

Asst. Prof. Nagehan Akgün

Personal Information

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Education Information

Doctorate, Middle East Technical University, Fen Bilimleri Enstitüsü, Matematik, Turkey 2005 - 2013

Masters (Non-Thesis), Eskisehir Osmangazi University, Eğitim Bilimleri Enstitüsü, Matematik Öğretmenliği, Turkey 2003 - 2004

Under Graduate, Eskisehir Osmangazi University, Fen Fakültesi, Matematik, Turkey 1999 - 2003

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, The Dual Reciprocity Boundary Element Solution of Helmholtz-Type Equations in Fluid Dynamics, Middle East Technical University, Fen Bilimleri Enstitüsü, Matematik, 2013

Research Areas

Mechanical Engineering, Energy, Fluid Mechanics, Mechanical, Finite Element Methods, Mathematics, Differential Equations, Numerical Analysis, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Van Yüzüncü Yil University, Fen Edebiyat Fakültesi, Matematik, 2014 - Continues

Research Assistant PhD, Van Yüzüncü Yil University, Fen Fakültesi, Matematik, 2014 - 2014

Research Assistant, Middle East Technical University, Fen Edebiyat Fakültesi, Matematik, 2005 - 2013

Courses

Genel Matematik II, Under Graduate, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019

Bilgisayar ve Programlama II, Under Graduate, 2018 - 2019

Kısmi Türevli Diferansiyel Denklemlerin Nümerik Çözümleri, Post Graduate, 2018 - 2019

Lineer Cebir II, Under Graduate, 2018 - 2019

İleri Lineer Cebir, Post Graduate, 2018 - 2019

İleri Lineer Cebir, Post Graduate, 2018 - 2019

Genel Matematik I, Under Graduate, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019

Lineer Cebir I, Under Graduate, 2017 - 2018, 2018 - 2019
Analitik Geometri II, Under Graduate, 2015 - 2016, 2016 - 2017
Genel Matematik I, Under Graduate, 2015 - 2016
Kısmi Türevli Denklemlerin Nümerik Çözümleri , Post Graduate, 2014 - 2015, 2015 - 2016
Genel Matematik II, Under Graduate, 2014 - 2015
Genel Matematik I, Under Graduate, 2014 - 2015

Advising Theses

Akgün N., DIFFERENTIAL QUADRATURE METHOD FOR PARTIAL DIFFERENTIAL EQUATIONS, Post Graduate, S.KAREEM(Student), 2017

Jury Memberships

Competition, Tübitak Lise Öğrencileri Araştırma Projeleri Yarışması, Tübitak, February, 2019
Competition, Tübitak Lise Öğrencileri Araştırma Projeleri Yarışması, Tübitak, February, 2018
Competition, Tübitak Lise Öğrencileri Araştırma Projeleri Yarışması, Tübitak, February, 2017

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

- I. **Effect of an uniform magnetic field on unsteady natural convection of nanofluid**
Alsoy-Akgun N.
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.13, no.1, pp.1073-1086, 2019 (Journal Indexed in SCI)
- II. **Numerical simulation of unsteady mixed convection of nanofluid in a lid-driven square cavity**
Alsoy-Akgun N.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.48, no.4, pp.1057-1078, 2019 (Journal Indexed in SCI)
- III. **DRBEM solution of the thermo-solutal buoyancy induced mixed convection flow problems**
Alsoy-Akgun N., Tezer-Sezgin M.
ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, vol.37, no.3, pp.513-526, 2013 (Journal Indexed in SCI)
- IV. **DRBEM and DQM solutions of natural convection flow in a cavity under a magnetic field**
Alsoy-Akgun N., Tezer-Sezgin M.
PROGRESS IN COMPUTATIONAL FLUID DYNAMICS, vol.13, no.5, pp.270-284, 2013 (Journal Indexed in SCI)
- V. **A Numerical Solution for an Inverse Natural Magneto-Convection Problem**
Alsoy-Akgun N., Lesnic D.
NUMERICAL HEAT TRANSFER PART B-FUNDAMENTALS, vol.63, no.2, pp.115-138, 2013 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Implementation of DRBEM for the determination of the heat ux in an inverse problem**
Akgün N.
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics, vol.70, no.1, pp.397-425, 2021 (Journal Indexed in ESCI)
- II. **DQM SOLUTION OF NATURAL CONVECTION FLOW OF WATER-BASED NANOFUIDS**
Akgün N.
Neural, Parallel, and Scientific Computations, vol.24, pp.393-408, 2016 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- I. **Numerical simulation of two-dimensional sine-Gordon equation using the dual reciprocity boundary element method**
Akgün N.
3rd International Conference on Pure and Applied Mathematics, Van, Turkey, 3 - 05 September 2020, pp.34
- II. **Inverse Unsteady Natural Convection of Nanofluid**
Akgün N.
6. Kadın Matematikçiler Derneği Çalıştayı, Konya, Turkey, 26 - 28 April 2019, pp.12
- III. **DRBEM Solution for an Inverse Natural Conference Problem with the Various Types of Boundary Conditions**
Akgün N.
4th International Conference on Computational Mathematics and Engineering Sciences, (CMES-2019), Antalya, Turkey, 20 - 22 April 2019, pp.105
- IV. **DRBEM Solution of Nanofluids under DDMC in a Lid Driven Cavity**
Akgün N.
Numerical Analysis and Computational Fluid Dynamics: Workshop in Honor of Münevver Tezer-Sezgin's 67th Birthday, Ankara, Turkey, 19 - 20 April 2019, pp.13
- V. **Numerical Study of nanofluids under DDMC in a Lid Driven Cavity**
Akgün N.
2nd International Conference on Pure and Applied Mathematics, Van, Turkey, 11 - 13 September 2018, pp.40
- VI. **Numerical Study of Unsteady Mixed Convection of Nanofluid in a Lid-driven Square Cavity**
Akgün N.
Caucasian Mathematics Conference II, Van, Turkey, 22 - 24 August 2017, pp.29
- VII. **DRBEM Solution of Natural convection Flow of Nanofluid Under a Uniform Magnetic Field**
Akgün N.
International Workshop on Mathematical Methods in Engineering, Ankara, Turkey, 27 - 29 April 2017, pp.40-41
- VIII. **DRBEM for Solving Natural Convection in a Nanofluid-Filled Enclosure**
Akgün N.
17 th International Conference on Boundary Element and Meshless Technique 2016, Ankara, Turkey, 11 - 13 July 2016, pp.1-7
- IX. **A Numerical Solution of Natural Convection Flow of Water-Based Nanofluids with DRBEM**
Akgün N.
European Conference on Numerical Mathematics and Advanced Application, Ankara, Turkey, 14 - 18 September 2015, pp.142
- X. **DRBEM Solution of Natural Convection Flow of Water-Based Nanofluids in an Inclined Angle**
Akgün N.
International Conference on Pure and Applied Mathematics, Van, Turkey, 25 - 28 August 2015, pp.21
- XI. **DQM Solution of Natural Convection Flow of Water-Based Nanofluid**
Akgün N.
International Conference on Pure and Applied Mathematics, Van, Turkey, 25 - 28 August 2015, pp.20
- XII. **DRBEM Solution of the Double Diffusive Mixed Convection in a Lid-Driven Square Cavity with a Square Blockage Placed at the Bottom Wall**
Akgün N.
World Congresses on Engineering 2012, Londra, United Kingdom, 4 - 06 July 2012, pp.252-257
- XIII. **Dual Reciprocity Boundary Element Solution of Mixed Convective Heat and Solutal Transport**
Akgün N.
3rd European Seminar on Computing, Pilsen, Czech Republic, 25 - 29 June 2012, pp.26
- XIV. **DRBEM Solution of Natural Convection and Lid-Driven Flow Problems in Cavities**
Akgün N.
Eight UK Conference on Boundary Integral Methods, Leeds, United Kingdom, 4 - 05 July 2011, pp.65-72

