

Asst. Prof. KEMAL KOCA

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , Turkey 2017 - 2022

Doctorate, Universitaet der Bundeswehr München, Institut für Strömungsmechanik und Aerodynamik, Fakultät für Luft- und Raumfahrttechnik, Germany 2021 - 2021

Postgraduate, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , Turkey 2014 - 2016

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, Turkey 2007 - 2012

Foreign Languages

English, C1 Advanced

German, B1 Intermediate

Spanish, B2 Upper Intermediate

Certificates, Courses and Trainings

Vocational Training, The Training Course of Introduction to ANSYS FLUENT (CFD), ANOVA-Ankara/Turkey, 2016

Vocational Training, The Training Course of Introduction to ANSYS MECHANICAL (CFD), ANOVA-Ankara/Turkey, 2016

Education Management and Planning, The Training Course of Introduction to ANSYS Thermal and FSI Analysis (CFD), ANOVA-Ankara/Turkey, 2016

Education Management and Planning, The Training Course of Introduction to ANSYS Dynamic Analyze and ANSYS ACP (CFD), ANOVA-Ankara/Turkey, 2016

Vocational Training, Intensive Course on Installation, Operation and Maintenance of Particle Image Velocimetry (PIV), The Dantec Dynamics-Copenhagen/Denmark, 2016

Foreign Language, Formación Inicial de Profesores de Español/ Lengua Extranjera., Instituto Cervantes de Estambul, 2009

Dissertations

Doctorate, Investigation of flow control capability with changing the place and length of flexible membranes in wind turbine blades, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , 2022

Postgraduate, The flow control with roughness devices over wind turbine airfoil, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği , 2016

Research Areas

Energy, Fluid Mechanics, Renewable Energy Systems, Alternative Energy Resources, Solar energy, Wind power, Solid Mechanics, Mechanical Testing, Aeronautical and Space Engineering, Composites

Academic Titles / Tasks

Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, Makine Mühendisliği, 2022 - Continues

Research Assistant, Erciyes University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2014 - 2022

Researcher, Universitaet der Bundeswehr München, Institut für Strömungsmechanik und Aerodynamik, Fakultät für Luft-und Raumfahrttechnik, 2021 - 2021

Jury Memberships

Post Graduate, Post Graduate, Muğla Sıtkı Koçman Üniversitesi, January, 2023

Academic Staff Examination, Academic Staff Examination, Abdullah Gül Üniversitesi, November, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Nuclear energy consumption, energy access and energy poverty: Policy implications for the COP27 and environmental sustainability**
Bashir M. F., Ma B., Sharif A., Ao T., KOCA K.
Technology in Society, vol.75, 2023 (SSCI)
- II. **Investigating the best automatic programming method in predicting the aerodynamic characteristics of wind turbine blade**
ARSLAN S., KOCA K.
Engineering Applications of Artificial Intelligence, vol.123, 2023 (SCI-Expanded)
- III. **Passive Flow Control Application Using Single and Double Vortex Generator on S809 Wind Turbine Airfoil**
Özden M., GENÇ M. S., Koca K.
Energies, vol.16, no.14, 2023 (SCI-Expanded)
- IV. **Investigation of the effect of hidden vortex generator-flap integrated mechanism revealed in low velocities on wind turbine blade flow**
Özden M., GENÇ M. S., KOCA K.
Energy Conversion and Management, vol.287, 2023 (SCI-Expanded)
- V. **Impact of local flexible membrane on power efficiency stability at wind turbine blade**
Koca K., GENÇ M. S., Erturk S.
RENEWABLE ENERGY, vol.197, pp.1163-1173, 2022 (SCI-Expanded)
- VI. **Evaluating environmental commitments to COP21 and the role of economic complexity, renewable energy, financial development, urbanization, and energy innovation: Empirical evidence from the RCEP countries**
Bashir M. F., Ma B., Hussain H. I., Shahbaz M., Koca K., Shahzadi I.
RENEWABLE ENERGY, vol.184, 2022 (SCI-Expanded)
- VII. **Experimental study of the wind turbine airfoil with the local flexibility at different locations for more energy output**
Koca K., GENÇ M. S., Bayir E., Soguksu F. K.
ENERGY, vol.239, 2022 (SCI-Expanded)
- VIII. **Mapping of laminar separation bubble and bubble-induced vibrations over a turbine blade at low**

Reynolds numbers

Koca K., GENÇ M. S., Ozkan R.

