

Curriculum Vitae

Mustafa Avci, PhD

Athabasca University

Applied Mathematics

Faculty of Science & Technology

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Degrees

- PhD Mathematics, Dicle University - 2011
- MSc Mathematics, Dicle University - 2007
- BSc Mathematics, Dicle University - 2001

Professional Experience

- Lecturer (Term), Department of Finance and Management Science, Edwards School of Business, University of Saskatchewan (2021/7 - 2022/6).
- Tutor, Faculty of Science and Technology, Athabasca University (2021-2022/7)
- Tutor, Faculty of Business, Athabasca University (2020-2022/7)
- Mathematics Facilitator (Online), Durham College (2020-2022)
- Assistant Professor (Limited Term), Department of Mathematics, Trent University (2020/8 - 2021/7).
- Instructor (Limited Term), Department of Science and Technology, Northwestern Polytechnic (Grande Prairie Reg Coll.) (2019/8 - 2020/4)
- Instructor (Sessional), Department of Finance and Management Science, Edwards School of Business, University of Saskatchewan (2019/5 - 2019/8).
- Postdoctoral Fellow, Department of Mathematics, Morgan State University (2014/9 - 2015/10).
- Associate Professor, Department of Economics and Administrative Sciences, Batman University (2013/3 - 2018/10).
- Instructor, Economics and Administrative Sciences Programs, Dicle University (2009/1 - 2013/3).

Research

Research Interests

- Analysis of Partial Differential Equations (PDEs)

- Analysis of Stochastic Differential Equations (SDEs)
- Variable Exponent Lebesgue Spaces
- Stochastic Analysis & Applications

Research Specialization Keywords

Variable Exponent Lebesgue Spaces; Variational Methods; PDEs; Topological Methods; Nonlinear Analysis; SDEs; Stochastic Analysis and Applications; Measure-Theoretic Probability.

Research In Progress

- Analysis & Applications of SDEs with state-dependent variable exponent drift and diffusion
- Analysis & Applications of PDEs in variable exponent Lebesgue spaces
- The interplay of probability theory and PDEs

Research Funding (Awards & Grants)

- External Funding Application: Applied for NSERC-Discovery Grants (Individual) Program Nov 2025, in process. [Website](#)
- Athabasca University Academic Research Fund-Publication Award (2025)
- Athabasca University Research Incentive Account (Grant No: 140111RIA, 2023-2026)
- International Postdoctoral Research Fellowship Program. Scientific and Technological Research Council of Turkey (TUBITAK) (Grant No: 1059B191400450, 2014-2015). [Website](#)
- Dicle University Scientific Project Research Management (DUPAB) Grant (2007 - 2009)
for the Research Project: The Solutions of Parabolic and Elliptic Equations with Standard and Nonstandard Growth Conditions in the Variable Exponent Lebesgue-Sobolev Spaces.

Refereed Book & Book Chapters

- **Nontrivial weak solutions of a quasilinear equation involving p-Laplace operator** (as Author), in Advances in Mathematics and Computer Science Vol.2, 2019. ISBN 978-93-89562-00-2 (Print) ISBN 978-93-89562-01-9 (eBook). DOI: 10.9734/bpi/amacs/v2. [Website](#)
- **A Closer Look at Boundary Value Problems** (as Editor), 2020. Nova Science Publishers, Inc. ISBN: 978-1-53617-857-9. [Website](#)

Refereed Conference Proceedings

- **A new solution of some weighted problems for Riemann-Liouville and Weyl operators** (with S. Ogras, R. Mashihev) (2009), Proceedings

of the 6th International ISAAC Congress, Ankara, Turkey, 13 - 18 August 2007. [Website](#)

