**PERSONAL**

• **Name/Surname:** Assoc. Prof. Dr. Isil Yazar

* **Interests:** Propulsion Systems for Aviations, Avionics

•**Adress:** Eskisehir Osmangazi University, Faculty of Engineering and Architecture, Department of Aeronautical Engineering, Meselik Campus, Eskisehir/TURKEY

• **E-mail:** iyazar@ogu.edu.tr

**EDUCATION**

**POSTDOCTORAL RESEARCH ASSISTANT:** Queen Mary University of London/Aerospace Engineering: 2016 (February-July) 6 months

**PHD:** Anadolu University/Graduate School of Science/Avionics Department: 2011-2015

**MS:** Eskisehir Osmangazi University/ Graduate School of Science/ Dept. of Electrical and Electronics Engineering/ Communication Branch: 2005-2008

**MBA:** Anadolu University/ Graduate School of Social Science/ Dept of. Business Administration: 2005-2008

**UNDERGRADUATE:** Eskisehir Osmangazi University Dept. of Electrical and Elctronics Engineering: 2001-2005 (in English)

**SHORT COURSES:**

• 2010: Aircraft System Design Course - Cranfield University/ U.K.

• 2010: Hava Savunma Sistemleri Eğitimi - SATEM/Milli Savunma Bakanlığı./ANKARA –TURKEY (Air Defence Systems Training- Ministry of Defence-Ankara/Turkey) (In Turkish)

• 2014: Fundamentals of Aircraft Engine Control- Cranfield University/ U.K.

* TÜBİTAK 2237-B Research Project Preparing Training in Engineering Sciences- 22-24 February 2018.
* TÜBİTAK- UAV Turkey Competition, 25-26 March 2017.

**JOB EXPERIENCES**

* Assoc. Prof.: **Eskisehir Osmangazi University** Faculty of Engineering and Architecture, Department of Aeronautical Engineering, 2021/April - Present
* Assoc. Prof. + (Assist. Principal): **Eskisehir Osmangazi University** Eskisehir Vocational School Mechatronics Dept. 2019/October - Present
* Visiting Postdoctoral Research Asssistant: **Queen Mary University of London**. Aerospace Engineering Dept. 2016/February-July (6 months)
* Assist. Prof. + (Head of Dept.): **Eskisehir Osmangazi University** Eskisehir Vocational School Mechatronics Dept. 2015/July- 2019/October
* Lecturer + (Head of Dept.): **Eskisehir Osmangazi University** Eskisehir Vocational School Mechatronics Dept. 2012/January-2015/July
* Assembly Manufacturing Enginneer at **TAI (Turkish Aerospace Industries)/TUSAS**

(ANKA UAV Design Project & T38 Training Aircraft Modernization Project ) 2009-2010

* Harness Manufacturing Engineer at **TAI (Turkish Aerospace Industries)/TUSAS**

(Airbus A400M Project)

**STUDENT SUPERVISORY**

* **Co-Supervisory:** Eralp Sener,Havacılığa Yönelik Bir Turboelektrik İtki Sistemi için Matematik Model Tasarımı**,** PHD Thesis**,** 2016-continues.
* **Co-Supervisory:** Emrah Yiğit,Orta Sınıf Bir İnsansız Hava Aracının Elektrikli İtki Sisteminin Matematiksel Modellemesi Ve Deneysel Doğrulanması, MSC Thesis, (2015-2018)
* **Supervisory:** Saliha Cansu Görgülü,MSC Thesis, 2019-continues.
* **Supervisory:** Furkan Koşay, MSC Thesis 2019-continues.
* **Supervisory:** Tuğçe Yolcu, MSC Thesis 2019-continues.
* **Supervisory:** Eftal Tozlu, MSC Thesis 2020-continues.
* **Supervisory:** Gökçenur Ateş, MSC Thesis 2019-continues.
* **Supervisory:** Ali İhsan Menevşe, MSC Thesis 2021-continues.

