CURRICULUM VITA

Name Surname: Ömür Umut

Date of Birth : January 2, 1963

Title : Assoc. Prof. Dr.

Education

●Ph.D. Middle East Technical University, Department of Mathematics, 1996.

●M.Sc. Middle East Technical University, Department of Mathematics, 1987.

●B.S. Middle East Technical University, Department of Petroleum Engineering, 1984.

Positions Held

Academic Positions Held

●Associated Prof. Dr., Abant İzzet Baysal University, Department of Mathematics, 2012-

● Assistant Prof. Dr., Abant İzzet Baysal University, Department of Mathematics, 1997-2012.

● Instructor, Abant İzzet Baysal University, Department of Mathematics, 1996-1997.

● Research Assistant, Middle East Technical University, Department of Mathematics, 1986-1996.

Administrative Positions Held

●Vice Chairperson, Abant İzzet Baysal University, Department of Mathematics, 2005-2007.

●Chairperson, Abant İzzet Baysal University, Department of Mathematics, 1998-1999.

M.Sc. Thesis Supervised

● Kalkan Mehmet, “Completely Simple Semigroups”, Abant İzzet Baysal University, 2007.

● Özcan Fırat, “Controlling Chaos in Genesio System”, Abant İzzet Baysal University, 2008.

● Yaşar Serpil, “Simple Chaotic Systems”, Abant İzzet Baysal University, 2012.

● Bülbül Nazan, “Groebner Bases and its Applications to Nonlinear Differential Equations”, Abant İzzet Baysal University, 2017.

●Zahawi Omran, “Applications of Finite Fourier Transforms to Two-Dimensional Elasticity Problems”, Bolu Abant İzzet Baysal University 2022.

Ph.D Thesis Supervised

● Yaşar Serpil, “Stability Analysis of Nonlinear Systems”, Bolu Abant İzzet Baysal University, 2020.

Interest Areas

Dynamical Systems, Chaos and Control, Numerical Analysis, Differential Equations, Partial Differential Equations.

Teaching Experience

Undergraduate Courses

Calculus, Analytic Geometry, Differential Equations, Linear Algebra, Advanced Calculus, Partial Differential Equations, Complex Analysis, Metric Spaces, Functional Analysis, Number Theory, Chaotic Dynamics.

Graduate Courses

Dynamical Systems, Differential Equations, Partial Differential Equations, Numerical Analysis, Functional Analysis, Complex Analysis, Integral Transforms.

Publications

●Umut Ö., "Transverse Impact to the Flexible Elastic Membranes with a Rigid Hole", Bulletin of Calcutta Mathematical Society, 92(6) (2000) 401-420.

●Umut Ö., Poria S., Mazumdar H.P.,"Application of Group-Theoretic Method to the Flow of a Fluid Past a Wedge", Review Bulletin of Calcutta Mathematical Society, 12 (1 & 2) (2004) 17-24.

●Poria S., Umut Ö., "Chaos Synchronization of Lu Dynamical System via Linear Transformations", Journal of Dynamical Systems & Geometric Theories, 4 (1) (2006) 87-93.

●Umut Ö., Swarup P., Rajat P.,"Chaos Synchronization", Journal of Dynamical Systems & Geometric Theories, 5 (1) (2007) 13-18.

●Molaei M.R., Umut Ö., "Generalized Synchronization of Nuclear Spin Generator System", Chaos, Solitons & Fractals, 37 (1) (2008) 227-232.

●Umut Ö., "Controlling Chaos in nuclear spin generator system using backstepping design ", Applied Sciences, 11 (2009) 151-160.

●Molaei M.R., Umut Ö., “Generalized Synchronization of Relative Semi-Dynamical Systems”, Hadronic Journal, 32 (2009) 565-572.

●Umut Ö., “Chaos Control in Genesio System using Active Backstepping Design”, Journal of Dynamical Systems & Geometric Theories, 8 (1) (2010) 21-35.

●Molaei M.R., Umut Ö., “Relative Probability Synchronization for Dynamical Systems created by Homeomorphisms”, Journal of Advanced Research in Dynamical and Control Systems, 2 (1) (2010) 49-55.

●Umut Ö., Yaşar S.,“Complex Behavior in Genesio System”, Applied Mathematical and Computational Sciences, 3 (1) (2011) 47-61.

