

Alper Öner

Mekatronik, Kontrol ve Otomasyon Mühendisliği

Istanbul Teknik Üniversitesi

ARAŞTIRMA ALANLARI

Teorik; Mean Field Games, Multi-Agent Kontrol, Stochastic Kontrol, Optimal Kontrol, Kalman Filtresi, Makine Öğrenmesi, Yapay Zeka, ve Oyun Teorisi.

Uygulama; İnsansız Kara Araçlar, Robotik, Sensör Birleştirme, GUI Programlama, Nesne Yönelimli Programlama, Microcontroller, IoT, Görüntü İşleme, Derin Öğrenme.

EĞİTİM

Istanbul Teknik Üniversitesi, Istanbul, Türkiye

Doktora - Kontrol ve Otomasyon Mühendisliği

Eyl. 2011 – Tem. 2018

Istanbul Teknik Üniversitesi, Istanbul, Türkiye

Yüksek Lisans - Kontrol ve Otomasyon Mühendisliği

Eyl. 2009 – Tem. 2011

Kocaeli Üniversitesi, Kocaeli, Türkiye

Lisans - Mekatronik Mühendisliği

Eyl. 2004 – Haz. 2009

94 öğrenci arasında bölüm 2.liği (1 yıl Almanca Hazırlık)

DERGI MAKALESİ

1. **A. Öner**, N. Saldi, and G. Ö. Günel, “Mean Field Multilayer Stackelberg Differential Games in Multi-Agent Systems,” **Appl. Comput. Math.**, ISSN 1683-3511 (print), Vol. 17, No.1, 2018, 72-95.

KITAP BÖLÜMÜ

1. V. Sezer, P. Boyraz, Z. Ercan, Ç. Dikilitaş, H. Heceoğlu, **A. Öner**, G. Öke, and M. Gökaşan, “Smart Mobile In-Vehicle Systems, Unmanned Ground Vehicle Otonobil: Design, Perception, and Decision Algorithms,” **Springer New York**, 2014, pp 47-56.

KONFERANS

1. **A. Öner**, A. A. Aktaş, and I. M. Atakli, “Burger Sales Forecasting in Quick Service Restaurants Using Wide-Deep Learning Neural Network,” in **the 30th European Conference on Operational Research**, Dublin, Ireland, 23-26 June 2019.
2. **A. Öner**, M. S. Albayrak, F. Güner, and I. Atakli, “An Activity Recognition Application based on Markov Decision Process Through Fish-Eye Camera,” in **the 2nd IEEE International Conference on Artificial Intelligence and Knowledge Engineering (AIKE 2019)**, Cagliari, Sardinia, Italy, 03-05 June 2019.
3. M. S. Albayrak, **A. Öner**, H. K. Ekenel, and I. M. Atakli, “Personalized Training in Fast-Food Restaurants Using Augmented Reality Glasses,” in **the 5th IEEE International Symposium on Educational Technology (ISET2019)**, Hradec Kralove, Czech Republic, 02-04 July 2019.

4. **A. Öner**, F. Güner, M. S. Albayrak, and G. Ünal, “A People Detection Application in Quick Service Restaurants Through Fish-Eye Camera,” in **the 27th IEEE Signal Processing and Communications Applications Conference (SIU 2019)**, Sivas, Turkey, 24-26 April 2019 (Poster).
5. M. S. Albayrak, **A. Öner**, and H. K. Ekenel, “Object Recognition on Augmented Reality Glasses,” in **the 27th IEEE Signal Processing and Communications Applications Conference (SIU 2019)**, Sivas, Turkey, 24-26 April 2019.
6. **A. Öner**, T. Başar, and G. Ö. Günel, “Mean Field Differential Games in Intelligent Transportation Systems,” in **the 5th IEEE Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2017 International Conference on**, Napoli, Italy, 26-28 June 2017.
7. **A. Öner**, and G. Ö. Günel, “A case study in Istanbul E-80: Intelligent speed change at the highway for reducing gas emission,” in **the 4th IEEE Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2015 International Conference on**, Budapest, Hungary, 3-5 June 2015.
8. **A. Öner**, and G. Ö. Günel, “Removing of the Laser Cluster Errors via Fisher Linear Discriminant Analysis in Unmanned Ground Vehicles,” in **Turkish National Comitee of Automatic Control 2014 National Meeting(TOK-14)**, Kocaeli, Turkey, 11-13 Sept. 2014, pp 528-533.
9. **A. Öner**, “Mapping of Incremental Dynamic Environment Using Rao-Blackwellized Particle Filter,” in **12th International Conference Intelligent Autonomous Systems (IAS-12)**, Jeju Island, Korea, June 26-29, 2012, pp. 715-724.
10. **A. Öner**, and G. Ö. Günel, “Mapping and Static Obstacle Detection in Unmanned Ground Vehicles,” in **Turkish National Comitee of Automatic Control 2011 National Meeting (TOK-11)**, Izmir, Turkey, 14-16 Sept. 2011.
11. **A. Öner**, and G. Ö. Günel, “Sensor Fusion with Occupancy Grid Map for Obstacle Segmentation in Intelligent Vehicles,” in **The 5th Biennial Workshop on Digital Signal Processing for In-Vehicle Systems**, Kiel, Germany, 4-7 Sept. 2011.
12. V. Sezer, Ç. Dikilitaş, Z. Ercan, H. Heceoğlu, **A. Öner**, A. Apak, M. Gökaşan, and A. Muğan, “Conversion of a conventional electric automobile into an unmanned ground vehicle (UGV),” in **IEEE International Conference on Mechatronics (ICM)**, Istanbul, Turkey, 13-15 April 2011.

