

Huseyin Nafiz ALEMDAROGLU
as of December 2016

Date of Birth: November 26, 1950

Academic Rank: Professor (Full-time) Aerospace Engineering Department of Middle East Technical University (METU), Ankara TURKEY.
Presently at Atilim University, School of Civil Aviation, Ankara Turkey

Degrees with Fields, Institution and Dates :

<u>Degree</u>	<u>Field</u>	<u>Institution</u>	<u>Date</u>
B Sc.	Mechanical Engineering	METU, Mech. Eng. Dep.	1972
DEA	Aerothermodynamics	ENSMA, Poitiers, France	1976
Doctorat d'Ingenieur	Aerothermodynamics	ENSMA, Poitiers, France	1979

(ENSMA; Ecole Nationale Supérieure de Mécanique et d'Aérotechnique)

Number of Years Service on this Faculty :

Rank	UNIVERSITY/ Department	Years
Instructor	METU/ Mechanical Engineering Department	1980-1981
Assistant Professor	METU/ Mechanical Engineering Department	1981-1985
Associate Professor	METU/Mechanical Engineering Department	1985-1992
Associate Professor	METU/Aeronautical Engineering Department	1991-1992
Professor	METU/Aeronautical Engineering Department	1992-2015
Professor	Atilim University, Civil Aviation School	2015-

Other Related Experience:

Institution	Capacity	Dates
CEAT, (Centre d'Etudes Aerodynamiques et Thermiques) Poitiers, France	Research Associate	1976-1979
CEAT, Poitiers, France	Research Associate	1979-1980
METU, Mechanical Eng. Dept.	Assistant Prof.	1981-1985
METU, Mechanical Eng. Dept.	Associate Prof.	1984-1985
California State University, Long Beach, California, USA	Visiting Professor	1985-1991
METU Aerospace Engineering Department	Associate Prof	1991-1992
METU-Aerospace Engineering Department	Professor	1992-2015
Atilim University School of Civil Aviation	Prof. and Director of School	April 2015-

Consulting, Patents, etc.:

Consultancy	Dates
Consultant to ROKETSAN, Turkish Missile Industries	1991- 2007
Consultant to TAI (Turkish Aerospace Industries)	1992-1993
Consultant to Savronik	2000
Consultant to ASELSAN (MGEO)	2010 - 2013
Consultant to ASELSAN (REHIS)	2004 - 2015
Consultant to Otonom Teknoloji- METU KOSGEB	2014 May - September
Consultant to Yuksel Composites	July 2014 – 2015 April

Positions Held:

Position Held	Dates
Panel member NATO Flight Vehicle Integration Panel (FVP) AGARD	1994- 1997
Panel Member of NATO- RTO Research Technology Organization, Systems Concepts and Integration Panel (SCI)	1998-2010
Board Member of NATO- RTO Research Technology Organization, (changed to STB, Science and Technology Board, as of 2012)	2010-2015
Panel Member, NATO-RTO Research Technology Organization Flight Test Technology Team Committee, SCI panel	1998-2012
Panel Member, NATO STO Science and Technology Organization, SCI-272 System Concepts and Integration Panel, Flight Test Technology Team	2012-
NATO-RTO Chairman of SCI, Systems Concepts and Integration Panel	2001-2004
Chairman, Aerospace Engineering Department, METU Ankara	1997- 2007
Member of General Assembly of (VKI) Von Karman Inst. For Fluid Dynamics	2003-
Member of Board of Directors of TUBITAK SPACE Research Institute	2006- 2010
Director of Scientific Advisory Committee (SAC) of Von Karman Institute	2015-

Articles in International Journals:

Oktay, E., Alemdaroğlu, N., Tarhan, E., Champigny, P. and d'Espiney, P., Euler and Navier-Stokes Solutions for Missiles at High Angles of Attack, AIAA Journal of Spacecraft and Rockets **Vol :36 No :6**
Publisher :AIAA, American Institute of Aeronautics and Astronautics Editor(s) :R.M. Cummings Pages :850-858 Month :11 Year :1999

Sabanca, M., Brenner, G. and Alemdaroğlu, N., Improvements to Compressible Euler Methods for Low-Mach Number Flows ,International Journal for Numerical Methods in Fluids **Vol :34 John Wiley & Sons, Ltd Pages :167-185 Year :2000**

Oktay, E., Alemdarođlu, N., Tarhan, E., Champigny, P. and d'Espinay, P., Unstructured Euler Solver for Missile Aerodynamics ,Aerospace Science and Technology **Vol :4 No :7 Publisher :2000 Editions Scientifique et Medical Elsevier SAS Pages :453-461 Month :10 Year :2000**

C. Bahar, N. Alemdaroglu, Y. Ozyoruk, E. Temel , Euler Solutions for a Medium Range Cargo Aircraft ,AIAA, Journal of Aircraft **Vol :40 No :2 Publisher :AIAA, American Inst. of Aeronautics and Astronautics Editor(s) :Thomas M. Weeks Pages :393-395 Month :3 Year :2003**

Kurtuluř D F, David L, Farcy A, Alemdaroglu N., Aerodynamic Characteristics of Flapping Motion in Hover. Experiments in Fluids, Experimental Methods and their Applications to Fluid Flow Vol. 44, **No :1** Springer Berlin / Heidelberg D. Rockwell; C. Tropea Germany pp. 23-36 1/ 2008.

