Mahmoud Hadizadeh

Curriculum Vitae *as of April 2022*

Education

1995–1999	**Ph.D. in Applied Mathematics**, Iran Univ. of Sci. and Tech.
1993–1995	**M.Sc. in Applied Mathematics**, Iran Univ. of Sci. and Tech.
1989–1993	**B.Sc. in Mathematics and Computer Science**, Ferdowsi Univ. of Mashhad.

Research and Work Experience

Sabbatical and Study Leaves

Mar–Aug, 2013	**Visiting Research Scholar**, The Ohio State University, USA.

Research Interests

- Theory and Numerical Methods for Volterra Integral Equations
- Weakly Singular Equations
- Integral-Algebraic Equations
- Spectral Collocation Methods
- Fractional Calculus from Volterra Theory Point of view
- Verified Solutions of Operator Equations
- Matrix Polynomials Theory
- Dynamical Systems and Mathematical Modeling

Employment History

2020–now	Dean, Faculty of Mathematics, K.N.Toosi Univ. of Tech.
2021–now	Full Professor, Faculty of Mathematics, K.N.Toosi Univ. of Tech.
2004–2021	Associate Professor, Faculty of Mathematics, K.N.Toosi Univ. of Tech.
2014–2016	Research Deputy, Faculty of Mathematics, K.N.Toosi Univ. of Tech.
2010–2012	Dean, Faculty of Science, K.N.Toosi Univ. of Tech.
2009–2010	Deputy of Education, Faculty of Science, K.N.Toosi Univ. of Tech.
2015–2021	Board (and sub-board) of Promotion, K.N.Toosi Univ. of Tech.
1999–2004	Assistant Professor, Department of Mathematics, K.N.Toosi Univ. of Tech.

Editorial Service

2015–2022	Editorial Board, **Bulletin of the Iranian Mathematical Society** (Springer)
2019–now	Editorial Board, **Iranian J. Numer. Anal. Optimiz.** (Ferdowsi Univ. of Mashhad)
2013–now	Editorial Board, **Comput. Methods Differential Equ.** (Univ. of Tabriz)
2013–now	Editorial Board, **Journal of Mathematical Modeling** (University of Guilan)

Research and Work Experience

Scholarly Professional Activities

2019–now	MathSciNet Reviewer number: 147734
2003–2007	Junior Associate Researcher, Institute for Research in Fund. Sci. (IPM).
2000–now	Reviewer for various esteemed Journals in the fields of Applied and Computational Mathematics.
2021–now 2006–2012	Member of the Editorial Board, Newsletter of the Iranian Math. Society.
May 2004	Faculty of Science Distinguished Research Professorship Award, K.N.Toosi Univ. of Tech.
April 2007	Faculty of Science Award for Excellence in Teaching, K.N.Toosi Univ. of Tech.

Organizing Workshops

Nov. 29-30, 2017	Workshop on Integral Equations and Matrix Theory: Symbolic-Numeric Treatments (WIEMT2017), K.N.Toosi Univ. of Tech., Tehran, Iran, **(Chair)**
May 25, 2011	Third Workshop on Optimization and its Applications, K.N.Toosi Univ. of Tech., Tehran, Iran, **(Co-chair)**

Scientific Program Committee Memberships

- 9th Seminar on Numerical Analysis and its Applications, University of Guilan, Iran, May 9-11, 2022.
- 8th Seminar on Numerical Analysis and its Applications, University of Kurdistan, Iran, May 27-28, 2020.
- The 49th Annual Iranian Mathematics Conference, Iran Univ. of Sci. and Tech., Tehran, Iran, August 23-26, 2018.
- Workshop on Numerical Solution of Integral and Differential Equations (NSIDE 2018), Vietnam, October 22-27, 2018.
- First International Conference on Boundary Value Problems and Applications, University of Tabriz, July 4-5, 2018.
- Workshop on Numerical Solution of Integral and Differential Equations (NSIDE 2017), Russia, July 1-7, 2017.
- 12th Seminar on Differential Equations and Dynamical Systems, University of Tabriz, Iran, May 27-29, 2015.
- 8th Seminar on Differential Equations and Dynamical Systems, University of Tabriz, Iran, November 10-12, 2005.

