

**CLEAN TECHNOLOGIES RESEARCH INSTITUTE  
RESEARCH DAY AND ANNUAL GENERAL MEETING**

**Thursday, August 11, 2022  
Theatre B, Tupper Link  
Dalhousie University, Halifax**

<b>8:30 – 9:00 am</b>	<b>Registration</b>
<b>9:00 – 9:15 am</b>	<b>Welcome and Opening Remarks</b>  <b>Chair: Nur Zincir-Heywood</b>
<b>9:15 – 9:45 am</b>	<b>Andrew Medeiros</b> School for Resource and Environmental Studies  <i>Monitoring Stressors to Freshwater Ecosystems; the New Paradigm of Deep Learning and Computer Vision Approaches to Bioassessment</i>
<b>9:45 – 10:15 am</b>	<b>Tushar Sharma</b> Faculty of Computer Science  <i>Looking at Deep Learning Frameworks Through Sustainability Lens</i>
<b>10:15 – 10:45 am</b>	<b>Evangelos Milios</b> Faculty of Computer Science  <i>Machine Learning for Materials Science Research: Text mining, Structure-Property mapping, and Physical-ML model integration</i>
<b>10:45 – 11:00 am</b>	<b>Break</b>  <b>Chair: Michelle Adams</b>
<b>11:00 – 11:30 am</b>	<b>Fadi Oudah</b> Civil and Resource Engineering  <i>Structural Design and Safety Using Biochar Concrete</i>
<b>11:30 am – 12:00 pm</b>	<b>Alison Scott</b> Process Engineering and Applied Science  <i>Prescriptions to Inform the Design of Polymeric Materials</i>
<b>12:00 – 12:45 pm</b>	<b>Lunch</b>
<b>12:45 – 1:15 pm</b>	<b>CTRI Annual General Meeting</b>
<b>1:15 – 1:30 pm</b>	<b>Break</b>

**Chair: Mary Anne White**

**1:30 – 3:00 pm**

**Keynote talk**

**Jeff Dahn**

Physics and Atmospheric Science

***The Role of Energy Storage in the War on Climate Change***

**3:00 – 3:15 pm**

**Break**

**Chair: Chongyin Yang**

**3:15 – 3:45 pm**

**Penghao Xiao**

Physics and Atmospheric Science

***Li Transport in Defected Layered Oxides from First Principles:  
Diffusion and Nucleation***

**3:45 – 4:15 pm**

**Shayne Gracious**

Tesla Canada

***Tesla Canada & Dalhousie - Progress and Innovation throughout  
the Years***

**4:15 – 4:30 pm**

**Closing remarks**

**We are grateful to our sponsors:**

