Kazim Selim Engin
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Education

- **University of Minnesota** — Minneapolis, MN
  Ph.D. Student in Computer Science and Engineering — *Sept 2016 - present*
  Advisor: Prof. Volkan Isler

- **Sabancı University** — Istanbul, Turkey
  B.S. in Mechatronics Engineering — *Sept 2012 - June 2016*

Research Experience

- Samsung Research Artificial Intelligence Center — New York City, NY
  Research Intern — *Jan 2019 - Aug 2019*
  - Single and multi-view 3D reconstruction, learning object representations, object part decomposition from images, velocity controller for visual servoing of a manipulator robot

- Robotic Sensor Networks Lab — Minneapolis, MN
  Graduate Student — *Sept 2016 - present*
  - Designing approximation algorithms and online strategies for network formation of a multi-robot system
  - Localization of a target using multiple UAVs equipped with bearing-only sensors

- Knowledge Representation and Reasoning Group — Istanbul, Turkey
  Undergraduate Researcher — *Sept 2015 - June 2016*
  - Developing an action planner to rearrange cluttered objects so as to grasp an initially unreachable object

- Joint Institute of Engineering, SYSU-CMU — Guangdong, China
  Undergraduate Research Intern — *June 2015 - Sept 2015*
  - Parameter identification and state of charge estimation of deteriorated batteries

- Automation and Information Systems, Technical University of Munich — Munich, Germany
  Undergraduate Research Intern — *July 2014 - Sept 2014*
  - Traffic signalization and control using MATLAB Stateflow
  - Conveyor band automation using various sensors and actuators

Publications

1. S. Engin, E. Mitchell, D. Lee, V. Isler, D. D. Lee, Higher Order Function Networks for View Planning and Multi-View Reconstruction (in review), 2019.

2. E. Mitchell, S. Engin, V. Isler, D. D. Lee, Higher Order Function Networks for Learning Composable 3D Object Representations (in review), 2019.
3. S. Engin, V. Isler, Asynchronous Network Formation in Unknown and Unbounded Environments, *International Conference on Robotics and Automation (ICRA)*, 2019.
4. S. Engin, V. Isler, Minimizing Movement to Establish the Connectivity of Randomly Deployed Robots, *International Conference on Automated Planning and Scheduling (ICAPS)*, 2018.
5. H. Bayram, N. Stefas, S. Engin, V. Isler, Tracking Wildlife with Multiple UAVs: System Design, Safety and Field Experiments, *IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS)*, 2017.

Honors

- Cedar Creek Ecosystem Science Reserve Fellowship (2018)
- UMN Graduate School Fellowship (2017)
- Sabancı University Scholarship (2012-16)

Teaching Experience

CSCI 1133 - Introduction to Computing and Programming Concepts (Spring 2017, Fall 2017):
GitHub organization setup for the class, preparing assignments, grading/auto-grading and interviewing students

Professional Services

Reviewer for IROS (2017-19), ICRA (2018), NeurIPS (2019)

Technical Skills

Python, C++, PyTorch, Matlab/Simulink

Coursework

- Advanced Algorithms & Data Structures
- Matrix Theory
- Machine Learning
- Multiview 3D Geometry in Computer Vision
- Autonomous Mobile Robotics
- Sensing and Estimation in Robotics
- Computational Geometry
- Optimal Filtering & Estimation
- Linear Systems Optimal Control
- Artificial Intelligence