Please register in advance for this webinar: https://lbnl.zoom.us/webinar/register/WN_T9X0KwA5RkGSPYUbKVGQWg

	Thursday, October 1
11:00	**Welcome and Meeting Overview** (David Miller)
11:15	**Plenary Talk** Angelos Kokkinos, Associate Deputy Assistant Secretary, Clean Coal and Carbon Management, Office of Fossil Energy, U.S. Department of Energy
11:45	**Overview: Carbon Capture Simulation for Industry Impact (CCSI²)** Michael Matuszewski
12:15	**CCSI² Success: Improving Knowledge Gain from Pilot Testing** Debangsu Bhattacharyya
12:45	**Break**
1:00	**Overview: Institute for the Design of Advanced Energy Systems (IDAES)** David Miller
1:30	**IDAES Partnership Successes** Tony Burgard
2:00	**Discussion**
2:30	**Adjourn for the day**
	October 5-7 Carbon Capture Review Meeting (additional CCSI² Presentations, see summary on last page)
	Thursday, October 8
11:00	**Welcome and Meeting Overview** (John Shinn)
11:10	**Advanced Models for System Optimization: Carbon Capture Example** Debangsu Bhattacharyya
11:35	**Process Optimization of Advanced CO_2 Binding Organic Liquid (CO2BOL) Solvent System** Joshua Morgan
12:00	**Break**
12:10	**Sequential Design of Experiments for Optimizing Investment in Technology Development** Christine Anderson-Cook
12:35	**Robust Design and Uncertainty in IDAES** Chrysanthos Gounaris
1:00	**Discussion**
1:30	**Adjourn for the day**
	Thursday, October 15
11:00	**Welcome and Meeting Overview** (John Shinn)
11:10	**Framework for Optimization and Quantification of Uncertainty and Surrogates (FOQUS)** Anuja Deshpande
11:35	**Equation Oriented Modeling: Enabling Optimization of Large-Scale Dynamic Systems** Larry Biegler
12:00	**Break**
12:10	**Grid and Market Integration via Multi-Scale Approaches** John Siirola and Alex Dowling
12:35	**Discussion**
1:00	**Stakeholder Applications and Panel Discussion** John Shinn
1:50	**Adjourn for the day**

Thursday, October 22	
	CCSI² FOQUS Toolset Tutorial Demonstration **Duration: 4 hours**
11:00	**FOQUS Analysis Pathways** Anuja Deshpande
11:10	**Flowsheet Set-Up and Analysis** Anuja Deshpande and Joshua Morgan Setting up, running, and connecting different model types in FOQUS: - Excel - Aspen - Python - Pyomo
11:50	**Surrogate Modeling and Optimization** Anuja Deshpande and Joshua Morgan - Simulation-based optimization using DFO solver - Developing a surrogate model based on an Aspen model - Setting up and implementing surrogate model-based optimization
12:30	**Break**
12:40	**UQ and OUU** Brenda Ng and Pedro Sotorrio - Setting and up and running a simulation ensemble (automatic & user provided data points) - Parameter Screening - Uncertainty Analysis - Sensitivity Analysis
1:20	**Sequential Design of Experiments** Abby Nachtsheim - Constructing a uniform space filling design - Augmenting a completed experiment with additional runs - Constructing a non-uniform space filling design to emphasize some regions of input space
2:00	**Break**
2:10	**Comprehensive Example** Anuja Deshpande *Solvent based carbon capture system analysis* - Flowsheet setup in FOQUS - Comprehensive process understanding & validation via UQ module - Process optimization – setup and implementation - Process optimization under uncertainty - setup and implementation - Simplifying system representation - Surrogate Modeling - Basic SDOE implementation
3:00	**Adjourn**

CCSI² Presentations associated with Carbon Capture Review Meeting

Register at: https://netl.doe.gov/events/20VPRCC

Monday, October 5	
3:15-3:45	**Molecular Refinement of Transformational Solvents for CO_2 Separations (FWP-72396)** David Heldebrant, Pacific Northwest National Laboratory
3:45-4:15	**Demonstration and Validation of Additively Manufactured Intensified Device for Enhanced Carbon Capture (FWP-FEAA375)** Xin Sun, Oak Ridge National Laboratory
Tuesday, October 6	
11:30-12:00	**Amine-Appended Metal-Organic Frameworks as Switch-Like Adsorbents for Energy Efficient Carbon Capture (FWP-FP0006194)** Jeffrey Long, Lawrence Berkeley National Laboratory
1:00-1:05	**CCSI² Introduction** Ben Omell, CCSI²
1:05-1:30	**Machine Learning Approaches to Accelerate CFD Analyses** Dave Widemann and Brenda Ng, Lawrence Livermore National Laboratory, Grigorios Panagakos, National Energy Technology Laboratory
1:30-2:00	**MTR Pilot Support: Modeling Framework Capturing Non-Idealities in Membrane Module Performance** Glenn Lipscomb, University of Toledo
Wednesday, October 7	
10:00-10:30	**Engineering Scale Testing of Transformational Non-Aqueous Solvent- Based CO_2 Capture Process at TCM (FE0031590)** Marty Lail, Research Triangle Institute
10:30-11:00	**Scale-Up and Testing of Advanced Polaris Membrane CO2 Capture Technology (FE0031591)** Tim Merkel, Membrane Technology and Research
11:00-11:30	**Membrane-Sorbent Hybrid System for Post Combustion Capture (FE0031603)** Gokhan Alptekin, TDA Research