

Aykut Yıldız's CV

aykut.yildiz@tedu.edu.tr, aykutyildiz1983@gmail.com



Electronics Engineering
TED University
06420, Kolej
Ankara, Turkey

Assistant Professor
<http://aykutyildiz.com>
Office: B469
+90 312 585 02 78

“I never dreamed about success. I worked for it.” (Estee Lauder)

References

- Prof. A. Bülent Özgüler, Prof. Ömer Morgül, and Prof. Sinan Gezici.

Education

- BSc, MSc, and PhD in Electronics Engineering, Bilkent University, Turkey.
- Ankara Atatürk Anatolian High School, Turkey.

Academic Advisors

- MS with Prof. Orhan Arıkan, and PhD with Prof. A. Bülent Özgüler

Academic Research Interests

Radar Signal Processing, Robotics, System Theory, Control Theory, Swarm Theory, Game Theory, Autonomous Vehicles and Opinion Dynamics.

Conducted Projects

- | | |
|-----------|--|
| 2020–2021 | “Artificial Intelligence Based Autonomous Flight and Control System for Unmanned Aerial Vehicles” (TED University LAD project) |
| 2021–2024 | “Modeling Opinion Dynamics in Social Media as Differential Games and Automated Detection of Trolls” (TÜBİTAK 1001 project) |

Participated Projects

- | | |
|------------|--|
| 2007–2010 | TÜBİTAK Project on Milimeter Wave Radars(MILDAR) |
| 2010–2011 | TÜBİTAK Project on Earthquake Detection using Ionospheric Data |
| 2011–2012 | ASELSAN Servo Control Project |
| 2014–today | TÜBİTAK Project on Game Theoretical Swarm Modeling |

Small Scale Projects

Production of efficient motor-generator system prototype , Software for teaching clock to children, 30Mhz Radio design.

Certificates and Exams

- Bilkent Diction Course certificate
- Bilge Adam Photoshop certificate
- KPDS(language examination): 95/100
- ALES: 95/100
- CAHEM Wordpress certificate
- “Introduction to Power Electronics by University of Colorado Boulder on Coursera. Certificate earned on June 30, 2017”

Achievements

- 1st rank in Ankara at Anatolian High School Exam.
- Fifth rank in Turkey at PYBS School Exam.
- 36th rank in Turkey at ÖSS examination.
- Erhan Demir Success and Diligence Award
- High Honour in undergrad for 6 semesters
- 4.00/4.00 at 6 semesters (including summers)
- TÜBİTAK BİDEB scholarship for master students
- TÜBİTAK scholarship for graduate research areas with high priority
- TÜBİTAK MİLDAR Ar-Ge Project scholarship

Internship

- Aselsan MST Production Management Summer Intern: A report has been written on MST production processes.
- Aselsan MST Project Management Summer Intern: I worked as a programmer in Male and Female Voice Detection.

Working Experience

R&D Engineer in Aselsan HC Department. (Software and Hardware Design of Automated Test Systems)

Programming and Markup Languages

MATLAB –advanced, Java-intermediate, C- beginner, Assembly- beginner, Microcontroller programming-beginner, Csharp-beginner, HTML-advanced, SQL-beginner, VHDL digital circuit design language-beginner, LATEX-advanced

Software and Applications

Texmaker, Overleaf, Squid, Turnitin, Moodle, Zoom, Mendeley, MS Stream, and Diagrams.net.

Operating Systems

Windows-advanced, Linux-intermediate, Unix-beginner, MAC beginner

Community Services

IEEE reviewer, Elsevier reviewer, Eksi Sozluk author, Quora author, www.milliyet.com.tr blogger, vocabulary.com content maker, IT specialist of Yıldız Teknik (<http://tonerdolumprinter.com/>),

Languages

Turkish (Mother tongue), English (Advanced), Russian-(1 course), Spanish-(4 courses), German-(5 courses), French-(1 course), Italian-(1 course), Japanese-(1 course).

Publications

- 2024 Hossein B Jond and Aykut Yıldız. A game approach to multi-dimensional opinion dynamics in social networks with stubborn strategist agents. *European Journal of Control*, 75:100941, 2024
- 2023 Aykut Yıldız and Hossein Barghi Jond. Shooting method for opinion dynamics. In *2023 46th International Conference on Telecommunications and Signal Processing (TSP)*, pages 56–59. IEEE, 2023
- 2023 Hossein B Jond and Aykut Yıldız. Connected and automated vehicle platoon formation control via differential games. *IET Intelligent Transport Systems*, 17(2):312–326, 2023
- 2021 Aykut Yildiz and Hossein B Jond. Vehicle swarm platooning as differential game. In *2021 20th International Conference on Advanced Robotics (ICAR)*, pages 885–890. IEEE, 2021
- 2021 A. Yıldız and A.B. Özgüler. Opinion dynamics of stubborn agents under the presence of a troll as differential game. *Turkish Journal of Electrical Engineering & Computer Sciences*, 29(7):3259–3269, 2021
- 2017 A. Yıldız and A.B. Özgüler. Planar swarming motion under single leader as Nash equilibrium. *International Journal of Mathematical models and Methods in Applied Sciences*, 11:139–143, 2017
- 2016 M. U. B. Niazi, A.B. Özgüler, and A. Yıldız. Consensus as a Nash equilibrium of a dynamic game. In *SITIS*, 2016
- 2016 A. Yıldız. *Foraging motion of swarms as Nash equilibria of differential games*. PhD thesis, Bilkent University, 2016
- 2016 A. Yıldız and A. B. Özgüler. Foraging motion of swarms with leaders as Nash equilibria. *Automatica*, 73:163–168, 2016
- 2015 A. Yıldız and A. B. Özgüler. Partially informed agents can form a swarm in a Nash equilibrium. *IEEE Transactions on Automatic Control*, 60(11):3089–3094, 2015
- 2013 A.B. Özgüler and A. Yıldız. Foraging swarms as Nash equilibria of dynamic games. *Cybernetics, IEEE Transactions on*, 44(6):979–987, 2013
- 2012 A. Yıldız and A.B. Özgüler. Swarming behavior as Nash equilibrium. In *NecSys 2012 Workshop*, volume 3, pages 151–155, 2012
- 2011 A. Yıldız, O. Arikan, and F. Arikan. Spatio-temporal interpolation of ionospheric TEC data. In *2011 IEEE 19th Signal Proc.and Comm. App. Conference (SIU)*, pages 817–820. IEEE, 2011
- 2010 A. Yıldız. Polynomial fitting and total variation based techniques on 1-D and 2-D signal denoising. Master’s thesis, Bilkent University, 2010
- 2010 A. Yıldız and O. Arikan. Denoising piecewise polynomial signals based on Particle Swarm Optimization. *Journal of Dokuz Eylül University Engineering Faculty*, 2010
- 2010 A. Yıldız and O. Arikan. Signal denoising by piecewise continuous polynomial fitting. In *SIU 2010-IEEE 18th Signal Processing and Communications Applications Conference*, pages 69–72
- 2010 A. Yıldız and O. Arikan. Denoising ISAR images by total variation reduction. In *ASES 2010 (Symposium on Avionics and System Integration)*