

Assoc. Prof. MUNİR ELFARRA

Personal Information

Office Phone: [+90 312 906 1388](tel:+903129061388)

Email: melfarra@ybu.edu.tr

Web: <https://avesis.ybu.edu.tr/melfarra>

Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Aerospace Engineering (PhD), Turkey 2005 - 2011

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Aerospace Engineering (MSc), Turkey 2003 - 2005

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Aerospace Engineering, Turkey 1996 - 2000

Dissertations

Doctorate, Horizontal axis wind turbine rotor blade: winglet and twist aerodynamic design and optimization using CFD, Orta Doğu Teknik Üniversitesi, Türk Halkoyunları, Havacılık Mühendisliği (Dr), 2011

Postgraduate, Two-dimensional finite volume weighted essentially non-oscillatory Euler schemes with uniform and non-uniform grid coefficients, Orta Doğu Teknik Üniversitesi, Türk Halkoyunları, Havacılık Mühendisliği (YI) (Tezli), 2005

Research Areas

Aeronautical and Space Engineering, Aeronautical Engineering , Flight Sciences, Aerodynamics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Ankara Yıldırım Beyazıt University, Havacılık Ve Uzay Bilimleri Fakültesi, Havacılık Ve Uzay Mühendisliği Bölümü, 2016 - Continues

Assistant Professor, University Of Turkish Aeronautical Association, Faculty Of Air Transport, Department Of Pilotage, 2011 - 2016

Academic and Administrative Experience

Türk Hava Kurumu Üniversitesi, Havacılık Ve Uzay Bilimleri Enstitüsü, 2013 - 2016

Türk Hava Kurumu Üniversitesi, Hava Ulaştırma Fakültesi, Pilotaj Bölümü, 2013 - 2016

Courses

Propulsion Systems II, Undergraduate, 2017 - 2018

Aerodynamics II, Undergraduate, 2017 - 2018
Computational Fluid Dynamics, Undergraduate, 2017 - 2018
Fluid Mechanics II, Undergraduate, 2017 - 2018
Numerical Methods, Undergraduate, 2017 - 2018
Gas Turbines, Undergraduate, 2017 - 2018
Heat Transfer, Undergraduate, 2017 - 2018
Propulsion Systems I, Undergraduate, 2017 - 2018
Aerodynamics I, Undergraduate, 2017 - 2018
Advanced Aerodynamics, Postgraduate, 2016 - 2017
Akışkanlar Mekaniği, Undergraduate, 2016 - 2017

Articles Published in Other Journals

- I. **Effect of taper modification on the performance of NREL VI wind turbine blade for low and mid wind speeds**
Kaya M., Elfarra M.
Wind Engineering, vol.43, no.4, pp.392-403, 2019 (Journal Indexed in ESCI)
- II. **Investigation of the Effect of Taper Stacking Location on Aerodynamic Loads for ONERA M6 Wing at a Fixed Angle of Attack**
KAYA M., ELFARRA M.
Havacılık ve Uzay Teknolojileri Dergisi, vol.12, no.1, pp.51-63, 2019 (Refereed Journals of Other Institutions)
- III. **CFD ANALYSIS OF THE EFFECT OF PARABOLIC TAPER DISTRIBUTION OF AN UNTWISTED HELICOPTER ROTOR BLADE**
ELFARRA M., KAYA M.
Havacılık ve Uzay Teknolojileri Dergisi (Journal of Aeronautics and Space Technologies), vol.11, no.2, pp.59-70, 2018 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Coupling a Waste Heat Recovery Turbine to an Axial Compressor Boost Stage**
Akmandor i. S. , ELFARRA M.
International Society for Air Breathing Engines Conference ISABE-2019, Canberra, Australia, 22 - 27 September 2019
- II. **A NUMERICAL ASSESSMENT OF ATMOSPHERIC BOUNDARY LAYER SIMULATION INSIDE TWO DIFFERENT BOUNDARY LAYER WIND TUNNELS**
Abdulrahim A., ELFARRA M., UZOL O.
10th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 18 - 20 September 2019
- III. **Effect of Taper Distribution on the Torque and Thrust Generated by a Wind Turbine Rotor Blade**
Kaya M., Elfarra M.
10th International Renewable Energy Congress, IREC 2019, Sousse, Tunisia, 26 - 28 March 2019
- IV. **Investigation of the effect of taper stacking location on drag force for onera m6 wing**
Kaya M., Elfarra M., Kadioglu F.
AIAA Scitech Forum, 2019, California, United States Of America, 7 - 11 January 2019
- V. **Investigation of dynamic properties of a polymer matrix composite with different angles of fiber orientation**
KADIOĞLU F., Coşkun T., ELFARRA M.
5th Global Conference on Polymer and Composite Materials, Japan, 10 - 13 April 2018
- VI. **Experimental and Numerical Investigation of Adhesively Bonded Single Lap Joints of Laminated Composite Materials**

