Prof. KÜRŞAD MELİH GÜLEREN

Personal Information

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International Researcher IDs
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Publons / Web Of Science ResearcherID: I-2940-2016
ScopusID: 54958629100
Yoksis Researcher ID: 148082

Biography

Lisansını Orta Doğu Teknik Üniversitesi Havacılık Mühendisliği, yüksek lisansını Cumhuriyet Üniversitesi Makine Mühendisliği ve doktora öğrenimini Manchester Üniversitesi Makine Mühendisliği alanlarında tamamlayan Kürşad Melih Güleren, doçentliğini ise Havacılık ve Uzay Mühendisliği alanında almıştır. Cumhuriyet Üniversitesi, Türk Hava Kurumu Üniversitesi, Anadolu Üniversitesi, Eskişehir Teknik Üniversitesi, İstanbul Aydın Üniversitesi'nde görev yapan Güleren, halen Eskişehir Osmangazi Üniversitesi Uçak Mühendisliği Bölümü'nde Profesör kadrosunda çalışmaktadır. İdari görev kapsamında Bölüm Başkanlığı, Dekan Yardımcılığı ve Dekanlık görevlerinde bulunmuştur. Türk Havacılık ve Uzay Sanayii A. Ş.'de Hürkuş ve Milli Muharip Uçak projelerinde danışmanlık yapmıştır. Havacılık alanında 2 adet patent ve 2 adet faydalı modele imza atan Güleren; aeroakustik, aerodinamik, akış kontrolü, optimizasyon, sayısal modelleme, türbülans, turbomakinlar, uçak tasarımı ve yanma konularında bilimsel çalışmalarını yürütmektedir.

Education Information

Doctorate, The University of Manchester, School of MACE, Mechanical Engineering, England 2003 - 2007
Postgraduate, Sivas Cumhuriyet University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 1999 - 2003
Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Aerospace Engineering, Turkey 1994 - 1999

Dissertations

Doctorate, Large-eddy Simulation of Wall-Bounded Flows Subjected to Curvature and Rotation, The University of Manchester, School of MACE, Mechanical Engineering, 2007
Postgraduate, Santrifüj pompadaki durgunluğun nümerik analizi, Sivas Cumhuriyet University, Mühendislik Fakültesi, Makine Mühendisliği, 2003

Research Areas

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

Academic Titles / Tasks

Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, UÇAK MÜHENDİSLİĞİ BÖLÜMÜ, 2022 - Continues

Professor, Istanbul Aydin University, Faculty Of Engıneerıng, Aerospace Engineering, 2021 - 2022

Professor, Eskişehir Technical University, Faculty Of Aeronautıcal And Space Scıences, Department Of Pılotage, 2019 - 2021

Associate Professor, Eskişehir Technical University, Faculty Of Aeronautıcal And Space Scıences, Department Of Pılotage, 2018 - 2019

Associate Professor, Anadolu University, Havacılık Ve Uzay Bilimleri Fakültesi, Pilotaj Bölümü, 2016 - 2018

Associate Professor, University Of Turkish Aeronautical Association, Faculty Of Aeronautıcs And Astronautıcs, Department Of Aırcraft Engıneerıng, 2014 - 2016

Assistant Professor, University Of Turkish Aeronautical Association, Faculty Of Aeronautıcs And Astronautıcs, Department Of Aırcraft Engıneerıng, 2012 - 2014

Academic and Administrative Experience

Dean, Istanbul Aydin University, Faculty Of Engıneerıng, 2022 - 2022

Head of Department, Eskişehir Technical University, Faculty Of Aeronautıcal And Space Scıences, Department Of Pılotage, 2019 - 2021

Head of Department, University Of Turkish Aeronautical Association, Faculty Of Aeronautıcs And Astronautıcs, Department Of Aırcraft Engıneerıng, 2012 - 2016

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Assessment of Multigrid Schemes with Fixed Patterns for a Two-Dimensional Heat Transfer Problem**
TEKÇE M. S., GÜLEREN K. M.
Isı Bilimi ve Tekniği Dergisi, vol.44, no.2, pp.322-338, 2024 (SCI-Expanded)

II. **NUMERICAL INVESTIGATION of WAVE STRUCTURE IN ROTATING DETONATION ENGINES**
KOCAASLAN O., GÜLEREN K. M., SARACOĞLU B. H., YASA T.
Isı Bilimi ve Tekniği Dergisi, vol.44, no.1, pp.33-45, 2024 (SCI-Expanded)