**PROJECTS**

* 2019-(March-September): Kapalı Ortamda Bulunan Kumanda İle Bir İnsansız Hava Aracının (İHA) Kullanımı ve Daha Uzun Menzile Ulaşması İçin Anten Sistemi Geliştirilmesi (Principal Investigator), Osmangazi University Scientific Research Project, No: 201944007. (In Turkish)
* 2016 (February-August): Gas Turbine Engine Control and Fault Tolerant Control Applications, (Principal Investigator), Scientific Research Project, Eskisehir Osmangazi University University, No: 2015-975. (In Turkish)
* 21/05/2014 - 30/03/2015 Eskişehir Meslek Yüksekokulu Bünyesinde Nitelikli Teknik Ara Eleman İhtiyacına Dönük Laboratuvar Kurulması, BEBKA, (Researcher), (In Turkish)
* 2012-2015: Bir Turbojet Motor İçin Matematik Model ve Denetleyici Tasarımı(Mathematical Model and Controller Design of a Turbojet Engine)**.** (Researcher), Scientific Research Project, Anadolu University, No:1208F132. (In Turkish)
* 2011-2015: Bir Turbojet Motor İçin Matematik Model ve Denetleyici Tasarımı(Mathematical Model and Controller Design of a Turbojet Engine)**.** (Researcher), TEI/TUSAS- Anadolu University Joint Project Protocol, No: 001.TEI.001.2011.DR.001. (In Turkish)
* 2012-2014: Anadolu Üniversitesi Havaalanı Terminal Binası Aydınlatma Sisteminin Analizi ve Yeşil Havaalanı Terminal Binası Altyapısına Hazırlık Çalışması. (Base Study of Anadolu University Airport about Green Airport Preperations and Illumination System Analysis) (Researcher), Scientific Research Project, Anadolu University, No:1203F049. (In Turkish)

**INTERNATIONAL JOURNAL PAPERS**

* Sener, E., Turk, I., Yazar, I. And Karakoc, T. H., (2019), “Solar Powered UAV Model on MATLAB/Simulink Using Incremental Conductance MPPT Technique”, Aircraft Engineering and Aerospace Technology, 92(2), pp.93-100.
* Yazar, Isil, (2019), "Simulation of a High Fidelity Turboshaft Engine-Alternator Model for Turboelectric Propulsion System Design and Applications", Journal of Turbo and Jet Engines, 36(3), pp.271-282.
* Gokçe, H. C., Öteyaka, M. Ö., Yazar, I., (2018), "HAVACILIK ALANINDA ERİYİK YIĞMA MODELLEME UYGULAMASI: BOEING 737-800 UÇAĞIN 3 BOYUTLU ÖLÇEKLİ MODELLENMESİ",International Journal of 3D Printing Technologies and Digital Industry, 2(3), pp.37-44.
* Yazar, I., Kiyak, E., Caliskan, F. and Karakoc, T. H., (2018), “Simulation Based Dynamic Model and Speed Controller Design of a Small Scale Turbojet Engine”, Aircraft Engineering and Aerospace Technology,90(2), pp.351-358.
* Yazar, I., Caliskan, F. and Vepa, R., (2019), “Model Predictive Control of Controller Parameter Optimization of Combustion Instabilities”, International Journal of Turbo and Jet Engines, 36(2), pp.185-194.
* Yazar, I., Caliskan, F. and Vepa, R., (2018), “Influance of Flame Dynamics on the Optimal Control of Combustion with Uncertainties”, Combustion Science and Technology, 190(6), pp.983-1006.
* Yazar, Işıl, (2017), "OBSERVER and NEURAL NETWORK BASED FAULT TOLERANT CONTROL APPLICATION on AIRCRAFT LONGITUDINAL FLIGHT CONTROL", JOURNAL OF AERONAUTICS AND SPACE TECHNOLOGIES-JAST, 10(2), pp.61-70.
* Yazar, I., Yavuz, H. S. and Altin Yavuz, A., (2017) “Comparison of Various Regression Models for Predicting Compressor and Turbine Performance Parameters”, Energy-The International Journal, 140(2017), pp. 1398-1406.
* Yazar I., Kiyak E., Caliskan F., (2017), “Multiple fault-based FDI and reconfiguration for aircraft engine sensors”, Aircraft Engineering and Aerospace Technology, 89(3),pp.397-405.
* Sohret Y., Yazar I., Karakoc H., (2016) “Using Some Performance Parameters to Predict Exhaust Gas Emissions of a Turboprop Engine: Adaptive Neuro-Fuzzy Method”, International Journal of Sustainable Aviation, 2(1), pp.1-14.
* Yazar I., Sohret. Y, Karakoc H., (2017) “ANFIS-based comparative exhaust gases emissions prediction model of a military aircraft engine”, International Journal of Global Warming. 12(1), pp. 116-128.
* Yazar I., Yasa, T., Kıyak, E., (2017) “Simulation Based Steady-State Aero-thermal Model for Small-Scale Turboprop Engine”, Aircraft Engineering and Aerospace Technology, 89(2), pp. 203-210.
* Yazar I., Kiyak E., Yavuz H. S., (2014) “Modelling and Comparison of Compressor Performance Parameters by Using ANFIS”, Advanced Material Research, 1016(2014), pp.710-715.
* Yazar, I., (2016) “Modelling of Aircraft Harness Tests via Petri Network”, International Journal of Sustainable Aviation, 2 (3), pp.235-247.
* Unal, Beytullah, Savas, Tamer and Yazar Isil, (2020) “Design of a Pesticide Spraying Quadcopter”, International Journal of Aviation Science and Technology, 1(1), pp.14-21.

