

Date: April 25, 2022

Speaker: Prof. Noa Agmon

Location: Building 37, Room 202

Title: Adversarial Robotics: From Teamwork to Swarms

Abstract:

Developing robots for a wide range of goals requires addressing their ability to perform tasks as physical agents with specific characteristics, and the ways in which they act within and respond to their surroundings. As proximity to dangerous or hostile entities is among the foremost motives for using robots, it is therefore crucial to account for the presence of adversaries in robotic environments. The talk will describe several key research threads examining the ability of robotic teams and swarms to (strategically) handle adversity, which strongly relies on the knowledge the robots have on the environment and the opponent, and the coordination scheme between the robots.

Short bio:

Noa Agmon is an associate professor at the Department of Computer Science at Bar-Ilan University, where she leads the SMART research group. Her research expertise includes multi-agent and multi-robot systems, focusing mainly on adversarial robotics (robotic behavior in adversarial environments) and swarm robotics. She has completed her MSc in distributed algorithms at the Department of Computer Science and Applied Math at the Weizmann Institute, and her PhD in artificial intelligence and robotics at the Department of Computer Science at Bar-Ilan University. Following her PhD, she spent two years at the University of Texas at Austin as a postdoctoral fellow, before joining Bar-Ilan University in 2012.