Teaching Experience

Computational Mathematics, Ordinary Differential Equations, Linear Algebra, Numerical Linear Algebra, Advanced Numerical Analysis, Computational Methods for Integral Equations, Math. Laboratory, Approximation Theory, Theory of Singular Integral Equations

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • FAX (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • 🖥 wp.kntu.ac.ir/∼hadizadeh   *2/12*

Publications

Activities Summary

- Papers in Refereed Journals: **48**
- Submitted Papers: **4**
- Conference Proceedings: **39**
- Technical Newsletters Papers & Reports: **5**
- Ph.D Students: (current) **4**, (supervised) **5**
- M.Sc Students: (current) **2**, (supervised) **58**

Submitted Papers

- M.S. Farahani and **M. Hadizadeh**, A Multi-stage Approach based on Block Iterative Scheme for Integral-Algebraic Equations of Hiher Index.
- S. Yazdani, **M. Hadizadeh** and V. Fakoor, An Asymptotic Computational Method for the Nonlinear Weakly Singular Integral Models in Option Pricing.
- S. Karami, M. Ahmadnasab, **M. Hadizadeh** and A. Amiraslani, Intra-Basis Multiplication of Polynomials Given in Various Polynomial Bases.
- M. Toranj-Simin and **M. Hadizadeh**, A Periori Mesh Grading in Collocation Solution of Noncompact Volterra IEs with Diagonal Singularity.

Journal Papers (since 2000)

- S. Yazdani, **M. Hadizadeh** and V. Fakoor, Computational Analysis of the Behavior of Stochastic Volatility Models with Financial Applications, **J. Comput. Appl. Math.** 411, 114258 (2022).
- F. Rezaie, **M. Hadizadeh**, R.M. Corless and A. Amiraslani, Structural Analysis of Matrix Integration Operators in Polynomial Bases, **Banach J. Math. Anal.** 16, 5 (2022).
- L. Naserizadeh, **M. Hadizadeh** and A. Amiraslani, Cubature Rules Based on Bivariate Alternative Degree-graded Orthogonal Polynomials and Applications, **Math. Comput. Simul.** 190, 231-245 (2021).
- M. Toranj-Simin and **M. Hadizadeh**, On the Class of Noncompact Volterra Integral Equations: Theory and Application to Fractional Differential Equations with Variable Coefficient, **J. Integral Eqs. Applic.** 32(2), 193-212 (2020).
- M. Toranj-Simin and **M. Hadizadeh**, Spectral Collocation Method for A Class of Integro-differential Equations with Erdelyi-Kober Fractional Operator, **Advances Appl. Math. Mech.** 12(2), 386-406 (2020).
- M.S. Farahani, **M. Hadizadeh**, M.V. Bulatov and E. Chistyakova, Adaptive Iterative Regularization Schemes for Two-Dimensional Integral-Algebraic Systems, **Math. Methods. Appl. Sci.** 42(18), 6635-6647 (2019).

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • 🖷 (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • 🖱 wp.kntu.ac.ir/∼hadizadeh 3/12

Journal Papers (Cont.)

- M.V. Bulatov, **M. Hadizadeh** and E. Chistyakova, Construction of Implicit Multistep Methods for Solving Integral Algebraic Equations, **J. Vestnik St. Petersburg Univ., Appl. Math. Comput. Sci. Control. Proc.** 15(3), 310-322 (2019).

- M.S. Farahani and **M. Hadizadeh**, Direct Regularization for System of Integral-Algebraic Equations of Index-1, **Inverse Prob. Sci. Engng.** 5(26), 728-743 (2018).

- M. Khasi, F. Ghoreishi and **M. Hadizadeh**, Numerical Analysis of a High Order Method for State-Dependent Delay Integral Equations, **Numer. Algorithms** 66(1), 177-201 (2014).

- N. Moatamedi, **M. Hadizadeh** and M.R. Peyghami, A Nonlinear Integral Model of Optimal Replacement: Numerical Viewpoint, **Commun. Numer. Anal.** 1-14 (2014).

- N. Shayanfar and **M. Hadizadeh**, An Approach Based on Matrix Polynomials for Linear Systems of Partial Differential Equations, **Special Matrices** 1, 42-48 (2013).