Ebru Sarigol, Nafiz Alemdaroglu, “Computation of unsteady hovering flapping motion in parallel environment”, [Parallel Computational Fluid Dynamics 2007](#), [Lecture Notes in Computational Science and Engineering](#) Volume 67, 2009, pp 473-480.

Nafiz Alemdarođlu, “Changing World - Changing Strategies” Defence Turkey Magazine, **Vol: 6 issue 33**, 2012.

Books/ Chapter in Book/

Akıřkanlar Mekaniđine Giriř, 3 (Mühendislik Yaklařımı), Türbülans ve Bazı Türübanslı Akımlar, Prof. Dr. Cahit Çıray, ODTÜ Mühendislik Dizisi, Introduction to Fluid Mechanics, Volume 3, Engineering Approach, Turbulent Flows and Example of Turbulet Flows”

Bölüm XV.2 Laser Doppler Ölçüm Sistemleri Nafiz Alemdarođlu.
“Chapter XV.2 Laser Dopler Velocimetry Systems”, *Nafiz Alemdaroglu*

Handbook of UAV: Chapter 20: UAV Logistics for Life-Cycle Management
[Handbook of Unmanned Aerial Vehicles](#) , 2014, pp 2601-2635 Date: 09 Aug 2014
Editors: [Cengiz Karaađaç](#), [Ahmet G. Pakfiliz](#), [Fulvia Quagliotti](#), [Nafiz Alemdaroglu](#)

International Conference/Symposium Organized:

International Civil UAV Conference, 28-30 November 2016, Grand Ankara Hotel Turkey, Nafiz Alemdaroglu, Co Chairman.

Nafiz Alemdarođlu: NATO – Science and Technology Organization (STO), System Concepts and Integration Panel (SCI) SCI-? Store Separation and Trajectory Prediction, Lecture Series (LS), (Follow on Activity from 2016) Chairman of lecture series, May 2017 Madrid, Spain, May 2017 Sweeden or Netherlands (location TBD), June 2017 Canada (location TBD).

Nafiz Alemdarođlu: NATO – Science and Technology Organization (STO), System Concepts and Integration Panel (SCI) **SCI-277 Store Separation and Trajectory Prediction**, Lecture Series (LS) Chairman of lecture series, May 23 - 24, 2016, Rome - Italy, May 26 - 27, 2016 Ankara - Turkey, June 8-9, 2016 Eglin Florida USA.

Nafiz Alemdaroğlu: NATO – Science and Technology Organization (STO), System Concepts and Integration Panel (SCI) Symposium, **SCI-269 Symposium on “Flight Testing of UAS”**, Chairman, May 12-13, 2015, Ottawa, Canada.

Nafiz Alemdaroğlu: NATO- Science and Technology Board (STB) Symposium on **"Future Applications of Autonomous Systems for NATO Operations"**, STB – **005SY**, Chairman, 15 September 2014, Bratislava, Slovakia.

Nafiz Alemdaroğlu: NATO- Science and Technology Organisation, SCI-251 ET Exploratory Team on **“Interoperability of Multi National Unmanned Systems”**, 17-18 November 2011, Chairman, CSO Collaborative Support Office, Paris France.

International Conference Papers:

N. Alemdaroğlu, Ö. Karatekin , Back Step Flow Measurements Using Triple Split Film Probe ,Proceedings of 17 th ICIASF, ICIASF 97 Vol :ICIASF 97 No :1 **Pages :214-222 Month :9 Year :1997**

Oktay, E., Alemdaroğlu, N., Tarhan, E., Champigny, P. and d'Espiney, P , Unstructured 3D-Euler Computations for Missiles at Supersonic Speeds and High Angles of Attack. ,AIAA 36th Aerospace Sciences Meeting & Exhibition **Vol :AIAA 98 No :0392 , AIAA Month :1 Year :1998**

Oktay, E., Alemdaroğlu, N., Tarhan, E., Champigny, P. and d'Espiney, P , 3D Euler and Thin Layer Navier Stokes Solutions for Missiles at Supersonic Speeds and High Angles of Attack ,Missile Aerodynamics Symposium, RTO Meeting **Vol :1 No :RTO-MP-5 Publisher :NATO- RTO AVT Panel Pages :27.1-27.12 Month :5 Year :1998**

Alemdaroğlu, N., İyigün, I., Altun, M., Quagliotti, F. and Guglieri, G., Measurements of Dynamic Stability Derivatives Using Direct Forced Oscillation Technique ,19th International Congress on Instrumentation in Aerospace Simulation Facilities **Vol :1 No :1 Publisher :IEEE and NASA Glenn Research Center Pages :275-282 Month :8 Year :2001**

Bahar, C., Alemdaroğlu, N., Özyörük, Y. and Temel, E., Euler Solutions for a Medium Range Cargo Aircraft ,40th Aerospace Sciences Meeting and Exhibit **No :2002-0402 Publisher :AIAA Month :1 Year :2002**

Alemdaroğlu, N., İyigün, İ., Altun, M., Uysal, H., Quagliotti, F. and Guglieri, G., Determination of Dynamic Stability Derivatives Using Forced Oscillation Technique, 40th Aerospace Sciences and Exhibit **No :2002-0528 Publisher :AIAA Month :1 Year :2002**

