June IAB Meeting Preparations

2023 Phase 1 Project Proposals

Project	Principal Investigator
Enabling Least-Cost Firm PV Power Generation	Richard Perez
An offshore wind energy prediction system from regional to wind-farm scale: assessment of extreme wind scenarios.	Marina Astitha
Climate Change and Renewable Energy	Jeff Freedman
Energy Demand Forecast System for Cities	Jorge González-Cruz
Analyzing the Impact of Extreme Temperatures on Energy Systems across Urban areas	Deepak Kumar
Northeastern US Outage Dataset and Web Application	Nick Bassill
Modeling fire weather in New England	Robert Fovell
Cold-season Snowstorms over the Northeast U.S.: Historical and Future Changes and the Implications for Power Supply	Aiguo Dai
Deep Learning-based Nowcasting of Damaging Winds	Sukanta Basu

2023 Phase 1 Project Proposals

Project	Principal Investigator
Weather and Impact Modeling for Outage Prediction, Management and Restoration	Diego Cerrai
Incorporating dynamic vegetation structure and tree biomechanics into outage prediction and resilience investment modeling	Robert Fahey
Integrating System Resilience with Dynamic Economic Analysis	Wei Zhang
Power System Optimization Designs to Spur Renewable Energy Sources Adoption in a Changing Climate	Malaquias Pena Mendez
Resilience-oriented Networked Microgrids Formulation and Optimization for Extreme Weather	Junbo Zhao
Prediction uncertainty in power outages connected to weather forecast lead-time	Xinxuan Zhang
Data-Driven Wildfire Risk Assessment and Mitigation via Optimal De-energization and Power Shut-off	Fangni Lei
Integrated Planning for Grid, Climate, and Community Resiliency	Anita Morzillo
Long-term Trend of Grey Sky Days for Utility Operations	Nick Bassill

Our Research Capabilities Align with WISER Objectives

University at Albany

- Aerosol Cloud Precipitation
- Renewables & Grid Resiliency
- Air Quality
- Artificial Intelligence
- Atmospheric Chemistry & Aerosols
- Boundary Layer
- Weather & Climate
- Synoptic and Mesoscale Meteorology NWP
- Climate and Environmental Systems
- Atmospheric Chemistry and Physics
- Urban Coastal Weather

University of Connecticut

- Power system modeling
- Vegetation risk modeling
- Flood risk modeling
- Extreme weather prediction
- Cybersecurity
- Microgrids
- Outage prediction modeling
- Grid resilience assessment
- Infrastructure integrity modeling
- Coastal engineering and resilience
- Offshore wind energy prediction

Travel & Logistics

- **Storrs CT UCONN Campus Hotel Booked**

Hampton Inn & Suites Hartford-Manchester

1432 Pleasant Valley Rd, Manchester, CT 06042 [19 miles from UCONN Innovation Partnership Building]

Cambria Hotel Manchester South Windsor

1000 Long Leaf Ln, South Windsor, CT 06074 [19 miles from UCONN Innovation Partnership Building]
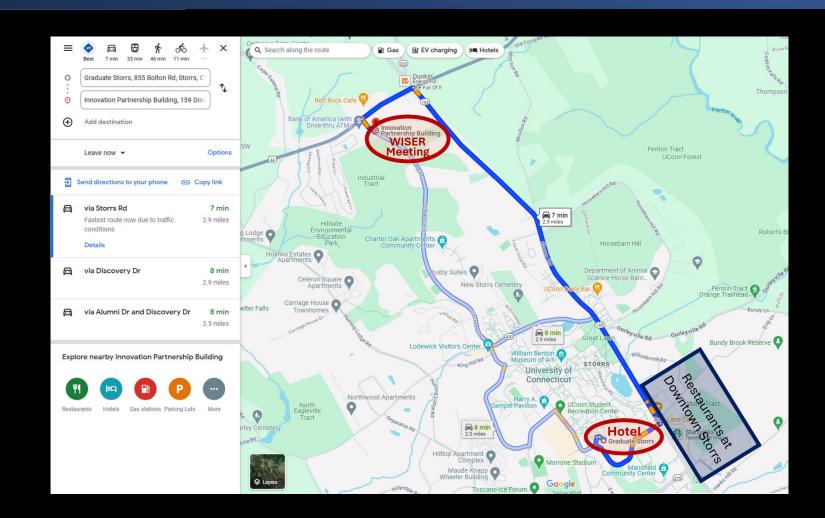
Homewood Suites by Hilton Hartford Manchester

109 Pavilions Dr, Manchester, CT 06042 [18 miles from UCONN Innovation Partnership Building]

Courtyard Hartford Manchester

225 Slater St, Manchester, CT 06042 [17 miles from UCONN Innovation Partnership Building

Holiday Inn Express Vernon - Manchester

346 Kelly Rd, Vernon, CT 06066 [15 miles from UCONN Innovation Partnership Building]

- **OTHERS:** Fitch House, Sone Arches, Germantown Inn, Best Western Springfield