



National Science Foundation  
WHERE DISCOVERIES BEGIN



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

**Meeting Friday May 5, 2023**

**Meeting Location: Virtual via Zoom Meeting**

<https://umn.zoom.us/j/99258039563?pwd=K0Zvd1RLNk9yOVBRZmFrNjdGa2EvUT09>

Meeting ID: 992 5803 9563

Passcode: U8hx6E

### **Agenda**

(All times are in Central Time)

#### **Friday May 5, 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 **Project Status Presentations and IAB Evaluations (online) [\*]**

**50 mins (5 projects) - Worcester Polytechnic Institute – Dr. Jing Xiao,  
Site Director**

WPI1: Robotic Envelope Packaging - Pls: Siavash Farzan and Jing Xiao

WPI2: Robotic Cutting for Metal Scrap Recycling - PI: Berk Calli

WPI3: Robot-assisted Digsafe Marking - Pls: Greg Lewin and Jing Xiao

WPI4: Robotic Bird Deterrent - Pls: Greg Lewing and Jing Xiao

WPI5: Multi-robot Collaborative Inspection - Pls: Carlo Pincioli and Jing Xiao

**20 mins (2 projects) – Clemson University – Dr. Venkat Krovi,  
Site Director**

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Clemson1: Data-driven Identification of Linear Predictor for Non-linear Dynamics  
- PI: Ajinkya Joglekar  
Clemson2: Autonomy Oriented Digital Twins – Pls: Chinmay Samak and Tanmay Samak

**10 mins (1 project) - University of Pennsylvania – Dr. Ani Hsieh,  
Site Director**

UPenn1: Knowledge Embedding Machine Learning Framework for Robust Estimation and Control of Autonomous Vehicles – PI: Ani Hsieh

**30 mins (3 projects) - University of Minnesota – Dr. Vassilios Morellas,  
Site Director**

UMN1: Conversational Agents: A Customizable Technology to Interact with People – Pls: Maria Gini and Wilma Koutstaal

UMN2: State-wide Truck Parking Detection Deployment and Maintenance – Pls: Ted Morris and Nikolaos Papanikolopoulos

UMN3: Autonomous Mobile Asphalt Density Profiling Robot to Reduce Worker – Pls: Ted Morris and Nikolaos Papanikolopoulos

12:15 PM 10 min BREAK

12:25 Guest Speaker: Dr. Nadia Figueroa, “Collaborative Robots in the Wild: Challenges and Future Directions from a Human-Centric Perspective”

Bio: [https://nbfigueroa.github.io/data/nadia/ShortBio\\_Figueroa\\_June2022.txt](https://nbfigueroa.github.io/data/nadia/ShortBio_Figueroa_June2022.txt)

13:00 IAB Feedback - Dr. Vibhor Bageshwar, IAB chair

13:30 General Discussion - ALL

13:45 Adjourn

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[\*] **On line project evaluation by IAB**  
(Info forthcoming)