N. Alemdaroğlu, H. Uysal, Y. Nacaklı, T. Şahin, F. Quagliotti, G. Guglieri , Roll Oscillatory Test in a Low Speed Wind Tunnel, paper no: AIAA 2003-0398 ,AIAA, 41 st Aerospace Sciences Meeting and Exhibition, **Vol :AIAA 2003- No :2003-0398 Publisher :AIAA, American Inst. of Aeronautics and Astronautics, VA 20191-4344 Editor(s) :AIAA Month :1 Year :2003**

Alexandre PETRENKO, Nafiz ALEMDAROĞLU, METU/UKRAINE Space Technology Cooperation ,SPACEAN International Space Technologies Exhibition and Conference, METU Ankara 6-8 May 2003 **Vol :1 No :1 Publisher :Monch Türkiye Yayıncılık Pages :171-175 Month :5 Year :2003**

H. Özgür Demir, Nafiz Alemdaroğlu, Vahit Özveren, External Store Separation From Fighter Aircraft ,NATO-RTO AVT Panel Symp. Functional and Mechanical Integration of Weapons with Land & Air Vehicles **Vol :1 No :21 Publisher :NATO - RTO AVT Panel Editor(s) :NATO AVT Panel Pages :21/1 - 21/15 Month :6 Year :2004**

Kurtulus, D. F., Farcy, A., Alemdaroglu, N., "Numerical Calculation and Analytical Modelization of Flapping Motion in Hover," 1st European Micro Air Vehicle Conf. & Flight Competition, Braunschweig Germany, 13-14 July 2004 **vol 1 No :1 Month :7 Year :2004**

Özgür Demir, Nafiz Alemdaroğlu, Trajectory Calculation of a Store Released from a Fighter Aircraft, 43rd AIAA Aerospace Sciences Meeting and Exhibit, AIAA 2005-847 ,43 rd AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, AIAA 2005 AIAA 1 2005

Kurtulus D. F., Farcy A., Alemdaroglu N, Unsteady Aerodynamics of Flapping Airfoil in Hovering Flight at Low Reynolds Numbers ,43rd AIAA Aerospace Sciences Meeting and Exhibit AIAA-2005-1356, Reno, Nevada, USA, **Publisher :AIAA Month :1 Year :2005**

Kurtulus D. F., Farcy A., Alemdaroglu N., Vortex Identification Techniques used for Flapping Motion in Hover ,3rd Ankara International Conference **Vol :1 METU Aerospace Engineering Department 9 2005**

Kurtuluş DF, David L, Farcy A, Alemdaroğlu N (2006) Aerodynamic Characteristics of Flapping Motion in Hover. 13th Int Symp on Applications of Laser Techniques to Fluid Mechanics, 1130, Lisbon, Portugal, 26-29 June 2006

Kurtuluş D F, David L, Farcy A, Alemdaroglu N (2006) A Parametrical Study with Laser Sheet Visualization for an Unsteady Flapping Motion. AIAA-2006-3917, 36th AIAA Fluid Dynamics Conference and Exhibit, San Francisco, California USA, 5 - 8 June 2006 (also in Collection of Technical Papers - 36th AIAA Fluid Dynamics Conference, Volume 4, 2006, Pages 2774-2784)

Kurtuluş D F, David L, Farcy A, Alemdaroglu N (2006) Laser Sheet Visualization for Flapping Motion in Hover. AIAA-2006-0254, 44rd AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, USA, 9 - 12 Jan 2006,

Sarıgöl E, Kurtuluş DF, Alemdaroğlu N., (2006), Çırpan Kanat Probleminde Kanat Profili Kalınlığının Sayısal İncelenmesi, HaSem'06 Kayseri VI. Aeronautical Symposium, 12-14 Mayıs 2006, Nevşehir, pp. 351-355.

E. Sarıgöl, N. Alemdaroğlu, “Computation of Unsteady Hovering Flapping Motion in Parallel Environment”, ParCFD Conference, 21-24 May 2007 Antalya/ Turkey.

N. Alemdaroğlu Unique Aspects of Flight Testing of Unmanned Air Vehicles, Technologies aux service de la securite, NATO- Mediterreanean Dialogue -Algeria 3-4 Nov. 2008 **Vol :1 NATO - Research and Technology Organization NATO -Research and Technology Organization France 11, 2008**

N. Alemdaroğlu, “Research and Technology Agency's(RTA) Perspective on Defence Against Air Oriented Terrorism”, Air Oriented Terrorism Symposium 27-28 Feb. 2008 NATO Combined Air Operations Center 6 **Vol :1 No :1 Publisher :NATO Editor(s) :lt. Gen. Bilgin Balanlı CAOC-6 Commander Turkey Pages :21-28 February 2008.**

F Geridönmez, N. Alemdaroğlu, “Control and Simulation of Motion of an Underwater Vehicle”, NATO- SCI 202 Symposium on “Intelligent Uninhabitted Vehicle Guidance Systems”, Neubiberg Munich, Germany , 30 June -2 July 2009.

