

Prof. CANAN BOZKAYA

Personal Information

Email: bcanan@metu.edu.tr

Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Matematik (Dr), Turkey
2003 - 2008

Under Graduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, Turkey
1998 - 2002

Foreign Languages

English, C1 Advanced

Research Areas

Mathematics, Numerical Analysis, Natural Sciences

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2019 - Continues
Associate Professor, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Mathematics, 2015 -
2019

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2011 -
2015

Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2002 -
2008

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics,
2014 - Continues

Advising Theses

Bozkaya C., Tezer M., BEM solution of unsteady convection-diffusion type fluid flow problems, Doctorate,
H.FENDOĞLU(Student), 2020

BOZKAYA C., A numerical approach for the solutions of fluid dynamics problems in the presence of magnetic field,
Doctorate, F.SİDRE(Student), 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Semi-analytical solution of MHD flow through boundary integrals on the pipe wall**
Tezer-Sezgin M., Bozkaya C.
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.42, pp.2404-2416, 2019 (Journal Indexed in SCI)
- **MHD flow in a rectangular duct with a perturbed boundary**
Fendoglu H., Bozkaya C., Tezer-Sezgin M.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.77, pp.374-388, 2019 (Journal Indexed in SCI)
- **Unsteady MHD mixed convection flow in a lid-driven cavity with a heated wavy wall**
OGLAKKAYA F. S. , BOZKAYA C.
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.148, pp.231-245, 2018 (Journal Indexed in SCI)
- **MHD natural convection in a semi-annulus enclosure filled with water-based nanofluid using DRBEM**
Oglakkaya F. S. , Bozkaya C.
ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, vol.71, pp.151-163, 2016 (Journal Indexed in SCI)
- **Streamwise oscillations of a cylinder beneath a free surface: Free surface effects on fluid forces**
Kocabiyik S., BOZKAYA C.
JOURNAL OF FLUIDS AND STRUCTURES, vol.59, pp.394-405, 2015 (Journal Indexed in SCI)
- **Free surface flow simulation with application to bluff body flow control**
Kocabiyik S., BOZKAYA C.
EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.224, pp.341-354, 2015 (Journal Indexed in SCI)
- **A FEM approach to biomagnetic fluid flow in multiple stenosed channels**
Turk Ö., Bozkaya C., Tezer M.
COMPUTERS & FLUIDS, vol.97, pp.40-51, 2014 (Journal Indexed in SCI)
- **Finite element study of biomagnetic fluid flow in a symmetrically stenosed channel**
Turk Ö., Tezer M., Bozkaya C.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.259, pp.760-770, 2014 (Journal Indexed in SCI)
- **Free surface wave interaction with an oscillating cylinder**
BOZKAYA C., Kocabiyik S.
APPLIED MATHEMATICS LETTERS, vol.27, pp.79-84, 2014 (Journal Indexed in SCI)
- **BEM and FEM based numerical simulations for biomagnetic fluid flow**
Tezer M., Bozkaya C., Turk Ö.
ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, vol.37, pp.1127-1135, 2013 (Journal Indexed in SCI)
- **A direct BEM solution to MHD flow in electrodynamically coupled rectangular channels**
BOZKAYA C., TEZER M.
COMPUTERS & FLUIDS, vol.66, pp.177-182, 2012 (Journal Indexed in SCI)
- **Streamwise oscillations of a cylinder beneath a free surface: Free surface effects on vortex formation modes**
Bozkaya C., Kocabiyik S., Mironova L. A. , Gubanov O. I.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.235, pp.4780-4795, 2011 (Journal Indexed in SCI)
- **A coupled numerical scheme of dual reciprocity BEM with DQM for the transient elastodynamic problems**
Bozkaya C.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING, vol.76, pp.1108-1122, 2008 (Journal Indexed in SCI)
- **Boundary element method solution of magnetohydrodynamic flow in a rectangular duct with conducting walls parallel to applied magnetic field**
Tezer-Sezgin M., BOZKAYA C.
COMPUTATIONAL MECHANICS, vol.41, pp.769-775, 2008 (Journal Indexed in SCI)
- **Fundamental solution for coupled magnetohydrodynamic flow equations**
Bozkaya C., Tezer-Sezgin M.
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.203, pp.125-144, 2007 (Journal Indexed in SCI)

