Assoc. Prof. Nagehan Akgün

Personal Information

Office Phone: +90 432 444 5065

Email: nagehanalsoyakgun@yyu.edu.tr

Other Email: nagehanalsoy@gmail.com

Web: https://avesis.yyu.edu.tr/nagehanalsoyakgun

International Researcher IDs

ORCID: 0000-0001-6967-0625

Yoksis Researcher ID: 42929

Education

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Matematik, Turkey 2005 - 2013

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

Undergraduate, Eskisehir Osmangazi University, Fen Fakültesi, Matematik, Turkey 1999 - 2003

Foreign Languages

English, C1 Advanced

Dissertations

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

Research Areas

Fluid Mechanics, Finite Element Methods, Mathematics, Differential Equations, Numerical Analysis, Natural Sciences

Academic Positions

Associate Professor, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2021 - Continues

Assistant Professor, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2014 - 2021

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

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

Academic and Administrative Experience

Faculty Board Member, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2025 - Continues

Vice Dean, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2024 - Continues

Member of Unit Quality Commission, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2024 - Continues

Erasmus Program Department Coordinator, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2024 - Continues

Farabi Program Department Coordinator, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2024 - Continues

Mevlana Exchange Program Department Coordinator, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2024 - Continues

Courses

Postgraduate
Kısmi Türevli Diferansiyel Denklemlerin Nümerik Çözümleri, Postgraduate, 2018 - 2019
İleri Lineer Cebir, Postgraduate, 2018 - 2019
İleri Lineer Cebir, Postgraduate, 2018 - 2019
Kısmi Türevli Denklemlerin Nümerik Çözümleri , Postgraduate, 2015 - 2016, 2014 - 2015
Undergraduate
Linear Algebra , Undergraduate, 2021 - 2022
Genel Matematik II, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Bilgisayar ve Programlama II, Undergraduate, 2018 - 2019
Lineer Cebir II, Undergraduate, 2018 - 2019
Genel Matematik I, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Lineer Cebir I, Undergraduate, 2018 - 2019, 2017 - 2018
Lineer Cebir II, Undergraduate, 2017 - 2018
Analitik Geometri II, Undergraduate, 2016 - 2017, 2015 - 2016
Analitik Geometri I, Undergraduate, 2016 - 2017, 2015 - 2016
Genel Matematik I, Undergraduate, 2015 - 2016
Genel Matematik II, Undergraduate, 2014 - 2015
Genel Matematik I, Undergraduate, 2014 - 2015

Supervised Theses

Akgün N., KISMİ TÜREVLİ DİFERANSİYEL DENKLEMLERİN KARŞILIKLI SINIR ELEMANLARI YÖNTEMİ İLE ÇÖZÜMLERİ, Postgraduate, İ.ZIRAPLI(Student), 2021

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

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Van Yüzüncü Yıl Üniversitesi, June, 2023

Competition, TÜBITAK - 2204 - B ORTAOKUL ÖGRENCILERI ARASTIRMA PROJELERI YARISMASI, Tübitak, February, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Van Yüzüncü Yıl Üniversitesi, January, 2022

Post Graduate, Post Graduate, Van Yüzüncü Yıl Üniversitesi, June, 2021

Doctoral Examination, Doctoral Examination, Van Yüzüncü Yıl Üniversitesi, June, 2021

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

Journal articles indexed in SCI, SSCI, and AHCI

I. **Implementation of DRBEM for coupled sine-Gordon equations**
Alsoy-Akgün N.
Engineering Analysis with Boundary Elements, vol.156, pp.407-431, 2023 (SCI-Expanded)

II. **Application of DRBEM for 2D sine-Gordon equation**
Alsoy-Akgun N.
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.15, no.1, pp.225-238, 2021 (SCI-Expanded)

III. **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 (SCI-Expanded)

IV. **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 (SCI-Expanded)

V. **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 (SCI-Expanded)

VI. **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 (SCI-Expanded)

VII. **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 (SCI-Expanded)

Articles Published in Other Journals

I. **Implementation of DRBEM for the determination of the heat flux in an inverse problem**
Akgün N.
Communications Faculty of Sciences University of Ankara Series A1 Mathe- matics and Statistics, vol.70, no.1, pp.397-425, 2021 (ESCI)

