Abstract:

Imagine being able to touch virtual objects, interact physically with computer games, or feel items that are located elsewhere on the globe. The breadth of applications of such haptic technology would be diverse and broad. Interestingly, while excellent visual and auditory feedback devices exist, cutaneous feedback devices are in infancy stages. In this talk I will present a brief introduction to the world of haptic feedback devices and the challenges it poses. Then I will present HUGO, a device designed in a human-centered process, triggering the mechanoreceptors in our skin thus enabling people to experience the touch of digitized surfaces "in-the-wild". This talk is likely to leave us with many open questions that require research to answer. Bio: Prof. Lihi Zelnik-Manor is a Full Professor and Vice Dean of Graduate Studies in the Faculty of Electrical and Computer Engineering at the Technion. Between 2018-2021 she was a Senior Director and the General Manager of Alibaba's R&D center in Israel. Prior to that she was a visiting Associate Professor at CornellTech during its establishment years, and a Post-doctoral scholar at Caltech. Her main area of expertise is Computer Vision, in which she performs research as well as holds industry advisory roles. Prof Zelnik-Manor has done extensive community contribution, serving as General Chair of CVPR'21 and ECCV'22, Program Chair of CVPR'16, Associate Editor at TPAMI, served multiple times as Area Chair at CVPR, ECCV and was on the award committee of ACCV'18, CVPR'19 and CVPR'22. Looking forward she will serve as Program Chair of ICCV'25.