Sedat Ozozturk, Altan Kayran, Nafiz Alemdaroğlu, Güçlü Seber, “On the design and Aeroelastic Stability of Twin Wing-Tail Boom Configuration Unmanned Air Vehicle”, Paper no: AIAA 2011-1918, 52nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dyanmics and Materials Conference 4-7 April 2011, Denver Colorado.

Güçlü Özcan, Engin Şenelt, Altan Kayran, Sedat ÖzÖztürk, Nafiz Alemdaroğlu “Aero-structural and Integrated Circuit Design of a Twin Wing-Tail Boom Configuration Tactical UAV”, ICUAS, International Conference on Unmanned Aerial Systems Conference, Philadelphia, USA April 2012.

F. Gökhan Ergin, Nafiz Alemdaroğlu, “Long Distance Micro PIV Measurements Of a Commercial Aircraft Model at Low Reynolds Number” 7. Ankara International Aerospace Conference, **AIAC-2013-013**, 11-13 September 2013 - METU, Ankara TURKEY.

Önder Altan and Nafiz Alemdaroğlu, “Automation Of Fixed Wing UAV Using Cots Sensor and Embedded Computing Platform Based on QNX RTOS. 7. ANKARA INTERNATIONAL AEROSPACE CONFERENCE AIAC-2013-000 11-13 September 2013 - METU, Ankara TURKEY.

Ender Özyetiş, Nafiz Alemdaroğlu, “Design and Manufacturing of a Jet Powered Target Drone”, 7. Ankara International Aerospace Conference, **AIAC-2013-013**, 11-13 September 2013 - METU, Ankara TURKEY.

Özge Tabak and Nafiz Alemdaroğlu “Design and Manufacturing of The Langmuir Probes For Plasma Measurements in Hall Effect Thrusters Experiments”, **AIAC-2013-013**, 11-13 September 2013 - METU, Ankara TURKEY.

Erdal Bozkurt, Nafiz Alemdaroğlu, “Design and Testing of A 1.5 kW Hall Effect Thruster” , **AIAC-2013-079**, 11-13 September 2013 - METU, Ankara TURKEY.

S. Nihat Yanık, Ender Özyetiş, Güçlü Özcan, Nafiz Alemdaroğlu, Altan Kayran, Engin Kayran, “Propulsion System Model For a Mini UAV System”, ICUAS-14, Orlando, Florida.

Ender Özyetiş, Nafiz Alemdaroğlu, “Design and Manufacturing of a High Speed Jet Powered UAV” ICUAS – ‘14 Orlando, Florida 2014.

Articles in National Journals:

Kurtulus, D. F., David. L, Farcy, A., Alemdaroglu, N., Micro Air Vehicle Applications ,Journal of Turkish Air Force, No :350, **Publisher** :Türk Hava Kuvvetleri **Pages** :40-45 **5/2005**

National Conference papers:

Kurtuluş, F., Alemdaroğlu, N. and Özyörük, Y. , Tüm Bir Uçak Konfigürasyonunun Seyir, Kalkış ve İniş Durumlarındaki Aerodinamik Analizi , Uluslar Arası Katılımlı Kayseri IV. Havacılık Sempozyumu **Vol :1 No :1** **Publisher** :Erciyes Üniversitesi, Sivil Havacılık Yüksek Okulu **Editor(s)** :V. Atlı, K. Güney ,**Pages** :57-62 **Month :5 Year :2002**

Alemdaroğlu, N., İyigün, İ. and Uysal, H. , Zorlanmış Salınım Tekniği Kullanılarak Dinamik Kararlılık Türevlerinin Belirlenmesi ,Uluslar Arası Katılımlı Kayseri IV. Havacılık Sempozyumu **Vol :1 No :1** **Publisher** :Erciyes Üniversitesi, Sivil Havacılık Yüksek Okulu **Editor(s)** :V. Atlı, K. Güney ,**Pages** :183-187 **Month :5 Year :2002**

Nafiz Alemdaroğlu, Serkan Özgen , Türk Hava Kurumu-Üniversite Etkileşiminde Yeni Bir Model ,78inci yılda Türk Hav kurumu ve Türk Havacılığının Geleceği, Bildiriler **Vol :1** **Publisher** :Türk Hava Kurumu Matbası **Editor(s)** :Türk Hava kurumu Ar-GE Birimi ,**Pages** :16-18 **Month :4 Year :2003**

Mehmet Zaim, Nafiz Alemdaroğlu , Teknoloji Öngörüsü Projesi Savunma Havacılık ve Uzay Sanayii Paneli Çalışmaları ,2. Ulusal Uçak, Havacılık ve Uzay Mühendisliği Kurultayı Bildiriler 10 Mayıs 2003 OsmanGazi U. Eskiş **Vol :1 No :E/2003/332** **Publisher** :TMMOB Makina Mühendisleri Odası ,**Pages** :97-104 **Month :5 Year :2003**

Demir, Hüseyin Özgür., Alemdaroğlu, Nafiz , Uçak Kanadından Harici Yük Ayrılması, Kayseri V. Havacılık Sempozyumu, 13-14 Mayıs 2004, Kayseri ,**Month :5 Year :2004**