●Umut Ö., “On the Stability of Genesio System”, Far East Journal of Dynamical Systems, 23 (1-2) (2013) 1-12.

●Umut Ö., Yaşar S.,“A Simple Jerky Dynamics, Genesio System”, International Journal of Modern Nonlinear Theory and Application, 2 (2013) 60-68.

●Umut Ö., Yaşar S.,“Numerical Treatment of Initial Value Problems of Nonlinear Ordinary Differential Equations by Duan-Rach-Wazwaz Modified Adomian Decomposition Method”, International Journal of Modern Nonlinear Theory and Application, 8(1) (2019), 17-39.

Conference – Proceedings

●Umut Ö., “Transverse Impact to the Flexible Membrane with Rigid Hole”, Interntional Symposium on Mathematics and its Applications, p.19, Calcutta Mathematical Society, Calcutta, India, February 17-19, 2001.

●Umut Ö., “Transverse Impact to the Flexible Membrane with Rigid Hole”, International Symposium on Mathematics and its Applications, p.53, First SIAM-EMS Conference “AMCW”2001, Society of Industrial and Applied Mathematics, Berlin, Germany, September 2-6, 2001.

●Umut Ö., “On the Construction of Lyapunov Functions”, p.18, International Symposium on Mathematics and its Applications, Calcutta Mathematical Society, Calcutta India, February 17-19, 2003.

●Umut Ö., “Chaos Synchronization of Lu Dynamical System via Linear Transformations”, InterSampTa 05 Sampling Theory and Applications, International Workshop, p.85, Ondokuz Mayıs University, Samsun, Turkey, July 10-15, 2005.

●Umut Ö., “Generalized Synchronization of Nuclear Spin Generator System via Linear Transformations”, Mathematical Methods in Engineering, MME-06, p.52, Çankaya University, Ankara, Turkey, July 10-15, 2006.

●Umut Ö., “Synchronization of Nuclear Spin Generator System using Active Backstepping Design”, PAMM. Proc. Math. Mech. 6th. International Congress on Industrial and Applied Mathematics, 7, 2030051 (2007) DOI 10.1002 /pamm.200701040.

●Umut Ö., “Dynamical Behaviours of Genesio System”, CHAOS 2008 Chaotic Modelling and Simulation, International Conference, p.87, Chania, Crete, Greece, June 3-6, 2008.

Umut Ö., “Chaos Synchronization of Genesio System”, Topics on Chaotic Systems, Selected Papers from CHAOS 2008 International Conference, World Scientific, Vol. I, (2009) 353-363.

●Umut Ö., “Routh-Hurwitz Conditions and Lyapunov Second Method for a Nonlinear System”, CHAOS 2019 Chaotic Modelling and Simulation, International Conference, p.89, Chania, Crete, Greece, June 1-6, 2009.

Umut Ö., “Routh-Hurwitz Conditions and Lyapunov Second Method for a Nonlinear System”, Chaotic Systems Theory and Applications, Selected Papers from the 2nd Chaotic Modelling and Simulation, International Conference (CHAOS2009), World Scientific, (2009), 362-368.

Financial Supports

●Tubitak Support Program Award (for International Conference), 338,000 TL. The Scientific and Technical Research Council of Turkey, 2001

●AİBU İzzet Baysal Foundation Award (for International Conference), $300. Abant İzzet Baysal University, 2001.

●Tubitak Visiting Scientists Fellowship Program Award (together with Dr. Cenap Özel) for visiting of Assoc. Prof. Dr. Mohammad Reza Molaei from Kerman University, Iran, $500 and travel expenditures, 2006.

●AİBU and Tubitak Support Program Awards (for International Conference), 1,325 YTL. Abant İzzet Baysal University and the Scientific and Technical Research Council of Turkey, 2007.

●Money support for the joint paper, Molaei M.R., Umut Ö., "Generalized Synchronization of Nuclear Spin Generator System", Chaos, Solitons & Fractals, 37 (1) (2008) 227-232, by The Scientific and Technical Research Council of Turkey and İzzet Baysal Foundation of Abant İzzet Baysal University.

●AİBU Award (for International Conference), 1,465 YTL Abant İzzet Baysal University, 2008.

● AİBU Award (for International Conference), 2.021 TL. Abant İzzet Baysal University, 2009.