III. **A study on required grid resolution for large eddy simulation analyses Büyük girdap benzetimi analizleri için gerekli ağ çözünürlüğü üzerine bir çalışma**
GÜLEREN K. M.
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.39, no.4, pp.2209-2221, 2024 (SCI-Expanded)

IV. **A PARAMETRIC STUDY ON THE SWIRLER FOR TURBULENT COMBUSTION**
Kocaaslan O., Yasa T., Guleren K. M.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.41, no.2, pp.205-226, 2021 (SCI-Expanded)

V. **Numerical Analysis of the Cavity Flow subjected to Passive Controls Techniques**
GÜLEREN K. M., TÜRK S., Demircan O. M., Demir O.
IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING, vol.326, no.012015, 2018 (SCI-Expanded)

VI. **Automatic optimization of a centrifugal pump based on impeller-diffuser interaction**
Guleren K. M.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART A-JOURNAL OF POWER AND ENERGY, vol.232, no.8, pp.1004-1018, 2018 (SCI-Expanded)

VII. **OPERATING TEMPERATURES OF THE SOLAR CELLS USED IN THE CONCENTRATOR SYSTEM WITH RADIATING PLATES**
Sengil N., Guleren K. M., Sengil U.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.36, no.2, pp.83-91, 2016

(SCI-Expanded)

VIII. **Numerical identification of blade exit angle effect on the performance for a multistage centrifugal pump impeller**
BABAYİĞİT O., KOCAASLAN O., AKSOY M. H., GÜLEREN K. M., ÖZGÖREN M.
EPJ WEB OF CONFERENCES, vol.92, 2015 (SCI-Expanded)

IX. **Numerical flow analysis of coronary arteries through concentric and eccentric stenosed geometries**
GÜLEREN K. M.
JOURNAL OF BIOMECHANICS, vol.46, no.6, pp.1043-1052, 2013 (SCI-Expanded)

X. **Numerical study of the turbulent flow in strongly curved stationary and rotating U-ducts**
GÜLEREN K. M.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS, vol.64, no.1, pp.23-43, 2010 (SCI-Expanded)

XI. **Laminarization of internal flows under the combined effect of strong curvature and rotation**
GÜLEREN K. M., Afgan I., Turan A.
JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME, vol.130, no.9, 2008 (SCI-Expanded)

XII. **Measurements of Reynolds stresses in centrifugal compressor vaned diffusers**
PINARBAŞI A., GÜLEREN K. M., ÖZTÜRK A.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.222, no.8, pp.1487-1503, 2008 (SCI-Expanded)

XIII. **Validation of large-eddy simulation of strongly curved stationary and rotating U-duct flows**
GÜLEREN K. M., Turan A.
INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW, vol.28, no.5, pp.909-921, 2007 (SCI-Expanded)

XIV. **Numerical simulation of the stalled flow within a vaned centrifugal pump**
GÜLEREN K. M., PINARBAŞI A.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.218, no.4, pp.425-435, 2004 (SCI-Expanded)

Articles Published in Other Journals

I. **Centrifugal Pump Optimization via Integration of Machine Learning and Computational Fluid Dynamics**
Rabbani S., GÜLEREN K. M., Afgan I.
Engineered Science, vol.30, 2024 (Scopus)

II. **A NUMERICAL STUDY ON THE CONTROL OF THE FLOW IN AN AXISYMMETRIC SUDDEN EXPANSION**
GÜLEREN K. M.
Anadolu Üniversitesi Bilim ve Teknoloji Dergisi :A-Uygulamalı Bilimler ve Mühendislik, vol.18, pp.1, 2017 (Peer-Reviewed Journal)

III. **Türk Hava Kurumu Uçak Tasarımları**
SÜLÜMBAZ M., GÜLEREN K. M.
Mühendis ve Makina, vol.54, no.638, pp.54-61, 2013 (Peer-Reviewed Journal)

IV. **Avrupa Birliği ve Türkiye nin Rüzgâr Enerjisi Üretiminin Güncel Bir Analizi**
KESKİN M. H., GÜLEREN K. M.
Mühendis ve Makina, vol.54, no.639, pp.57-68, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Adaptive Meshing Strategies for Steady Shock Wave at Transonic Regime**
GÜMÜŞ M. A., GÜLEREN K. M.
11th ANKARA INTERNATIONAL AEROSPACE CONFERENCE, Ankara, Turkey, 05 September 2021

