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. Ograş, R. Mashiyev) (2009), Proceedings

of the 6th International ISAAC Congress, Ankara, Turkey, 13 – 18 August 2007. Website

Refereed Journal Articles

Published/Accepted

1. 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
2. Anisotropic singular equation with (p(·), q(·))-Laplacian operator and Hardy-type potential. *Acta Universitatis Sapientiae Mathematica*. Vol. 17, article number 18 **(2025)**. Website
3. Existence results for the Cox–Ingersoll–Ross model with variable exponent diffusion, *AIMS Mathematics* 10(9) **(2025)**, 22106–22126. Website
4. Three Solutions for a double-phase variable-exponent Kirchhoff problem, *Mathematics* 13(15) **(2025)**, 2462. Website
5. Singular p(x)-Laplacian equation with application to boundary layer theory, *Applicable Analysis* 104(13) **(2025)**, 2546–2566. Website
6. Existence results for a class of singular p(x)–Kirchhoff equations, *Complex Variables and Elliptic Equations* 70(7) **(2025)**, 1222–1253. Website
7. On a p(x)-Kirchhoff problem with variable singular and sublinear exponents, *Taiwanese Journal of Mathematics* 29(2) **(2025)**, 379–402. Website
8. On a p(x)–Kirchhoff-type equation with singular and superlinear nonlinearities, *Differential Equations and Dynamical Systems*, **(2024)**. Website
9. On an anisotropic p(·)-Laplace equation with variable singular and sublinear nonlinearities, *Communications in Analysis and Mechanics* 16(3) **(2024)**, 554–577. Website
10. 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
11. Solutions of Ginzburg–Landau-type equations involving variable exponent, *Thai Journal of Mathematics* 20(1) **(2022)**, 369–384. Website
12. 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
13. 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
14. 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
15. 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.

16. 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
17. On some classes of nonlocal problems in Musielak–Sobolev spaces, *Southeast Asian Bulletin of Mathematics* 43 **(2019)**, 791–814.
18. Positive ground state solutions to a nonlocal singular elliptic problem, *Canadian Journal of Applied Mathematics* 1(1) **(2019)**, 1–14. Website
19. 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
20. On a Robin problem in Orlicz–Sobolev spaces (with K. Suslu), *TWMS Journal of Applied and Engineering Mathematics* 9(2) **(2019)**, 246–256. Website
21. Solutions to p(x)–Laplace type equations via nonvariational techniques, *Opuscula Mathematica* 38(3) **(2018)**, 291–305. Website
22. Multivalued elliptic operators with nonstandard growth (with A. Pankov), *Advances in Nonlinear Analysis* 7(1) **(2018)**, 35–48. Website
23. 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
24. On a nonlocal Neumann problem in Orlicz–Sobolev spaces, *Journal of Nonlinear Functional Analysis* 2017 **(2017)**, Article ID 42, 1–11. Website
25. Existence results for anisotropic discrete boundary value problems, *Electronic Journal of Differential Equations* 148 **(2016)**, 1–11. Website
26. On a nonlocal problem involving the generalized anisotropic p(·)-Laplace operator, *Annals of the University of Craiova – Mathematics and Computer Science Series* 43(2) **(2016)**, 259–272. Website
27. Solutions to a system of p(x)–Kirchhoff discrete boundary value problems, *Nonlinear Studies* 23(4) **(2016)**, 665–674. Website
28. 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
29. Positive periodic solutions of nonlinear differential equations system with nonstandard growth (with R. Ayazoglu), *Applied Mathematics Letters* 43 **(2015)**, 5–9. Website
30. Nontrivial solutions of discrete nonlinear equations with variable exponent (with A. Pankov), *Journal of Mathematical Analysis and Applications* 431 **(2015)**, 22–33. Website
31. Nontrivial weak solutions of a quasilinear equation involving p-Laplace operator, *British Journal of Mathematics & Computer Science* 6(2) **(2015)**, 112–118. Website
32. 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
33. 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
34. 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

35. Existence results for a nonlocal problem involving the p-Laplacian, *Universal Journal of Applied Mathematics* 2(3) **(2014)**, 153–159. Website
36. Ni–Serrin type equations arising from capillarity phenomena with non-standard growth, *Boundary Value Problems* **(2013)**, Article 55, 1–18. Website
37. Existence and multiplicity of solutions for Dirichlet problems involving the p(x)–Laplacian, *Electronic Journal of Differential Equations* 14 **(2013)**, 1–9. Website
38. 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
39. Solutions of a nonlocal elliptic problem involving p(x)–Kirchhoff-type equation, *Applied Mathematics* 3(2) **(2013)**, 56–60. Website
40. 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
41. Existence results for a nonlocal problem involving the p(x)-Laplacian, *Pure and Applied Mathematics Journal* 2(1) **(2013)**, 20–27. Website
42. 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
43. 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
44. Solutions of an anisotropic nonlocal problem involving variable exponent (with R. Mashiyev, B. Cekic), *Advances in Nonlinear Analysis* 2(3) **(2013)**, 325–338. Website
45. 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
46. L^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
47. 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
48. 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
49. 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
50. 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. Positive weak solutions of a double-phase variable exponent problem with a fractional-Hardy-type singular potential and superlinear nonlinearity. Under review.
2. Stochastic representation of solutions for the parabolic Cauchy problem with variable exponent coefficients. Under review.
3. On the geometric Brownian motion with state-dependent variable exponent diffusion term. Under review.
4. Monotone operator methods for a class of nonlocal multi-phase variable exponent problems. Under review.
5. Existence and uniqueness results for a singular elliptic problem governed by an anisotropic (p(·), q(·))-Kirchhoff-type operator. Under review.
6. Variational and nonvariational solutions for double phase variable exponent problems. Under review.
7. Nehari manifold approach for a singular multi-phase variable exponent problem. Under review.
8. Anisotropic Variable exponent Kirchhoff-type equation with double singularity (with B. Cekic, Z. Yucedag). Under review.
9. Singular Kirchhoff–Ginzburg–Landau-type equation with variable Exponent (with B. Cekic, Z. Yucedag). Under review.
10. On a p(x)-Kirchhoff Equation with double singularity exponent (with B. Cekic, Z. Yucedag). Under review.
11. Existence results for a class of double phase singular Kirchhoff-type equations with nonstandard growth (with A. Razani). Under review.

Work in progress

1. On existence, uniqueness and stability of solutions of SDEs with state-dependent variable exponent.
2. On a singular double phase variable exponent problem: A topological result

Presentations (Invited Talks & Contributed Talks & Workshops)

List

1. **Existence of solutions for a singular double phase variable exponent problem with (p(.),q(.))- 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 Ł(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 — 202)

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/Sipring)

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

- M. Rizwan Hamidi - MATH 492 Special Study I. (2025/3 - 2025/12)
  Project Title: Advanced Engineering Mathematics focusing on Differential Equations.
- 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 Yılmaz, 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 Commitee 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 Scienta
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
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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