Refereed Journal Articles

Published/Accepted

1. Nehari manifold approach for a singular multi-phase variable exponent problem. *Quaestiones Mathematicae em>. Accepted (2025). [Website](#)*.
- Existence and multiplicity of solutions for a discrete fourth-order boundary value problem (with M. Boroun, S. Heidarkhani), *Journal of Nonlinear Evolution Equations and Applications*. Accepted (2025). [Website](#)
- Anisotropic singular equation with $(p(\cdot), q(\cdot))$ -Laplacian operator and Hardy-type potential. *Acta Universitatis Sapientiae Mathematica*. Vol. 17, article number 18 (2025). [Website](#)
- Existence results for the Cox-Ingersoll-Ross model with variable exponent diffusion, *AIMS Mathematics* 10(9) (2025), 22106-22126. [Website](#)
- Three Solutions for a double-phase variable-exponent Kirchhoff problem, *Mathematics* 13(15) (2025), 2462. [Website](#)
- Singular $p(x)$ -Laplacian equation with application to boundary layer theory, *Applicable Analysis* 104(13) (2025), 2546-2566. [Website](#)
- Existence results for a class of singular $p(x)$ -Kirchhoff equations, *Complex Variables and Elliptic Equations* 70(7) (2025), 1222-1253. [Website](#)
- On a $p(x)$ -Kirchhoff problem with variable singular and sublinear exponents, *Taiwanese Journal of Mathematics* 29(2) (2025), 379-402. [Website](#)
- On a $p(x)$ -Kirchhoff-type equation with singular and superlinear nonlinearities, *Differential Equations and Dynamical Systems*, (2024). [Website](#)
- On an anisotropic $p(\cdot)$ -Laplace equation with variable singular and sublinear nonlinearities, *Communications in Analysis and Mechanics* 16(3) (2024), 554-577. [Website](#)
- Multiple solutions for a class of $p(x)$ -Kirchhoff-type equations (with S. Heidarkhani, A. Ghobadi), *Applied Mathematics E-Notes* 22 (2022), 160-168. [Website](#)
- Solutions of Ginzburg-Landau-type equations involving variable exponent, *Thai Journal of Mathematics* 20(1) (2022), 369-384. [Website](#)
- Critical points approaches to a nonlocal elliptic problem driven by $p(x)$ -biharmonic operator (with S. Heidarkhani, S. Moradi), *Georgian Mathematical Journal* 29(1) (2021), 55-69. [Website](#)
- A Class of nonlocal elliptic equations in Orlicz-Sobolev spaces (with B. Suer, V. Turut), *Journal of Abstract and Computational Mathematics* 6(2) (2021), 16-29. [Website](#)
- On a nonlocal problem with indefinite weights in Orlicz-Sobolev space (with N. T. Chung), *Communications of the Korean Mathematical Society* 35(2) (2020), 517-532. [Website](#)
- A variational approach to the existence of infinitely many solutions for difference equations (with M. K. Moghadam, S. Tersian), *Journal of New Research in Mathematics* 5(22) (2020), 99-110.

- A topological result for a class of anisotropic difference equations, *Annals of the University of Craiova - Mathematics and Computer Science Series* 46(2) (2019), 328-343. [Website](#)
- On some classes of nonlocal problems in Musielak-Sobolev spaces, *Southeast Asian Bulletin of Mathematics* 43 (2019), 791-814.
- Positive ground state solutions to a nonlocal singular elliptic problem, *Canadian Journal of Applied Mathematics* 1(1) (2019), 1-14. [Website](#)
- On a nonlocal problem involving a nonstandard nonhomogeneous differential operator (with B. Suer), *Journal of Elliptic and Parabolic Equations* 5(1) (2019), 47-67. [Website](#)
- On a Robin problem in Orlicz-Sobolev spaces (with K. Suslu), *TWMS Journal of Applied and Engineering Mathematics* 9(2) (2019), 246-256. [Website](#)
- Solutions to $p(x)$ -Laplace type equations via nonvariational techniques, *Opuscula Mathematica* 38(3) (2018), 291-305. [Website](#)
- Multivalued elliptic operators with nonstandard growth (with A. Pankov), *Advances in Nonlinear Analysis* 7(1) (2018), 35-48. [Website](#)
- Existence results to a nonlinear $p(k)$ -Laplacian difference equation (with M. K. Moghadam), *Journal of Difference Equations and Applications* 23(10) (2017), 1652-1669. [Website](#)
- On a nonlocal Neumann problem in Orlicz-Sobolev spaces, *Journal of Nonlinear Functional Analysis* 2017 (2017), Article ID 42, 1-11. [Website](#)
- Existence results for anisotropic discrete boundary value problems, *Electronic Journal of Differential Equations* 148 (2016), 1-11. [Website](#)
- On a nonlocal problem involving the generalized anisotropic $p(\cdot)$ -Laplace operator, *Annals of the University of Craiova - Mathematics and Computer Science Series* 43(2) (2016), 259-272. [Website](#)
- Solutions to a system of $p(x)$ -Kirchhoff discrete boundary value problems, *Nonlinear Studies* 23(4) (2016), 665-674. [Website](#)
- Existence of solutions for nonlocal problems in Sobolev-Orlicz spaces via Monotone method (with R. Mashiyev, N. T. Chung), *Electronic Journal of Mathematical Analysis and Applications* 4(1) (2016), 63-73. [Website](#)
- Positive periodic solutions of nonlinear differential equations system with nonstandard growth (with R. Ayazoglu), *Applied Mathematics Letters* 43 (2015), 5-9. [Website](#)
- Nontrivial solutions of discrete nonlinear equations with variable exponent (with A. Pankov), *Journal of Mathematical Analysis and Applications* 431 (2015), 22-33. [Website](#)
- Nontrivial weak solutions of a quasilinear equation involving p -Laplace operator, *British Journal of Mathematics & Computer Science* 6(2) (2015), 112-118. [Website](#)
- Existence of solutions for fourth-order elliptic equations of Kirchhoff type (with F. Wang, Y. An), *Journal of Mathematical Analysis and Applications* 409(1) (2014), 140-146. [Website](#)
- Existence of three solutions for a quasilinear elliptic equation involving the $p(x)$ -Laplacian (with R. Mashiyev), *Sarajevo Journal of Mathematics* 10(23) (2014), 1-13. [Website](#)
- Existence and uniqueness of solutions of a nonlocal problem involving the $p(x)$ -Laplacian (with R. Mashiyev), *Annals of the University of Craiova - Mathematics and Computer Science Series* 41(1) (2014), 30-37. [Website](#)
- Existence results for a nonlocal problem involving the p -Laplacian, *Universal Journal of Applied Mathematics* 2(3) (2014), 153-159. [Website](#)