- N. Motamedi, M.R. Peyghami and **M. Hadizadeh**, A Mixed Integer Nonlinear Programming Model for the Optimal Repair-replacement in the Firm, **Math. Social Sci.** 66, 366-371 (2013).

- N. Masoudipour and **M. Hadizadeh**, A Meshless like Method for the Approximate Solution of Integral Equations over Polygons, **Appl. Math. Model.** 37, 9562-9574 (2013).

- N. Shayanfar and **M. Hadizadeh**, Splitting A Linear System of Operator Equations with Constant Coefficients: A Matrix Polynomial Approach, **FiloMat.** 27(8), 1447-1457 (2013).

- F. Goodarzi, **M. Hadizadeh** and F. Ghoreishi, An Interval Solution for the nth Order Linear ODEs with Interval Initial Conditions, **Math. Commun.** 18, 257-270 (2013).

- S. Pishbin, F. Ghoreishi and **M. Hadizadeh**, The Semi-Explicit Volterra Integral-Algebraic Equations with Weakly Singular Kernels: The Numerical Treatments, **J. Comput. Appl. Math.** 245, 121-132 (2013).

- K. Maleknejad, **M. Hadizadeh** and M. Attary, On the Approximate Solution of Integro-differential Equations arising in Oscillating Magnetic Fields, **Application. Math.** 58(5), 595-607 (2013).

- H. Laeli Dastjerdi, F. Maalek Ghaini and **M. Hadizadeh**, A Meshless Approximate Solution of Mixed Volterra-Fredholm Integral Equations, **Int. J. Computer Math.** 90(3), 527-538 (2013).

- N. Shayanfar, **M. Hadizadeh** and A. Amiraslani, Integral Operators Acting as Variables of the Matrix Polynomial: Application to System of Integral Equations, **Ann. Funct. Anal.** 3(2), 170-182 (2012).

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301   •   [FAX] (098) 21 77125291
✉ hadizadeh@kntu.ac.ir   •   ⌂ wp.kntu.ac.ir/∼hadizadeh   4/12

Journal Papers (Cont.)

- N. Shayanfar and **M. Hadizadeh**, λ-Matrix Formulation Applying for the Hertz Contact Problem with Finite Friction, **Computers. Math. Applic.** 64, 2478-2483 (2012).

- F. Ghoreishi, **M. Hadizadeh** and S. Pishbin, On the Convergence Analysis of the Spline Collocation Method for System of Integral Algebraic Equations of Index-2, **Int. J. Comput. Methods** 9(4), 1-22 (2012).

- **M. Hadizadeh** and S. Yazdani, Piecewise Constant Bounds for the Solutions of Nonlinear Volterra-Fredholm Integral Equations, **Comp. Appl. Math.** 31(2), 1-18 (2012).

- M.R. Peyghami, **M. Hadizadeh** and A. Ebrahimzadeh, Some Explicit Classes of Hybrid Methods for Optimal Control of Volterra Integral Equations, **J. Inform. Comput. Sci.** 7(4), 253-266 (2012).

- S. Pishbin, F. Ghoreishi and **M. Hadizadeh**, A Posteriori Error Estimation for the Legendre Collocation Method Applied to Integral-Algebraic Volterra Equations, **Elect. Trans. Numer. Anal.** 38, 327-346 (2011).

- **M. Hadizadeh** and S. Yazdani, New Enclosure Algorithms for the Verified Solutions of Nonlinear Volterra Integral Equations, **Appl. Math. Model.** 35(6), 2972-2980 (2011).

- **M. Hadizadeh**, F. Ghoreishi and S. Pishbin, Jacobi Spectral Solution for Integral-Algebraic Equations of Index-2, **Appl. Numer. Math.** 61, 131-148 (2011).

- S. Anderaincs and **M. Hadizadeh**, The Computational Efficiency of Walsh Approximation for Two-Dimensional Volterra Integral Equations, **Asian-European J. Math.** 4(2), 268-270 (2011).

- M. Rasty and **M. Hadizadeh**, A Product Integration Approach Based on New Orthogonal Polynomials for Nonlinear Weakly Singular Integral Equations, **Acta. Appl. Math.** 109(3), 861-873 (2010).

