



University Seminar Series: **GW** Robotics, Artificial Intelligence (AI),  
and Transportation for **S**mart Health and Smart Cities (**GRITS**)

## Human-Robot Interaction Research at the National Institute of Standards and Technology

Shelly Bagchi

Robotics Researcher  
Collaborative Robotics Lab

National Institute of Standards and Technology (NIST)

In this talk, Shelly Bagchi will give an overview of the robotics research being done at NIST, the National Institute of Standards and Technology (part of the Department of Commerce). She will review some student opportunities at NIST and also discuss her own research into Human-Robot Interaction (HRI). This will include work on interfaces for HRI, particularly using Augmented & Virtual Reality, as well as metrics and replicability within HRI research, which leads into standards development for HRI.



Shelly Bagchi is an Electrical Engineer at the National Institute of Standards and Technology in Gaithersburg, Maryland. Shelly is the Project Lead for the [Digital Twins and Emerging Technology for SMEs Project](#) within the [Measurement Science for Manufacturing Robotics Program](#) at NIST. Her research interests are in human-robot interaction, replicability & reproducibility, and augmented reality. Shelly chairs the IEEE Standards Group P3108, [Recommended Practice for Human-Robot Interaction Design of Human Subject Studies](#), and is the secretary for IEEE P3107, [Standard Terminology for Human-Robot Interaction](#). She serves as a volunteer organizer for several events, including the International Symposium on Technological Advances in Human-Robot Interaction ([tahri.org](#)) and the annual ACM/IEEE International Conference on Human-Robot Interaction ([humanrobotinteraction.org](#)). Shelly also previously managed the NIST Extended Reality Community of Interest (XR-COI), and co-taught the introductory Artificial Intelligence class in Georgia Tech's Online Masters in Computer Science program, a program which has enrolled over 10,000 students. She received her Masters in Electrical Engineering from the Georgia Institute of Technology in 2015, and her Bachelors in Computer Engineering from the George Washington University in 2013.

November 15th, 2023

1:00 p.m. – 2:00 p.m.

SEH Lehman Auditorium, B1220

School of Engineering & Applied Science

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