**INTERNATIONAL CONFERENCE PAPERS**

* Sener, E.,Yazar, I., Ertasgin, G., Yamik, H., "270VDC-28VDC Synchronous Interleaved 1.2kW Buck Converter Design for Avionics", ISATECH 2019, Amsterdam, Netherland, 9-11 October 2019.
* Sener, E., Ertasgin, G., Yazar, I., "Electrical Architecture Design for a Turbo Electric Aircraft Propulsion System on Matlab / Simulink", ISSA 2019, Budapest, Hungary, 26-29 May 2019.
* Turk, I. Yazar, I, Basaran Filik, U., Karakoc, T. H., "SIMULATION BASED MATHEMATICAL MODEL OF A SOLAR POWERED DC MOTOR FOR UAV APPLICATIONS", GCGW-2018, İzmir, Turkey.
* Yazar, Isil, "BATTERY MODELS FOR ALL ELECTRIC AND HYBRID ELECTRIC PROPULSION SYSTEMS IN AVIATION: A LITERATURE SURVEY", ISEASCI-2018, Kiev, Ukraine.
* Turk, I., Yazar, I., Karakoc, T. H., "SOLAR ENERGY APPLICATIONS IN AVIATION: A GENERAL REVIEW", ISEASCI-2018, Kiev,Ukraine.
* Yigit, E., Yazar, I., Karakoc, T. H., “UNLOADED BATTERY-MOTOR MODELING FOR MICRO/MINI-CLASS UAVS USING AN ELECTRIC PROPULSION SYSTEM”, ISEASCI-2018, Kiev, Ukraine.
* Yigit, E., Yazar, I., Karakoc, T. H., “FIXED PITCH PROPELLER COMBINED DC MOTOR STEADY-STATE MODEL FOR MICROCLASS UAVS NEW GENERATION PROPULSION SYSTEMS”, ISEASCI-2018, Kiev, Ukraine.
* Gokçe, H. C., Öteyaka, M. Ö., Yazar, I. "HAVACILIK ALANINDA ERİYİK YIĞMA MODELLEME UYGULAMASI: BOEING 737-800 UÇAĞIN 3 BOYUTLU ÖLÇEKLİ MODELLENMESİ", 3D-PTC 2018, Antalya, Turkey.(Abstract Basım)
* Sohret Y., Yazar I., Karakoc T. H., "Mathematical Modelling and Simulation of an Irreversible Heat Engine ", IEEES-2017, Split, Croatia.
* Yazar, I, "Fault Diagnosis on Aircraft Longitudinal Flight Control Using Observers", AIAC-2017, Ankara, Turkey.
* Yazar, I, "The Electric Propulsion Technology Today and Tomorrow", ISSA-2017, Kiev, Ukraine
* Yiğit,E., Yazar, I, Karakoç, T. H., "A General View of UAVs and Their Worldwide Classifications", ISSA-2017, Kiev, Ukraine
* Yiğit,E., Yazar, I, Karakoç, T. H., "A NEW TREND FOR FUTURE AIRCRAFT PROPULSION: ELECTRIC PROPULSION", ISSA-2017, Kiev, Ukraine
* Yazar, I., Kiyak, E., Caliskan, F. and Karakoc, T. H., “Speed Controller Design by Using Modified PID for a Small-Scale Turbojet Engine”, International Symposium on Sustainable Aviation ISSA-2016, Istanbul, Turkiye, 2016.
* Yazar, I., Yavuz, H. S., Kıyak, E., Yavuz, A. A., “Compressor & Turbine Performance Parameter Prediction by Using Ordinary Least Squares Regression”, International Symposium on Sustainable Aviation ISSA-2015, Istanbul, Turkiye, 2015.