- N. Shayanfar and **M. Hadizadeh**, Computer Algebraic Efficiency of Matrix Polynomials for a System of Integral Equations, **ACM Commun. Comput. Algebra** 43(3/4), 101-102 (2009).

- F. Ghoreishi and **M. Hadizadeh**, Numerical Computation of the Tau Approximation for the Volterra-Hammerstein Integral Equations, **Numer. Algorithms** 52, 541-559 (2009).

- **M. Hadizadeh** and Gh. Kazemi, Error Estimate in the Sinc Collocation Method for the Volterra-Fredhlom Integral Equations based on DE Transformation, **Electron. Trans. Numer. Anal.** 30, 75-87 (2008).

- **M. Hadizadeh** and N. Moatamedi, A New Differential Transformation Approach for Tow Dimensional Volterra Integral Equations, **Int. J. Computer Math.** 84(4), 515-526 (2007).

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • ⓕⓐⓧ (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • 🖥 wp.kntu.ac.ir/∼hadizadeh *5/12*

- P. Darania and **M. Hadizadeh**, On the RF-pair Operations for the Exact Solution of some Classes of Nonlinear Volterra Integral Equations, **Math. Probl. Engn.** 97020, 1-11 (2006).

- A.R. Zokayi, **M. Hadizadeh**, P. Darania and A. Rajabi, The Relation between the Emden-Fowler Equation and the Nonlinear Heat Conduction Problem with Variable Transfer Coefficient, **Commun. Nonlinear Sci. Numer. Simul.** 11, 845-853 (2006).

- **M. Hadizadeh** and M. Mohamadsohi, Numerical Solvability of a Class of Volterra-Hammerstien Integral Equations with Noncompact Kernels, **J. Appl. Math.** 2, 171-181 (2005).

- **M. Hadizadeh** and M. Asgari, An Efficient Numerical Approximation for the Linear Class of mixed Integral Equations, **Appl. Math. Comput.** 167, 1090-1100 (2005).

- **M. Hadizadeh**, A. R. Zokayi and P. Darania, On the Discrete Group Analysis for Solving some Classes of the Emden-Fowler Equations, **Appl. Math. Research eXpress** 5, 169-178 (2004).

- **M. Hadizadeh** and R. Azizi, A Reliable Computational Approach for Approximate Solution of Hammerstien Integral Equations of mixed Type, **Int. J. Computer Math.** 81(7), 889-900 (2004).

- **M. Hadizadeh** and A. R. Zokayi, Concerning the Action of an Invertible Point Transformation on a Class of Ordinary Differential Equations, **Appl. Math. Comput.** 147, 347-353 (2004).

- **M. Hadizadeh**, Posteriori Error Estimates for the Nonlinear Volterra-Fredholm Integral Equations, **Computers Math. Applic.** 45 (4-5), 677-687 (2003).

Other Publications

- **M. Hadizadeh**, Industrial Mathematics: A Viewpoint on Effective Math. Applications, **Newsletter Iranian Math. Soc.**, No. 111, Spring 2007.

- **M. Hadizadeh** and N. Shayanfar, The Golden Age of Numerical Analysis has not yet Started!, **Newsletter Iranian Math. Soc.**, No. 114, Winter 2008. (Translation to Persian, SIAM News 40(8), 2007)

- **M. Hadizadeh**, An Interview with Terence Tao, **Newsletter Iranian Math. Soc.**, No. 121/122, Winter 2010. (Translation to Persian, AMS Graduate Student Blog 2009)

- **M. Hadizadeh**, A Critical Report on 25 Years of Ph.D. Study in Applied Math. in Iran, **Newsletter Iranian Math. Soc.**, No. 130, Winter 2011.

- **M. Hadizadeh**, The Undeniable Role of Fundamental Sciences in the Applied Research, **ETELAAT Newspaper**, No. 22395, pp. 11, 2002.

