



13th International Green Energy Conference (IGEC-XIII)

July 15-18, 2021

Virtual Conference

Conference Program



Thursday, July 15, 2021

Preliminary Plan	(All Beijing Time, GMT +8)				
Thursday	July 15, 2021				
8:30 am - 8:50 am	Opening Session Zoom ID: 966 715 2021				
8:50 am - 9:40 am	Randy MacEwen (President and CEO, Ballard Power Systems Inc.) The Future of Zero-Emission Heavy-Duty Mobility Session Chair: Xianguo Li Zoom ID: 966 715 2021				
9:40 am - 9:50 am	Break				
Special session S1: Advances in Redox Flow Batteries Session Chairs: Qian Xu and Qixing Wu Zoom ID: 966 716 2021		Session S2 Hydrogen and fuel cells 1 Session Chairs: Shuhui Sun and Yan Yin Zoom ID: 966 718 2021		Session S3 Heat and mass transport Session Chairs: Sunny Li and Bingyang Cao Zoom ID: 966 717 2021	
9:50 am - 10:10 am	IGEC2021-001 (Invited)	9:50 am - 10:10 am	IGEC2021-158	9:50 am - 10:10 am	IGEC2021-419
10:10 am - 10:30 am	IGEC2021-002 (Invited)	10:10 am - 10:30 am	IGEC2021-452	10:10 am - 10:30 am	IGEC2021-422
10:30 am - 10:50 am	IGEC2021-003 (Invited)	10:30 am - 10:50 am	IGEC2021-155	10:30 am - 10:50 am	IGEC2021-425
10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break
11:00 am - 11:20 am	IGEC2021-004 (Invited)	11:00 am - 11:20 am	IGEC2021-179	11:00 am - 11:20 am	IGEC2021-428
11:20 am - 11:40 am	IGEC2021-005 (Invited)	11:20 am - 11:40 am	IGEC2021-200	11:20 am - 11:40 am	IGEC2021-494
11:40 am - 12:00 pm	IGEC2021-006 (Invited)	11:40 am - 12:00 pm	IGEC2021-302	11:40 am - 12:00 pm	
12:00 pm - 12:20 pm	IGEC2021-007 (Invited)	12:00 pm - 12:20 pm	IGEC2021-482	12:00 pm - 12:20 pm	
Day break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					

7:00 pm - 7:50 pm	Vladimir Terzija (Skoltech) Advanced Monitoring and Control for Sustainable Green Energy Systems Session Chair: Qing Du Zoom ID: 966 715 2021				
7:50 pm - 8:00 pm	Break				

Session S4 Energy systems modelling and optimization 1 Session Chairs: Sadegh Azizi and Haifeng Liu Zoom ID: 966 716 2021		Session S5 Advanced and green materials for energy technologies Session Chairs: XiaoYu Wu and Zhongyi Jiang Zoom ID: 966 717 2021		Session S6 Hydrogen and fuel cells 2 Session Chairs: Wen-Feng Lin and Zhiguo Qu Zoom ID: 966 718 2021	
8:00 pm - 8:20 pm	IGEC2021-284	8:00 pm - 8:20 pm	IGEC2021-149	8:00 pm - 8:20 pm	IGEC2021-113
8:20 pm - 8:40 pm	IGEC2021-344	8:20 pm - 8:40 pm	IGEC2021-152	8:20 pm - 8:40 pm	IGEC2021-239
8:40 pm - 9:00 pm	IGEC2021-254	8:40 pm - 9:00 pm	IGEC2021-224	8:40 pm - 9:00 pm	IGEC2021-290
9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break
9:10 pm - 9:30 pm	IGEC2021-359	9:10 pm - 9:30 pm	IGEC2021-368	9:10 pm - 9:30 pm	IGEC2021-293
9:30 pm - 9:50 pm	IGEC2021-365	9:30 pm - 9:50 pm	IGEC2021-389	9:30 pm - 9:50 pm	IGEC2021-443
9:50 pm - 10:10 pm	IGEC2021-374	9:50 pm - 10:10 pm	IGEC2021-488	9:50 pm - 10:10 pm	IGEC2021-446
10:10 pm - 10:30 pm	IGEC2021-410	10:10 pm - 10:30 pm	IGEC2021-491	10:10 pm - 10:30 pm	IGEC2021-125
Night break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					

Friday, July 16, 2021

Preliminary Plan	(All Beijing Time, GMT +8)
Friday	July 16, 2021
8:00 am - 8:50 am	Paul Parker (University of Waterloo) Electrification and Efficiency: Improving Energy and Emission Performance in Offices, Homes and Aircraft Session Chair: SeongDae Kim Zoom ID: 966 715 2021
8:50 am - 9:40 am	Ravi Rajamani (drR2 consulting, University of Connecticut) Certification of Electric Aircraft Session Chair: Hikmet Karakoc Zoom ID: 966 715 2021
9:40 am - 9:50 am	Break
Invited Keynote Session	
9:50 am - 10:25 am	Dr. Aimy Bazylak (University of Toronto) In operando imaging for carbon dioxide electrolysis Session Chair: Kui Jiao Zoom ID: 966 715 2021

