



National Science Foundation
WHERE DISCOVERIES BEGIN



Robots and Sensors for the Human Well-being (ROSE-HUB)

Meeting Thursday November 16, 2023

Meeting Location: Virtual via Zoom Meeting

Link: <https://umn.zoom.us/j/95774399591?pwd=VW16KzBaeXlVM0Q0NHNRZThDa1VIZz09>

Meeting ID: 957 7439 9591

Passcode: 4baczQ

Agenda

(All times are in Central Time)

Thursday November 16, 2023

9:00 AM Agenda, Mr. Mike Bazakos, Managing Director

9:10 Welcome and Introduction, Dr. Nikolaos Papanikolopoulos, Director of the Minnesota Robotics Institute (MnRI) at the University of Minnesota

9:25 **Center Priorities, Status and Plans**

20 mins – NSF Update, Dr. Mohan Kumar, National Science Foundation PD

20 mins - The State of the Center, Dr. Vassilios Morellas, Center Director

20 mins - The Industrial View, Dr. Vibhor Bageshwar, IAB chair (Honeywell)

10:25 **Proposal Presentations and IAB Evaluations (online) [*]**

10 mins – Introduction to the “Airtable” Evaluation System – Mr. Haoyi Shi

**40 mins (4 projects) - Worcester Polytechnic Institute – Dr. Jing Xiao,
Site Director**

WPI1: Tele-Robotic System for Waste Disposal

(PI: Jane Li, Student presenter: Nikita Boguslavskii)

WPI2: Demining Robot (PI: Markus Nemitz)

WPI3: Envelope Packaging, (PIs: Andre Rosendo and Jing Xiao,
Student presenters: Venki Parsuram and Zhaoyuan Ma)
WPI4: Cable Detection (PI: Nitin Sanket)

**40 mins (4 projects) – Clemson University – Dr. Venkat Krovi,
Site Director**

Clemson1: AutoDRIVE Ecosystem for Multi-Agent Reinforcement Learning
(PI: Venkat Krovi, Student presenter: Tanmay Samak)

Clemson2: Data-Driven Deep Koopman Learning Framework
(PI: Umesh Vaidya, Student presenter: Ajinkya Joglekar)

Clemson3: LiDAR-based Road Surface Characterization for Drive-by Health-Monitoring of Infrastructure (PIs: Matthias Schmid and Laura Redmond)

Clemson4: Learning the Gap: Understanding the -Difference between Professional Race Drivers and Theoretical Race Lines
(PI: Matthias Schmid)

11:55 PM 10 min BREAK

**12:05 20 mins (2 projects) - University of Minnesota – Dr. Vassilios Morellas,
Site Director**

UMN1: Federated Learning for Traffic Flow Predictions, (PIs: Maria Gini, Ali Anwar)

UMN2: State-wide Truck Parking Detection Deployment and Maintenance – Phase II, (PIs: Vassilios Morellas, Ted Morris and Nikolaos Papanikolopoulos)

12:25 Guest Speakers - "Robotic Metal Recycling", by WPI's Berk Calli and James Akl

13:10 IAB Feedback/Discussion - Dr. Vibhor Bageshwar, IAB chair/ALL

13:45 Adjourn

[*] Online project evaluation by IAB
<https://airtable.com/shrh6CWRqYmOpr0RY>

Online project for PI and Faculty
<https://airtable.com/shrTflyubNF43Bfzk>

Please check out the new website of ROSE-HUB: <https://rose-hub-iucrc.github.io>