Gamze Tanoglu

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İYTE
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Education

1997 - 2000	**Doctor of Science (PhD) in Applied Mathematics**, *University of Delaware*, USA
	Thesis
1995-1997	**Master of Science in Mathematics**, *University of Delaware*, USA
1998 - 2002	**Bachelor of Science**, *Mİddle East Technical University* , Turkey

Professional Experience

2023-ongoing	**Professor**, *İzmir Institute of Technology*, Chair of Comptational Science and Engineering , Türkiye
2019-ongoing	**Professor**, *İzmir Institute of Technology*, Vice Rector-Director of Education , Türkiye
2014-ongoing	**Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
2009-2014	**Associate Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
2001 - 2008	**Assistant Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
2000 -2001	**Lecturer**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye

Skills

Softwares	**Matlab, LaTeX**, (open source)

Research Interests

Computational Mathematics, Applied Mathematics, Numerical Analysis

Research Experience

2015-2016	**Visitor Professor** , *Gebze Technical University*, Department of Mathematics, İstanbul
2010	**Visitor Professor** , *Humboldt University, supported by DAAD*, Department of Mathematics, Germany
2009	**Visitor Professor** , *Humboldt University, supported by TUBİTAK*, Department of Mathematics, Germany
1995-2000	**Research Assistant**, *University of Delaware*, Department of Mathematics, USA
1999	**Research Assistant**, *MPI Workshop Participant, University of Delaware*, University of Delaware, USA
1997	**Research Assistant**, *Summer Job, University of Delaware under the advisor R.J. Braun*, Department of Mathematics, USA

Publications

https://orcid.org/0000-0003-4870-6048

Book Chapters

#1, *S Ismoilov, G Gurarslan, G Tanoğlu, Higher-Order and Stable Numerical Scheme for Nonlinear Diffusion System via Compact Finite Difference and Adaptive Step-Size Runge-Kutta Methods, The International Conference on Artificial Intelligence and Applied Mathematics in Engineering, published* in Springer International Publishing (2022)

Doctoral Thesis direct supervision

#1, *Nurcan Gücüyenen, Iterative Splitting Method for System of Nonlinear Parabolic Equations , 2008-2013.*

#2 , *Onur Baysal, Stabilized Finite Element Methods for Time Dependent Convection- Diffision Equations, 2009-2013.*

#3 , *Yeşim Yazıcı, Converge Analysis of Operator Splitting Methods for Burger-Huxley Equation, 2012-2015.*

#4 , *Sıla Korkut, New approaches for Solving Nonlinear Oscillation Problems, 2012-2015.*

#5 , *Neslişah İmamoğlu Karabaş, A new linerization Technique and its application,2017-2020*

Master Thesis direct supervision

#1 , *Onur Agıroglu, The Application of a Finite Difference Method to a Dynamical Interface Problem, IYTE, 2001-2004.*

#2 , *Arzu Kıran, Nonstandard Finite Difference Method for Differential Equations, IYTE, 2002-2005.*

#3 , *Deniz Güçoğlu, Exact Solution of the Nonlinear Partial Differential Equations by Hirota Method, IYTE, 2002-2005*

#4 , *Bengi Kanat, Numerical Solution of the Highly Oscilatory Problem by Magnus Series Method, IYTE, 2003-2006.*

#5 , *Duygu Demir, Higher Order Symplectic Methods Based on the Modified Vector Fields , 2006-2009.*

#6 , *Pınar İnice, Geometric Integrators Method for Differential Equations, 2006-2009*

#7 , *Yeşim Yazıcı, Splitting Methods for ODE , 2008-2010*

#8 , *Hakan Gündüz , Higher Order Symplectic Methods for Separable Hamiltonian Equations, 2008-2010*

#9 , *Sıla Korkut, Operator Splitting Methods for Non-Autonomous Differential Equations 2009-2012*

#10 , *Melek Sofyalıoğlu, Numerical Solutions of the Reaction-Diffusion Equations by Exponential Integrators, 2012-2014*

#11 , *Fatma Zürnacı, Converge Analysis and Numerical Solutions of the Fisher's and Benjamin-Bono-Mahony Equations by Operator Splitting Method, 2011-2014.*

#12 , *Neslişah İmamoğlu, Two Numerical Approaches for solving Stiff Differential Equation, 2012-2014.*

#13 , *Elif Hacisalihoğlu, System of Parabolic Equations via Operator splitting, 2016-2018*

#14 , *Murat Oz, A numerical approach for optimization of curing kinetics of composite material,2021*

#15 , *Leyla Akbalık, A comparison of meshless and finite difference methods for the brusselator model, 2022*

#16 , *Shodijon Ismoilov, A compact finite difference method of lines for solving non-linear partial differential equations, 2022*

#17 , *Fatih İdiz, Legendre wavelet collocation method with quasilinearization technique for fractional differential equations, 2022*

Projects

#1, *Horizon 2020, Green Night Project, id:101036089, Project Coordinator*

#2 , *Development of the Computer Algorithm for Moleculer Dynamics Simulations, TUBITAK-SLOVENYA, TBAG-U/104 (104T105, Director of the project)*

#3, *Nonstandard Finite Difference Method for Nonlinear Parabolic Differential Equations, BAP, 2004 IYTE 27, Director of the project*

#4 , *Solution of the Mathematical Model of Interface Problem by New Modern Mathematical Techniques, BAP, 2002 IYTE 25, Director of the project*

#5 , *Numerical Solution of the Highly Oscilatory Problem by Magnus Series Method BAP, 2004 IYTE 21, Director of the project*

#6 , *Numerical Solution of Differential Equation by Geometric Integration, BAP, 2007 IYTE 18, Director of the project.*

#7 , *Development of a new algorithm for numerical solution of stochastic differential equations, BAP, 2016 IYTE 35, Director of the project*

Honors and Activities

#1 , *Tubitak scholarship, 1988-1989*

#2 , *Honor student in Mathematics department in METU 1988-1989, 1990-1991*

#3 , *Scholarship from Ministry of Education for Ph.D in USA, 1995-2000*

#4 , *DFG-Tübitak, Exchange program scholarship visiting 2 months, Humboldt University/Germany, June-July 2011*

#5 , *DAAD, Exchange program scholarship visiting 1 month, Humboldt University/Germany, January 2011*

Courses taught

Calculus, Differential Equations, Partial Differential Equations, Mathematical Methods for Engineering, Numerical Analysis, Numerical Solution of ODE, Numerical Solutions of PDE, (Izmir Institute of Technology)

Languages

English: High Level
Turkish: Native language

(GAMZE TANOGLU)
Place: İzmir, Türkiye
Date: 17th March, 2024