- Ni-Serrin type equations arising from capillarity phenomena with non-standard growth, *Boundary Value Problems* **(2013)**, Article 55, 1-18. [Website](#)
- Existence and multiplicity of solutions for Dirichlet problems involving the $p(x)$ -Laplacian, *Electronic Journal of Differential Equations* **14 (2013)**, 1-9. [Website](#)
- Existence of solutions for an elliptic equation with nonstandard growth (with R. Mashiyev, B. Cekic), *International Journal of Pure and Applied Mathematics* **86(1) (2013)**, 131-139. [Website](#)
- Solutions of a nonlocal elliptic problem involving $p(x)$ -Kirchhoff-type equation, *Applied Mathematics* **3(2) (2013)**, 56-60. [Website](#)
- Existence and uniqueness of solutions for a quasilinear elliptic equation involving p -Laplacian (with R. Mashiyev), *International Journal of Differential Equations and Applications* **12(2) (2013)**, 95-102. [Website](#)
- Existence results for a nonlocal problem involving the $p(x)$ -Laplacian, *Pure and Applied Mathematics Journal* **2(1) (2013)**, 20-27. [Website](#)
- Solutions of nonlocal ($p_1(x)$, $p_2(x)$)-Laplacian equations (with R. Mashiyev), *International Journal of Partial Differential Equations*, Vol. 2013, Article ID 364251, 7 pages. [Website](#)
- Existence of weak solutions for a nonlocal problem involving the $p(x)$ -Laplace operator, *Universal Journal of Applied Mathematics* **1(3) (2013)**, 192-197. [Website](#)
- Solutions of an anisotropic nonlocal problem involving variable exponent (with R. Mashiyev, B. Cekic), *Advances in Nonlinear Analysis* **2(3) (2013)**, 325-338. [Website](#)
- On an elliptic system of $p(x)$ -Kirchhoff-type under Neumann boundary condition (with Z. Yucedag, R. Mashiyev), *Mathematical Modelling and Analysis* **17(2) (2012)**, 161-170. [Website](#)
- $L^{\hat{p}(x)}(\Omega)$ -estimates of vector fields and applications to magnetostatics problems (with B. Cekic, A. V. Kalinin, R. Mashiyev), *Journal of Mathematical Analysis and Applications* **389(2) (2012)**, 838-851. [Website](#)
- Existence and multiplicity of weak solutions for nonuniformly elliptic equations with nonstandard growth (with R. Mashiyev, B. Cekic, Z. Yucedag), *Complex Variables and Elliptic Equations* **57(5) (2012)**, 579-595. [Website](#)
- Existence and multiplicity of solutions of the $p(x)$ -Kirchhoff type equation via genus theory (with B. Cekic, R. Mashiyev), *Mathematical Methods in the Applied Sciences* **34(14) (2011)**, 1751-1759. [Website](#)
- The Nehari manifold approach for a Dirichlet problem involving the $p(x)$ -Laplacian (with R. Mashiyev, S. Ogras, Z. Yucedag), *Journal of the Korean Mathematical Society* **47(4) (2010)**, 845-860. [Website](#)
- Existence of solutions for a class of elliptic systems in \mathbb{R}^N involving the $(p(x), q(x))$ -Laplacian (with S. Ogras, R. Mashiyev, Z. Yucedag), *Journal of Inequalities and Applications*, Article 612938 **(2008)**. [Website](#)

Submitted

1. Stochastic representation of solutions for the parabolic Cauchy problem with variable exponent coefficients. Under review.
2. On the geometric Brownian motion with state-dependent variable exponent diffusion term. Under review.

