Present a symposium on

**Nuclear Everywhere?**

*How new technologies, regulations and policies may finally make the use of nuclear energy mainstream and ubiquitous*

March 28-29, 2023
MIT Campus

**PROGRAM**

**TUESDAY, MARCH 28**

9:00-9:20 – Greetings
   - Ben Forget, Associate Dept. Head, Nuclear Science and Engineering, MIT
   - Bob Armstrong, Director, MIT Energy Initiative

9:20-9:50 – Symposium Intro & Objectives
   - Jacopo Buongiorno, Director, Center for Advanced Nuclear Energy Systems (CANES), MIT

**KEYNOTE**

9:50-10:10 – Will SMRs succeed? Requirements for new nuclear technologies in the market place (Maria Korsnick, President and Chief Executive Officer, NEI)

**SESSION 1: New Markets and Applications**

Chair: John Parsons, Senior Lecturer, Sloan School of Management, MIT

10:10-10:30 – Nuclear hydrogen is already here (Ugi Otgonbaatar, Director of Technology Strategy, Constellation)

10:30-10:50 – Nuclear biofuels: a potential game changer (Charles Forsberg, Principal Research Scientist, MIT)

10:50-11:10 – COFFEE BREAK

11:10-12:30 – Nuclear energy comes to campus. A panel-style discussion on decarbonization of college campuses using microreactors.

Chair: Lance Snead, Director of Strategic Development, Nuclear Reactor Laboratory, MIT
Panelists:
   - Jean Paul Allain, Head, Nuclear Engineering Dept., Penn State University
   - Seungjin Kim, Head, Nuclear Engineering Dept., Purdue University
   - Rusty Towell, Chair, Engineering and Physics Dept., Abilene Christian University
   - Caleb Brooks, Associate Professor of Nuclear, Plasma and Radiological Engineering, UIUC
   - Yasir Arafat, MARVEL Chief Designer, Idaho National Laboratory
   - Janine Helwig, Director of Utilities, MIT

12:30-1:30 – Lunch
Lunch Speaker: John Ahlberg, Founder, Kärnfull Energi
SESSION 2: Enabling Technologies

Chair: Koroush Shirvan, Associate Professor of Nuclear Science and Engineering, MIT

1:30-1:50 – Advanced Manufacturing, Passive Safety Systems, Compact heat exchangers, state-of-the-art BOP (Koroush Shirvan, MIT)

1:50-2:10 – Advanced Fuels and Moderators (Ellen Cerreta, Materials Scientist, Los Alamos National Laboratory)

2:10-2:30 – Life cycle assessment of graphite including disposal (Lance Snead, MIT)

2:30-2:50 – COFFEE BREAK

2:50-3:10 – 3D seismic isolation (Andrew Whittaker, Professor of Civil Structural and Environmental Engineering, University of Buffalo)

3:10-3:30 – Technology synergies with fusion (Steve Zinkle, Professor of Nuclear Engineering, University of Tennessee at Knoxville)

4:15-5:30 – MIT REACTOR TOUR AND SIMULATOR

WEDNESDAY, MARCH 29

SESSION 3: Regulations, Policy and Geopolitical Context

9:00-10:45 – Is the US Government doing enough to enable a substantial expansion of the domestic nuclear industry? A panel-style discussion on nuclear R&D, regulations and export.

Chair: Lin-wen Hu, Senior Scientist, Nuclear Reactor Lab, MIT

Panelists:
Alice Caponiti, Deputy Assistant Secretary for Reactor Fleet and Advanced Reactor Deployment, Office of Nuclear Energy, US Department of Energy
Jeff Chamberlin, Assistant Deputy Administrator, Office of Material Management and Minimization, NNSA
John Kotek, Senior Vice President, Policy Development and Public Affairs, NEI
Rita Baranwal, Chief Technology Officer, Westinghouse Electric Company
Edward Blandford, Chief Technology Officer, Kairos

10:45-11:00 – COFFEE BREAK

11:00-12:30 – Fuel and waste: where do we stand? A panel-style discussion on HALEU, new fuel forms and HLW management for existing and new nuclear reactors

Chair: Haruko Wainwright, Assistant Professor of Nuclear Science and Engineering, MIT

Panelists:
Monica Regalbuto, Head, Nuclear Fuel Cycle Strategy, INL
David Sassani, National Technical Director, Spent fuel and Waste Science, Sandia National Laboratories
Jose Reyes, Chief Technology Officer, Nuscale
Bret van den Akker, Director of Fuel Cycle Innovation, USNC

12:30 – Adjourn