Portfolio Discovery Workshop Agenda

**CSL Studio Conference Room 1232; October 15, 2019**

8:30 Coffee and tea

8:45 **Geir Dullerud - Center for Autonomy Welcome and Overview**

**Technical Session 1 – Chair: Girish Chowdhary**

9:15 **Minh Do** - Radar+Vision Perception; Mobile Vision

9:30 **David Forsyth** - Visual Sensing

9:45 **Katie Driggs-Campbell** - Human Behavior Prediction and Decision-Making for Autonomous Vehicles

10:00 **Saurabh Gupta** - Vision + Robotics

10:15 DISCUSSION

10:30 BREAK

**Technical Session 2 – Chair: Katie Driggs-Campbell**

10:45 **Bill King** - Towards Autonomous Systems for Additive Manufacturing

11:00 **Placid Ferreira** - Cyberphysical Manufacturing

11:15 **Joseph Bentsman** - Autonomy for Physically Multi-Phase Systems with Moving Boundaries: Application to Continuous Steel Casting & Electrosurgery.

11:30 **Elizabeth Hsiao-Wecksler** - On the Development of Smart Actuated Devices for Disability, Workforce, and Healthcare Training Applications.

11:45 **Girish Chowdhary** - Challenges in algorithms and systems for adaptive autonomy

12:00 LUNCH

**Technical Session 3 – Chair: Matt West**

13:00 **Farzad Kamalabadi** - High-Precision Formation of Several Small Satellites - Challenging Alignment Stability Requirement Demanding Sophisticated Automation Strategies.

13:15 **Girish Krishnan** - Towards Autonomous Soft Robots

13:30 **Sibin Mohan** - Anomaly Detection in UAV Swarms

13:45 **Or Dantsker** - A Solar-Powered Computationally-intensive Unmanned Aircraft

14:00 **Bob Norris** - Systems Engineering Across Autonomous and Unmanned Aerial, Underwater, On-road and Off-Road Systems

14:15 **Karrie Karahalios** - How we Determine What Values we Want to Instill in Autonomous Systems

14:30 DISCUSSION

14:45 BREAK

**Technical Session 4 – Chair: Geir Dullerud**

15:00 **Ravi Iyer** - Domain-guided AI-driven Safety Assessment Methods for Autonomous Vehicles under Faults


15:30 **Matt West** - Reinforcement Learning for High-bandwidth Control of Legged Locomotion

15:45 **Shihao Wang (Kris Hauser)** - Intelligent Motion Lab Research Overview

16:00 **Aditya Gahlawat (Naira Hovakimyan)** - Safe Mobility in Urban Environments

16:15 **Ritwika Ghosh (Sayan Mitra)** - Verification, Synthesis and Programming Systems for Robotics and Autonomy

16:30 **Diane Uwacu & James Motes (Nancy Amato)** - Planning Motions and Tasks for Manipulators, Multi-Robot Systems and Biomolecules

16:45 **Tim Bretl** – The Role of the Built Environments in Autonomous Systems

17:00 END & Brief Closing Remarks