



# Hydrogen Systems Risk and Reliability Workshop

September 12<sup>th</sup> and 13<sup>th</sup>, 2024 A James Clark Hall

College Park, Maryland

# September 12<sup>th</sup> 8:15AM – Continental Breakfast and Registration

# 9:00AM – Welcoming and Introductions

Mr. Antonio Ruiz, Faculty Program Manager

- **Dr. Katrina Groth**, Associate Director, Center for Risk and Reliability
- **Dr. Mohammad Modarres** Director, Center for Risk and Reliability
- Dr. Robert Briber Associate Dean for Research, Clark School of Engineering
- **Dr. Harry Dankowicz** Chair, Mechanical Engineering Department

# 9:45 AM – Government Perspective and National Initiatives

- **Dr. Neha Rustagi**, Program Manager U.S. Department of Energy, Hydrogen and Fuel Cell Technologies office
- **Dr. William Buttner**, Senior Scientist National Renewable Energy Laboratory

# 10:45 AM - BREAK

# 11:10 AM – Global Perspective in H2 Development and Policy

- **Dr. Daishu Hara**, Representative New Energy and Industrial Technology Development Organization (NEDO)

# 11:40 AM – National Deployment and Demonstrations

- Ms. Suzanne Baker, Stakeholder Engagement Specialist
- U.S. Department of Energy, Office of Clean Energy Demonstrations (OCED)

# <u>12:15 PM – LUNCH</u>

# 1:30 PM – University of Maryland, Centers and Capabilities

- Dr. Katrina Groth

Director, Reliability Engineering Program Associate Professor, Mechanical Engineering





Hydrogen Systems Risk and Reliability Workshop September 12<sup>th</sup> and 13<sup>th</sup>, 2024 A James Clark Hall College Park, Maryland

# September 12<sup>th</sup>

## 1:30 PM – University of Maryland, Centers and Capabilities (cont.)

- **Dr. Peter B. Sunderland** Professor, Fire Protection Engineering
- Dr. Eric D. Wachsman Director, Maryland Energy Innovation Institute, Professor, Materials Science and Engineering
- **Dr. Reinhard Radermacher** Director, Center for Environmental Energy Engineering, Professor, Mechanical Engineering
- **Dr. Alison Flatau** Department Chair, Professor, Aerospace Engineering Department

#### 3:00 PM - BREAK / UMD Poster Session

#### 3:30 PM - Industry Perspectives and Research Gaps in Risk and Reliability

- **Mr. Connor Dolan**, VP of External Affairs Fuel Cell and Hydrogen Energy Association (FCHEA)
- Mr. Christopher Smith, Director, Service Engineering Plug Power

# 4:20 PM – Hydrogen Training and Engineering Research Program (HyTERP)

- Dr. Katrina Groth

Director, Reliability Engineering Program

#### 5:00 PM – Discussion and Next Steps (Mr. Antonio Ruiz)

#### 5:15-6:30 PM - Research Posters Session





# Hydrogen Systems Risk and Reliability Workshop September 12<sup>th</sup> and 13<sup>th</sup>, 2024 A James Clark Hall College Park, Maryland

## September 13<sup>th</sup>

# 9:00AM - Hydrogen Systems Risk and Reliability (Mr. Antonio Ruiz)

- **Dr. Alex Gupta**, Low-Carbon Fuel Safety Specialist Electric Power Research Institute (EPRI)
- Mr. David Moore, President and CEO AcuTech Consulting Group
- **Mr. Ian Jakupca**, Fuel Cell Technology Lead National Aeronautics and Space Administration (NASA)

## 10:15 AM – Panel I - Risk and Reliability Research Opportunities - H2 Production

Ms. Samantha Wismer, Moderator
Panelists: Dr. Thomas Valdez, Plug Power; Dr. Alex Gupta, EPRI; Dr. Devashish
Kulkarni, Nel Hydrogen; Mr. Kevin Hartmann, NREL; and Dr. Katherine Rinaldi,
DOE

## 10:45 AM - BREAK / UMD Poster Session

#### 11:15 AM – Panel II - Risk and Reliability Research Opportunities - H2 Fueling and Pipelines

- Dr. Will James, Moderator Panelists: Dr. Luke Wentlent, Plug Power; Mr. Rob Early, CGA; Mr. David Leese, Nikola; and Dr. William Buttner, NREL

#### <u>12:30 PM – LUNCH</u>

#### 1:10 PM – Collaborative Opportunity with CRR (UMD)

- **Dr. Mohammad Modarres** Director, Center for Risk and Reliability
- 1:40 PM Research Prioritization Group Activity (Mr. Antonio Ruiz)
- 2:15 PM -- Conclusion and Next steps (Dr. Katrina Groth)

#### 2:30 PM - ADJOURN

#### 2:30-3:00 PM – UMD Engineering Tour