OCEAN ENGINEERING, vol.239, 2021 (SCI-Expanded)

- IX. **Suitable site selection for offshore wind farms in Turkey's seas: GIS-MCDM based approach**
GENÇ M. S., Karipoglu F., Koca K., AZGIN Ş. T.
EARTH SCIENCE INFORMATICS, vol.14, no.3, pp.1213-1225, 2021 (SCI-Expanded)
- X. **Effect of partial flexibility over both upper and lower surfaces to flow over wind turbine airfoil**
GENÇ M. S., AÇIKEL H. H., Koca K.
ENERGY CONVERSION AND MANAGEMENT, vol.219, 2020 (SCI-Expanded)
- XI. **A review of the legal framework in shallow geothermal energy in selected European countries: Need for guidelines**
Tsagarakis K. P., Efthymiou L., Michopoulos A., Mavragani A., Andelkovic A. S., Antolini F., Bacic M., Bajare D., Baralis M., Bogusz W., et al.
RENEWABLE ENERGY, vol.147, pp.2556-2571, 2020 (SCI-Expanded)
- XII. **Investigation of pre-stall flow control on wind turbine blade airfoil using roughness element**
GENÇ M. S., Koca K., AÇIKEL H. H.
ENERGY, vol.176, pp.320-334, 2019 (SCI-Expanded)
- XIII. **Identification of flow phenomena over NACA 4412 wind turbine airfoil at low Reynolds numbers and role of laminar separation bubble on flow evolution**
Koca K., GENÇ M. S., AÇIKEL H. H., Cagdas M., Bodur T. M.
ENERGY, vol.144, pp.750-764, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **GIS-AHP APPROACH FOR A COMPREHENSIVE FRAMEWORK TO DETERMINE THE SUITABLE REGIONS FOR GEOTHERMAL POWER PLANTS IN IZMIR, TÜRKİYE**
KOCA K., KARIPOGLU f., Zeray Öztürk E.
Konya mühendislik bilimleri dergisi (Online), vol.12, no.1, pp.263-279, 2024 (Peer-Reviewed Journal)
- II. **Flow Properties of An Ahmed Body with Different Passive Flow Control Methods**
Koca K., Özden M.
Gazi University Journal of Science Part C: Design and Technology, vol.11, no.4, pp.1-17, 2023 (Peer-Reviewed Journal)
- III. **Öndeki Aracın Akışına Maruz Kalan Otobüsün Üzerinde Oluşan Aerodinamik Etkinin Sayısal Olarak İncelenmesi**
Özden M., Koca K.
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Fen Bilimleri Dergisi, vol.39, no.1, pp.116-125, 2023 (Peer-Reviewed Journal)
- IV. **Improvement of mechanical behaviour of wind turbine blade using nanofluid graphene and/or glass fiber in epoxy resin**
Ergüner A., Özkan R., Koca K., Genç M. S.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.39, no.1, pp.58-69, 2021 (ESCI)
- V. **Electricity production from piezoelectric patches mounted over flexible membrane wing at low Reynolds numbers**
Bayramoğlu N., Genç M. S., Koca K., Altunal A.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.39, no.1, pp.70-79, 2021 (ESCI)
- VI. **Determination of the most appropriate site selection of wind power plants based geographic information system and multi-criteria decision-making approach in develi, Turkey**
Karipoğlu F., GENÇ M. S., Koca K.
International Journal of Sustainable Energy Planning and Management, vol.30, pp.97-114, 2021 (Scopus)
- VII. **Effects of 2019 novel coronavirus (COVID-19) outbreak on global energy demand and the electricity**

production with renewables: a comprehensive survey

Koca K., Genç M. S.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.38, no.3, pp.1369-1380, 2020 (ESCI)

