

2022 Fall General Meeting
 November 9 – 10, 2022
 Hosted by NC State University
 James B. Hunt, Jr. Library (Duke Hall, A-D)
Eastern Standard Time

Theme: “Innovative Approaches of Integrating IBRs into the Grid”

Agenda

Nov 9, 2022	Tutorial: IBR Modeling 101 For students, faculty and industry-No cost (All must pre-register)	
8:15 - 8:20 am	Introductions	Mesut Baran NC State
8:20 - 9:30am	Modeling IBR	Johan Enslin Zheyu Zhang Clemson
9:30 - 10:40 am	New Considerations in EMS for Grid Management with High IBR Penetration and IBR Powered Microgrids	Ning Lu NC State
10:40 - 10:55 am	BREAK	
10:55 - 12:05	Modeling Challenges of IBRs	Sukumar Brahma Clemson - (Virtual)
12:10 - 12:45 pm	Lunch - For Tutorial Attendees	
Nov 9, 20212	General Meeting	
1:00 - 1:15 pm	Welcome, Safety, Objectives of the meeting and In the News	Steven Whisenant CSC Chair
	Plenary Session - <i>Challenges of Operating a Power Grid with a High Penetration of IBR</i>	Mesut Baran Center Co-Director NC State
1:15 - 1:25 pm	Operational Challenges with High Penetration of IBR - Introduction	Mesut Baran NC State
1:25 - 2:00 pm	Greening the Australian Grid: The Good, the Bad and the Ugly	Ian Hiskens University of Michigan
	Session I - Generation Control and EMS Considerations with High Penetration of IBR	Mesut Baran NC State

2:00 - 2:20 pm	Generation Dispatch and Ancillary Service Design with Large Scale Renewable Integration at ERCOT	Weifeng Li ERCOT - (Virtual)
2:20 - 2:40 pm	Energy Storage Analytics and Demonstration Projects	Di Wu PNNL
2:40 - 3:00 pm	Challenges and Successes in GFM Wind Turbines	Ignacio Vieta GE Gas Power - (Virtual)
3:00 - 3:20 pm	Development of EMT models for IBRs in the Transmission Networks: NYPA Experiences	Victor Paduani NYPA - (Virtual)
3:20 - 3:30 pm	BREAK	
3:30 - 5:00 pm	Session II - CAPER Sponsored Sr. Design Project	Steven Whisenant CSC Chair
3:30 - 4:00 pm	UNC Charlotte Team	Badrul Chowdhury
4:00 - 4:30 pm	NC State Team	Mesut Baran
4:30 - 5:00 pm	Clemson Team	Johan Enslin
5:00 - 7:00 pm	Reception (Hunt Library, Halls A-B)	
5:00 - 7:00 pm	Job Fair (Hunt Library, IEI Commons Area)	
Nov 10, 2022	General Meeting	
8:00 - 8:10 am	Highlights from Day 1 and Objectives for today	Steven Whisenant CSC Chair
	Session III - Emerging Modeling, Control, and Grid-edge Platforms for Operating High IBR Penetration Grids	Badrul Chowdhury Center Co-Director UNCC
8:10 - 8:30 am	Innovative Transmission Upgrades for IBR Integration	Hisham Othman Quanta Technology
8:30 - 8:50 am	Converter Modeling and Testing for IBRs	Iqbal Husain NC State
8:50 - 9:10 am	PG-02: Incorporating EV and EV Charging Stations into Integrated Resource Planning	Johan Enslin UNCC/Clemson
9:10 - 9:30 am	EHP-09-PG: Developing large DER Protection Guidelines and Settings for Mitigating Systemwide Impacts across Transmission and Distribution Systems	Johan Enslin Clemson/NCSU/ UNCC
9:30 - 9:50 am	PowerFlow Analysis to Improve Integrated Volt/Var Control (IVVC) and Energy Efficiency Programs	Valentina Cecchi UNCC/NCSU
9:50 - 10:10 am	Q&A Session	All

10:10 - 10:30 am	BREAK	
	Session IV - Grid Edge Platforms for High IBR Penetrations	Ning Lu NC State
10:30 - 10:50 am	Large-Scale Integration of Grid-Forming Inverters	Xiaonan Lu (Virtual) Purdue University
10:50 - 11:10 am	Applying Edge Computing to Distribution Automation	Amanuel Melese ABB
11:10 - 11:30 am	DM-03: Integrated Grid Operations System for Inverter-based Resources	Johan Enslin Clemson/NCSU
11:30 - 11:50 am	PG-03: AI based Arc Fault Detection for PV Systems	Tiefu Zhao UNCC/Clemson
12:00 - 1:00 pm	LUNCH	
1:00 - 1:15 pm	2023 Research Planning Session Introduction	Steve Whisenant CSC Chair
1:15 - 2:15 pm	Session V - 2022 Research Planning Session Group #	Shannon Jenkins CAPER Administrator
	Power Delivery Infrastructure and Systems 1	Drew Clarke
	Energy Policy, Markets and Economics 2	Badrul Chowdhury
	Data Management, Analytics and Security 3	Klaehn Burkes
	Power Generation, Storage and Integration 4	Johan Enslin
	Power Utilization and Energy Efficiency 5	Valentina Cecchi
2:15 - 2:30 pm	BREAK	
2:30 - 3:30 pm	Break Out Reports	Steve Whisenant CSC Chair
	Research Solicitation Process - Notice of Intent, Wrap up, Next Steps, and Next Meeting	Steve Whisenant CSC Chair
3:30 - 4:30 pm	FREEDM Center Tour - Optional	Mesut Baran NC State
3:30 - 5:00 pm	CLOSED MEETING- IAB Members Meeting Open to all attendees of companies that are Industry Members of CAPER	Klaehn Burkes IAB Chair
	Election of Officers for 2023	
	IAB Business	
	Adjourn	