Date: June 29, 2026

Speaker: Dr. Amber Maimon, Postdoctoral Researcher, Computational Psychiatry & Neurotechnology Lab and the Spatial Reality Lab, Ben Gurion University of the Negev

Time: 10:10-11:00

Location: Alon Building 37, room 202

Title: NeuroHRI and Robotic (Embodied) Cognition

Abstract: My work sits between the brain and the machine and runs in two directions: how using technology reshapes the brain, and how what we know about the brain can guide the way we develop technology. The connection runs through the body. Human cognition is embodied, and much of it rests on interoception - awareness of internal body signals. In this talk, I explore what this could mean for human-robot interaction. On the human side, what happens in the brain when we perceive a robot in different ways, or what makes a robot be perceived as if it's a part of one's own body. On the robot side, how could considering a robot's internal signals as interoceptive signals (such as computational load, temperature, and power), help make them legible so people can more readily attribute a theory of mind to the robot? How could it allow robots to share "reflections" about themselves or change the way they make decisions and self regulate.

Bio: Dr. Amber Maimon is a neurotechnology and human-computer interaction researcher, with degrees in natural science, psychology, and philosophy of science. Drawing on this background, she examines how cognition, neural plasticity, and embodied interaction shape perception. Rather than treating the body as an input device and technology as a channel, she designs interfaces engaging bodily and perceptual processes as interactive resources. Her work spans extended reality, robotics, wearable systems, physiology, and neurophysiology. This forms a NeuroHCI perspective where users and technologies are co-adaptive systems.