

CME Research and Education Matrix, March 2026

Application Area →	Energy and Environment	Health	Industrial Applications of Artificial Intelligence / Machine Learning	Sustainable Development and Production of Materials and Critical Chemicals	Food and Agriculture	Defense and Dual-Use Technologies
Fundamental Area ↓						
Reaction engineering and catalysis	Natalia Semagina , Samir Mushrif , Arno De Klerk , Vinay Prasad , Petr Nikrityuk , Xiaolei Wang , Douglas Ivey , Tian Tian		Vinay Prasad , Tian Tian , Zhi Li , Petr Nykrityuk	Natalia Semagina , Arno De Klerk , Petr Nikrityuk , Samir Mushrif , Joao Soares , Xiaolei Wang , Vinay Prasad , Zhi Li	Samir Mushrif , Vinay Prasad	Arno De Klerk
Surface and interfacial science, thermodynamics, transport phenomena	Hongbo Zeng , Xuehua Zhang , Arvind Rajendran , Janet A.W. Elliott , Hani Henein , Hao Zhang , Tony Yeung , Sean Sanders , Xiaolei Wang , John Nychka , Jason Tam , Hyun-Joong Chung , Isaac Jackiw , Petr Nikrityuk , Tian Tian	Janet A. W. Elliott , Xuehua Zhang , Ravin Narain , Larry Unsworth , John Nychka , Hongbo Zeng , Hyun-Joong Chung , Isaac Jackiw	Arvind Rajendran , Janet A.W. Elliott , Hani Henein , Xuehua Zhang	Hao Zhang , Janet A.W. Elliott , Hani Henein , Leijun Li , Xuehua Zhang , John Nychka , Zhiwei Peng , Jason Tam , Hongbo Zeng , Samir Mushrif	Xuehua Zhang , Isaac Jackiw , Janet A.W. Elliott , Hongbo Zeng	Hyun-Joong Chung , Xuehua Zhang
Process systems engineering, control, automation, safety & risk management	Vinay Prasad , Biao Huang , Zukui Li , Stevan Dubljevic , Jinfeng Liu , Lianne Lefsrud , Isaac Jackiw	Vinay Prasad , Biao Huang , Zukui Li , Stevan Dubljevic , Jinfeng Liu	Vinay Prasad , Biao Huang , Zukui Li , Stevan Dubljevic , Jinfeng Liu , Lianne Lefsrud	Vinay Prasad , Biao Huang , Zukui Li	Isaac Jackiw , Vinay Prasad , Jinfeng Liu , Xuehua Zhang	
Materials and mineral processing	Qi Liu , Hani Henein , Douglas Ivey , Weixing Chen , Leijun Li , Patricio Mendez , Dongyang Li , Jing Liu , Janet A. W. Elliott , Hao Zhang , Lucy (Liuyin) Xia , Xiaolei Wang , Xuehua Zhang , John Nychka , Jason Tam , Hongbo Zeng , Zhi Li , Tian Tian	Hyun-Joong Chung , Hani Henein , John Nychka , Patricio Mendez	Vinay Prasad , Hani Henein , Patricio Mendez	Qi Liu , Hani Henein , Douglas Ivey , Weixing Chen , Leijun Li , Patricio Mendez , Dongyang Li , Jing Liu , Janet A.W. Elliott , Hao Zhang , Lucy (Liuyin) Xia , Joao Soares , John Nychka , Jason Tam , Vinay Prasad , Hongbo Zeng , Zhi Li	Patricio Mendez	Patricio Mendez
Nano and functional materials	Joao Soares , Hyun-Joong Chung , Anastasia Elias , Xiaolei Wang , Douglas Ivey , Hani Henein , Dongyang Li , Hao Zhang , Janet A.W. Elliott , Dominic Sauvageau , Zhi Li , Xuehua Zhang , Samir Mushrif , Jason Tam , Hongbo Zeng , Tian Tian	Anastasia Elias , Hani Henein , Hyo-Jick Choi , Hyun-Joong Chung , Dominic Sauvageau , Ravin Narain , Xuehua Zhang , Larry Unsworth , Marya Ahmed , Hongbo Zeng	Joao Soares , Xuehua Zhang , Zhiwei Peng , Hyun-Joong Chung , Zhi Li	Hani Henein , Joao Soares , Douglas Ivey , Xiaolei Wang , Anastasia Elias , Hyun-Joong Chung , Hao Zhang , Janet A.W. Elliott , Zhi Li , Xuehua Zhang , Samir Mushrif , Jason Tam , Hongbo Zeng , Zhi Li	Hyun-Joong Chung	Hyun-Joong Chung , Xuehua Zhang
Biochemical and biomedical engineering	Dominic Sauvageau	Larry Unsworth , Hyo-Jick Choi , Dominic Sauvageau , Ravin Narain , Hasan Uludag , Janet A. W. Elliott , Hyun-Joong Chung , John Nychka , Marya Ahmed	Dominic Sauvageau , Vinay Prasad , Larry Unsworth	Larry Unsworth , Hyo-Jick Choi , Hyun-Joong Chung , Ravin Narain , Hasan Uludag , Dominic Sauvageau , John Nychka , Hongbo Zeng , Janet A. W. Elliott	Janet A.W. Elliott , Larry Unsworth	Hyun-Joong Chung