H. Özgür Demir, Nafiz Alemdaroğlu , Uçak Kanadından Harici Yük Ayrılması ,SAVTEK Savunma Teknolojileri Kongresi 2004 **Vol :1 No :1 Publisher :ODTU - Kara Harp Okulu Editor(s) :O. Yıldırım, M. İ. Gökler, K. Varoğlu, B. Kazandır, B. Ögel, K. Koç. ,Pages :125 - 134 Month :6 Year :2004**

Demir, Hüseyin Özgür., Alemdaroğlu, Nafiz , Uçak Kanadından Harici Yük Ayrılması Probleminin Hesaplamalı Akışkanlar Dinamiği İle Analizi, ,Havacılıkta İleri Teknolojiler ve Uygulamaları Sempozyumu, 9-10 Aralık 2004 **Vol :1 No :1 Publisher :Hava Harp Okulu Dekanlığı Editor(s) :Güray Yılmaz, Naci Ünal, Murat Ermiş ,Pages :267-271 Month :12 Year :2004**

Kurtulus Dilek Funda, Farcy Alain, Alemdaroglu Nafiz , , Havada Asılı Konumdaki Çırpan Kanat Profilinin Sayısal ve Analitik Modellenmesi, ,Havacılıkta İleri Teknolojiler ve Uygulamaları Sempozyumu-HİTEK, Hav Harp Okulu, 9-10Dec2004, İst. **Vol :1 No :1 Publisher :Hava Harp Okulu Dekanlığı Editor(s) :Güray Yılmaz, Naci Ünal, Murat Ermiş ,Pages :205-210 Month :12 Year :2004**

Haluk Erhan, Yusuf Özyörük, Nafiz Alemdaroğlu , Transonik Koşullarda F16 Savaş Uçağının Aerodinamik Modellemesi, Deneyse l Veriler ile Karşılaştırılması ,Havacılıkta İleri Teknolojiler ve Uygulamaları Sempozyumu, Hava Harp Okulu İst. 9-10 Aralık 2004 **Vol :1 No :1 Publisher :Hava Harp Okulu Dekanlığı Editor(s) :Güray Yılmaz, Naci Ünal, Murat Ermiş ,Pages :261-265 Month :12 Year :2004**

Ebru Sarıgöl, Nafiz Alemdaroğlu , İnsansız Hava Araçları (İHA) Tasarım ve Teknolojileri ,Havacılıkta İleri Teknolojiler ve Uygulamaları, HİTEK, Hava Harp Okulu, İst., 9-10 Aralık 2004 **Vol :1 No :1 Publisher :Hava Harp Okulu Dekanlığı Editor(s) :Güray Yılmaz, Naci Ünal, Murat Ermiş, Pages :381-386 Month :12 Year :2004**

Kurtuluş D F, David L, Farcy A, Alemdaroglu N (2006) Deneysel ve Sayısal olarak Çırpan Kanat Aerodinamiğinde Girdapların Belirlenmesi (in Turkish). Proceeding of HaSeM'06 Kayseri VI. Aeronautical Symposium, HaSeM-E20, Nevşehir Turkey, 12-14 Mayıs 2006, pp. 15-19.

Kurtuluş DF, Akay B, Alemdaroglu N (2006) Çırpma hareketi aerodinamiğinin iki boyutlu silindir kullanılarak incelenmesi (in Turkish). Proceeding of HaSeM'06 Kayseri VI. Aeronautical Symposium, HaSeM-E130, Nevşehir Turkey, 12-14 Mayıs 2006, pp. 345-350.

E. Sarıgöl, N. Alemdaroğlu, “Flapping motion in 2D: Experimental and Numerical Analysis”, Brussels, Belgium July 2007.

N. Alemdaroğlu, C. Polat, M. Çevik, R. C. Dedekargınoğlu, E. Sağol, A. Elbir, et al. “Küçük bir Turbojet Motorunun Tasarım, Geliştirme ve Üretim Süreci Bölüm 1-2: Tasarım ve Analiz” II. UHUK Ulusal Hav. ve Uzay Konf. İTÜ, İstanbul, 15-17 Ekim 2008 UHUK-2008 **No :036 UHUK Komitesi, İTÜ İstanbul, UHUK Komitesi, İTÜ İstanbul ,Turkey 10, 2008**

N. Alemdaroğlu, C. Polat, M. Çevik, R. C. Dedekargınoğlu, E. Sağol, A. Elbir, et al. Küçük bir Turbojet Motorunun Tasarım, Geliştirme ve Üretim Süreci Bölüm 3: Üretim II. UHUK Ulusal Hav. ve Uzay Konf. İTÜ, İstanbul, 15-17 Ekim 2008 **Vol :UHUK-2008 No :037 Publisher :UHUK Komitesi İTÜ İstanbul , Editor(s) :UHUK Komitesi İTÜ İstanbul , Country :Turkey 10/ 2008 C. Polat, Ç. Atalayer, M. Çevik, N. Alemdaroğlu Küçük bir Turbojet Motorunun Matematiksel Modelinin Oluşturulması II. UHUK Ulusal Hav. ve Uzay Konf. İTÜ, İstanbul, 15-17 Ekim 2008 **Vol :UHUK-2008 No :075 Publisher :UHUK Komitesi İTÜ İstanbul Editor(s) :UHUK Komitesi İTÜ İstanbul Turkey 10 2008.****

Engin Şenelt, Altan Kayran, Nafiz Alemdaroğlu “Bir Taktik İnsansız Hava Aracının Kompozit Gövde Kalıbı ve Kompozit Gövde Üretimi”, UHUK 2010, II Ulusal Havacılık ve Uzay Konferansı, 16-18 Eylül 2010, Anadolu Üniversitesi, Eskişehir.

