

## Assoc. Prof. GÖKTÜRK MEMDUH ÖZKAN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABE-4448-2020

ScopusID: 54790012400

Yoksis Researcher ID: 48538

### Education Information

Post Doctorate, Technische Universiteit Delft, 3Me/Process & Engineering, Fluid Mechanics, Netherlands 2017 - 2018

Doctorate, Cukurova University, Makina Mühendisliği, Makine Mühendisliği, Turkey 2011 - 2014

### Dissertations

Doctorate, Suppression of Vortex Shedding in the Wake of a Circular Cylinder by Attached Permeable Plates in Deep Water, Cukurova University, Makina Mühendisliği, Makine Mühendisliği, 2014

Postgraduate, Flow Control Downstream of a Circular Cylinder via a Surrounding Meshy Cylinder in Shallow Water, Cukurova University, Makina Mühendisliği, Makine Mühendisliği, 2011

### Research Areas

Mechanical Engineering, Energy, Fluid Mechanics, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2023 - Continues

Assistant Professor, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2018 - 2023

Researcher, Technische Universiteit Delft, Process & Energy, Fluid Mechanics, 2017 - 2018

Assistant Professor, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2014 - 2018

Research Assistant, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2009 - 2014

### Academic and Administrative Experience

Cukurova University, 2018 - Continues

Cukurova University, Makine Mühendisliği, 2016 - 2017

Cukurova University, 2015 - 2015

### Courses

Fluid Mechanics I, Undergraduate, 2023 - 2024  
Computational Fluid Dynamics, Postgraduate, 2015 - 2016  
Thermodynamics I, Undergraduate, 2016 - 2017, 2015 - 2016  
Measurement and Instrumentation, Undergraduate, 2015 - 2016  
Computational Fluid Dynamics, Undergraduate, 2016 - 2017, 2015 - 2016  
Akışkanlar Mekaniği, Undergraduate, 2016 - 2017, 2015 - 2016  
Thermodynamics II, Undergraduate, 2015 - 2016  
Principles of Mechanical Engineering, Undergraduate, 2014 - 2015  
Computational Fluid Dynamics, Postgraduate, 2014 - 2015  
Measurement and Instrumentation, Undergraduate, 2014 - 2015

## Advising Theses

Özkan G. M., FLOW MEASUREMENTS AROUND A BIO-INSPIRED BLUFF BODY, Postgraduate, H.EĞİTMEN(Student), 2021  
Özkan G. M., CFD analysis of biomass steam gasification in fluidized bed gasifier, Postgraduate, H.ABDULKAREM(Student), 2019

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Aerodynamic drag improvements on a circular cylinder using passive Venturi actuators**  
Firat E., SEYHAN M., ÖZKAN G. M.  
Physics of Fluids, vol.36, no.2, 2024 (SCI-Expanded)
- II. **An investigation on implementing wet torrefaction to dewatered poultry sludge**  
DİKER İ., ÖZKAN G. M.  
BIOMASS CONVERSION AND BIOREFINERY, vol.14, no.4, pp.5517-5530, 2024 (SCI-Expanded)
- III. **Turbulent structures in an airfoil wake at ultra-low to low Reynolds numbers**  
ÖZKAN G. M., EĞİTMEN H.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.134, 2022 (SCI-Expanded)
- IV. **CFD analysis of biomass steam gasification in fluidized bed gasifier: A parametric study by the assessment of drying stage**  
Al-Qadasi H., Özkan G. M.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.43, no.19, pp.2369-2390, 2021 (SCI-Expanded)
- V. **Control of the flow in the near wake of an airfoil at full stall using fixed trailing-edge plates**  
ÖZKAN G. M.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.122, 2021 (SCI-Expanded)
- VI. **Stereoscopic PIV measurements of flow over a riblet surface at high Reynolds number**  
Özkan G. M., Elsinga G. E., Breugem W., Stuebing D., Reynolds K. J., Westerweel J.  
EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.120, 2021 (SCI-Expanded)
- VII. **Flow past a hollow cylinder with two spanwise rows of holes**  
Firat E., ÖZKAN G. M., AKILLI H.  
EXPERIMENTS IN FLUIDS, vol.60, no.11, 2019 (SCI-Expanded)
- VIII. **The effect of shroud on vortex shedding mechanism of cylinder**  
DURHASAN T., PINAR E., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
APPLIED OCEAN RESEARCH, vol.84, pp.51-61, 2019 (SCI-Expanded)
- IX. **PIV measurement downstream of perforated cylinder in deep water**  
DURHASAN T., PINAR E., ÖZKAN G. M., AKSOY M. M., AKILLI H., ŞAHİN B.  
EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.72, pp.225-234, 2018 (SCI-Expanded)
- X. **Control of Vortex Shedding Using a Screen Attached on the Separation Point of a Circular Cylinder**

### **and Its Effect on Drag**

ÖZKAN G. M., Firat E., AKILLI H.

JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME, vol.139, no.7, 2017 (SCI-Expanded)

XI. **PIV measurements in the near wakes of hollow cylinders with holes**

Firat E., ÖZKAN G. M., AKILLI H.

EXPERIMENTS IN FLUIDS, vol.58, no.5, 2017 (SCI-Expanded)

XII. **Passive flow control in the near wake of a circular cylinder using attached permeable and inclined short plates**

ÖZKAN G. M., Firat E., Akilli H.

OCEAN ENGINEERING, vol.134, pp.35-49, 2017 (SCI-Expanded)

XIII. **Vortex street suppression of a circular cylinder using perforated semi-circular fairing in shallow water**

DURHASAN T., Aksoy M. M., PINAR E., ÖZKAN G. M., AKILLI H., ŞAHİN B.

EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.79, pp.101-110, 2016 (SCI-Expanded)

XIV. **Flow structure around perforated cylinders in shallow water**

PINAR E., ÖZKAN G. M., DURHASAN T., Aksoy M. M., AKILLI H., ŞAHİN B.

JOURNAL OF FLUIDS AND STRUCTURES, vol.55, pp.52-63, 2015 (SCI-Expanded)

XV. **Flow around a cylinder surrounded by a permeable cylinder in shallow water**

ÖZKAN G. M., Oruc V., AKILLI H., ŞAHİN B.

EXPERIMENTS IN FLUIDS, vol.53, no.6, pp.1751-1763, 2012 (SCI-Expanded)

XVI. **PIV studies around a bus model**

GÜRLEK C., ŞAHİN B., ÖZKAN G. M.

EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol.38, pp.115-126, 2012 (SCI-Expanded)

### **Articles Published in Other Journals**

I. **Kavisli Delikli Plaka ile Girdap Kaynaklı Türbülanslı Akışın Kontrolü**

ÖZKAN G. M., DURHASAN T., PINAR E.

Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.35, no.4, pp.1021-130, 2020 (Peer-Reviewed Journal)

II. **Experimental Investigation of the Flow Characteristics around a NACA0012 Airfoil Subjected to Stall and Post-Stall Conditions**

Özkan G. M.

Çukurova Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.35, no.2, pp.369-378, 2020 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

I. **Flow measurements in the wake of screen cylinders in shallow water**

HAKLIGÖR İ. M., ÖZKAN G. M., AKILLI H.

18th European Turbulence Conference, Valencia, Spain, 4 - 06 September 2023, pp.94

II. **UPGRADING FUEL CHARACTERISTIC OF POULTRY SLUDGE VIA WET TORREFACTION**

Diker İ., Özkan G. M.

ULUSLARARASI KATILIMLI 23.ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Gaziantep, Turkey, 8 - 10 September 2021, vol.2, pp.1162-1163

III. **Dairesel Silindir Etrafındaki Akış Yapısının Kontrü İçin Hibrit Control Elementi**

PINAR E., DURHASAN T., ÖZKAN G. M., OLMUŞ U., AKILLI H., ŞAHİN B.

7th International Symposium on Innovative Technologies in Engineering and Science, Turkey, 22 - 24 November 2019, vol.2, pp.905-915