DEMİRAL M., KADIOĞLU F., ELFARRA M.

5th Global Conference on Polymer and Composite Materials, Japan, 10 - 13 April 2018

VII. **A parametric CFD study for the effect of taper/twist stacking point location on the torque of NREL VI wind turbine rotor blade**

Kaya M., Elfarra M., Kadioglu F.

Wind Energy Symposium, 2018, Florida, United States Of America, 8 - 12 January 2018

VIII. **NUMERICAL OPTIMIZATION OF OSCILLATORY MOTION OF A FLAPPING AIRFOIL FOR MAXIMUM POWER PRODUCTION FROM WIND ENERGY**

KAYA M., ELFARRA M.

8th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 10 - 12 September 2015

IX. **NUMERICAL OPTIMIZATION OF OSCILLATORY MOTION OF A FLAPPING AIRFOIL FOR MAXIMUM POWER PRODUCTION FROM WIND ENERGY**

KAYA M., ELFARRA M.

8th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 10 - 12 September 2015

X. **RÜZGAR ENERJİSİNDEN MAKSİMUM GÜÇ ÜRETİMİ VE VERİMİ İÇİN SALINIR KANAT KESİTLERİNİN SALINMA HAREKETİ ENİYİLEMESİ**

KAYA M., ELFARRA M.

V. ULUSAL HAVACILIK VE UZAY KONFERANSI, Kayseri, Turkey, 8 - 10 September 2014

XI. **RÜZGAR ENERJİSİNDEN MAKSİMUM GÜÇ ÜRETİMİ VE VERİMİ İÇİN SALINIR KANAT KESİTLERİNİN SALINMA HAREKETİ ENİYİLEMESİ**

KAYA M., ELFARRA M.

V. ULUSAL HAVACILIK VE UZAY KONFERANSI, Kayseri, Turkey, 8 - 10 September 2014

XII. **AUTONOMOUS TRAJECTORY TRACKING AND IMAGING VIA A QUADROTOR TYPE UAV: A SYSTEM INTEGRATION APPROACH**

EFE M. Ö. , KAYA M., ELFARRA M., Özdemir R.

The 20th Int. Conf. on Mechatronics and Machine Vision in Practice- M2ViP 2013, Ankara, Turkey, 18 - 20 September 2013

XIII. **AUTONOMOUS TRAJECTORY TRACKING AND IMAGING VIA A QUADROTOR TYPE UAV: A SYSTEM INTEGRATION APPROACH**

EFE M. Ö. , KAYA M., ELFARRA M., ÖZDEMİR R.

The 20th International Conference on Mechatronics and Machine Vision in Practice - M2ViP 2013, Ankara, Turkey, 18 - 20 September 2013, vol.1

XIV. **DÖNER KANATLI İNSANSIZ HAVA ARACI KULLANARAK BÖLGESEL GÖZETİM AMAÇLI KİŞİ VEYA NESNE TAKİBİ**

ÖZDEMİR R., KAYA M., ELFARRA M., EFE M. Ö.