3. *Monotone operator methods for a class of nonlocal multi-phase variable exponent problems. Under review.*
4. *Existence and uniqueness results for a singular elliptic problem governed by an anisotropic $(p(\cdot), q(\cdot))$ -Kirchhoff-type operator. Under review.*
5. *Variational and nonvariational solutions for double phase variable exponent problems. Under review.*
6. *Anisotropic Variable exponent Kirchhoff-type equation with double singularity (with B. Cekic, Z. Yucedag). Under review.*
7. *Singular Kirchhoff-Ginzburg-Landau-type equation with variable Exponent (with B. Cekic, Z. Yucedag). Under review.*
8. *On a $p(x)$ -Kirchhoff Equation with double singularity exponent (with B. Cekic, Z. Yucedag). Under review.*
9. *Existence results for a class of double phase singular Kirchhoff-type equations with nonstandard growth (with A. Razani). Under review.*

Work in progress

1. *Existence and uniqueness of solutions to SDEs with state-dependent variable exponent.*
2. *On a singular double phase variable exponent problem: A topological result*
3. *Existence results for a double phase variable exponent problem with a singular potential*

Presentations (Invited Talks & Contributed Talks & Workshops)

List

1. ***Existence of solutions for a singular double phase variable exponent problem with $(p(\cdot),q(\cdot))$ - Hardy-type potential***, the Canadian Mathematical Society 80th Anniversary Winter Meeting, December 5-8, 2025, Toronto, Ontario.
2. ***A viscosity solution approach to the Feynman-Kac formula for a one-dimensional parabolic PDE with variable exponent coefficient***, the Canadian Mathematical Society 80th Anniversary Winter Meeting, December 5-8, 2025, Toronto, Ontario.
3. ***Online Mathematics Assessment: The Innovative Methods and Challenges of Integrity***, the Canadian Mathematical Society MathEd Meeting (Online), November 28-29, 2025.
4. ***Recent Trends in Stochastic Partial Differential Equations***, Workshop, November 17-21, 2025, Simons Laufer Mathematical Sciences Institute (SLMath), University of California, Berkeley.
5. ***SDEs with state-dependent variable exponent drift and diffusion terms***, Analysis Seminar, Oct 29, 2025, Department of Mathematics, University of Alabama, Tuscaloosa.

6. **A generalized stochastic volatility model**, Alberta Mathematics Dialogue, May 1-2, 2025, University of Calgary, Calgary.
7. **Enhancing mathematical learning with interactive content and adaptive online assessments** (with A. Beltaos, J. Greenwood-Lee), Alberta Mathematics Dialogue, May 1-2, 2025, University of Calgary, Calgary.
8. **The regularization method for multivalued elliptic PDEs with variable exponent**, International Conference on Applied Mathematics, 29–31 October 2020, University of Craiova, Craiova, Romania.
9. **Variational approach for analysis of PDEs**, Mathematics Colloquium, Grande Prairie Regional College, Science Department, February 2020, Grande Prairie.
10. **Existence and uniqueness results for a Dirichlet problem in Orlicz-Sobolev spaces**, International Conference on Mathematics and Mathematics Education (ICMME-2017), 11–13 May 2017, Şanlıurfa, Turkey.
11. **Nontrivial solutions for a Dirichlet problem in Orlicz-Sobolev spaces**, ICMME-2017, 11–13 May 2017, Şanlıurfa, Turkey.
12. **Solutions of an anisotropic Kirchhoff problem involving variable exponent**, ICMME-2017, 11–13 May 2017, Şanlıurfa, Turkey.
13. **Solutions of Kirchhoff problem in anisotropic variable exponent spaces**, ICMME-2017, 11–13 May 2017, Şanlıurfa, Turkey.
14. **On some elliptic problems in Orlicz-Sobolev spaces**, International Health and Natural Sciences Conference (INHSC 2017), 19–21 October 2017, Antalya, Turkey.
15. **Solutions to a nonlocal elliptic problem in Orlicz-Sobolev spaces**, INHSC 2017, 19–21 October 2017, Antalya, Turkey.
16. **Solutions of generalized anisotropic problems in variable exponent spaces**, INHSC 2017, 19–21 October 2017, Antalya, Turkey.
17. **A system of anisotropic discrete boundary value problems**, International Engineering, Science and Education Conference, 1–3 December 2016, Diyarbakır, Turkey.
18. **Existence of three solutions to a nonlinear difference equation involving p(k)-Laplace operator**, International Engineering, Science and Education Conference, 1–3 December 2016, Diyarbakır, Turkey.
19. **Variable Lebesgue spaces and variational approach**, Morgan State University, Department of Mathematics, Mathematics Colloquium, November 2014, Baltimore, U.S.A.
20. **Existence and uniqueness of an elliptic equation with p(x)-Laplace operator**, XXVI. National Mathematics Symposium, 4–7 Sept, 2013, Dicle University, Diyarbakır, Turkey.
21. **Power-type weighted Hardy and Hankel operators in variable exponent Morrey space**, “Operators in General Morrey-Type Spaces and Applications” (Dedicated to the 70th Birthday of Prof. Victor I. Burenkov), Ahi Evran University, Kırşehir, Turkey, 20–27 May 2011.
22. **Maximal and Riesz operators in weighted variable exponent Morrey space**, same event, Ahi Evran University, Kırşehir, Turkey, 20–27 May 2011.
23. **Existence of solutions for nonuniformly elliptic equations of p(x)-Laplacian type**, 3rd International Conference on Differential Equations and Applications, Lviv, Ukraine, 3–6 November 2010.