10:25 am - 11:00 am	<p style="text-align: center;">Dr. Yan Yin (Tianjin University) Design of transition metal-nitrogen-carbon catalyst layer for anion exchange membrane fuel cell Session Chair: Meng Ni Zoom ID: 966 715 2021</p>				
11:00 am - 11:35 am	<p style="text-align: center;">Dr. Rui Xiong (Beijing Institute of Technology) AI accelerates the development of a new generation of battery management systems Session Chair: Zhongchao Tan Zoom ID: 966 715 2021</p>				
11:35 am - 11:40 am	Break				
11:40 am - 12:30 pm	<p style="color: red;">Li Zhao (Tianjin University) How to Approach Carnot Cycle: Methodology and Application Session Chair: Zhibin Yu Zoom ID: 966 715 2021</p>				
Day break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					
7:00 pm - 7:50 pm	<p style="color: red;">Jianzhong Wu (Cardiff University) Energy Network Architectures Enabling a Carbon Neutral Future Session Chair: Jing Shi Zoom ID: 966 715 2021</p>				
7:50 pm - 8:00 pm	Break				
Session S7 Renewable and clean energy Session Chairs: Bale Reddy and Rui Xiong Zoom ID: 966 716 2021		Session S8 Advanced energy systems Session Chairs: Jianzhong Wu and Fei Gao Zoom ID: 966 717 2021		Session S9 Hydrogen and fuel cells 3 Session Chairs: Yimin Wu and Jianbo Zhang Zoom ID: 966 718 2021	
8:00 pm - 8:20 pm	IGEC2021-104	8:00 pm - 8:20 pm	IGEC2021-260	8:00 pm - 8:20 pm	IGEC2021-116
8:20 pm - 8:40 pm	IGEC2021-218	8:20 pm - 8:40 pm	IGEC2021-353	8:20 pm - 8:40 pm	IGEC2021-128
8:40 pm - 9:00 pm	IGEC2021-305	8:40 pm - 9:00 pm	IGEC2021-380	8:40 pm - 9:00 pm	IGEC2021-164
9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break
9:10 pm - 9:30 pm	IGEC2021-404	9:10 pm - 9:30 pm	IGEC2021-386	9:10 pm - 9:30 pm	IGEC2021-206
9:30 pm - 9:50 pm	IGEC2021-407	9:30 pm - 9:50 pm	IGEC2021-413	9:30 pm - 9:50 pm	IGEC2021-215
9:50 pm - 10:10 pm	IGEC2021-416	9:50 pm - 10:10 pm	IGEC2021-431	9:50 pm - 10:10 pm	IGEC2021-308
10:10 pm - 10:30 pm	IGEC2021-440	10:10 pm - 10:30 pm	IGEC2021-437	10:10 pm - 10:30 pm	IGEC2021-485
Night break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					

Saturday, July 17, 2021

Preliminary Plan	(All Beijing Time, GMT +8)				
Saturday	July 17, 2021				
8:00 am - 8:50 am	Zhiguo Qu (Xi'an Jiaotong University) Nanofluidic Ionic Osmotic Energy Conversion with Thermal Modulation Session Chair: Chong Wen Tong Zoom ID: 966 716 2021				
8:50 am - 9:40 am	Bingyang Cao (Tsinghua University) Towards green IC with near-junction thermal managements Session Chair: Paul Parker Zoom ID: 966 716 2021				
9:40 am - 9:50 am	Break				
Special Session S10: Water/Vapor Electrolysis Session Chairs: Ronghui Qi and Chuanshuai Dong Zoom ID: 966 715 2021	Session S11 Energy storage techniques Session Chairs: Xianke Lin and Bin Li Zoom ID: 966 717 2021		Session S12 Hydrogen and fuel cells 4 Session Chairs: Samaneh Shahgaldi and Yanzhou Qin Zoom ID: 966 718 2021		
9:50 am - 10:10 am	IGEC2021-011 (Invited)	9:50 am - 10:10 am	IGEC2021-287	9:50 am - 10:10 am	IGEC2021-122
10:10 am - 10:30 am	IGEC2021-012 (Invited)	10:10 am - 10:30 am	IGEC2021-362	10:10 am - 10:30 am	IGEC2021-137
10:30 am - 10:50 am	IGEC2021-013 (Invited)	10:30 am - 10:50 am	IGEC2021-230	10:30 am - 10:50 am	IGEC2021-176
10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break
11:00 am - 11:20 am	IGEC2021-014 (Invited)	11:00 am - 11:20 am	IGEC2021-209	11:00 am - 11:20 am	IGEC2021-248
11:20 am - 11:40 am	IGEC2021-015 (Invited)	11:20 am - 11:40 am	IGEC2021-383	11:20 am - 11:40 am	IGEC2021-263
11:40 am - 12:00 pm	IGEC2021-016 (Invited)	11:40 am - 12:00 pm	IGEC2021-467	11:40 am - 12:00 pm	IGEC2021-473
12:00 pm - 12:20 pm		12:00 pm - 12:20 pm		12:00 pm - 12:20 pm	IGEC2021-497
Day break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					
7:00 pm - 7:50 pm	Mingfa Yao (Tianjin University) Developing Trend of IC Engine Technology for Low-Carbon and Carbon-Neutrality Session Chair: Kaushik Saha Zoom ID: 966 717 2021				
7:50 pm - 8:00 pm	Break				