Eren Kahraman, Uğur Zengin, Volkan Nalbantoğlu, Nafiz Alemdaroğlu “İnsansız Bir Hava Aracı için Yönelim Çözüm Algoritması ve Otomatik Pilot Uygulaması”, USMOS 2011, Ankara.

Fatih Geridönmez, Nafiz Alemdaroğlu, “Robust Control of an Autonomous Underwater Vehicle”, USMOS 2011 Ulusal Savunma Uygulamaları Modelleme ve Simülasyon Konferansı, 14-15 Haziran 2011, Ankara Turkey.

Nafiz Alemdaroğlu, Gorkem Demir, “Hesaplamalı Akışkanlar Dinamiği Temelli Yörüngeyi Yakalayan Ağ Yönteminin Uçaktan Yük Ayırması Çalışmalarında Uygulanması”, Yük Sertifikasyonu Testleri Sempozyumu, 1-2 Kasım 2016, Crown Plaza Otel, Ankara Türkiye.

Thesis Supervised:

“Interactive Solution Procedure for Full Potential and Boundary Layer Equations” **Abdurrahman Hacıoğlu**, October 1997, METU- Ankara, Turkey.

“Refurbishing, Calibration and Testing of the Mechanical Balance System of Ankara Wind Tunnel” **Burhan Şahin**, July 1998, METU-Ankara, Turkey

“Vortical Flow investigations over Delta Wing” **Sevda Özsoy** September 1998, METU-Ankara Turkey

The Aerodynamics, Flight Mechanics and Performance Predictions for a Medium Range Cargo Aircraft **Cengiz Karaağaç**, November 1998, METU – Ankara Turkey

“Aerodynamic Performance Predictions of Two and Three Dimensional Configurations by Using a Finite Element Package”, **O. Ergüven Vatandaş**, December 1998 METU – Ankara Turkey

“Modernization, Modification and Calibration of the Mechanical Balance System of Ankara Wind Tunnel” **Z. Tolga Yıldız**, February 1999 METU- Ankara Turkey

“Calibration and Instrumentation of Ankara Wind Tunnel”, **Emel Özdemir**, MSc. Thesis, January 2000, METU-Ankara-Turkey

“Static and Forced Oscillatory Tests on a Generic Combat Aircraft Model in Ankara Wind Tunnel.”, **Suat Avcı**, MSc. Thesis, May 2000, METU – Ankara Turkey.

“A Tool for Trajectory Planning and Performance Verification of Cruise Missiles”, **Haydar Tolga Avcıoğlu**, MSc. Thesis, September 2000, METU-Ankara Turkey.

“Euler Solutions For a Medium Range Cargo Aircraft”, **Cengizhan Bahar**, MSc. Thesis, January 2001, METU- Ankara Turkey.

“Manufacturing, Assembly and Commissioning of an Oscillating Test Rig to Measure the Dynamic Stability Derivatives in the Ankara Wind Tunnel”, **Mehmet Altun**, MSc. Thesis, February, 2001 METU – Ankara, Turkey.

“Determination of Dynamic Stability Derivatives For a Generic Combat Aircraft Under Forced Oscillations” **İbrahim İyigün**, MSc. Thesis, March 2001, METU – Ankara Turkey.

“Flight Test Data Analysis for Trajectory Determination and Parameter Estimation” **Barlas Ortaç**, MSc. Thesis, December 2001, METU – Ankara Turkey.

“Three Dimensional Unstructured Grid Generation by Advancing Layer Method”, **Uğur Kakaşçı**, MSc. Thesis, December, 2001, METU – Ankara Turkey.

“Modification of the Oscillating Test Rig in Ankara Wind Tunnel For Roll Oscillations and Measurement of Dynamic Stability Derivatives”, **Turgay Şahin**, MSc. Thesis, December, 2001, METU –Ankara Turkey.

“Aerodynamic Analysis of a Full Aircraft Configuration Using a Panel Method”, **Dilek Funda Kurtuluş** , Msc Thesis, January 2002 METU-Ankara Turkey.

“Polynomial Guidance Laws and Dynamic Flight Simulation Studies”, **Kadriye Tiryaki**, MSc. Thesis, June 2002 METU – Ankara Turkey.

“Detailed Measurement of Dynamic Stability Derivatives under Forced Oscillations”, **Hüseyin Uysal** July, 2002 METU-Ankara Turkey.

“Detailed Measurements of Dynamic Stability Derivatives Under Roll Oscillations for Standard Dynamic Model in Ankara Wind Tunnel”, **Yavuz Nacaklı**, MSc. Thesis, June 2003 METU-Ankara Turkey.

“Experimental Investigation of Flow Separation from Rigid Walls With Salient Edges”, **Fikri AKÇALI**, January 2004, METU-AEROSPACE Engineering Department

Computational Fluid Dynamics Analysis of Store Separation, **Hüseyin Özgür DEMİR**, MSc. Thesis, August 2004, METU-AEROSPACE Engineering Department, Ankara Turkey.

