

**Zafer ÖZNALBANT**  
**Aeronautical Engineer, Ph.D.**  
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## Experience

- Nov, 2020 – Present**     **Assistant Professor, Aeronautical Engineering, Osmangazi University**
- Feb, 2018 – Feb, 2019**     **Postdoctoral Research Scholar, Flight Mechanics and Dynamics**  
Mechanical and Aerospace Engineering, UTA, Arlington, TX
- Flight Mechanics studies of fixed wing aircraft with inverse simulation methods,
  - Selected study for scholarship by TUBITAK (The Scientific and Technological Research Council of Turkey).
- Nov, 2017 – Nov, 2020**     **Flight Mechanics and Control Engineer**  
Turkish Aerospace Industries (TAI), Ankara, Turkey
- Senior engineer for flight mechanics activities for Turkish Fighter Aircraft TF-X.
- Oct, 2011 – Nov, 2017**     **Graduate Research Assistant, Aeronautics Department**  
Anatolia University, Aeronautics and Astronautics Faculty, Eskisehir, Turkey
- Establishing prototyping workshop with wind tunnel facilities for Aeronautics and Astronautics Faculty. Total budget: ~\$100,000\*.
  - VTOL UAV Design, Manufacturing and Test Project, selected project for support by TUBITAK, ~\$50,000\*.
  - VTOL UAV Design, Manufacturing and Test Project, selected project for support by BOEING Campus Plan, ~\$30,000\*.
  - Autonomous Intelligence, Surveillance and Reconnaissance UAV Project (Student advisory), selected project for support by Anadolu University, ~\$100,000\*.
- (\*converted to the US currency with the exchange rate valid for the mentioned time.)
- Jul, 2011 – Oct, 2011**     **Mechanical Design Engineer**  
TCI/TAI & ATARD Consortium, Ankara, Turkey
- Feb, 2009 – Jul, 2011**     **Composites Applications Leader Engineer**  
ATARD Defense and Aerospace, Eskisehir, Turkey
- Design and plan of manufacturing processes line for composite parts. Increasing work capacity by time scheduling and man organization,
  - Developing new brand products prototyping application,
- Oct, 2005 – Jul, 2008**     **Project Engineer**  
infoTRON, Istanbul, Turkey
- Acquisition the composite manufacturing capabilities to the company, by this way increasing the customer spectrum,
  - Mechanical design with CATIA V5, rapid prototyping or low level mass production applications, reverse engineering with 3D scanning technology.

## Education

- 10.02.2011-09.09.2016** **Ph.D.: Anatolian University, Graduate School of Sciences, Eskisehir, Turkey**  
Design, Production and Flight Experiments of a Tilt Propeller Unmanned Aerial Vehicle (UAV) (<https://doi.org/10.1177/0142331218754618>), (<https://youtu.be/RADvBR5zAaE>)  
**Fund:** TUBITAK 213M344, AU BAP 1308F310, BOEING CAMPUS PLAN
- 14.07.2005-04.07.2008** **M.Sc.: Istanbul Technical University, Aeronautical Eng. Dept., Istanbul, Turkey**  
Fixed Wing VTOL UAV Simulation and Control
- 15.09.2000-10.06.2005** **B.Sc.: Istanbul Technical University, Aeronautical Eng. Dept., Istanbul, Turkey**  
Taking part in the most successful 3% section in the national university exam.  
AIAA DBF Competition Participation (ATA 6), Team Leader, April 2005, ML / USA  
AIAA DBF Competition Participation (ATA 5), Man. Leader, April 2004, KS / USA

## Awards

- 2016** TOK 2016, Best Conference Paper Award, OGU, Eskisehir, Turkey  
**2005** Istanbul Technical University, Aeronautics and Astronautics Dept., Istanbul, Turkey  
Representation of the Faculty of Aeronautics and Astronautics at AIAA Cessna/ONR DBF Competition.

