

Ibrahim Kurban Ozaslan

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EDUCATION	<p>University of Southern California, Los Angeles, CA PhD - Electrical and Computer Engineering Minor - Computer Science Advisor: Prof. Mihailo R. Jovanovic GPA: 4.0/4.0</p> <p>Bilkent University, Ankara, Turkey MSc - Electrical and Electronics Engineering Advisors: Prof. Orhan Arikan & Prof. Mert Pilanci Thesis: Fast and Robust Solution Techniques to Large Scale Linear Inverse Problems GPA: 3.9/4.0</p> <p>Bilkent University, Ankara, Turkey BSc - Electrical and Electronics Engineering Advisor: Prof. Sinan Gezici Senior Project: Target Localization Using UAV Mono-camera and IMU GPA: 3.9/4.0</p>	<p>December 2020 - present</p> <p>June 2017 - August 2020</p> <p>June 2012 - June 2017</p>
PROFESSIONAL EXPERIENCE	<p>Antenna Engineer Intern - Remote Sensing Technologies Designed a simulation environment for modeling 2D non-uniform array antennas via graphical user interface</p> <p>Systems Engineer Intern - TUBITAK Advanced Technologies Research Institution Radar Laboratories Programmed wifi modules using soft microprocessors on an FPGA</p>	<p>June 2016 - August 2016</p> <p>June 2015 - August 2015</p>
HONORS AND AWARDS	<ul style="list-style-type: none">◇ ISMRM Summa Cum Laude Award (two papers) 2024◇ Viterbi Graduate School Fellowship, USC 2020 - 2024◇ Best Oral Presentation - Graduate Research Conf, EEE Dept - Bilkent 2019◇ Graduate Study Scholarship, Research Council of Turkey 2017 - 2020◇ Full Scholarship for MSc Studies, Bilkent 2017 - 2020◇ 1st Place Prize - Nationwide Senior Projects Competition, IEEE Turkey 2017◇ Innovation in Defense Industry Excellence Award, EEE Dept - Bilkent 2017◇ Full Scholarship for BSc Studies, Bilkent 2012 - 2017	
WORKING PREPRINTS	<ol style="list-style-type: none">1. I. K. Ozaslan, P. Patrinos, and M. R. Jovanovic, "Stability of primal-dual gradient flow dynamics for multi-block convex optimization", 2024. (<i>submitted to IEEE TAC</i>)2. I. K. Ozaslan and M. R. Jovanovic, "Analysis of accelerated forward-backward and Douglas-Rachford splittings via inertial dynamics", 2023. (<i>submitted to Automatica</i>)	
JOURNAL PUBLICATIONS	<ol style="list-style-type: none">1. I. K. Ozaslan, M. Pilanci, O. Arikan, "M-IHS: An accelerated randomized preconditioning method avoiding costly matrix decompositions", <i>Linear Algebra Appl.</i>, 2023.2. I. K. Ozaslan, H. Mohammadi, M. R. Jovanovic, "Computing stabilizing feedback gains via a model-free policy gradient", <i>IEEE Control Syst. Lett.</i>, 2022.	

CONFERENCE
PUBLICATIONS

1. **I. K. Ozaslan** and M. R. Jovanovic, “From exponential to finite/fixed-time stability: Applications to optimization”, *Proc. IEEE Conf. Decision Control (CDC)*, 2024. (oral presentations)
2. E. Yagiz, **I. K. Ozaslan**, B. Tasdelen, M. R. Jovanovic, Y. Tian, and K. S. Nayak, “Dynamic Mode Decomposition enables low-latency high temporal resolution reconstruction for golden-angle spiral real-time MRI”, *Proc. ISMRM*, 2024. (oral presentation)
3. E. Yagiz, B. Tasdelen, **I. K. Ozaslan**, M. R. Jovanovic, Y. Tian, and K. S. Nayak, “Dynamic Mode Decomposition (DMD) Cardiac Phase Estimation for adult and fetal real-time MRI”, *Proc. ISMRM*, 2024. (oral presentation)
4. **I. K. Ozaslan** and M. R. Jovanovic, “Tight lower bounds on the worst-case convergence rate of primal-dual dynamics for equality constrained convex problems”, *Proc. IEEE Conf. Decision Control (CDC)*, 2023. (oral presentations)
5. **I. K. Ozaslan** and M. R. Jovanovic, “On the global exponential stability of primal-dual dynamics for convex problems with linear equality constraints”, *Proc. Am. Control Conf. (ACC)*, 2023. (oral presentations)
6. **I. K. Ozaslan** and M. R. Jovanovic, “Exponential convergence of primal-dual dynamics for multi-block problems under local error bound condition”, *Proc. IEEE Conf. Decision Control (CDC)*, 2022. (oral presentations)
7. **I. K. Ozaslan**, S. Hassan-Moghaddam, M. R. Jovanovic, “On the asymptotic stability of proximal algorithms for convex optimization problems with multiple non-smooth regularizers”, *Proc. Am. Control Conf. (ACC)*, 2022. (oral presentations)
8. **I. K. Ozaslan**, M. Pilanci, O. Arikan, “Iterative Hessian sketch with momentum”, *Proc. IEEE Int. Conf. Acoust. Speech Signal Process. (ICASSP)*, 2019. (poster presentations)
9. **I. K. Ozaslan**, M. Pilanci, O. Arikan, “Fast and robust solution techniques for large scale linear system of equations”, *Proc. IEEE Signal Process. Comm. Appl. Conf. (SIU)*, 2019. (oral presentations)

INVITED TALKS

1. Robust solutions of large scale linear systems by regularized iterative Hessian sketch, *Huawei Strategy and Technology Workshop*. Shenzhen, China, May 2019. (presented by Prof Orhan Arikan)

PEER REVIEWING

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|---|-------------|
| ◇ IEEE Transactions on Automatic Control | 2023 - 2024 |
| ◇ IEEE Control System Magazine | 2024 |
| ◇ Automatica | 2024 |
| ◇ IEEE Transactions on Control of Network Systems | 2023 - 2024 |
| ◇ American Control Conference | 2022 - 2024 |
| ◇ IEEE Conference on Decision and Control | 2022 - 2023 |
| ◇ Learning for Dynamics and Control Conference | 2022 |

TEACHING
EXPERIENCE

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|---|---------|
| ◇ Linear System Theory - 3 semesters | USC |
| ◇ Nonlinear Control Systems - 2 semesters | USC |
| ◇ Digital Signal Processing - 2 semesters | Bilkent |
| ◇ Engineering Mathematics - 3 semesters | Bilkent |
| ◇ Analog Electronics - 1 semester | Bilkent |

PROGRAMMING
SKILLS

- ◇ Fluent in **Python**, **C++**, **MATLAB**, and **Latex**
- ◇ Experience in **NumPy**, **PyTorch**, **TensorFlow**, and **JAX**

INTERESTS

Cooking, swimming, biking, camping, playing chess among many other things