Books & Book Chapters

- **Numerical Analysis**
Tezer M., Bozkaya C.
ODTÜ Basım İşliđi, Ankara, 2018

Refereed Congress / Symposium Publications in Proceedings

- **DRBEM solution of the MHD forced convection in a channel with sinusoidal walls**
OđLAKKAYA F. S. , BOZKAYA C.
International Conference on Boundary Element Techniques-BETEQ2019, Palermo, Italy, 22 - 24 July 2019, pp.186-191
- **A BEM approach for convection-diffusion type equations with variable coefficients**
Fendođlu H., BOZKAYA C., TEZER M.
International Conference on Boundary Element Techniques-BETEQ2019, Palermo, Italy, 22 - 24 July 2019, pp.39-45
- **MHD natural convection flow in a porous cavity**
Bozkaya C.
International Conference on Pure and Applied Mathematics ICPAM-VAN 2018, Van, Turkey, 11 - 13 September 2018
- **MHD Natural Convection Ferrofluid Flow in Semi-Annulus Enclosures**
Sidre Ođlakkaya F., Bozkaya C.
7th International Conference on Mathematical Modeling in Physical Sciences, IC-MSQUARE 2018, Moscow, Russia, 27 - 31 August 2018, vol.1141
- **MHD mixed convection flow in a lid-driven cavity involving a solid body**
Bozkaya C.
International Congress of Mathematicians-ICM 2018, Rio-De-Janeiro, Brazil, 1 - 09 August 2018
- **MHD flow in a rectangular duct with a perturbed boundary**
Fendođlu H., Bozkaya C., Tezer M.
Symposium of the International Association for Boundary Element Methods- IABEM 2018, Paris, France, 26 - 28 June 2018, pp.44
- **Magnetohydrodynamic Flow in a Rectangular Duct**
BOZKAYA C.
International conference on Applied Mathematics, Modeling and Computational Science, AMMCS 2017, Waterloo, Canada, 20 - 25 August 2017, vol.259, pp.171-181
- **Free surface flow past a circular cylinder under forced rotary oscillations**
KOCABIYIK S., BOZKAYA C., Liverman E.
IACM and ECCOMAS joint organization of 11th World congress on Computational Mechanics (WCCM XI)-5th. European Conference on Computational Mechanics(ECCM V)-6th European Conference on Computational Fluid Dynamics (ECFD VI), Barcelona, Spain, 20 - 25 July 2014
- **THE EFFECT OF NON-LINEAR FREE SURFACE ON BLUFF BODY VORTEX DYNAMICS AND CONTROL**
Kocabiyik S., BOZKAYA C., Reid G.
4th International Conference on Computational Methods in Marine Engineering (MARINE), Lisbon, Portugal, 28 - 30 September 2011, pp.230-241

Supported Projects

BOZKAYA C., TEZER M., FENDOđLU H., Project Supported by Higher Education Institutions, Zamana bađlı magnetohidrodinamik akıř probleminin pertürbe edilmiř sınıra sahip dikdörtgen kanal kesitinde sınır elemanları metodu ile çözümü, 2018 - 2019

TEZER M., BOZKAYA C., Project Supported by Higher Education Institutions, Silindirik kanal içerisinde magnetohidrodinamik akış probleminin teorik çözümü ve nümerik simülasyonu, 2016 - 2016

BOZKAYA C., OĞLAKKAYA F. S. , Project Supported by Higher Education Institutions, Magneto hydrodynamic nanofluid and convective heat transfer, 2015 - 2016

BOZKAYA C., Project Supported by Higher Education Institutions, A numerical study on MHD mixed convection flow with a solid body, 2014 - 2014

BOZKAYA C., TUBITAK Project, Daralma gösteren damar boyunca akan biyomanyetik akışkan kan modelinin sonlu ve sınır elemanları yöntemleri ile çözümü, 2011 - 2013

BOZKAYA C., Project Supported by Higher Education Institutions, Bem Solution Of Mhd Flows İn Coupled Ducts, 2012 - 2012

Tasks In Event Organizations

Bozkaya C., Küçüksakallı Ö., Türk Ö., Numerical Analysis and Computational Fluid Dynamics: Workshop in Honor of MÜNEVVER TEZER-SEZGİN's 67th Birthday, Workshop Organization, Ankara, Turkey, Nisan 2019

Citations

Total Citations (WOS):199

h-index (WOS):9