24. **Existence of solutions for a $p(x)$ -Laplacian in $\mathbb{R}(N)$** , Workshop on Differential Equations and Applications, Pamukkale University, Denizli, Turkey, 18–20 April 2008.
25. **A new solution of some weighted problems for the Riemann-Liouville and Weyl operators**, 6th International ISAAC Congress, 13–18 August 2007, Middle East Technical University (METU), Ankara, Turkey.

Teaching

AU Teaching and Course Coordination

- MATH 260 Calculus for Social Sciences and Economics (2022 – present) (Supervising 1 tutor, 1 marker)
- MATH 366 Complex Variables I (2022 – present) (Supervising 1 tutor)
- MATH 370 Applied Real Analysis (2022 – present) (Supervising 1 tutor)
- MATH 376 Ordinary Differential Equations (2025 – present) (Supervising 2 tutors)
- MATH 492 Special Study I (2022 – present)
- MATH 493 Special Study II (2022 – present)
- MATH 495 Mathematics Projects I (2022 – present)
- MATH 496 Mathematics Projects II (2022 – present)
- MATH 216 Computer-Oriented Approach to Statistics (2022 – 2025) (Supervised 3 tutors)

AU Tutoring

- MATH 376 Ordinary Differential Equations (2025 – present)
- MATH 216 Computer-Oriented Approach to Statistics (2022–2025)
- MATH 365 Multivariable Calculus (2021–2022)
- MGSC 301 Statistics for Business and Economics I (2020 – 2022)
- MGSC 312 Statistics for Business and Economics II (2020 – 2021)

AU Course Development and Revisions

- MATH 415 Introduction to Measure and Integration (In Development, 2025 – present)
- MATH 426 Introduction to Stochastic Processes (In Development, 2025 – present)
- MATH 437 Introduction to Stochastic Calculus (In Development, 2025 – present)
- MATH 325 Linear Programming – Developed (In Production) (2024)

- *MATH 216 Computer-Oriented Approach to Statistics — Revision (2024)*
- *MATH 260 Calculus for Social Sciences and Economics — Revision (2024)*

University of Saskatchewan Courses

- *COMM 121 Business Mathematics (2021/6 — 2022/7)*
- *COMM 207 Business Statistics II (2019/Summer)*
- *COMM 104 Business Statistics I (2019/Spring)*

Trent University Courses

- *MATH 1005H Applied Calculus (Lecture + Seminar) (2020-21/Fall & Winter & Spring)*
- *MATH 1110H Calculus I (Lecture + Seminar) (2020/Fall)*
- *MATH 2120H Calculus IV (Lecture + Seminar) (2021/Winter)*
- *MATH 4120H Mathematical Modelling I (Lecture + Lab) (2021/Winter)*
- *AMOD 5220H Mathematical Aspects of Modeling (Lecture + Lab) (2021/Spring)*

