

# Ibrahim Kurban Ozaslan

Email: [ikozaslan@gmail.com](mailto:ikozaslan@gmail.com)

Website: [ibrahimkurban.github.io](http://ibrahimkurban.github.io)

EDUCATION	<p><b>University of Southern California</b>, Los Angeles, CA <b>PhD - Electrical and Computer Engineering</b> <b>Minor - Computer Science</b> <b>Advisor:</b> Prof. Mihailo R. Jovanovic <b>GPA:</b> 4.0/4.0</p> <p><b>Bilkent University</b>, Ankara, Turkey <b>MSc - Electrical and Electronics Engineering</b> <b>Advisors:</b> Prof. Orhan Arikan &amp; Prof. Mert Pilanci <b>Thesis:</b> Fast and Robust Solution Techniques to Large Scale Linear Inverse Problems <b>GPA:</b> 3.9/4.0</p> <p><b>Bilkent University</b>, Ankara, Turkey <b>BSc - Electrical and Electronics Engineering</b> <b>Advisor:</b> Prof. Sinan Gezici <b>Senior Project:</b> Target Localization Using UAV Mono-camera and IMU <b>GPA:</b> 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><b>Antenna Engineer Intern - Remote Sensing Technologies</b> Designed a simulation environment for modeling 2D non-uniform array antennas via graphical user interface</p> <p><b>Systems Engineer Intern - TUBITAK Advanced Technologies Research Institution Radar Laboratories</b> 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"><li>◇ ISMRM Summa Cum Laude Award (two papers)</li><li>◇ Viterbi Graduate School Fellowship, USC</li><li>◇ Best Oral Presentation - Graduate Research Conf, EEE Dept - Bilkent</li><li>◇ Graduate Study Scholarship, Research Council of Turkey</li><li>◇ Full Scholarship for MSc Studies, Bilkent</li><li>◇ 1st Place Prize - Nationwide Senior Projects Competition, IEEE Turkey</li><li>◇ Innovation in Defense Industry Excellence Award, EEE Dept - Bilkent</li><li>◇ Full Scholarship for BSc Studies, Bilkent</li></ul>	<p>2024</p> <p>2020 - 2024</p> <p>2019</p> <p>2017 - 2020</p> <p>2017 - 2020</p> <p>2017</p> <p>2017</p> <p>2012 - 2017</p>
WORKING PREPRINTS	<ol style="list-style-type: none"><li>1. <b>I. K. Ozaslan</b>, 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>)</li></ol>	
JOURNAL PUBLICATIONS	<ol style="list-style-type: none"><li>1. <b>I. K. Ozaslan</b> and M. R. Jovanovic, "Accelerated forward-backward and Douglas-Rachford splitting dynamics", <i>Automatica</i>, 2024.</li><li>2. <b>I. K. Ozaslan</b>, M. Pilanci, O. Arikan, "M-IHS: An accelerated randomized preconditioning method avoiding costly matrix decompositions", <i>Linear Algebra Appl.</i>, 2023.</li><li>3. <b>I. K. Ozaslan</b>, H. Mohammadi, M. R. Jovanovic, "Computing stabilizing feedback gains via a model-free policy gradient", <i>IEEE Control Syst. Lett.</i>, 2022.</li></ol>	

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

- ◇ IEEE Transactions on Automatic Control 2023 - 2025
- ◇ Automatica 2024 - 2025
- ◇ IEEE Transactions on Control of Network Systems 2023 - 2025
- ◇ IEEE Control System Magazine 2024
- ◇ American Control Conference 2022 - 2025
- ◇ Learning for Dynamics and Control Conference 2022, 2025
- ◇ IEEE Conference on Decision and Control 2022 - 2023

TEACHING  
EXPERIENCE

- ◇ Random Processes - 1 semester USC
- ◇ 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**, **Simulink**, and **Latex**
- ◇ Experience in **Simscape (Multibody)**, **NumPy**, **PyTorch**, and **TensorFlow**

INTERESTS

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