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ *(098) 21 73064 301* • ⟨FAX⟩ *(098) 21 77125291*
✉ *hadizadeh@kntu.ac.ir* • ⌂ *wp.kntu.ac.ir/~hadizadeh*   *6/12*

Talks & Conference Proceedings (since 2000)

- Explicit integration matrices and their applications to numerical solution of integral equations, (Joint with A. Amiraslani), **Workshop on Numerical Solution of Integral and Differential Equations (NSIDE 2019)**, Gdansk, Poland, 2019.

- Some properties of multistep methods for solving integral algebraic equations, (Joint with M.V. Bulatov and E. Chistyakova), **Third Workshop on Numerical Solution of Integral and Differential Equations (NSIDE 2018)**, Hanoi, Vietnam, 2018.

- Enclosure solutions for a class of stochastic differential equations with random coefficient, (joint with S. Yazdani), **The 49th Annual Iranian Mathematics Conference**, Iran Univ. of Sci. and Tech., Tehran, Iran, 2018.

- Construction of generic operational integration matrices in degree-graded polynomial bases, (joint with F. Rezaie and A. Amiraslani), **7th Seminar on Numerical Analysis and Its Applications**, University of Kerman, Iran, 2018.

- Stock price movement prediction based on interval analysis, (joint with S. Yazdani), **The 4th FINACT-IRAN Conference on Financial and Actuarial Mathematics**, Institute for Research in Fundamental Sciences (IPM), Tehran, Iran, 2017.

- A discrete scheme of Landweber iteration for a class of semi-explicit integral-algebraic equations, (joint with M.S. Farahani), **The 48th Annual Iranian Mathematics Conference**, Bu-Ali Sina University, Hamedan, Iran, 2017.

- Reducing the collocation parameters for a class of weakly singular Volterra integral equations, (joint with M. Toranj-Simin), **The 47th Annual Iranian Mathematics Conference**, Kharazmi University, Karaj, Iran, 2016.

- A hybrid B-spline collocation method based on bivariate local polynomial spline integration for 2-D Volterra integral equations, (joint with A. Yazdani), **The 47th Annual Iranian Mathematics Conference**, Kharazmi University, Karaj, Iran, 2016.

- INTEGRAL-ALGEBRAIC SYSTEMS: Theory and Numerical Analysis, **Monthly Seminar Series in Applied Mathematics**, Amirkabir Univ. of Tech., Tehran, Iran, 25 May 2015.

- Richardson iteration for tow-dimensional Volterra integral-algebraic equations, (joint with M.S. Farahani), **12th Seminar on Differential Equations and Dynamical Systems**, University of Tabriz, Iran, 2015.

- On the integral equations of the fourth kind with singular matrix function coefficients, (joint with A.R. Roshanaie), **12th Seminar on Differential Equations and Dynamical Systems**, University of Tabriz, Iran, 2015.

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • [FAX] (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • ✆ wp.kntu.ac.ir/∼hadizadeh   *7/12*

- Applications of nonlinear sequence transformation on the numerical solution of operator equations, (joint with D. Chehelmiran), **The 45th Annual Iranian Mathematics Conference**, University of Semnan, Iran, 2014.

- A generalization of multistep collocation methods for two-dimensional Volterra equations, (joint with R. Hoseinzadeh and S. Pishbin), **The 44th Annual Iranian Mathematics Conference**, Ferdowsi University of Mashhad, Iran, 2013.

- Numerical method for an optimal repair replacement model in mathematical economics, (joint with M. R. Peyghami and N. Moatamedi), **3rd Conference on Financial Mathematics & Applications**, University of Semnan, Iran, 2013.

- Solving Hertz contact problem using polynomial matrices, (Joint with N. Shayanfar), **Mathematical Modelling in Engineering & Human Behaviour**, Valencia, Spain, 2011.

- The numerical solvability of weakly singular integral-algebraic equations of index-1, (joint with. F. Ghoreishi and S. Pishbin), **The 42nd Annual Iranian Mathematics Conference**, University of Rafsanjan, Iran, 2011.

- On the approximate solution of integral equations on polygons in $\mathbb{R}^2$, (Joint with N. Masoudipour), **The 41th Annual Iranian Mathematics Conference**, University of Urmia, Iran, 2010.

- On the approximate solution of nonlinear integral algebraic equations of index-1, (joint with F. Ghoreishi and S. Pishbin), **4th Iranian Conference on Applied Mathematics**, University of Zahedan, Iran, 2010.