Durham College Courses

- *MATH 1185 Mathematics for Technology I (2021 — 2022)*
- *MATH 2150 Mathematics for Technology II (2020 — 2021)*

Northwestern Polytechnic Courses

- *ST 1510 Introduction to Applied Statistics I (Lecture + Lab) (2019/Fall & Winter)*
- *ST 2520 Introduction to Applied Statistics II (Lecture + Lab) (2020/Winter)*
- *MA 1130 Elementary Calculus I (Lecture + Seminar) (2019/Fall)*
- *MA 1600 Higher Arithmetic (Lecture + Seminar) (2020/Winter)*

Morgan State University Courses (USA)

- *MATH 241 Calculus I (2015/Spring)*

Batman University Courses (Turkey) (2013 – 2018)

- 05010303 Business Mathematics
- 05050407 Statistics
- 05010105 Calculus I
- 05010205 Calculus II
- 05010601 Research Methods and Techniques
- 02030306 Differential Equations
- 02030405 Engineering Mathematics
- 02010405 Applied Mathematics for Engineers
- 02040401 Applied Mathematics for Engineers: Numerical Methods
- 02010407 Numerical Analysis
- 01030301 Advanced Analysis I
- 01030401 Advanced Analysis II
- 01030302 Introduction to Topology
- 01030606 Vector Analysis
- 01030701 Functional Analysis I
- 01030809 Functional Analysis II
- 60070101 Functional Analysis and Applications I
- 60070111 Functional Analysis and Applications II
- 60070102 Advanced Real Analysis I
- 60070112 Advanced Real Analysis II
- 60070128 Variational Analysis I
- 60070135 Variational Analysis II
- 600701100 Specialization Course
- 600701101 Seminar
- 61090119 Numerical Methods
- 61090128 Business Statistics
- 61090201 Research Methods

Dicle University (Turkey) (2009 – 2013)

- Business Mathematics
- Business Statistics
- Engineering Mathematics

Supervision

AU Undergraduate Student Supervision

- Pascale Boudreau - MATH 495 Mathematics Projects I. (2025/1 - 2025/9)

Project Title: Application of the Fixed-point Theorems to the Solutions of Differential Equations.

- Amina Anna Mahamane Ousmane - MATH 495 Mathematics Projects I. (2025/5 - 2025/6)
Project Title: Investigating the Effectiveness of Optimization Methods : Full-Batch Gradient Descent vs. Stochastic Gradient Descent for Training Regression Models on Housing Market Data.
- John Didiodato - MATH 493 Special Study II. (2024/1 - 2024/5)
Project Title: Mathematical Finance.
- Andre Leke Umambo - MATH 495 Mathematics Projects I. (2023/7 - 2023/11)
Project Title: The Queuing System.
- Alexander van Dijk - MATH 493 Special Study II. (2022/9 - 2022/12)
Project Title: Introduction to Mathematical Finance.
- Mahin Khan - MATH 492 Special Study I. (2024/7 - 2024/12)
Project Title: Measure Theory and Lebesgue Integration.

Theses Supervised

- Berat Süer - *On Solutions of the Ginzburg-Landau-type Equation in Orlicz-Sobolev Spaces*, M.Sc. Mathematics (Co-supervisor), Batman University, 2020.
- Kenan Süslü - *On Solutions of Nonlocal Equations in Orlicz-Sobolev Spaces*, M.Sc. Mathematics, Batman University, 2017.
- İdris Teymur - *Coefficient Bounds for Subclasses of M-Fold Symmetric Bi-Univalent Functions*, M.Sc. Mathematics (Co-supervisor), Batman University, 2017.
- Diyadin Keskin - *Approximation by Simple Functions in L^p Lebesgue Spaces*, M.Sc. Mathematics (project-based, non-thesis), Batman University, 2016.
- İbrahim Eren Atalay - *Convex Functions and Inequalities in L^p Lebesgue Spaces*, M.Sc. Mathematics (project-based, non-thesis), Batman University, 2016.
- Mehmet Nuri Tüzün, *Bounded Linear Operators and Riesz Representation Theorem in L^p Lebesgue Spaces*, M.Sc. Mathematics (project-based, non-thesis), Batman University, 2016.
- Mustafa Yilmaz, *Approximation by Continuous Functions in L^p Lebesgue Spaces*, M.Sc. Mathematics (project-based, non-thesis), Batman University, 2016.