- IV. **The Effect of Gasification Temperature on Fluidized Bed Gasification Process - CFD Study**  
Al Qadasi H. A. A., Ibrahim A. A., ÖZKAN G. M., AKILLI H.  
22nd Congress on Thermal Science and Technology, Kocaeli, Turkey, 11 - 14 September 2019
- V. **Simulation Study of Poultry Sludge Gasification Using Aspen Plus**  
Ibrahim A. A., AlQadasi H. A. A., ÖZKAN G. M., AKILLI H.  
22nd Congress on Thermal Science and Technology, Turkey, 11 - 14 September 2019
- VI. **DAİRESEL SİLİNDİRİN YAKIN ARD İZİNİN DELİKLİ İKİ PLAKA YARDIMI İLE KONTROL EDİLMESİ**  
PINAR E., DURHASAN T., OLMUŞ U., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
International Symposium on Advanced Engineering Technologies, Kahramanmaraş, Turkey, 2 - 04 May 2019, vol.1, pp.1422-1512
- VII. **Control of the Flow Structure of a Circular Cylinder Using Concentrically Installed Perforated Cylinder and Splitter Plate**  
PINAR E., YENİÇUN A., ÖZKAN G. M., DURHASAN T., OLMUŞ U., AKILLI H., ŞAHİN B.  
6th International Symposium on Innovative Technologies in Engineering and Science, Antalya, Turkey, 9 - 11 November 2018, pp.761-777
- VIII. **Cross-stream flow over a drag reducing riblet for high Reynolds number**  
ÖZKAN G. M., Westerweel J., Elsinga G.  
12th European Fluid Mechanics Conference, Viyana, Austria, 9 - 13 September 2018
- IX. **Dairesel Silindirin Etrafindaki Akışın Delikli Plaka Yardımı ile Kontrol Edilmesi**  
PINAR E., DURHASAN T., ÖZKAN G. M., OLMUŞ U., ÇETİN A., AKILLI H., ŞAHİN B.  
International Science and Research Congress, Girne, Cyprus (Kkctc), 4 - 06 September 2018, pp.55-56
- X. **Dairesel Silindirin Etrafindaki Akışın Delikli Plaka Yardımı ile Kontrol Edilmesi**  
PINAR E., DURHASAN T., ÖZKAN G. M., OLMUŞ U., ÇETİN a., AKILLI H., ŞAHİN B.  
Science and Research Congress Cyprus, 4 - 06 September 2018
- XI. **An investigation of the near-wake flow structure of a cylinder with guiding plates**  
EKİNCİ F., FIRAT E., ÖZKAN G. M., AKILLI H.  
Experimental Fluid mechanics 2017, 21 - 24 November 2017
- XII. **Flow structure in the annular region of perforated shroud**  
DURHASAN T., PINAR E., ÖZKAN G. M., OLMUŞ U., AKILLI H., ŞAHİN B.  
Mediterranean Natural Sciences and Engineering Congress, 19 - 22 October 2017
- XIII. **The use of perforated shroud for controlling the flow around a circular cylinder**  
DURHASAN T., ÖZKAN G. M., PINAR E., AKSOY M. M., AKILLI H., ŞAHİN B.  
International Congress on Natural and Engineering Sciences, 21 - 25 July 2017
- XIV. **Vortex Street Suppression of Circular Cylinder by Perforated Cylinder in Deep Water**  
DURHASAN T., ÖZKAN G. M., PINAR E., AKSOY M. M., AKILLI H., ŞAHİN B.  
International Congress on Natural and Engineering Sciences, Belgrade, Serbia, 21 - 25 July 2017, pp.32
- XV. **Vortex shedding control of circular cylinder by perforated shroud in deep water**  
ÖZKAN G. M., DURHASAN T., PINAR E., Aksoy M. M., AKILLI H., ŞAHİN B.  
11th International Conference on Experimental Fluid Mechanics (EFM), Marienbad, Czech Republic, 15 - 18 November 2016, vol.143
- XVI. **Control of the flow in the annular region of a shrouded cylinder with splitter plate**  
ÖZKAN G. M., DURHASAN T., PINAR E., YENİÇUN A., AKILLI H., ŞAHİN B.  
11th International Conference on Experimental Fluid Mechanics (EFM), Marienbad, Czech Republic, 15 - 18 November 2016, vol.143
- XVII. **The effects of perforated cylinders on the vortex shedding on the suppression of a circular cylinder**  
PINAR E., DURHASAN T., ÖZKAN G. M., Aksoy M. M., AKILLI H., ŞAHİN B.  
11th International Conference on Experimental Fluid Mechanics (EFM), Marienbad, Czech Republic, 15 - 18 November 2016, vol.143
- XVIII. **The effects of perforated cylinders on the vortex shedding suppression of a circular cylinder**  
PINAR E., DURHASAN T., ÖZKAN G. M., AKSOY M. M., AKILLI H., ŞAHİN B.  
Experimental fluid mechanics 2016, Czech Republic, 15 - 18 November 2016