II. **DQM SOLUTION OF NATURAL CONVECTION FLOW OF WATER-BASED NANOFLUIDS**
Akgün N.
NEURAL, PARALLEL AND SCIENTIFIC COMPUTATIONS, vol.24, pp.393-408, 2016 (Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Stability analysis of the solution of coupled sine-Gordon equations via the dual reciprocity boundary element method**
Akgün N.
3rd International Conference on Applied Mathematics in Engineering (ICAME 24), Balıkesir, Turkey, 26 - 28 June 2024, pp.44, (Summary Text)

II. **Application of dual reciprocity boundary element method for 2D coupled sine-Gordon equations,**
Akgün N.
3rd International Conference on Applied Mathematics in Engineering (ICAME 24), Balıkesir, Turkey, 26 - 28 June 2024, pp.45, (Summary Text)

III. **The use of dual reciprocity boundary element method for solving the coupled nonlinear Sine-**

Gordon equations
Akgün N.
4th International Conference on Pure and Applied Mathematics (ICPAM - VAN 2022), Van, Turkey, 22 - 23 June 2022, pp.46, (Summary Text)

IV. **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, (Summary Text)

V. **Inverse Unsteady Natural Convection of Nanofluid**
Akgün N.
6. Kadın Matematikçiler Derneği Çalıştayı, Konya, Turkey, 26 - 28 April 2019, pp.12, (Summary Text)

VI. **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, (Summary Text)

VII. **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, (Summary Text)

VIII. **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, (Summary Text)

IX. **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, (Summary Text)

X. **DRBEM Solution ofNatural convection Flow ofNanofluid Under a Uniform Magnetic Feild**
Akgün N.
International Workshop on Mathematical Methods in Engineering, Ankara, Turkey, 27 - 29 April 2017, pp.40-41, (Summary Text)

XI. **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, (Full Text)

XII. **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, (Summary Text)

XIII. **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, (Summary Text)

XIV. **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, (Summary Text)

XV. **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 Congrees on Engineering 2012, Londra, United Kingdom, 4 - 06 July 2012, pp.252-257, (Full Text)

XVI. **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, (Summary Text)

XVII. **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, (Full Text)

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

Memberships and Roles in Scientific Organizations

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

Peer Reviews in Scientific Publications

Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, September 2022
Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, September 2022
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, August 2022
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, June 2022
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics , Journal Indexed in ESCI, June 2022
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, Journal Indexed in SCI-E, April 2022
Journal of the Egyptian Mathematical Society, Other Indexed Journal, November 2021
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics , Journal Indexed in ESCI, October 2021
International Journal of Mathematics and Computer Science, Journal Indexed in ESCI, October 2021
JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, SCI Journal, December 2020
journal of mathematical Analysis, Journal Indexed in ESCI, November 2020
journal of mathematical Analysis, Journal Indexed in ESCI, November 2020
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

Roles in Event Organizations

Akgün N., Kayar Z., 4th International Conference on Pure and Applied Mathematics ICPAM-VAN 2022, Scientific Congress, Van, Turkey, Haziran 2022
Kayar Z., 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

Kayar Z., Akgün N., International Conference on Pure and Applied Mathematics (ICPAM 2015), Scientific Congress, Van, Turkey, Ağustos 2015

Metrics

Publication: 27
Citation (WoS): 29
Citation (Scopus): 23
H-Index (WoS): 3
H-Index (Scopus): 3

Congress and Symposium Activities

3rd International Conference on Applied Mathematics in Engineering (ICAME 24), Attendee, Balıkesir, Turkey, 2024
3rd International Conference on Applied Mathematics in Engineering (ICAME 24), Attendee, Balıkesir, Turkey, 2024
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, Attendee, Van, Turkey, 2017
Caucasian Mathemtics Conference II, Session Moderator, 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, Session Moderator, Van, Turkey, 2015
International Conference on Pure and Applied Mathematics, Attendee, Turkey, 2015
International Conference on Pure and Applied Mathematics, Attendee, 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, United Kingdom, 2011

Scholarships

ERASMUS+ Personnel Training Mobility in Education, Other International Organizations, 2024 - 2024
Doktora Bursu, TUBITAK, 2005 - 2010
TEV Eğitim Bursu (Lisans), Foundation, 2002 - 2003

Awards

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

Non Academic Experience

University, University of Leeds, Department of Mathematics, Academic Visitor