Service & Contributions

AU Standing Committee Memberships

- FST Faculty Council - (2022 - present)

- *FST Undergraduate Program Council - (2025 - present)*
- *Academic & Professional Development Fund Committee (APDF) - (2025 - present)*
- *Academic Research Fund Committee (ARF) - (2024 - present)*
- *GFC Academic Planning, Policy, and Standards Committee (APPSC) - (2024 - present)*
- *GFC Academic Research Committee (ARC)- (2024 - present)*
- *APDF - Replacement term - (2023 - 2025)*

AU Ad Hoc Committee/Group Memberships

- *Research Information Management System (RIMS) Advisory Group - (2023 - 2024)*
- *Tri-Agency Undergraduate Student Research Award Selection Committee (USRA) - (2025 - present)*
- *Faculty of Graduate Studies (FGS) Awards Review Committee - (2025 - present)*
- *FGS Faculty Council Working Group: Research Software for Graduate Students and Faculty - (2025 - present)*
- *ARC CFI-JELF Expression of Interest Review Subcommittee (2025)*
- *Applied Math Program Advisory Committee - (2025 - present)*
- *Mobius Ladership Group - (2024 - present)*
- *Hiring Committee service-Assistant Professor - Applied Math.*
- *Hiring Committee service-Tutor - MATH 216*
- *Hiring Committee service-Tutor - MATH 266*
- *Hiring Committee service-Tutor - MATH 309*
- *Hiring Committee service-Tutor - MATH 376*
- *Hiring Committee service-Tutor - MATH 476*
- *Hiring Committee service-Tutor - MATH 480*
- *Hiring Committee service-Tutor - MATH 481*

Professional Activities

Service to Discipline

- *Canadian Mathematical Society, Member (2023/12 - present)*

Editorial Activities

- *Editorial Board Member - Advances in Differential Equations and Control Processes (2025 - present)*
- *Editorial Board Member - Mathematics, Informatics, Physics: Science and Education (2025 - present)*

- Editorial Board Member - *Pure and Applied Mathematics Journal* (2025 - present)
- Topical Advisory Panel Member - *Axioms* (2023 - present)
- Editorial Board Member - *International Journal of Scientific and Innovative Mathematical Research* (2018 - present)
- Editorial Board Member - *American Journal of Applied Mathematics and Statistics* (2015 - present)
- Editorial Board Member - *Journal of Mathematical Sciences and Applications* (2015 - present)
- Editorial Board Member - *International Journal of Partial Differential Equations and Applications* (2015 - present)
- Editorial Board Member - *Universal Journal of Applied Mathematics* (2015 - present)
- Guest editor for the Special Issue: *Advances in Stochastic Differential Equations: Theory, Computation and Applications in Axioms* (2025/7 - 2026/12)
- Guest editor for the Special Issue: *Differential Equations and Stochastic Processes: Trends and Challenges in Mathematics* (2023/10 - 2024/11)
- Co-Guest editor for the Special Issue: *Nonlinear and Variational Analysis and their Applications in Journal of Function Spaces* (2020/1 - 2020/12)

Event Administration

- Co-organizer - Organized Session: *Recent Developments in Stochastic Analysis, PDEs and Related Topics*.
Alberta Mathematics Dialogue (AMD), University of Calgary, May 1-2, 2025. [Website](#)
- Co-organizer - Organized Session: *Innovative Strategies in Online Learning Environments for Mathematics Education*.
Alberta Mathematics Dialogue (AMD), University of Calgary, May 1-2, 2025.

Conference Committee Activities

- Scientific Board Member, *4th International Engineering, Science and Education Conference (INESEC)*, November 6-8, 2019, Dicle University, Turkey.
- Scientific Board Member, *3rd International Engineering and Natural Sciences conference*, Nov 14-17, 2018, Dicle University, Turkey.
- Scientific Board Member, *2nd International Natural and Health Science Conference (INHSC)*, October 19-21, 2017, Antalya, Turkey.
- Scientific Board Member, *1st International Engineering, Science and Education Conference (INESEC)*, December 1-3, 2016, Dicle University, Turkey.
- Session Chair, *1st International Engineering, Science and Education Conference (INESEC)*, December 1-3, 2016, Dicle University, Turkey.