IV. ULUSAL HAVACILIK VE UZAY KONFERANSI, İstanbul, Turkey, 12 - 14 September 2012

XV. **Döner Kanatlı İnsansız Hava Aracı Kullanarak Bölgesel Gözetim Amaçlı Kişi veya Nesne Takibi**

Özdemir R., KAYA M., ELFARRA M., EFE M. Ö.

IV. ULUSAL HAVACILIK VE UZAY KONFERANSI, İstanbul, Turkey, 12 - 14 September 2012

XVI. **PITCH ANGLE DESIGN OF NREL VI WIND TURBINE BLADE USING CFD**

ELFARRA M., SEZER UZOL N., Akmandor i. S.

CFD AND OPTIMIZATION 2011-1080 An ECCOMAS Thematic Conference, Antalya, Turkey, 23 - 25 May 2011

XVII. **SHF SANTRİFÜJ POMPALAR İÇİN YATIŞKIN (STEADY-STATE) AKIŞ KOVUKLANMA (CAVITATION) MODELİ**

ELFARRA M., Akmandor i. S. , Nurşen C.

POMSAD 7 Pompa-Vana-Kompresör Kongresi, Turkey, 28 - 30 April 2011

XVIII. **Investigation and optimization of winglets for HAWT rotor blades**

ELFARRA M., Akmandor i. S. , SEZER UZOL N.

9th European Conference on Turbomachinery: Fluid Dynamics and Thermodynamics, ETC 2011 - Conference Proceedings, İstanbul, Turkey, 21 - 25 March 2011

XIX. **Yerli Rüzgar Türbini Kanat, Jeneratör Ve Kontrol Sistemi Tasarımı**

Sakar S., ELFARRA M., Aydođan Z., Akmandor i. S.

Rüzgar Enerjisi ve Rüzgar Türbinleri Yerel Sempozyumu 2011, Turkey, 11 - 12 March 2011

XX. INVESTIGATIONS ON TIP TILTING FOR HAWT ROTOR BLADES

ELFARRA M., SEZER UZOL N., Akmandor i. S.

10th International Conference on Clean Energy (ICCE-2010), Cyprus (Kkctc), 15 - 17 September 2010

XXI. RÜZGÂR TÜRBİNİ TAHMİNİ YILLIK ENERJİ ÜRETİM HESAPLAMA YÖNTEMLERİ ve ARAZİYE UYGUN RÜZGÂR TÜRBİNİ SEÇİMİ

Şekerci E., ELFARRA M., Albasan C.

RÜZGAR ENERJİSİ SEMPOZYUMU 2009, Turkey, 4 - 05 June 2009

XXII. Türkiye’de Rüzgar Enerjisi Güç Tahmini Ve Yerli Türbin Üretimi

Akmandor i. S. , ELFARRA M., Şekerci E., Albasan C.

15. Uluslararası Enerji ve Çevre Fuarı ve Konferansı ICCI 2009, Turkey, 13 - 15 May 2009

XXIII. Two Dimensional Finite Volume and Finite Difference Weighted Essentially Non-Oscillatory Euler Schemes

ELFARRA M., Aktürk A., Akmandor i. S.

Kayseri VI. Havacılık Sempozyumu 2006, Turkey, 12 - 14 May 2006

XXIV. TWO DIMENSIONAL FINITE VOLUME WEIGHTED ESSENTIALLY NON-OSCILLATORY SCHEME USING DIFFERENT FLUX COMPUTATIONS

Aktürk A., ELFARRA M., Akmandor i. S.

The 3rd Ankara International Aerospace Conference, Ankara, Turkey, 22 - 25 August 2005

XXV. Two Dimensional Finite volume Weighted Essentially Non-Oscillatory Euler Scheme

ELFARRA M., Aktürk A., Akmandor i. S.

The 3rd Ankara International Aerospace Conference, Ankara, Turkey, 22 - 25 August 2005

Supported Projects

ELFARRA M., Project Supported by Higher Education Institutions, AIAA Science and Technology Forum and Exposition (AIAA SciTech 2019), 2018 - 2019