- On the relation between matrix polynomial equations and bivariate operator systems, (joint with N. Shayanfar), **The 40th Annual Iranian Mathematics Conference**, Sharif University of Technology, Tehran, Iran, 2009.

- Computer algebraic efficiency of matrix polynomials for system of integral equations, (joint with N. Shayanfar), **International Symposium on Symbolic and Algebraic Computation (ISSAC2009)**, Seoul, Korea, 2009.

- Interval solutions for dynamical model of a chemical reactor, (joint with S. Yazdani and F. Ghoreishi), **The 2nd Conference and Workshop on Mathematical Chemistry SCWMC09**, University of Kashan, Iran, 2009.

- A numerical approach based on new orthogonal polynomials for weakly singular integral equations, (joint with M. Rasty), **The 39th Annual Iranian Mathematics Conference**, University of Kerman, Iran, 2008.

- A verified solution for a class of nonlinear Volterra integral equations, (joint with S. Yazdani), **8th Seminar of Differential Equations, Dynamical Systems and Their Applications**, Isfahan University of Technology, Isfahan, Iran, 2008.

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ *(098) 21 73064 301* • 𝙵𝙰𝚇 *(098) 21 77125291*
✉ *hadizadeh@kntu.ac.ir* • 🖥 *wp.kntu.ac.ir/∼hadizadeh*   *8/12*

Talks & Conference Proceedings (Cont.)

- Integral-algebraic equations of index-2: modelling and numerical aspects, (joint with F. Ghoreishi and S. Pishbin), **The 38th Annual Iranian Mathematics Conference**, University of Zanjan, Iran, 2007.

- Numerical modeling of the virtual virus propagation process in computer networks, (joint with N. Shayanfar), **The 38th Annual Iranian Mathematics Conference**, University of Zanjan, Iran, 2007.

- Representation of solution for the nonlinear operator equations in the reproducing kernel Hilbert spaces, **16th Seminar on Mathematical Analysis and its Applications**, Ferdowsi University of Mashhad, Iran, 2007. (Invited Speaker)

- The product integration schemes for weakly singular integral equations, **The 37th Annual Iranian Mathematics Conference**, University of Azarbaijan, Tabriz, Iran, 2006. (Invited Speaker)

- On the efficient discretizition for the noncompact behaved kernels of the nonlinear integral equations, **The 36th Annual Iranian Mathematics Conference**, University of Yazd, Iran, 2005.

Graduate Supervision

Ph.D. Students

- **Nikta Shayanfar**, Ph.D. 2012, *Generalization of the Canonical forms of Matrix Polynomials for the Solution of Systems of Operator Equations: Theoretical and Numerical Aspects.* (Now Researcher at Hochschule OWL University of Applied Sciences, Lemgo, Germany)

- **Saied Pishbin**, (co-supervised with F. Ghoreishi), Ph.D. 2012, *Numerical Analysis of the Semi-Explicit Integral-Algebraic Equations.* (Now Associate Prof. in the Urmia University)

- **Nader Moatamedi**, (co-supervised with M.R. Peyghami), Ph.D. 2013, *Numerical Algor. for Solving Optimal Replacement Model in Vintage Capital.*

- **Mohammad Toranj-Simin**, Ph.D. 2019, *The Noncompact Integral Operators and their Applications to Numerical Solution of Singular Volterra Integral Equations.*

- **Mehdi S. Farahani**, Ph.D. 2021, *On the Numerical Analysis of Iterative Regularization Algorithms for Integral-Algebraic Equations.*

- **Salman Yazdani**, Ph.D. in progress.

- **Akram Yazdani**, Ph.D. in progress.

- **Tahereh Koini**, Ph.D. in progress.

- **Ashwagh Al-Abdulaziz**, (co-supervised with F. Ghoreishi), Ph.D. in progress.

Graduate Supervision

Master Students

○ **Amir H. Amiraslani**[1], M.Sc. 2001, "Synthesis of Time-variant Optimal Control Problems with Nonquadratic Criteria".

○ **Alireza Hadipour**[2], M.Sc. 2001, "Numerical Solution of Hammerstien Integral Equations by ID-Wavelet Method".