Reviewer for Journals

List

1. *Reviewer for American Mathematical Society/MathSciNet Reviews Website*
2. *Acta et Commentationes Universitatis Tartuensis de Mathematica*
3. *Acta Mathematica Scientia*
4. *Advances in Nonlinear Analysis*
5. *Afrika Matematika*
6. *AIMS Mathematics*
7. *Annals of the Alexandru Ioan Cuza University - Mathematics*
8. *An International Journal of Optimization and Control: Theories & Applications*
9. *Applicable Analysis*
10. *Applied Mathematics E-Notes*
11. *AppliedMath*
12. *Arabian Journal of Mathematics*
13. *Asian Journal of Mathematics and Computer Research*
14. *Axioms*
15. *Boletim da Sociedade Paranaense de Matemática*
16. *Boundary Value Problems*
17. *Boletín de la Sociedad Matemática Mexicana*
18. *Bulletin of the Malaysian Mathematical Sciences Society*
19. *British Journal of Applied Science and Technology*
20. *Complex Variables and Elliptic Equations*
21. *Computation*
22. *Contemporary Mathematics*
23. *Discrete Dynamics in Nature and Society*
24. *Discrete and Continuous Dynamical Systems, Series S*
25. *Differential Equations and Dynamical Systems*
26. *Electronic Research Archive*
27. *Entropy*
28. *FILOMAT*
29. *Foundations*
30. *Fractal and Fractional*
31. *Georgian Mathematical Journal*
32. *Journal of Mathematics*
33. *Journal of Mathematical Physics*
34. *Journal of Nonlinear Mathematical Physics*
35. *Journal of Advances in Mathematics*
36. *Journal of Advances in Mathematics and Computer Science*
37. *Journal of Inequalities and Applications*
38. *Journal of Nonlinear Functional Analysis*
39. *Journal of Elliptic and Parabolic Equations*
40. *Journal of Pseudo-Differential Operators and Applications*
41. *Kragujevac Journal of Mathematics*
42. *Mathematics*

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- 43. *Mathematical Methods in the Applied Sciences*
 - 44. *Nonlinear Analysis*
 - 45. *Numerical Algorithms*
 - 46. *Proceedings of the Edinburgh Mathematical Society*
 - 47. *Rocky Mountain Journal of Mathematics*
 - 48. *Qualitative Theory of Dynamical Systems*
 - 49. *SIAM Journal on Imaging Sciences*
 - 50. *Symmetry*
 - 51. *TWMS Journal of Applied and Engineering Mathematics*
 - 52. *Zeitschrift für angewandte Mathematik und Mechanik*
 - 53. *Zeitschrift für Analysis und ihre Anwendungen*

Professional Development

Continued Professional Development

- *Higher Education Teaching Certificate-Harvard University, Derek Bok Center for Teaching and Learning, Oct-Dec 2020.*
- *Orientation for Distance Education-The Centre for Professional and Part-time Learning, Durham College, 2020.*
- *Valuing Diversity and Supporting Inclusivity-Virtual Workshop, Trent University, 2020.*
- *How to Deliver Experiential Learning in a Remote Course, Centre for Teaching & Learning, Trent University, 2020.*
- *Developing Your Course Syllabus-The Gwenna Moss Centre for Teaching and Learning, University of Saskatchewan, 2020.*
- *Remote Teaching Essentials: Constructive Alignment in a Remote Context-The Gwenna Moss Centre for Teaching and Learning, University of Saskatchewan, 2020.*
- *Learning How to Increase Learner Engagement-Online Course by LinkedIn Learning, 2020.*
- *Flipping the Classroom-Online Course by Lynda.com, 2020.*
- *Teaching Online: Synchronous Classes-Online Course by Lynda.com, 2020.*
- *How to Engage your Students in a Virtual Environment-webinar by McGraw-Hill, 2020.*
- *Teach Adult Learners in Higher Education-Online Course by Lynda.com, 2020.*
- *Educational Technology for Student Success-Online Course by Lynda.com, 2020.*
- *Communication in the 21st Century Classroom-Online Course by Lynda.com, 2020.*
- *Learning Microsoft Teams for Education-Online Course by Lynda.com, 2020.*
- *Foundations of Learning Management Systems (LMS)-Online Course by Lynda.com, 2020.*
- *Pedagogical Courses (with credit, taken during PhD), Dicle University, Diyarbakir, Turkey, 2011.*

- *The Certificate of Pedagogy Formation for Teachers, Dicle University, Diyarbakir, Turkey, 2001.*

Tech (Research & Education) Skills

- *Teaching in a variety of formats, including face-to-face, online, and hybrid/blended classrooms.*
 - *Instructing/Teaching/ Conducting seminars and labs remotely (synchronously and asynchronously).*
 - *Working with educational technologies and Learning Management Systems (LMS): Mobius, Blackboard, Canvas, Moodle, Google Classroom, Brightspace.*
 - *Competent at: Python, MATLAB, SPSS.*
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