• Yazar I., Kiyak E., Yavuz H. S., "Modelling and Comparison of Compressor Performance Parameters by Using ANFIS", 5th International Conference on Mechanical and Aerospace Engineering, Spain, 18/07/2014 .

• Yazar I., Kiyak E., "FDI&Reconfiguration on Aircraft Engine by Hamming-NN&UIO", 2nd International Conference on Control and Fault Tolerant Systems, Nice, France, 09/10/2013.

 • Yazar I., Kiyak E., Caliskan F., "A New Approach for Turbomachinery Modelling By Using Anfis Structure", The Sixth International Exergy, Energy and Environment Symposium, Rize, 01/07/2013.

• Yazar I., Kiyak E., "Aircraft Engine Sensor Fault Detection, Isolaton And Reconfiguration Using Fuzzy Logic Control Based Unknown Input Observer", 10th European Turbomachinery Conference, Finland, 15/04/2013.

• Yazar I, Kiyak E., "A New Model Approach to Test Aircraft Cables For Insulaton Using Fuzzy Logic Idea", 8th International Symposium on Intelligent Manufacturing Systems, Antalya, 27/09/2012.

• Yazar I., Kiyak E., Karakoc T. H., "Green Airports & Green Aviation Companies: A New View Point in Turkey", Global Conference on Global Warming - 2012, Istanbul, 11/07/2012.

• Yazar I., Kiyak E., Karakoc T. H., "An Example of International Energy Management in Green Aviation Companies: The TAV (Tepe Akfen Vie) Istanbul Terminal Operations Corporation", 4. International Conference on Applied Energy, Suzhou, China, 05/07/2012.

• Yazar, I.,Yavuz., H.S., Çay, A., BBA Yönteminde Tanh ve Gauss Fonksiyonlarının Kullanılarak Yüz Tanıma Verimliliklerinin Karşılaştırılması, 5.Uluslararası İleri Teknolojiler Sempozyumu (IATS’09), 13-15 Mayıs 2009,Karabük, TÜRKİYE.

**NATIONAL JOURNAL PAPER**

• Yazar, I.,Yavuz., H.S., Çay, A., (2009) “Temel Bileşen Analizi Yönteminin ve Bazı Klasik Gürbüz Uyarlamalarının Yüz Tanıma Uygulamaları”, ESOGU Müh. Mim. Fak. Dergisi, Cilt No:22, Sayı:1, Sf. 49-63. (ESOGU Journal Of Engineering Architecture Faculty Journal- Face Recognition Applications via Priniciple Component Analysis and its Robust Versions)

* Yiğit,E., Yazar, I, Karakoç, T. H., (2018) "İNSANSIZ HAVA ARAÇLARI (İHA) ‘ LARIN KAPSAMLI SINIFLANDIRMASI VE GELECEK PERSPEKTİFİ",SÜHAD, 3(1), sf.10-19.

**NATIONAL CONFERENCE PAPERS**

* Yiğit,E., Yazar, I, Karakoç, T. H.,"HİBRİT ELEKTRİK İTKİ SİSTEMLERİ VE SİSTEM TASARIMINDA KOMPONENT SEÇİMİNİN ÖNEMİ", UHUK-2018, Samsun, Turkey.
* Yazar, I, "Havacılıkta Hibrit ElektrikTahrik Sistemleri Uygulamaları", UHAT-2017, İzmir, Turkey

• Yazar, I., Kıyak, E., Çalışkan, F., Kahraman, K., "Uyarlanabilir Sinirsel Bulanık Çıkarım Sistemi (ANFIS) ile Küçük Bir Turboprop Motor Üzerinde Yakıt Akışı Kontrol Sistemi Modellenmesi", 15. Otomatik Kontrol Ulusal Toplantısı (TOK), Malatya, 26/09/2013. (Fuel Flow Control Model of a Small-Scale Turboprop Engine via ANFIS - Turkish National Automatic Control Conference 2013)

