

## ÖZGEÇMİŞ

1. Adı Soyadı: Onur DAŞKIRAN
2. Unvanı: Doktor.
3. Uza Mühendisliği

## DENEYİM

- 1- Flight Control Systems Engineer  
Turkish Aerospace  
The University of Texas at Arlington  
  
a- Postdoctoral Research Associate  
Oca 2018 – Şub 20191 yıl 2 ay  
Taken part in NSF funded STAARS project as a Postdoctoral researcher responsible of the system integration and visualization module development tasks.  
Taken part in NSF funded STAARS project as a Postdoctoral researcher responsible of the system integration and visualization module development tasks.  
b- Adjunct Professor  
Eyl 2017 – Şub 20191 yıl 6 ay  
Taught Introduction to Unmanned Vehicle Systems, Unmanned VehicleSystems Development and Numerical Analysis / C Programming courses.  
Taught Introduction to Unmanned Vehicle Systems, Unmanned VehicleSystems Development and Numerical Analysis / C Programming courses.  
c- Visiting Researcher
- 2- Graduate Teaching Assistant University of Texas at Arlington - UTA Eyl 2011 – Ara 20165 yıl 4 ay  
"Introduction to Unmanned Vehicle Systems" and "Unmanned Vehicle System Development"  
courses are offered in UTA as a part of the Unmanned Vehicle System Certificate Program. As a GTA, I have carried out and/or helped creating course materials and developing testbed vehicles used in the class which performs autonomous navigation&control, obstacle avoidance, path planning, computer vision experiments by utilizing different sensor technologies such as optical encoders, IMU, GPS, sonar and lidar and camera.  
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- 3- Graduate Research  
Assistant The  
University of Texas at  
Arlington  
Unmanned air-ground vehicle cooperation study to detect and avoid obstacles on the

path of ground vehicle. Image processing techniques are used to detect the negative obstacles such as holes real time from the aerial photos taken by air vehicle while ground vehicle detects positive obstacles via LIDAR and by fusing two sensor source the final decision is made.

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#### 4- Research Assistant

Anadolu University

Mar 2011 – Ağu 20116 ay

Assisted students to conduct closed loop wind tunnel experiments for undergrad Aerodynamics class

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#### 5- Aircraft Maintenance Technician

SunExpress

Tem 2007 – Eyl 20073 ay

Antalya, Türkiye

Line Maintenance of B737-800, B757-200

airliners Line Maintenance of B737-800,

B757-200 airliners

## **EĞİTİM**

#### 1- The University of Texas at Arlington

The University of Texas at Arlington

Doctor of Philosophy (Ph.D.)Aerospace, Aeronautical and Astronautical Engineering4.00

2011 – 2016

Faaliyet ve Topluluklar: AIAA

Dissertation title: PILOT DEMONSTRATION BASED REINFORCEMENT LEARNING WITH APPLICATION TO LOW SPEED AIRSHIP CONTROL

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#### 2- İstanbul Teknik Üniversitesi

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Master of Science (MSc)Aerospace, Aeronautical and Astronautical Engineering3.81

2008 – 2011

Faaliyet ve Topluluklar: AIAA

Received MSc by the thesis titled as CONTROL SYSTEM SYNTHESIS AND FLIGHT SIMULATION FOR FIXED WING AIRCRAFT SUBJECTED TO FAILURE

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3- Anadolu Üniversitesi  
Anadolu Üniversitesi  
Bachelor's degree Electrical and Electronics Engineering 3.51  
2004 – 2008  
Faaliyet ve Topluluklar: IEEE  
Specialized in Digital/Embedded systems  
track. Specialized in Digital/Embedded  
systems track.

4- Anadolu Üniversitesi  
Anadolu Üniversitesi  
Double Major Avionics Maintenance Technology/Technician 3.41  
2004 – 2008  
Faaliyet ve Topluluklar: THK

## **GÖNÜLLÜ DENEYİMLER**

1- Secretary  
Unmanned Vehicle System  
Interest Group Oca 2013 – Oca  
2014 1 yıl 1 ay Eğitim

UVSIG is a registered student organization aims to get UTA students involved with Unmanned Vehicle competitions. We were in many UTA events to sign students in. We worked with AUVSI to arrange their monthly meetings in UTA to bring students together with people in the industry

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2- Airship Technical Support  
UTA College Park Center  
Kas 2012 – Mar 2015 2 yıl 5 ay  
Bilim ve Teknoloji

I have volunteered to give technical support to fly Maverick Blimp in College Park center during UTA's basketball and volleyball game events

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3- Team Lead

Team Lead

The University of Texas at Arlington

Oca 2013 – Eyl 2013 9 ay

Team leader of the UTA team for the AUVSI Student Unmanned Air Systems Competition. Our team ranked 10th among 49 schools in the flight mission category.