○ **Maryam Mohamadsohi**, M.Sc 2002, "Product Integration Methods for the Volterra-Hammersitien Integral Equations with Noncompact Kernels".

○ **Ronak Azizi**, M.Sc. 2003, "Some Computational Procedures for Approximate Solutions of the Volterra-Hammerstein Integral Equations of mixed type".

○ **Morteza Asgari**, M.Sc. 2003, "Numerical Solution of a Linear class of Volterra-Fredholm Integral Equations by the Bivariate Chebyshev Collocation Method".

○ **Laleh Omid**, M.Sc. 2004, "Computational Methods for Nonlinear Two-dimensional Volterra Integral Equations of the First kind".

○ **Akbar Jafari**, M.Sc. 2004, "Some Integral Inequalities and their Applications".

○ **Nader Moatamedi**, M.Sc. 2005, "Differential Transformation Approach for Numerical Solution of Integral Equations".

○ **Ghasem Kazemi G.**, M.Sc. 2005, "Sinc Collocation Methods for Volterra-Fredholm Integral Equations".

○ **Soseh Anderianse**, M.Sc. 2006, "The Numerical Implementation of Wlash Functions for Two-dimensional Integral Equations".

○ **Mohsen Avaji**, M.Sc. 2006, "Some New Fast Iterative Methods for Integral Equations".

○ **Nikta Shayanfar**, M.Sc. 2007, "The Application of Delay Integral Equations in Virus Propagation Process".

○ **Rasoul Heidary**[3], M.Sc. 2005, "Spectral Methods for the Numerical Analysis of Nonlinear Volterra-Hammerstein Integral Equations".

○ **Sonia Seyedallaei**[3], M.Sc. 2006, "Pseudospectral Methods for Numerical Solution of Integral Equations"

○ **Salman Yazdani**[3], M.Sc. 2010, "Interval Analysis for Solving Operator Equations".

○ **Maryam Pazouki**, M.Sc. 2008, "Numeric-Analytic Solutions of Nonlinear Operator Equations in RKHSs".

○ **Saied Pishbin**[3], M.Sc. 2008, "Numerical solution of Integral-Algebraic Equations".

○ **Mohamad Rasty**, M.Sc. 2009, "New Orthogonal Polynomials and their Applications for Nonlinear Weakly Singular Integral Equations".

○ **Mohamad Ghasemi**, M.Sc. 2009, "Convergence Analysis of Chebychev Collocation Method for Integral Equations".

○ **Eli Mirshekari**, M.Sc. 2009, "Differential Quadrature Methods and their Applications for Integro-differential Equations".

○ **Manouchehr Khasi**[3], M.Sc. 2010, "The Numerical Analysis of the State Dependent Delay Integral Equations".

(co-supervised with: 1- S.M. Moghadas, 2- B. Mehri, 3- F. Ghoreishi)

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • FAX (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • 🖥 wp.kntu.ac.ir/~hadizadeh 10/12

Master Students (Cont.)