VIII. EFFECTS OF THICKNESS AND CAMBER RATIO ON FLOW CHARACTERISTICS OVER AIRFOILS

Karasu I., AÇIKEL H. H., Koca K., GENÇ M. S.

JOURNAL OF THERMAL ENGINEERING, vol.6, no.3, pp.242-252, 2020 (ESCI)

Books & Book Chapters

I. İHA'lar ve MAV'lar için Yüksek Manevra Kabiliyeti ve Düşük Yapısal Ağırlığın Önünü Açacak Geleneksel ve Yeni Pasif Akış Kontrol Teknikleri

Genç M. S., Koca K., Demir H., Açikel H. H.

Springer Nature, Zürich, 2020

Refereed Congress / Symposium Publications in Proceedings

I. RECOGNIZING FLOW EVALUATION ON SURFACE OF NACA0015 AIRFOIL AT VARIOUS ANGLES OF ATTACK

Özden M., Açikel H. H., Genç M. S., Koca K.

INTERNATIONAL ASIAN CONGRESS ON CONTEMPORARY SCIENCES - VII, Olongapo, Philippines, 9 - 11 November 2022, pp.275-281

II. FLOW CHARACTERISTICS ON NACA2415 AIRFOIL AT LOW REYNOLDS NUMBER

Özden M., Genç M. S., Açikel H. H., Koca K.

VI. INTERNATIONAL ICONTECH CONFERENCE ON INNOVATIVE SURVEYS IN POSITIVE SCIENCES, Rijeka, Croatia, 4 - 05 December 2022, pp.222-228

Supported Projects

Genç M. S., Koca K., Project Supported by Higher Education Institutions, RÜZGAR TÜRBİNİ KANATLARINDA ESNEKLİĞİN YERİ VE BOYUNUN DEĞİŞİMİ İLE AKIŞ KONTROL KABİLİYETİNİN İNCELENMESİ, 2019 - 2022

Genç M. S., Açikel H. H., Demir H., Koca K., TUBITAK Project, ESNEK KANATLARIN DÜŞÜK REYNOLDS SAYILARINDA KARARSIZ AERODİNAMİĞİNİN İNCELENMESİ, 2015 - 2018

Scholarships

2214-A Yurt Dışı Doktora Sırası Araştırma Burs Programı, TUBITAK, 2021 - 2022

2211-C Öncelikli Alanlara Yönelik Yurt İçi Doktora Bursu, TUBITAK, 2018 - 2021

2224-A Yurt Dışı Bilimsel Etkinliklere Katılımı Destekleme Programı Bursu, TUBITAK, 2019 - 2019

2210-C Öncelikli Alanlara Yönelik Yurt İçi Yüksek Lisans Bursu, TUBITAK, 2015 - 2016

Awards

Koca K., YÖK 2023 Üstün Başarı Ödülleri, Yüksek Öğrenim Kurulu, October 2023

Koca K., Akademik Teşvik, Yükseköğretim Kurulu Başkanlığı, January 2022

Koca K., Akademik Teşvik, Yükseköğretim Kurulu Başkanlığı, January 2021

Koca K., Akademik Teşvik, Yükseköğretim Kurulu Başkanlığı, January 2020

Koca K., Akademik Teşvik, Yükseköğretim Kurulu Başkanlığı, January 2019

Koca K., Best Presentation Award in ICAS 2017, Yıldız Teknik Üniversitesi, September 2017

Koca K., Akademik Teşvik, Yükseköğretim Kurulu Başkanlığı, January 2017