## Articles

- 2018** Öznalbant Z., Kavsaoglu M.Ş., “*Flight control and flight experiments of a tilt-propeller VTOL UAV*”, Transactions of the Institute of Measurement and Control, DOI: [10.1177/0142331218754618](https://doi.org/10.1177/0142331218754618)
- 2018** Öznalbant Z., Özdemir U. ve Kavsaoglu M.Ş., “*2-Dimensional Straight-Line Path Following and Simulation of an Unmanned Aerial Vehicle*”, Journal of Aeronautics and Space Technologies (JAST), Vol.: 11/2, Sy.:49-58
- 2018** Özdemir U., Kavsaoglu M.Ş., Öznalbant Z., Kaynak Ü., “*Longitudinal Stability Analysis of an UAV Under the Uncertainty of Two Stability Derivatives*”, Anadolu Uni. Journal of Science and Technology-A Applied Sciences and Engineering (On process)
- 2017** Öznalbant Z., Filik T., Nezh Ö.G., “*ISR UAV Studies Performed in Anadolu University*”, Engineer and Machinery, Vol.: 58, No: 687, pg.: 57-67, 2017

## Conference Papers (International and National)

- 2017** Öznalbant Z., Kavsaoglu M.Ş., “*Dikey İniş Kalkış Yapabilen Sabit Kanatlı İnsansız Hava Aracı Çalışmaları*”, IX UHUM, Ankara, Turkey, 2017
- 2017** Öznalbant Z., Filik T., Nezh Ö.G., “*ISR UAV Studies Performed in Anadolu University*”, IX UHUM, Ankara, Turkey, 2017
- 2016** Öznalbant Z., Kavsaoglu M.Ş., “*Meyledebilir Pervaneli DİK İHA Uçuş Kontrolü ve Uçuş Tecrübeleri*”, Otomatik Kontrol Ulusal Toplantısı (TOK'16), Eskişehir, 2016 (**Best Conference Paper Award**)
- 2016** Altınöz O. T., Gökçe O., Gümüşboğa İ., Baştürk O., Öznalbant Z., Ünal G., Yılmaz A. E., “*Hava Araçları için Hooke-Jeeves Algoritması ile İyileştirilmiş Olasılıksal Yol Haritası Algoritması Kullanılarak İsbirlikci Gorev Planlaması*”, Otomatik Kontrol Ulusal Toplantısı (TOK'16), Eskişehir, Turkey, 2016
- 2016** Öznalbant Z., Kavsaoglu M.Ş., Cavcar M., “*Design, Flight Mechanics and Flight Demonstration of a Tilt Propeller VTOL UAV*”, 16<sup>th</sup> AIAA Aviation Technology, Integration, and Operations Conference, Washington DC, USA, 2016
- 2015** Öznalbant Z., Filik T., Kavsaoglu M. Ş., “*Signal Analysis and Filtering for Low Cost IMU Measurements*”, 8<sup>th</sup> Ankara International Aerospace Conference (AIAC), Ankara, 2015
- 2015** Öznalbant Z., Kavsaoglu M.Ş., “*Design and Flight Test Study of a VTOL UAV*”, 53<sup>rd</sup> AIAA Aerospace Sciences Meeting, Florida USA, 2015
- 2014** Önal O., Öznalbant Z., Kavsaoglu S. M., “*Yalın Pervane ve Kanal İçi Pervane Sisteminin Sayısal ve Deneysel Olarak Karşılaştırılması*”, V. Ulusal Havacılık ve Uzay Konferansı, Erciyes, Sep. 2014
- 2013** Baydur M. Z., Memur E., Kavsaoglu M. Ş., Öznalbant Z., “*Açık Devreli Emiş Tip Rüzgâr Tüneli Tasarımı ve İmalatı*”, II.Ulusal Havacılık Teknolojisi ve Uygulamaları Kongresi (UHUT 2013), İzmir, 2013
- 2008** M. Ş. Kavsaoglu, Z. Öznalbant, “*VTOL UAV Flight Stability and Control*”, Aviation Symposium 2008 (HASEM 08), pp. 99-100, Erciyes, Turkey

## Trainings

- Von Karman Institute of Fluid Dynamics Introduction to Measurement Techniques, 06 Oct 2012 – 12 Oct 2012, Brussel, Belgium
- CATIA V5 composite part design module training, August 2011, CADEM, Eskisehir / Turkey
- AS EN 9100 Quality System Certification training, March 2009, ATARD, Eskisehir / Turkey
- **Composite Helicopter Blade Production training, Dec. 2007, Triumph Aerospace, VA / USA**
- Composite mould design and part manufacturing training with Light RTM Method training, Metyx / Turkey
- RTT Challenging Reality Software training, RTT Company, Munich / Germany

## Skills

CATIA V5	Advanced level
MS Word, Excel, PowerPoint	Advanced level
MATLAB/SIMULINK	Upper Intermediate level
MS Project	Intermediate level
FORTTRAN	Intermediate level
Turkish	Native speaker
English	Lis. good, Spk. good, Wrt. good, Rdg. good.