- XIX. **Effect of perforated fairing on the flow control of a circular cylinder in deep water**  
PINAR E., ÖZKAN G. M., AKSOY M. M., AKILLI H., ŞAHİN B., DURHASAN T.  
1. international mediterranean science and engineering congress, Adana, Turkey, 26 October - 28 November 2016, pp.3960-3964
- XX. **Vortex Shedding Control Using a Permeable Plate Located around the separation Point of a Circular Cylinder**  
ÖZKAN G. M., AKILLI H.  
ASME IMECE, 9 - 13 November 2015
- XXI. **VORTEX SHEDDING CONTROL USING A PERMEABLE PLATE LOCATED AROUND THE SEPARATION POINT OF A CIRCULAR CYLINDER**  
ÖZKAN G. M., AKILLI H.  
ASME International Mechanical Engineering Congress and Exposition (IMECE2015), Texas, United States Of America, 13 - 19 November 2015
- XXII. **Determination of Atomization Characteristics of a Diesel Injector**  
TÜCCAR G., ÖZKAN G. M., AYDIN K.  
The 2nd International Conference on Sensors and Materials Manufacturing Science 2015, Paris, France, 17 - 18 January 2015, pp.7
- XXIII. **The Vortex Shedding Control of Circular Cylinder by Perforated Fairing in Shallow Water**  
DURHASAN T., PINAR E., AKSOY M., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
2ND International Symposium on Innovative Technologies in Engineering and Science, Karabük, Turkey, 18 - 20 June 2014, pp.1-10
- XXIV. **Flow control around bluff bodies by attached permeable plates**  
ÖZKAN G. M., AKILLI H.  
International Conference on Fluid Mechanics 2014, Berlin, Germany, 22 - 23 May 2014
- XXV. **SUPPRESSION OF VORTEX SHEDDING DOWNSTREAM OF A CIRCULAR CYLINDER USING PERMEABLE CYLINDERS IN SHALLOW WATER**  
ÖZKAN G. M., AKILLI H.  
ASME International Mechanical Engineering Congress and Exposition (IMECE2013), California, United States Of America, 15 - 21 November 2013
- XXVI. **THE PASSIVE CONTROL OF UNSTEADY FLOW STRUCTURE DOWNSTREAM OF A CIRCULAR CYLINDER IN SHALLOW WATER**  
DURHASAN T., PINAR E., AKSOY M., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
ASME International Mechanical Engineering Congress and Exposition (IMECE2013), California, United States Of America, 15 - 21 November 2013
- XXVII. **The Passive Control of Flow Structure Downstream of Circular Cylinder in Shallow Water**  
DURHASAN T., PINAR E., AKSOY M., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
International Mechanical Engineering Congress & Exposition, San Diego, United States Of America, 15 - 21 November 2013, pp.1-10
- XXVIII. **Sığ suda dairesel silindir arkasındaki daimi olmayan girdapların delikli yarım silindir ile kontrol edilmesi**  
DURHASAN T., AKSOY M., PINAR E., ÖZKAN G. M., AKILLI H., ŞAHİN B.  
19. Ulusal Isı Bilim ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.1-6
- XXIX. **Derin Suda Delikli Silindir ile Yalın Silindirin Akış Yapısının Kıyaslanması**  
AKSOY M., PINAR E., ÖZKAN G. M., DURHASAN T., AKILLI H., ŞAHİN B.  
19. Ulusal Isı Bilim ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.1-10
- XXX. **Sığ Suda İç Silindir ile Dış Silindir arasında kalan bölgenin araştırılması**  
PINAR E., DURHASAN T., ÖZKAN G. M., AKSOY M., AKILLI H., ŞAHİN B.  
19. Ulusal Isı Bilim ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013, pp.1-8
- XXXI. **Flow Structure around Shrouded Cylinders in Shallow Water**  
ÖZKAN G. M., PINAR E., AKSOY M., DURHASAN T., AKILLI H., ŞAHİN B.  
ISITES 2013, 1 st International Symposium On Innovative Technologies In Engineering And Science, Sakarya,

Turkey, 7 - 09 June 2013, pp.1-2

**XXXII. Effect of High Porosity Screen on the Near Wake of a Circular Cylinder**

ÖZKAN G. M., AKILLI H., ŞAHİN B.

7th International Conference on Experimental Fluid Mechanics (EFM), Hradec-Kralove, Czech Republic, 20 - 23 November 2012, vol.45

**XXXIII. Silindir Arkasındaki Akışın Delikli Yarım Silindir Yardımıyla Kontrolü**

DURHASAN T., PINAR E., ÖZKAN G. M., AKILLI H., ŞAHİN B.

IV. Ulusal Havacılık ve Uzay Konferansı, İstanbul, Turkey, 12 - 14 September 2012, pp.1-9

## Supported Projects

GEREN N., GÖKCİLER O. C., BAYRAMOĞLU M., UZAY Ç., ÖZKAN G. M., ÇETİN A., ACER D. C., DİKER İ., İBEKÇİ M. B., Project Supported by Higher Education Institutions, GÜVENLİ VE SÜRDÜRÜLEBİLİR ENERJİ DEPOLAMA İÇİN KENDİ KENDİNİ TAMİR EDEBİLEN VE AKTİF TERMAL YÖNETİM SİSTEMİNİ BÜNYESİNDE BARINDIRAN BİR BATARYA PAKET SİSTEMİNİN GELİŞTİRİLMESİ, 2024 - Continues