• Yazar I., Kıyak E., "Hava Aracı Kablolarının Yalıtkanlik Testi Modellemesi", Ulusal Havacılık Teknolojisi ve Uygulamaları Kongresi - UHAT 2012, İzmir, 20/12/2012. (Insulation Test Modelling of Aircraft Cables-National Aerospace Technology and Applications Conference-2012)

**NATIONAL & INTERNATIONAL BOOK CHAPTERS**

• Yazar I., Kiyak E., Caliskan F., Progress in Exergy, Energy, and Environment, "A New Approach For Compressor & Turbine Performance Map Modelling By Using Anfis Structure", Ed: Ibrahim Dincer, Adnan Midilli, Haydar Kucuk, Springer, 2014.

• Yazar I., Kiyak E., Karakoc T. H., Causes, Impacts, and Solutions to Global Warming, "Green Building Approach in Turkish Aviation Sector", Ed: Ibrahim Dincer, Springer, 2013.

• Kıyak E., Yazar I. Basic Theorems. Circuit Analysis, Ed.: Emre Kıyak, Eskişehir: Anadolu University Publication, 2012-2015. (in Turkish)

• Kıyak E., Yazar I. Node Analysis ve Mesh Current Methods. Circuit Analysis, Ed.: Emre Kıyak, Eskişehir: Anadolu University Publication, 2012-2015. (in Turkish)

• Kıyak E., Yazar I. Circuit Laws. Circuit Analysis, Ed.: Emre Kıyak, Eskişehir: Anadolu University Publication, 2012-2015. (in Turkish)

• Kıyak E., Yazar I. Basic Definitions. Circuit Analysis, Ed.: Emre Kıyak, Eskişehir: Anadolu University Publication, 2012-2015. (in Turkish)

**OTHERS**

* IJAST-International Journal of Aerospace Science and Technolgy, **Assoc. Editor,** 2019-continues.
* Journal of Mechatronics and Artificial Intelligence in Engineering (JMAI), **Editorial Board** **Member**, 2019-continues.

• Karakoc T.H., Midilli A., Turan Ö., Orman E.,Tunca, F. and Yazar I. "The 6th International Green Energy Conference (IGEC-VI) Proceedings" Anadolu University, Eskisehir, Turkey, 5 – 9 June 2011. (ISBN – 978 – 605 – 89885– 3 – 8), **Editor**.

* ESOGUSEM-ETİ Makine Personeli İşbaşı Eğitimleri, 14 Kasım 2016-10 Şubat 2017, **Eğitici**
* ISSA 2020, **Advisory Board (International Scientific Commitee)**
* International Symposium on Sustainable Aviation ISSA-2015, **Organizing Commitee Member**
* International Symposium on Sustainable Aviation ISSA-2016, **Organizing Commitee Member**
* ESOGU **Eğitim Komisyonu Üyeliği,** 2019-devam ediyor
* ISSA 2019, **Advisory Board (International Scientific Commitee)**
* ISEAS 2019, **Advisory Board (International Scientific Commitee)**
* ESTÜ Proje Pazarı Jüri Üyeliği Mayıs 2020
* 6th Green Energy Conference-2011, **Organizing Commitee Member**
* **Reviewer:** Energy-The International Journal
* **Reviewer:** International Journal of Sustainable Aviation-IJSA
* **Reviewer:** Aircraft Engineering ans Aerospace Technology-AEAT
* **Reviewer:** Aerospace Science and Technology-AESCTE
* **Reviewer:** The Open Mechanical Engineering Journal-TOMEJ
* **Reviewer:** Journal of Aerospace Engineering
* **Reviewer:** SÜHAD
* **Reviewer:** Journal of Environmental Management
* **Reviewer:** Proceedings of the IMECHE, Part G: Journal of Aerospace Engineering
* **Reviewer:** IEEE
* **Reviewer:** Proceedings of the IMECHE, Part D: Journal of Automobile Engineering
* **Reviewer:** Transactions of the Institute of Measurement and Control
* **Reviewer:** International Journal of Global Warming-IJGW
* **Reviewer:** Advances in Mechanical Engineering
* **Reviewer:** Recent Patents on Computer Science
* **Review:** Advanced Composites Letters