- XV. **DRBEM and DQM solution of Natural Convection Flow in a Cavity Under a Magnetic Field**
Akgün N.
24th Biennial Conference on Numerical Analysis, Glasgow, Scotland, 28 June - 01 July 2011, pp.26-27

Memberships / Tasks in Scientific Organizations

Türk Kadın Matematikçiler Derneği, Member, 2019 - Continues, Turkey

Scientific Refereeing

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, July 2020

ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, June 2020

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, April 2020

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, March 2020

Arab Journal of Basic and Applied Sciences, Other Indexed Journal, January 2019

A New Proof of the Binomial Theorem, Other Indexed Journal, December 2017

Tasks In Event Organizations

Akgün N., 3rd International Conference on Pure and Applied Mathematics ICPAM VAN-2020, Scientific Congress, Van, Turkey, Eylül 2020

Kayar Z., Akgün N., 2nd International Conference on Pure and Applied Mathematics, ICPAM - VAN 2018, Scientific Congress, Van, Turkey, Eylül 2018

Akgün N., International Conference on Pure and Applied Mathematics, ICPAM - VAN 2015, Scientific Congress, Van, Turkey, Ağustos 2015

Edit Congress and Symposium Activities

6. Kadın Matematikçiler Derneği Çalıştayı, Attendee, Konya, Turkey, 2019

Numerical Analysis and Computational Fluid Dynamics: Workshop in Honor of Münevver Tezer-Sezgin's 67th Birthday, Attendee, Ankara, Turkey, 2019

4th International Conference on Computational Mathematics and Engineering Sciencei CMES 2019, Attendee, Antalya, Turkey, 2019

2nd International Conference on Pure and Applied Mathematics, Attendee, Van, Turkey, 2018

2nd International Conference on Pure and Applied Mathematics, Session Moderator, Van, Turkey, 2018

Caucasian Mathematics Conference II, Session Moderator, Van, Turkey, 2017

Caucasian Mathematics Conference II, Attendee, Van, Turkey, 2017

International Workshop on Mathematical Methods in Engineering, Attendee, Ankara, Turkey, 2017

17th International Conference on Boundary Element and Meshless Techniques 2016, Attendee, Ankara, Turkey, 2016

European Numerical Mathematics and Advanced Applications, Attendee, Ankara, Turkey, 2015

International Conference on Pure and Applied Mathematics, Attendee, Turkey, 2015

International Conference on Pure and Applied Mathematics, Attendee, Van, Turkey, 2015

International Conference on Pure and Applied Mathematics, Session Moderator, Van, Turkey, 2015

DRBEM Solution of Double Diffusive Mixed Convection in a Lid-Driven Square Cavity with a Square Blockage Placed at the Bottom Wall, Attendee, London, United Kingdom, 2012

Dual Reciprocity Boundary element Solution of Mixed Convective Heat and Solutal Transport, Attendee, Plzen, Czech Republic, 2012

DRBEM Solution of Natural Convection and Lid driven Flow Problems in Cavities, Attendee, Leeds, United Kingdom, 2011
DRBEM and DQM Solutions of Natural Convection Flow in a Cavity Under a Magnetic Field, Attendee, Glasgow, Scotland, 2011

Citations

Total Citations (WOS):20

h-index (WOS):3

Scholarships

Doktora Bursu, TUBITAK, 2005 - 2010

Awards

Akgün N., Certificate of Merit (Student) for the 2012 International Conference of Applied and engineering Mathematics, International Association of Engineers (IAENG), July 2012