

Embedded Sensors for Advanced Reactor Systems Workshop

HOST: Andy Casella; 509-375-5110; Andrew.Casella@pnnl.gov
 LOGISTICS: Vanessa Whitten; 509-375-5310; vanessa.whitten@pnnl.gov
 LOCATION: EMSL 1075/1077 (Unless otherwise noted)

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AGENDA

DAY 1 – Tuesday, August 27, 2024

TIME	TOPIC	PARTICIPANT
8:00 – 8:30 am <i>Location: 650 Horn Rapids Road</i>	PNNL Welcome Center (Badging Office) Travel to 3020 Environmental Molecular Science Laboratory (EMSL)	Andy Casella (PNNL)
8:30 – 8:45 am	Welcome/Intro to the workshop	Andy Casella (PNNL)
8:45 – 9:00 am	Introductory comments from NTD	Patrick Calderoni (INL)
9:00 – 9:15 am	Introductory comments from the Federal Office Director	Suibel Schuppner, (DOE)
9:15 – 9:45 am	Nuclear Energy Research at PNNL	Mark Nutt (PNNL)
9:45 – 10:00 am	Break	All
10:00 – 11:00 am	Overview Presentation of Embedded Sensors	Chris Petrie (ORNL)
11:00 am – 11:45 am	Sensor Technology to Support In-Situ Measurements in High-Temperature Environments; Scouting and Performance Testing	Luke Breon (EPRI)
11:45 am – 1:30 pm	Lunch on your own	All
1:30 – 2:15 pm	Embedded Fiber Optic Sensors in Structural Materials Using Spark Plasma Sintering for Sensing in Extreme Environments	Xinchang Zhang (INL)

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TIME	TOPIC	PARTICIPANT
2:15 – 3:00 pm	Fabricate an Embedded Sensor using a Novel Process of Hot Confined Rolling	Vineet Joshi (PNNL)
3:00 – 3:45 pm	An Integrated Laser Approach for Fiber Sensor Embedding in Metal Parts for Nuclear Energy Applications	Kevin Chen (Pitt)
3:45 – 4:00 pm	Break	All
4:00 – 4:45 pm	Embedding Fiber Optic Sensors in Metals Using Laser Powder Bed Fusion and Ultrasonic Additive Manufacturing	Holden Hyer (ORNL)

DAY 2 – Wednesday, August 28, 2024

TIME	TOPIC	PARTICIPANT
8:30 – 9:15 am	Leveraging Electrochemistry for Embedding Fiber Optic Sensors in Metal Components for Distributed Fiber Optic Sensing.	Cesar Dominguez (LANL)
9:15 – 10:00 am	High-throughput combinatorial printing of self-powered multimodal sensors for structural health monitoring	Yanliang Zhang (Notre Dame)
10:00 – 10:30 am	Break	All
10:30 – 11:00 am	Overview of AMMT	Meimei Li (ANL)
11:00 am – 1:00 pm	Group Discussion around AMMT/ASI Collaborative Direction (Working Lunch?)	Meimei Li/Patrick Calderoni



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TIME	TOPIC	PARTICIPANT
1:00 – 4:00 pm	Lab Tours	All