022**

Time	Meeting and Discussions	Chair
<b>8:00 am – 8:55 am</b>	<b>Coffee/Continental Breakfast</b>	
8:55 am – 9:00 am	<b>Welcome and Introductions</b>	Paul Spekkens <i>UNENE RAC Chair</i>
9:00 am – 10:20 am	<b>Industry and Stakeholder Presentations</b> 1. CNL: Darren Radford 2. OPG: David Rogalski 3. Bruce Power: Jason Goldberg 4. Kinectrics: Don Jarron	Adi Walké <i>Ontario Power Generation</i>  <i>R &amp; D needs or requirements – short term and medium &amp; long term as well</i>
<b>10:20 am – 10:50 am</b>	<b>Coffee Break [30 min]</b>	
10:50 am – 11:50 am	<b>University Chair Presentations</b> 1. Guelph: Peter Tremaine 2. Queen's: Mark Daymond 3. Queen's/Toronto: Suraj Persaud/Roger Newman	Paul Spekkens  <i>Update on IRC progress and future work (highlights, with a focus on benefits)</i>
11:50 am – Noon	<b>Student Poster &amp; Presentation Winners Announced + Acknowledgment for Steve Bushby</b>	Jerry Hopwood <i>UNENE President</i>
<b>Noon – 1:00 pm</b>	<b>Lunch [60 min]</b>	
1:00 pm – 2:30 pm	<b>Invited Speakers on Sustainability</b> 1. INL: Craig Primer (LWR Program) 2. NRCan: Daniel Brady 3. OPG: Tara McKenzie 4. 10 min discussion	Carlos Lorencez <i>CANDU Owners Group</i>
<b>2:30 pm – 3:00 pm</b>	<b>Coffee break [30 min]</b>	
3:00 pm – 4:40 pm	<b>UNENE/OPG RCP Decommissioning Projects</b> 1. U Waterloo: Giovanni Cascante 2. Queen's: Mark Daymond 3. McMaster: Marilyn Lightstone 4. Western: Clara Wren	Irving Garnette <i>Ontario Power Generation</i>  <i>Update on IRC progress and future work (highlights, with a focus on benefits)</i>
<b>4:40 pm</b>	<b>Adjourn</b>	



## Draft AGENDA UNENE R&D Workshop

**Four Points by Sheraton Toronto Airport Hotel  
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**Day 3: Wednesday, December 14, 2022**

Time	Meeting and Discussions	Chair
<b>8:00 am – 8:45 am</b>	<b><i>Coffee/Continental Breakfast</i></b>	
8:50 am – 9:00 am	<b>Welcome and Introductions</b>	Ben Rouben <i>UNENE Secretary/Treasurer</i>
9:00 am – 10:20 am	<b>Industry and Stakeholder Presentations</b> <ol style="list-style-type: none"> <li>1. COG: Liette Lemieux: Industry Needs and Requirements for R&amp;D</li> <li>2. SNC-Lavalin: Cathy Cottrell</li> <li>3. CNSC: Dan Tello</li> <li>4. NWMO: Paul Gierszewski</li> </ol>	TBA  <i>R &amp; D needs or requirements – short term and medium &amp; long term as well</i>
<b>10:20 am – 10:40 am</b>	<b><i>Coffee Break [20 min]</i></b>	<i>Could move earlier</i>
10:40 am – Noon	<b>University Chair Presentations</b> <ol style="list-style-type: none"> <li>1. Ontario Tech: Ed Waller</li> <li>2. McMaster: John Luxat, Dave Novog</li> <li>3. Ontario Tech: Kirk Atkinson</li> <li>4. Western: Clara Wren</li> </ol>	Paul Spekkens <i>UNENE RAC Chair</i>  <i>Update on IRC progress and future work (highlights, with a focus on benefits)</i>
<b>Noon – 1:00 pm</b>	<b><i>Lunch [60 min]</i></b>	
1:00 pm – 2:00 pm	<b>UNENE RCP Projects</b> <ol style="list-style-type: none"> <li>1. Queen’s: Suraj Persaud</li> <li>2. RMC: Thomas Krause, “Advances in Compensation for Effects of Multi-Parameter Variations in Eddy-Current Inspection”</li> <li>3. Ontario Tech: Glenn Harvel</li> </ol>	Peter Tremaine <i>University of Guelph</i>  <i>Update on UCP progress and future work (highlights, with a focus on benefits)</i>
2:00 pm – 3:20 pm	<b>New Nuclear</b> <ol style="list-style-type: none"> <li>1. OPG: David Tyndall</li> <li>2. Bruce Power: Rajan Verma</li> <li>3. Saskatchewan: Steve Livingstone</li> <li>4. NB Power: Will Higgins</li> </ol>	Darren Radford <i>Canadian Nuclear Laboratories</i>  <i>Update on the need to sustain new industry initiatives</i>
3:20 pm to 3:30 pm	<b>Wrap up and Thank you</b>	Jerry Hopwood <i>UNENE President</i>
<b>3:30 pm</b>	<b><i>Adjourn</i></b>	