Session S13 Energy conversion and management Session Chairs: Goni Boulama and Jun Zhao Zoom ID: 966 715 2021		Session S14 Energy systems modelling and optimization 2 Session Chairs: Zhijun Peng and Xili Duan Zoom ID: 966 718 2021		Session S15 Green building and decarbonization Session Chairs: Fengying Yan and Sining Yun Zoom ID: 966 716 2021	
8:00 pm - 8:20 pm	IGEC2021-134	8:00 pm - 8:20 pm	IGEC2021-227	8:00 pm - 8:20 pm	IGEC2021-194
8:20 pm - 8:40 pm	IGEC2021-185	8:20 pm - 8:40 pm	IGEC2021-233	8:20 pm - 8:40 pm	IGEC2021-242
8:40 pm - 9:00 pm	IGEC2021-197	8:40 pm - 9:00 pm	IGEC2021-257	8:40 pm - 9:00 pm	IGEC2021-269
9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break	9:00 pm - 9:10 pm	Break
9:10 pm - 9:30 pm	IGEC2021-212	9:10 pm - 9:30 pm	IGEC2021-335	9:10 pm - 9:30 pm	IGEC2021-275
9:30 pm - 9:50 pm	IGEC2021-377	9:30 pm - 9:50 pm	IGEC2021-338	9:30 pm - 9:50 pm	IGEC2021-326
9:50 pm - 10:10 pm	IGEC2021-449	9:50 pm - 10:10 pm	IGEC2021-341	9:50 pm - 10:10 pm	IGEC2021-371
10:10 pm - 10:30 pm	IGEC2021-245	10:10 pm - 10:30 pm	IGEC2021-434	10:10 pm - 10:30 pm	
Night break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					

Sunday, July 18, 2021

Preliminary Plan	(All Beijing Time, GMT +8)				
Sunday	July 18, 2021				
8:00 am - 8:50 am	Yimin Wu (University of Waterloo) Semiconductor assisted photocatalysis for CO₂ reduction to liquid solar fuels Session Chair: Qiuwang Wang Zoom ID: 966 715 2021				
8:50 am - 9:40 am	Qing Du (Tianjin University) Development of multi-scale and multi-physics simulation models for proton exchange membrane fuel cell systems Session Chair: Yun Wang Zoom ID: 966 715 2021				
9:40 am - 9:50 am	Break				
Special Session S16: Advances in Fuel Cells Session Chairs: Yunqi Li and Jing Tang Zoom ID: 966 717 2021		Session S17 Energy systems modelling and optimization 3 Session Chairs: Shuichi Torii and Hua Tian Zoom ID: 966 716 2021		Session S18 Hydrogen and fuel cells 5 Session Chairs: Yixiang Shi and Haiqiao Wei Zoom ID: 966 718 2021	
9:50 am - 10:20 am	IGEC2021-031 (invited)	9:50 am - 10:10 am	IGEC2021-347	9:50 am - 10:10 am	IGEC2021-119

10:20 am - 10:50 am	IGEC2021-032 (invited)	10:10 am - 10:30 am	IGEC2021-110	10:10 am - 10:30 am	IGEC2021-131
		10:30 am - 10:50 am	IGEC2021-296	10:30 am - 10:50 am	IGEC2021-167
10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break	10:50 am - 11:00 am	Break
11:00 am - 11:20 am	IGEC2021-033 (invited)	11:00 am - 11:20 am	IGEC2021-272	11:00 am - 11:20 am	IGEC2021-182
11:20 am - 11:40 am	IGEC2021-034 (invited)	11:20 am - 11:40 am	IGEC2021-101	11:20 am - 11:40 am	IGEC2021-251
11:40 am - 12:00 pm	IGEC2021-035 (invited)	11:40 am - 12:00 pm	IGEC2021-146	11:40 am - 12:00 pm	IGEC2021-401
12:00 pm - 12:20 pm	IGEC2021-036 (invited)	12:00 pm - 12:20 pm	IGEC2021-221	12:00 pm - 12:20 pm	IGEC2021-500
Day break: organize workshop, panel discussion, poster session, sponsor exhibition or networking events					
7:00 pm - 7:50 pm	<p style="text-align: center;">Jianbo Zhang (Tsinghua University) Startup of Fuel Cells and Lithium-ion Batteries from Low Temperatures Session Chair: Pierre Benard Zoom ID: 966 715 2021</p>				
8:00 pm - 8:30 pm	<p style="text-align: center;">Awards ceremony Zoom ID: 966 715 2021</p>				