II. **Noise reduction of Open Cavities by Passive Flow Control Methods at Transonic Speeds Using**

OpenFOAM
Demir O., ÇELİK B., GÜLEREN K. M.
31st International Conference on Parallel Computational Fluid Dynamics, Antalya, Turkey, 14 - 17 May 2019

III. **Aeroacoustics Analysis of Flaps and Spoilersfor High-Speed Open Cavity Flows**
demircan o. m., demir o., TÜRK S., GÜLEREN K. M.
6th OpenFOAM Conference 2018, Germany, 23 - 25 October 2018

IV. **THE MODELING OF THE TURBULENT FLOW IN A GENERIC CONTRACTED ARTERY GEOMETRY**
GÜLEREN K. M.
9TH INTERNATIONAL BIOMECHANICS CONGRESS, Eskişehir, Turkey, 19 - 22 September 2018

V. **TURBULENT FLOW ANALYSIS IN AN IDEAL STENOSED RCA AND LAD MODEL**
GÜLEREN K. M.
9 TH INTERNATIONAL BIOMECHANICS CONGRESS, Eskişehir, Turkey, 19 - 22 September 2018

VI. **Transonik Akışlarda Girdap Üreteçlerinin Kavite Gürültüsüne Etkisi**
Demir O., ÇELİK B., GÜLEREN K. M.
7. Ulusal Havacılık ve Uzay Konferansı, Turkey, 12 - 14 September 2018

VII. **Aeroacustics Analysis of a Hybrid Control Method for the Flow-Induced Noise Generation of Transonic Cavity Flows**
demircan o. m., demir o., TÜRK S., GÜLEREN K. M.
ICCFD 10 : 2018 International Conference on Computational Fluid Dynamics, Spain, 9 - 13 July 2018

VIII. **Supersonic CFD Analysis of a Mach 2.65 Mixed-Compression Axisymmetric Intake**
BAŞIBÜYÜK A., KOCAASLAN O., GÜLEREN K. M.
International Conference on Applied Mathematics in Engineering (ICAME), 27 June 2018 - 29 June 2019

IX. **Numerical Investigation of the Wrap Angle Effect on Swirler Blade Combustion Performance**
KOCAASLAN O., GÜLEREN K. M.
International Conference on Applied Mathematics in Engineering (ICAME), 27 - 29 June 2018

X. **Analysis of the NASA S-Duct Intake**
KUTLUBAY İ. K., BABAYİĞİT O., GÜLEREN K. M.
International Conference on Applied Mathematics in Engineering (ICAME), 27 - 29 June 2018

XI. **Supersonic CFD Analysis of a Mach 2.56 Mixed-Compression Axisymmetric Intake**
BAŞIBÜYÜK A. C., KOCAASLAN O., GÜLEREN K. M.
International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 27 - 29 June 2018

XII. **NUMERICAL INVESTIGATION OF THE EFFECT OF SWIRLER BLADE WRAP ANGLE ON COMBUSTION CHAMBER EFFICIENCY**
KOCAASLAN O., GÜLEREN K. M.
International Conference on Applied Mathematics in Engineering (ICAME), Balıkesir, Turkey, 27 - 29 June 2018

XIII. **Numerical Analysis of the Cavity Flow subjected to Passive Control Techniques**
GÜLEREN K. M., TÜRK S., Demircan O. M., Demir O.
3rd International Conference on Mechanicaland Aeronautical Engineering, 13 - 16 December 2017

XIV. **Conceptual Design of an Annular Type Combustion Chamber**
KOCAASLAN O., GÜLEREN K. M.
ICENTE 2017: International Conference on Engineering Technologies, 7 - 09 December 2017

XV. **Kavite Akışlardaki Pasif Kontrol Yönteminin Sayısal Yöntemlerle Doğrulanması**
TÜRK S., Demircan O. M., Demir O., GÜLEREN K. M.
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017

XVI. **Validation of Open-Source Cfd Software For High Speed Turbulent Cavity Flows**
Demircan O. M., Demir O., TÜRK S., GÜLEREN K. M.
AIAC 2017: 9th Ankara International Aerospace Conference, 20 - 22 September 2017