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## YAYINLAR

- 1- Low Speed Airship Control using Reinforcement Learning and Expert Demonstrations  
AIAA Atmospheric Flight Mechanics Conference, AIAA SciTech Forum Oca 2017  
Daskiran, O., Dogan, A., Huf, B., "Low Speed Airship Control using Reinforcement Learning and Expert Demonstrations", AIAA Atmospheric Flight Mechanics Conference, AIAA SciTech Forum, (AIAA 2017-0934)  
Daskiran, O., Dogan, A., Huf, B., "Low Speed Airship Control using Reinforcement Learning and Expert Demonstrations", AIAA Atmospheric Flight Mechanics Conference, AIAA SciTech Forum, (AIAA 2017-0934)
- 2- Airship Control using Expert Demonstrations  
AIAA Atmospheric Flight Mechanics Conference, AIAA AVIATION Forum Haz 2016  
Daskiran, O., Dogan, A., "Airship Control using Expert Demonstrations", AIAA Atmospheric Flight Mechanics Conference, AIAA AVIATION Forum, (AIAA 2016- 3239)  
Daskiran, O., Dogan, A., "Airship Control using Expert Demonstrations", AIAA Atmospheric Flight Mechanics Conference, AIAA AVIATION Forum, (AIAA 2016- 3239)
- 3- Trim Analysis of a Moving-mass Actuated Airplane  
AIAA Atmospheric Flight Dynamics Conference Ağu 2012  
Erturk, A., Daskiran, O., Dogan, A., "Trim Analysis of a Moving-mass Actuated Airplane", AIAA Atmospheric Flight Dynamics Conference, Minneapolis, August 2012  
Erturk, A., Daskiran, O., Dogan, A., "Trim Analysis of a Moving-mass Actuated Airplane", AIAA Atmospheric Flight Dynamics Conference, Minneapolis, August 2012
- 4- Flight Dynamics and Control of a Transport Aircraft After a Component Failure  
AIAA Guidance, Navigation, and Control Conference Ağu 2011
- 5- Open and Closed Loop Control of a Transport Aircraft After Component Failure  
AIAA Guidance, Navigation, and Control Conference, Guidance, Navigation, and Control and Co-located Conferences Ağu 2011  
Onur Daskiran and Mehmet Kavsaoğlu. "Open and Closed Loop Control of a Transport Aircraft After Component Failure", AIAA Guidance, Navigation, and Control Conference, Guidance, Navigation, and Control and Co-located Conferences, Portland, OR, 2011  
  
Onur Daskiran and Mehmet Kavsaoğlu. "Open and Closed Loop Control of a Transport Aircraft After Component Failure", AIAA Guidance, Navigation, and Control Conference, Guidance, Navigation, and Control and Co-located Conferences, Portland, OR, 2011

## KURSLAR

- 1- Adaptive Control Systems
- 2- Aircraft Flight Control Systems
- 3- Control of Systems with Parameter Uncertainty
- 4- Engineering Mathematics

- 5- Optimal Control
- 6- Optimization Techniques in Engineering
- 7- Partial Differential Equations
- 8- Structural Dynamics
- 9- Advanced Embedded Microcontroller Systems
- 10-Advanced Flight Dynamics
- 11-Computer Vision
- 12-Distributed Decision and Control
- 13-Dynamic System Modelling
- 14-Embedded Microcontroller Systems
- 15-Linear Systems Theory
- 16-Machine Learning
- 17-Nonlinear Systems Analysis and Control
- 18-Random Signals and Noise

## **PROJELER**

### **1- UGV AND UAV COOPERATION FOR CONSTRUCTING PROBABILISTIC MAP OF OBSTACLES**

Ağu 2014 – Ağu 2014

In this study, as a proof-of-concept, the cooperation of an Unmanned Ground Vehicle (UGV) and an Unmanned Aerial Vehicle (UAV) in building and updating an obstacle map by providing information of the area of operation from different vantage points is presented. The small tracked skid steer UGV used in this study is equipped with a Laser Range Finder (LRF) that can only detect the front face of “positive” obstacles and it has difficulty detecting “negative” obstacles like pits, holes, or trenches. This work uses a

camera mounted on an indoor blimp as the UAV-based aerial sensor in order to improve the ability to detect both “negative” and “positive” obstacles. In addition to detecting “negative” obstacles the UAV-based camera can also enhance the detection of “positive” obstacles that fall in the LRF shadow created by closer objects. The fusion of aerial and ground-based obstacle information is achieved by the Probabilistic Threat Exposure Map (PTEM) mathematical formulation, which represents the area of operation that contains various types of threats, obstacles, and restricted areas, in a single framework. Experiment results demonstrated that the UGV can avoid a negative obstacle during waypoint navigation based on the PTEM constructed from aerial negative obstacle information. These activities are a part of a larger effort to establish a theoretical foundation for autonomous and cooperative multi-UxV guidance solutions in adversarial environments.

In this study, as a proof-of-concept, the cooperation of an Unmanned Ground Vehicle (UGV) and an Unmanned Aerial Vehicle (UAV) in building and updating an obstacle map by providing information of the area of operation from different vantage points is presented. The small tracked skid steer UGV used in this study is equipped with a Laser Range Finder (LRF) that can only detect the front face of “positive” obstacles and it has difficulty detecting “negative” obstacles like pits,...

### **2- Design of Preemptive and Cooperative Real Time Operating Systems**

Mar 2013 – Mar 2013

## **DİLLER**

- 1- Turkish  
Ana dil veya ikinci dil yetkinliđi
- 2- English  
Profesyonel alıřma yetkinliđi  
Organizasyonlar
- 3- AIAA  
Ađu 2011 – řu Anda