"Numerical and Experimental Analysis of Flapping Motion in Hover. Application to Micro Air Vehicles," Joint Ph.D thesis, Poitiers University/ENSMA (Poitiers-France) and METU (Ankara-Turkey), 17 June 2005, Poitiers, France. **Dilek Funda Kurtuluş**, June 2005, METU-Ankara Turkey, ENSMA/Poitiers France, joint PhD programme.

“Simulation of Motion of an Underwater Vehicle”, **Fatih Geridönmez**, MSc. Thesis, September 2007, METU ANKARA.

“Unsteady Aerodynamic Calculations of Flapping Wing Motion” MSc Thesis, **Buşra Akay**, September 2007 , METU-Ankara,.

“ Structural Design, Analysis and Composite Manufacturing Applications for a Composite Tactical Unmanned Air Vehicle”, **Sercan Soysal**, MSc. Thesis, May 2008, METU-Ankara, Turkey (co-supervisor)

“Numerical and Experimental Analysis of Flapping Wing Motion”, PhD Thesis, **Ebru Sarıgöl**, July 2007 METU Ankara-Turkey.

“Robust Controller Design for a Fixed Wing UAV”, MSc Thesis, **Anna Prach**, September 2009, METU Ankara Turkey

“Theoretical Investigation of Flapping wing motion in Hover, Drawing the figure of Eight (Lemniscate)” MSc. Thesis, **Ozge Baskan**, September 2009, METU Aerospace Engineering Department, Ankara Turkey

“Reliability Analysis Process and Reliability Improvement of Inertial Measurement Unit (IMU)”, MSc. Thesis, **Özlem Unlusoy**, September 2010, METU, Aerospace Engineering Department, Ankara- Turkey.

“Design and Manufacturing of a Tacatical Unmanned Air Vehicle”, MSc. Thesis, **Engin Şenelt**, September 2010, METU, Aerospace Engineering Department, Ankara- Turkey.

“Structural and Aeroelastic Analysis of Composite Tactical Unmanned Air Vehicle”, MSc Thesis, **Sedat Özüztürk**, September 2011, METU, Aerospace Engineering Department. (co supervisor)

“Navigation Algorithms and Autopilot Application For an Unmanned Air Vehicle”, MSc. Thesis, **Eren Kahraman**, December 2010, METU, METU, Aerospace Engineering Department, Ankara- Turkey.

“Split Canard Design for Enhancing the Maneuverability of a Missile at High Angles of Attack”, MSc Thesis. **Abdullah Emre Cetiner**, September 2012, METU Aerospace Engineering Department.

“Design and Manufacturing of a High Speed Jet Powered Target Drone”, **Ender Özyetiş**, MSc Thesis, September 2013, METU, Aerospace Engineering Department, Ankara, Turkey.

“Aerodynamic and Three-Degree-Of-Freedom Flight Mechanics Analysis of a Slender Body of Rectangular Cross Section”, **Bahri Tugcan Selimhocaoglu**, MSc. Thesis, June 2014. METU, Aerospace Engineering Department, Ankara Turkey. (co-supervisor)

“Design of a Medium Range Tactical UAV and Improvement of its Performance By Using Winglets”, **Eren Turanoğuz**, MSc. Thesis, September 2014, METU, Aerospace Engineering Department, Ankara, Turkey.

“Design and Manufacturing of a Single Langmuir Probe for Plasma Measurements in Hall Effect Thruster Experiments”, **Özge (Tabak) Yazıcıoğlu**, MSc Thesis, September 2014, METU, Aerospace Engineering Department, Ankara Turkey.

“Design and Manufacturing of a Quad Tilt Rotor Unmanned Air Vehicle”, **Ahmet Caner Kahvecioğlu**, MSc Thesis, September 2014, METU, Aerospace Engineering Department, Ankara Turkey.

“Safe Software System Development Framework for Mini Unmanned Aerial Systems”, **Önder Altan**, MSc. Thesis, September 2014, METU, Aerospace Engineering Department, Ankara Turkey.

“Experimental Investigation of 3D Flow Field Around a Flapping Wing Making Figure of Eight Motion in Hover Using PIV Technique”, **İrem Ersöz**, MSc. Thesis, September 2014, METU, Aerospace Engineering Department, Ankara Turkey.

“Design of a Solar Powered Unmanned Airship”, **Onur Sinan Sonmez**, MSc. Thesis, September 2015, METU, Aerospace Engineering Department, Ankara Turkey.

“Development of a Conceptual Design Tool and Calculation of stability and Control Derivatives for Mini UAV Systems” **Sena Yazırlı**, MSc Thesis, December 2015, METU, Aerospace Engineering Department, Ankara Turkey.

“Design and Manufacturing of a Solar Powered Unmanned Air Vehicle” **Güçlü Özcan**, MSc. Thesis, December 2015, METU, Aerospace Engineering Department, Ankara Turkey.

“Generalized Audio Synthesis Algorithm for Simulating Firearm and Subsonic/supersonic Projectiles”, **Teksin Saka**, MSc. Thesis, December 2015, Graduate School of Informatics Institute of METU, Ankara, Turkey. (co-supervisor)

“Design of a High Speed Decoy UAV” **Umut Baykara**, MSc. Thesis, June 2016, METU, Aerospace Engineering Department, Ankara Turkey.