ÖDÜLLER

Mükemmel Çalışma Ödülü 5th IEEE International Symposium on Educational Technologies (ISET 2019)
En iyi Genç Araştırmacı Çalışması Ödülü 5th IEEE International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2017)
The Scientific and Technological Res. Coun. of Turkey (TUBITAK) Sch. for the M.S. degree. TUBITAK Scholarship for the Ph.D. degree.
TUBITAK International Research Scholarship for Ph.D. students.
Graduating from Kocaeli University Mechatronics Eng. Dep. with a degree 2nd rank. Kocaeli University High Honor Student during all undergraduate terms.

Solvoyo, Türkiye,
AI Engine Department in Solvoyo Software Development, Ocak 2020 - ...
İş Tanımı: *Managing the team, Designing AI based supply chain strategy of Solvoyo, and giving consulting service to costumers from different sectors,*
Pozisyon: AI Engine Takım Lideri.

MEF Üniversitesi, Türkiye,
Graduate Program In Information Technologies, Eyl. 2018 - Ağu 2020
Ders: *2018-2019-2020-01-ITC503-01: Artificial Intelligence,*
Ders: *2018-2019-2020-02-ITC503-09: Object Oriented Programming in Python,*
Pozisyon: Yapay Zeka Eğitmeni.

Ata Technology Platform (Ata Holding), İstanbul, Türkiye,
Innovation and Transformation Department, Ağu 2017 - Ocak 2020
İş Tanımı: *Software engineering on Machine Learning and IoT projects of franchiser of Burger King in Turkey and China,*
Pozisyon: Machine Learning&Computer Vision Engineer (Python, Tensorflow, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, Jupyter Notebook, Optimization, Wide&Deep Learning, R-CNN, YOLO, MobileNets, OpenCV, Linux-Ubuntu, Amazon Web Services(AWS), MySQL, GitHub, Docker, Jetson TX2, C, ZigBee, Arduino, Raspberry Pi).

Yildiz Holding (GODIVA, McVities, ULKER), İstanbul, Türkiye,
PleiOne Lab, Haz 2017 - Ağu 2017
İş Tanımı: *Creating, developing and managing technology projects of 3rd largest biscuit producer in the world,*
Pozisyon: Creative Technologist (Managing the team, C/C++, tesseract, IoT and CV).

Coordinated Science Lab, University of Illinois at Urbana-Champaign, IL, USA,
Decision and Control Laboratory, Ocak 2016 - Ocak 2017
Danışman: Prof. Tamer Başar,
Proje: *Stochastic Mean Field Games in Multi-Agent Systems,*
Pozisyon: Research Scientist.

Istanbul Teknik Üniversitesi, Türkiye,
MERC, Eyl. 2014 - Ara. 2015, Ocak. 2017 - Haz 2017
Danışman: Asst. Prof. Gülay Öke Günel,
Proje: *ITUCiTSim Traffic Simulation GUI & Intelligent Transportation Project,*
Pozisyon: Software Engineer (QT Creator, C/C++, Game Theory, Multi-Agent Control).

Istanbul Teknik Üniversitesi, Türkiye,
Mechatronics Education and Research Center, Mar 2010 - Haz 2017
Pozisyon: Teaching and Research Assistant.

Istanbul Teknik Üniversitesi, Türkiye,
Artificial Intelligence and Robotics Laboratory Ocak 2014 - Eyl. 2014
Danışman: Assoc. Prof. Sanem Sarıel,
Proje: *Automated Planning and Learning Methods for Autonomous Mobile Robots,*
Pozisyon: Perception Engineer (Kinect, Bayesian Inference, OpenCV, Semantic Perception, Object Detection & Tracking, ROS, PCL, 3D-Camera, C/C++, LINUX).

Mechatronics Education and Research Center, Istanbul Teknik Üniversitesi, Türkiye,
Hybrid and Electrical Vehicles Control and Simulation Lab Ekim 2009 - Ocak 2014
Danışman: Prof. Ata Muğan,
Proje: *Unmanned Land Vehicles Project*,
Pozisyon: Perception Engineer (Laser, IBEO, SICK, Ultrasonic, 2D-Camera, SLAM,
Extended Kalman Filter, Particle Filter, C/C++, Bayesian Inference, Object Detection
& Tracking, LabVIEW, Webots, OpenCV, ROS, LINUX).

Mechatronics Education and Research Center, Istanbul Teknik Üniversitesi, Türkiye,
Hybrid and Electrical Vehicles Control and Simulation Lab Ocak 2011 - Eyl. 2011
Danışman: Prof. Ata Muğan,
Proje: *Convention of Traditional Car to Steer by Wire*,
Pozisyon: Research and Development Engineer (dSPACE, DC Motor, Microcontrollers,
Motor Drivers, MATLAB, C/C++).

SERTİFİKALAR

İsim	Saat	Kurum
Sistem Programlama ve İleri C	180	C ve Sistem Programcıları Derneği
İleri Java	120	C ve Sistem Programcıları Derneği
Parallel Programlama	80	UHEM
C/C++	180	C ve Sistem Programcıları Derneği
CATIA	65	ITU

YETENEKLER

Yazılım: Python, Tensorflow, C/C++, MATLAB, LabVIEW, Wolfram Mathematica, Linux
Ubuntu, Robot Operation Systems(ROS), OpenCV, Point Cloud Library(PCL),
OpenMPI, Java, C#, MySQL, Webots, Assembly, L^AT_EX, GitHub, AWS, Docker,
NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, Jupyter Notebook, Anaconda

Elektronik: Code Composer(TI-DSP), Altium Designer, Simatic, Cosimir, Visual Basic, Keil
uVision, Proteus-ISIS,

Mekanik: SolidWorks, CATIA, AutoCAD, Fluidsim(H-P).