

BILGEHAN SEL

`bsel@vt.edu`

`bilgehansel.com`

Research Interests

Mathematical optimization, machine learning, signal processing, communication

Education

2022 -

Virginia Tech, Blacksburg, USA

PhD, Electrical and Computer Engineering.

2020 – 2022

Bilkent University, Ankara, Turkey

Minor, Mathematics.

2018 – 2022

Bilkent University, Ankara, Turkey

B.S., Electrical and Electronics Engineering. (*CGPA: 3.62*)

Major Subjects

Convex Optimization

Digital Signal Processing

Machine Learning

Control

Professional Experience

2020 – Present: Undergraduate Intern

National Magnetic Resonance Research Center

Ankara, Turkey

Publications

1. Sel, A., Sel, B., & Kasnakoglu, C. (2021). GLSDC Based Parameter Estimation Algorithm for a PMSM Model. *Energies*, *14*(3), 611.
2. Sel, A., Sel, B., Coskun, U., & Kasnakoglu, C. (2021). Comparative Study of an EKF-Based Parameter Estimation and a Nonlinear Optimization-Based Estimation on PMSM System Identification. *Energies*, *14*(19), 6108.
3. Coskun, U.H., Sel, B. & Plaster, B. Magnetic field mapping of inaccessible regions using physics-informed neural networks. *Sci Rep* **12**, 12858 (2022).
<https://doi.org/10.1038/s41598-022-15777-4>
4. On Solution Functions of Optimization: Universal Approximation and Covering Number Bounds. Jin, M.; Khattar, V.; Kaushik, H.; Sel, B.; and Jia, R. In *AAAI Conference on Artificial Intelligence (AAAI)*, 2023.

Skills

Programming Languages

C/C++, MATLAB, VHDL/Verilog, Python, Cuda/C++ for Deep Learning

Github Page: <https://github.com/BilgehanSel>

Personal Page: <https://bilgehansel.com>

Exam Results

GRE: 325 (156V - 169Q)

Toefl: 112