Scientific and Professional Societies of Which a Member :

American Institute of Aeronautics and Astronautics (AIAA)

AWARDS:

NATO RTO Scientific Achievement AWARD – 2008, SCI Systems Concepts and Integration Panel, FT3, Flight Test Technology Team Committee.

Sponsored Projects/Desteklenen Projeler: (last 10 years)

“Direct Forced Oscillation Technique for the Determination of Dynamic Stability Derivatives on Calibration Model of (AGARD, Standard Dynamic Model) in 8’x10’ Ankara Wind Tunnel.”

Project supported by NATO-RTO-AVT (Applied Vehicle Technologies Panel) T118, Support programme for Turkey. Joint Project with Politechnical Institute of Turin, Italy.

Project also supported by TUBİTAK, Technical and Scientific Council of Turkey.

“Technology Development for Unmanned Air Vehicles” Project funded by State Planning Office of Turkey.

“İnsansız Hava Aracı Teknolojileri Geliştirilmesi Projesi”, DPT projesi, 2004-2006, ODTÜ Havacılık ve Uzay Mühendisliği Bölümü, Ankara

Liquid Propulsion Systems 1.) Micro jet engine Development Project 2.) Development of Liquid Propulsion Systems for Satellites. Project Funded by State Planning Office of Turkey. 2005-2007 METU Aerospace Engineering Department

Sıvı Yakıtlı İtki Sistemleri Projesi, 1) Mikro Jet Motoru Geliştirilmesi, 2) Sıvı Yakıtlı Uydu İtki sistemleri geliştirilmesi, DPT projesi, 2005-2007 ODTÜ Havacılık ve Uzay Mühendisliği Bölümü, Ankara.

Project coordinator.

Experimental Investigation of Wing Aerodynamics for design of Flapping Wing Micro Air Vehicles By PIV technique. Project funded by the Scientific and Technical Research Council of Turkey. METU Aerospace Engineering Department, 2005-2006.

Çırpın Kanatlı Mikro Hava Araçlarının Tasarımı İçin Kanat Aerodinamiğinin Deneysel Olarak PIV Tekniği ile İncelenmesi, TUBİTAK projesi 2005-2006, MAG 104M417, ODTÜ Havacılık ve uzay Mühendisliği Bölümü, Ankara. Project coordinator.

Integration of Self Defence Systems to Air Platforms and Safe Separation Analysis from these platforms:

Project funded by ASELSAN Turkish Military Electronics Company. Started in 2000 and still continuing. METU Technopolis, Technology Development Center. Project Coordinator.

Hava Platformlarına Kendini Koruma Sistemlerinin Entegrasyonu ve hava Platformlarından Ayrılma Analizleri, ASELSAN, ODTÜ Teknokent yerleşkesi, 2000- devam ediyor.

“Conversion of CASA CN-235 Aircraft into Electronic and Signal Intelligence Aircraft”, METU Aerospace Engineering Department 2000-2002., Project coordinator.

CASA CN-235 Uçağının ELINT/SIGINT Uçağına Dönüştürülmesi Projesi, ASELSAN, ODTÜ Havacılık ve Uzay Mühendisliği Bölümü, 2000-2002 Proje Yöneticisi.

Design and Manufacturing of a Tactical Unmanned Air Vehicle System. METU Aerospace Engineering Department, Project funded by the Scientific and Technical Research Council of Turkey. METU Aerospace Engineering Department, 2008-2011, Project Coordinator.

Taktik İnsansız Hava Aracı Tasarımı ve Üretimi, Tübitak 1001 projesi 108 M104, 2008-2011, ODTÜ Havacılık ve Uzay Mühendisliği Bölümü, Proje Yöneticisi.

Experimental and Theoretical Investigation of Flapping wing motion in Hover, Drawing the figure of Eight (Lemniscate) 2009-2010. Project funded by the Scientific and Technical Research Council of Turkey. METU Aerospace Engineering Department, Project Coordinator.

Havada Asılı Konumda Sekiz Figürü (Lemniskat) Çizen Çırpan Kanat Hareketinin Teorik ve Deneysel Olarak İncelenmesi , TÜBİTAK 1002 Acil Destek Projesi , 109M311 2009-2010 Proje Yöneticisi.

“Design, Manufacturing and Testing of an Electric Propulsion System for Application in Satellite Systems” Project funded by the Scientific and Technical Research Council of Turkey. METU Aerospace Engineering Department, January 2010-2012, Project Coordinator.

“Uydu Sistemlerinde Kullanılacak Elektrikli bir itki Sisteminin Tasarımı, Üretimi ve Testi” TÜBİTAK 2514 Ukrayna - Türkiye İkili İşbirliği Projesi, Ocak 2010-2012, Proje Yöneticisi.

“Doruk, Alçak İrtifa Balon Sistemi Projesi,” “ Low Altitude Aerostat Sistemi” Otonom Teknoloji Proje Danışmanlığı, ODTÜ KOSGEB, Tubitak TEYDEP Projesi, 2014.

Aselsan MGEO, **“MIUS I, Mini Unmanned Aerial System Design, Manufacturing and Industrialization Project”**, METU Aerospace Engineering Department, 2013-2014 Ankara Turkey.