

**Panel on Review of Selected Divisions of the  
National Institute of Standards and Technology (NIST)  
Engineering Laboratory (EL)  
May 14-16, 2024**

**SUB-PANEL AGENDA  
MEASUREMENT SCIENCE FOR MANUFACTURING ROBOTICS  
(All times are EDT)**

**Tuesday, May 14, 2024**

*For activities before 12:30 p.m., please see the master agenda.*

**DATA GATHERING SESSIONS (OPEN TO THE PUBLIC)**

***Location: Building 101, Heritage Room***

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|-------------------|--|
| 12:30 – 2:30 p.m. | <b>Goal Overview: Advanced Manufacturing, Automation and Autonomous Systems</b> , Kevin Jurrens, <i>Division Chief, Intelligent Systems Division, Engineering Laboratory (EL)</i> ; Simon Frechette, <i>Division Chief, Systems Integration Division, EL</i> |
| 2:30 – 3:15 p.m.  | <b>Program Overview: Measurement Science for Manufacturing Robotics</b> , Jeremy Marvel, <i>Manipulation and Mobility Systems Group, EL</i>  |
| 3:15 – 3:30 p.m.  | <i>Break</i>   |
| 3:30 – 4:15 p.m.  | <b>Program Overview: Measurement Science for Additive Manufacturing</b> , Paul Witherell, <i>Process Engineering Group, EL</i>   |
| 4:15 – 5:00 p.m.  | <b>Program Overview: Advanced Manufacturing Data Infrastructure and Analytics</b> , Simon Frechette, <i>Division Chief, Systems Integration Division, EL</i>   |

*For activities after 5:00 p.m., please see the master agenda.*

**Wednesday, May 15, 2024**

**DATA GATHERING SESSIONS (OPEN TO THE PUBLIC)**

***Location: Building 207 (Meet at Building 101 – to get on the NIST bus to Lab Tour)***

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| 9:00 – 10:00 a.m.                                     | <b>Emergency Response Robotics</b> , Elena Messina, <i>NIST Associate, EL</i>   |
| <b><i>Location: Building 207, Conference Room</i></b> |   |
| 10:00 – 10:45 a.m.                                    | <b>Digital Twins for Manufacturing</b> , Simon Frechette, <i>Division Chief, Systems Integration Division, EL</i> ; Guodong Shao, <i>Life Cycle Engineering Group, EL</i> |
| 10:45 – 11:00 a.m.                                    | <i>Break/Transition</i>   |

***Location: Building 221, Room B61***

11:00 – 11:45 a.m.            **Additive Manufacturing Metrology Testbed (AMMT) and Fundamentals of Laser-Matter Interaction (FLaMI)**, Ho Yeung, *Production Systems Group, EL*; Brandon Lane, *Acting Group Leader*, and David Deisenroth, *Production Systems Group, EL*

11:45 a.m. – noon            *Break/Transition*

**Location: Building 101, Heritage Room**

Noon – 1:00 p.m.            **Working Lunch with Postdocs and Early Career Staff**

1:00 – 1:15 p.m.            *Transition*

*Breaks as needed throughout the afternoon*

**Location: Building 202, Room 138**

1:15 – 1:45 p.m.            **Robot Mobility and Automated Vehicle Testbed**, Omar Aboul-Enein, *Sensing and Perception Systems Group, EL*; Zeid Kootbally, *Cognition and Collaboration Systems Group, EL*

**Location: Building 202, Room 135**

1:45 – 2:15 p.m.            **Robotic Grasping and Manipulation**, Justin Albrecht, *Cognition and Collaboration Systems Group, EL*

**Location: Building 202, Room 130-1**

2:15 – 2:45 p.m.            **Sensing and Perception Systems Laboratory**, Prem Rachakonda, *Sensing and Perception Systems Group, EL*

**Location: Building 202, Room 130**

2:45 – 3:15 p.m.            **Exoskeleton Testbed**, Ya-Shian Li-Baboud, *Cyber Infrastructure Group, ITL*

**Location: Building 202, Room 209**

3:15 – 3:45 p.m.            **Human-Robot Interaction**, Jeremy Marvel, *Manipulation and Mobility Systems Group, EL*

**Location: Building 202, Conference Room**

3:45 – 4:10 p.m.            **Agility Performance of Robotic Systems**, Anthony Downs, *Cognition and Collaboration Systems Group, EL*

4:10 – 4:30 p.m.            **Embodied Artificial Intelligence and Data Generation for Manufacturing and Robot Prognostics and Health Management**, Pavel Piliptchak and Helen Qiao, *Cognition and Collaboration Systems Group, EL*

4:30 – 5:00 p.m.            **Wrap-up**

*For activities after 5:00 p.m., please see the master agenda.*