

ABC Monthly Seminar

Date: April 29, 2019

Speaker: Prof. Simon D. Levy

Title: Innovative Drone Research: Bridging the Gap between Hardware and Simulation

Abstract:

Although several hardware, software, and simulation platforms exist for building and programming miniature aerial vehicles (drones), the limitations and/or complexity of these platforms quickly become an obstacle to anyone wishing to extend them beyond their original purposes. In this talk I present a "bottom-up" approach to the software/firmware side of drone research, in which a small set of simple components can be combined, re-used, and extended to enable new capabilities with a minimum amount of additional coding, using popular, free, open-source software tools. As a case study I present a current project involving a realistic simulator developed by my students and me, which I am adapting to model a difficult mission concept involving two or more drones. The talk will include demonstrations with an actual drone and simulator.

Bio:

Simon D. Levy holds degrees in computer science (Brandeis University) and linguistics (Yale University, University of Connecticut). For the past 17 years, he has taught computer science, AI, and robotics at Washington and Lee University, where he holds the position of Professor. Simon is currently a Visiting Professor in the Department of Mechanical Engineering at Ben Gurion University of the Negev and a consulting software engineer at RoboTiCan LTD.