

RESUME

Barak Or

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Education -Technion, I.I.T

2016-2018 M.Sc. in Aerospace Engineering Faculty. Supervisor: Joseph Z. Ben-Asher.

Thesis: Integrated Guidance / Estimation in Linear Quadratic Differential Games.

2012-2016 B.Sc. in Aerospace Engineering. Faculty of Aerospace Engineering.

2014-2016 B.A. in Economics and Management (Cum Laude). Faculty of Industrial Engineering.

Experience

2016-Today **Teaching Assistant** at the Aerospace Engineering Faculty, I.I.T.

System Engineering (16/ 17/ 18), Navigation and Guidance (17/18), Intro. to Control (18), Intelligent Materials and Structures (17/18/19), Experimental Methods (16), and more.

2017-2019 **Physics Teacher** at “The Hebrew Reali School in Haifa” (8th and 9th classes). Developing frontal teaching programs and leading projects as part of the physics studies in middle school. Teaching of 4 classes per year, writing exams and integrating online teaching.

2018 **Algorithm Engineer** and **Project Leader** at AutoTalks Ltd.

Lead of positioning project. Dealing mainly with Estimation and Navigation Algorithms, Adaptive Filters, GNSS, Localization and more. Leading field experiments and developing new methodologies for solving localization problem for autonomous vehicles.

2018 **Research Assistant** at the Electrical Engineering Faculty (Viterbi), I.I.T. Working on special project for the Ministry of Defense. Focusing on Control, Dynamic and Navigation.

2015-2017 **Project Leader**. Technion, Aerospace Engineering Faculty.

Mentoring new students. Managing 20 mentors and over 150 students during the project period.

Achievements

- 2018 **Gemunder Prize** for “Space-Defense Related Technologies”. The prize (100,000 NIS) was given for proposal an idea for future research: “Satellite Interception by Game Theory Approach”.
- 2016 Graduated from Technion I.I.T with **double degree**: Aerospace Engineering (B.Sc.) and Economics and Management (B.A) in a period of less than 4 years (8 semesters).
- 2015 **Competition for Security Developments- Second Place**. Organized by “Center for Security Science and Technology” at the Technion. The prize (2,000 NIS) was given for “Developing an innovative and creative idea in the field of security and dealing with terror”.

Publication & Conferences

- I. “Imperfect Information Game for a Simple Pursuit-Evasion Problem” Barak Or, Joseph Z. Ben- Asher and Isaac Yaesh. *EuroGNC* (5th CEAS Conference on GNC) AIAA co-sponsored conference. 2019
- II. “Optimal Time-Varying Sampling Interval for Kalman Filter-Based Tracking” Barak Or, Israel Cohen and Ben-Zion Bobrovsky. (IEEE, Transactions on Signal Processing - to be sent). 2019
- III. “Pursuit Evasion Games with Imperfect Information Revisited”. Barak Or, Joseph Z. Ben-Asher and Isaac Yaesh. The 58th Israel Annual Conference on Aerospace sciences (IACAS). 2018
- IV. “Fire Javelin”. Exo-Atmospheric Interception Platform against a Nuclear Threat-Concept”. Israel Missile Defense Association (IMDA) 6th conference. 2017

Academic

- 2018-Today **Board Member** at the International Journal of Astrobiology & Aerospace Technology (Gavin Publishers). An online, open access journal covers various aspects in Astrobiology, Astronomy, Cosmology, Planetary sciences etc.
- 2017-Today **Referee** at International Conference on Control, Decision and Information Technologies (CoDIT)

Others

Military Service: Artillery Corps, 2007-2010. Team Commander at Operational and Training Batteries.

Computer: Python, Matlab, Simulink, Maple, C.

Languages: Hebrew- native, English- very good.