- **Maryam Sarboland**[1], M.Sc. 2007, "Using Radial Basis Functions for Partial Differential Equations".
- **Asiyeh Ebrahimzadeh**[2], M.Sc. 2010, "The Method of Computing Optimal Control of Volterra Integral Equations".
- **Najmeh Masoudipour**, M.Sc. 2011, "Numerical Integration over Polygons and its Applications for Multivariable Integral Equations".
- **Nafiseh Khanjary**, M.Sc. 2010, "More on the Teoplitz Matrix Method for Solution of Integral Equations".
- **Mahdieh Zamani**[1], M.Sc. 2011, "Some Economical Models and Related Integral Equations".
- **Zahra AmirHossieni**[2], M.Sc. 2011, "Differential Algebraic Equations and its Applications in Optimal Control Problems".
- **M.R. Beyki**, M.Sc. 2011, "The Spline Quasi-Interpolants for Weakly Singular Integral Equations".
- **Fahimeh Goudarzi**[3], M.Sc. 2011, "Verified Solutions of the Operator Equations and their Numerical Treatments".
- **Fatemeh Taheri**, M.Sc. 2011, "L-Orthogonal Polynomials and their Applications for Integral Equations".
- **Javad Aghdami**, M.Sc. 2012, "On the Quadratic Integral Equations and Their Applications".
- **Payam Razi**, M.Sc. 2012, "Application of Linear Multistep Initial and Boundary Value Methods for Operator Equations".
- **Ashraf Gholami M.**, M.Sc. 2013, "On A Moving Mesh Method for Solving Partial Integro-Differential Equations".
- **Roghayeh Hosseinzadeh**, M.Sc. 2013, "Multistep Collocation Methods and their Application for Integral Equations".
- **Behnam Rezaie**, M.Sc. 2013, "Fast Numerical Methods for Two-Dimensional Fredholm Integral Equations of the Second Kind".
- **Davoud Chehelmiran**, M.Sc. 2014, "Analytical and Numerical Methods for a Class of Nonlinear Abel Equations"
- **Mahdi S. Farahani**, M.Sc. 2014, "Iterative Regularization Methods for Volterra Equations of the First kind"
- **Parisa Amiri**, M.Sc. 2015, "An Iterative Hybrid Scheme based on the DQ method for Integro-differential Equations"
- **Farnoush Saiedpour**, M.Sc. 2015, "An Improvement of Clenshaw-Curtis Quadrature for Singular IEs".
- **Alireza Roshanie**, M.Sc. 2015, "Numerical Solution of Integral Equations of the Third kind".

(co-supervised with: 1- A. Aminataie, 2- M.R. Peyghami, 3- F. Ghoreishi)

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ *(098) 21 73064 301* ● FAX *(098) 21 77125291*
✉ *hadizadeh@kntu.ac.ir* ● 🖥 *wp.kntu.ac.ir/~hadizadeh* *11/12*

Graduate Supervision

Master Students (Cont.)

- **Bahman Khani**, M.Sc. 2016, "A Collocation Method based on B-Spline & quasi Interpolant for IDEs".
- **Mohamad H. Amirizadeh**, M.Sc. 2016, "A Computational Iterative Algorithm based on Shuader Biorthogonal System for Operator Equations".
- **Akram Yazdani**, M.Sc. 2017, "B-spline Collocation Method for Integral-Algebraic Equations".
- **Minoo Amrolahi**, M.Sc. 2017, "Improvement of Block Boundary Value Methods and Their applications".
- **Tahereh Farivar-Nahid**, M.Sc. 2018, "Multistep Collocation Method for Volterra IEs in Large Domains".
- **Mozgan Moshiri**, M.Sc. 2018, "Stability Analysis for Volterra IEs".
- **Leila Naserizadeh**[1], M.Sc 2019, "On the Alternative Orthogonal Legendre Polynomials and Their Applications".
- **Maryam Mirzaie**[1], M.Sc. 2019, "Vector-Matrix Multiplication Methods for Birkhoff Polynomial Bases".
- **Fahimeh Rezaie**[1], M.Sc. 2019, "Integration Operational Matrices in Polynomial Bases".
- **Saman Bagherbana**, M.Sc. 2020, "Numerical Analysis of Fractional Integro-Differential Equations from Volterra Theory Viewpoint".
- **Mehrnaz Abdous**, M.Sc. 2020, "The Numerical Analysis of Multistep Projection Methods for Volterra Equations".
- **Fatemeh Ebrahimi**[1], M.Sc. 2020, "Polyfractonomials and their Applications in Fractional Calculus".
- **Fatemeh Taghavi**[1], M.Sc. 2021, "Some Properties of Collocation Method with Polyfractonomial Basis Functions".
- **Roxana Norouzzadeh**[1], M.Sc. 2021, "Numerical Solution of an Optometry Mathematical Model by Using System of Quadratic IEs".
- **Parisa Hadi**[1], M.Sc. in progress.
- **Elaheh Zoghizadeh**, M.Sc. in progress.

(co-supervised with: 1- A. Amiraslani)

(Last Modified: April 2022)

Faculty of Mathematics, K.N.Toosi University of Technology – Tehran, Iran
☎ (098) 21 73064 301 • FAX (098) 21 77125291
✉ hadizadeh@kntu.ac.ir • 🏠 wp.kntu.ac.ir/∼hadizadeh   *12/12*