ÖZKAN G. M., DİKER İ., Project Supported by Higher Education Institutions, Flow Control over a Low Reynolds Number Airfoil via Longitudinally Converging Triangular Strips, 2023 - Continues

ÖZKAN G. M., EĞİTMEN H., Project Supported by Higher Education Institutions, Control of vortex shedding in the wake of bluff bodies, 2023 - Continues

ÖZKAN G. M., HAKLIGÖR İ. M., Project Supported by Higher Education Institutions, The Use of Screen Shrouds to Control the Flow in the Wake of a Square Cylinder, 2023 - 2024

ÖZKAN G. M., DİKER İ., Project Supported by Higher Education Institutions, Susuzlaştırılmış Kanatlı Çamurunun Islak Torefaksiyon ile Yakıt Karakteristiğinin Geliştirilmesi (Upgrading Fuel Characteristic Of Dewatered Poultry Sludge Via Wet Torrefaction), 2021 - 2022

ÖZKAN G. M., EĞİTMEN H., AL-Qadasi H. A. A., Project Supported by Higher Education Institutions, Flow Measurements Around a Bio-Inspired Bluff Body and Comparison of Turbulent Structures with that of a Symmetric Airfoil, 2020 - 2022

ÖZKAN G. M., AL-Qadasi H. A. A., Project Supported by Higher Education Institutions, Characterization of some of the Turkish biomasses and CFD modeling of bubbled fluidized bed gasifier, 2018 - 2019

AKILLI H., AKSOY M., GEREN N., DURHASAN T., BOZTEPE M. H., UZAY Ç., ÖZKAN G. M., Project Supported by Higher Education Institutions, Yerli Elektrikli Hafif Otomobil Tasarım ve İmalatı, 2016 - 2019

PINAR E., ÖZKAN G. M., ŞAHİN B., TUBITAK Project, Delikli Silindir ve Plakadan Oluşan Kontrol Yönteminin Silindir Ardındaki Akışa Etkisinin Deneysel ve Sayısal Olarak İncelenmesi, 2015 - 2019

Özkan G. M., TUBITAK Project, 2219- Yurt Dışı Doktora Sonrası Araştırma Burs Programı "Nervürlü Yüzey Kaplaması ile Düz Plakada Direnç Kuvvetinin Düşürülmesi ve Türbülanslı Akış Yapısının Stereoskopik ve Tomografik PIV ile İncelenmesi, 2017 - 2018

ŞAHİN B., AKILLI H., ÖZKAN G. M., Project Supported by Higher Education Institutions, Bilgisayar Destekli Sayısal Analiz Laboratuvarının Kurulması, 2016 - 2018

PINAR E., ÖZKAN G. M., DURHASAN T., AKSOY M. M., ŞAHİN B., AKILLI H., Project Supported by Higher Education Institutions, The Use of Perforated Shroud for Controlling the Flow around a Circular Cylinder, 2017 - 2017

PINAR E., ŞAHİN B., AKILLI H., DURHASAN T., ÖZKAN G. M., AKSOY M. M., Project Supported by Higher Education Institutions, THE EFFECTS OF PERFORATED CYLINDERS ON THE VORTEX SHEDDING SUPPRESSION OF A CIRCULAR CYLINDER, 2016 - 2017

ÖZKAN G. M., PINAR E., AKILLI H., ŞAHİN B., Yeniçun A., DURHASAN T., Project Supported by Higher Education Institutions, Control of the Flow in the Annular Region of a Shrouded Cylinder with Splitter Plate, 2016 - 2017

ÖZKAN G. M., DURHASAN T., AKILLI H., Project Supported by Higher Education Institutions, Delikli Yarım Silindir ile Küt Cisim Art İzinin Kontrol Edilmesi, 2016 - 2016

ÖZKAN G. M., AKILLI H., Project Supported by Higher Education Institutions, VORTEX SHEDDING CONTROL USING A PERMEABLE PLATE LOCATED AROUND THE SEPARATION POINT OF A CIRCULAR CYLINDER, 2015 - 2016

AKILLI H., ŞAHİN B., TUBITAK Project, Sığ/derin suda silindir arkasında oluşan daimi olmayan akış yapısının delikli silindir ile kontrolü, 2009 - 2012

## **Metrics**

Publication: 51

Citation (WoS): 184

Citation (Scopus): 214

H-Index (WoS): 9

H-Index (Scopus): 10

## **Non Academic Experience**

DELFT UNIVERSITY OF TECHNOLOGY, THE NETHERLANDS