XVII. **Application of Analytic Network Process in Evaluating Initial Training Aircraft**
AYAR M., Cavcar M., GÜLEREN K. M.
AIAC 2017: 9th Ankara International Aerospace Conference, 20 - 22 September 2017

XVIII. **The Effect of Boundary Conditions on The Subsonic Turbulent Cavity Flows**

Demir O., Demircan O. M., TÜRK S., GÜLEREN K. M.
ISSA 2017: International Symposium of Sustainable Aviation, 10 - 13 September 2017

XIX. **Bir İş Jeti Hava Taşıtının Sistem Mühendisliği Yaklaşımıyla Kavramsal Tasarımı**
KUTAY Ç., GÜLEREN K. M.
6. Ulusal Havacılık ve Uzay Konferansı, Turkey, 28 - 30 September 2016

XX. **Thermal and Flow Field Analysis of Electronic Components Inside a Desktop Computer Chassis**
ÇETİN K., GÜLEREN K. M.
Ninth International Conference onComputational Fluid Dynamics (ICCFD9), 11 - 15 July 2016

XXI. **Solution of the Two Dimensional Steady State Heat Conduction using the Finite Volume Method**
MORASATA R., GÜLEREN K. M.
Ninth International Conference onComputational Fluid Dynamics (ICCFD9), 11 - 15 July 2016

XXII. **Aerodynamic Analysis Of The Flow Over A Tilt Rotor Aircraft**
MORASATA R., GÜLEREN K. M.
The International Symposium on Sustainable Aviation 2016, 29 May - 01 June 2016

XXIII. **A System Engineering Methodology Applied To The Design Of A Business Jet Aircraft**
ÇETİN K., GÜLEREN K. M.
The International Symposium on Sustainable Aviation 2016, 29 May - 01 June 2016

XXIV. **Aerodynamic Computational Fluid Dynamics Analysis of A Medium Altitude Long Endurance Unmanned Aerial Vehicle**
DEMİRCAN O. M., GÜLEREN K. M.
The International Symposium on Sustainable Aviation 2016, 29 May - 01 June 2016

XXV. **Aerodynamic Cfd Analysis of A Jet Driven Fighter Aircraft**
DEMİR O., GÜLEREN K. M.
The International Symposium on Sustainable Aviation 2016, 29 May - 01 June 2016

XXVI. **Design of A Four Seat Civil Trainer Aircraft ISSA 2016 International Symposium of Sustainable Aviation**
MORASATA R., GÜLEREN K. M.
The International Symposium on Sustainable Aviation 2016, 29 May - 01 June 2016

XXVII. **Numerical identification of blade exit angle effect on the performance for a multistage centrifugal pump impeller**
BABAYİĞİT O., KOCAASLAN O., AKSOY M. H., GÜLEREN K. M., ÖZGÖREN M.
9th International Conference on Experimental Fluid Mechanics, 18 - 21 November 2014

Supported Projects

Güleren K. M., Project Supported by Higher Education Institutions, Uçak Motorlarındaki Bir Yanma Odasının Kavramsal Tasarımı ve Yanmanın Sayısal İncelemesi, 2019 - 2021

Güleren K. M., Project Supported by Other Private Institutions, Transonik ve Süpersonik Rejimlerde Kavite Akışın Pasif Ve Aktif Kontrolü, 2017 - 2019

Güleren K. M., Project Supported by Higher Education Institutions, Delta Kanatlı Muharip bir Uçağın Aerodinamik Analizi, 2017 - 2018

Güleren K. M., Project Supported by Higher Education Institutions, Temel Eğitim Uçakları İçin Dizayn Ve İşletme Karakteristikleri Etüdü, 2016 - 2017

Güleren K. M., Project Supported by Higher Education Institutions, Sistem Mühendisliği Tabanlı Kavramsal İş Jeti Uçak Tasarımı, 2016 - 2017

Güleren K. M., Industrial Thesis Project, Yıkayıcılarda Daha Düşük Devirlerde Maksimum Sıkma Veriminin Elde Edilmesi, 2013 - 2015

Güleren K. M., Industrial Thesis Project, Düşey milli çok kademeli santrifüj pompalarda pasif akış kontrolü ile verim iyileştirilmesi, 2012 - 2015

Güleren K. M., Project Supported by Higher Education Institutions, Santrifüj pompalarda oluşan durgunluğun 2 boyutlu

PIV ölçümleri ile analizi, 2002 - 2003