Curriculum Vitae
Lamees Kadhim Ali Alzaki
lkalzaki@utq.edu.iq

Education

Florida Institute of Technology, Melbourne, FL, United States of America   Jan 2019
Doctorate in Applied Mathematics   GPA: 3.25

University of Basrah, Basrah, Iraq   Mar 2009
M.S. Mathematics   GPA: 3.79

University of Thi-Qar, Thi-Qar, Iraq   Aug 2004
B.S. Mathematics   GPA: 3.48

Skills

Microsoft word, Math, Problem solving, Research, Leadership, PowerPoint, Attention to details, Analytical Problem Solving, Design Analysis, Teamwork

Experience

University of Thi-Qar, Thi-Qar, Iraq   Feb 2020 – present
College of Education for Pure Science
Assistant Prof.
- Head of Mathematics Department.
- Academic advisor of graduate studies.
- Serving on the Undergraduate Curriculum Committee.
- Serving on the graduate Curriculum Committee.
- The Editor at the Journal of the Faculty of Education for Pure Science.
- Member of a ministerial committee for the evaluation and equivalence of certificate.
- A reviewer of Mathematics and Statistic in Horizon Research Publishing, USA. https://www.hrpub.org/journals/jour_reviewers.php?id=34
- American mathematical Society (AMS) member.
- Teaching undergraduate students in Math, Calculus.
- Teaching graduate students in Math, Theory of Integral Equations, Fundamental Theory of ODEs, and Calculus of Variations.
- Assessing and evaluating performance of students on monthly basis.
- Supervising and leading graduate students in Master's research.
- Supervising and leading undergraduate students in senior research.
- Working remotely via the internet, preparing and teaching classes in online format.

Florida Institute of Technology, Melbourne, FL, United States of America   Jan 2015–Dec 2019
PhD Candidate – Dissertation: Analysis of Interfaces for the Nonlinear Degenerate Second Order Parabolic Equations Modeling Diffusion-Convection Processes
Research Assistant
- Researching nonlinear degenerate parabolic Convection Diffusion Equation.
- Giving presentations in areas of Nonlinear Partial Differential Equations in nonsmoothed domain.
- Proving the explicit formula for the interface and local solution with accuracy up to constant coefficients.
- Classifying the initial behavior of the interface function which originates from the origin.
- Developing and applying the methods of the interface for Convection Diffusion Equation to prove sharp estimations of the interfaces and local solutions near the interfaces in full parameter scale.

Graduate Student Assistant

- Conducted research at NSF-Funded 8 weeks REU site at Florida Institute of Technology on Nonlinear Partial Differential Equations.
- Throughout the program, was responsible for leading team with five colleagues of two undergraduate students in Nonlinear Partial Differential Equations and mathematical research.
- Working on the classification on the behavior of the interface and local solution near of it.
- Publicly presented research results several times to a panel of faculty and graduate students.
- Presented the results in the Joint Mathematical Meeting in San-Diego, CA in 2018.

University of Thi-Qar, Thi-Qar, Iraq   Mar 2009 – Sep 2013
  Assistant Lecturer
- Teaching undergraduate students in Math, Ring and Group Theory, PDEs, Calculus.
- Assessing and evaluating performance of students on monthly basis.
- Supervising and leading undergraduate students in senior research for three years.
- Serving on the Undergraduate Curriculum Committee.
- Attending conferences on Mathematical Science in Thi-Qar University.
- Giving presentations in areas of Differential Topology and Ring Theory.

University of Basrah, Basrah, Iraq   Sep 2006– Mar 2009
  Research Assistant
- Area of study is Riemannian geometry and Hermitian manifold.
- Working on the theory of smooth manifold in Euclidian space R^n by using Banaru's classification and Kirichenko's tensors (KS) and (KV) of almost Hermitian manifold.
- Finding pointwise holomorphic sectional curvature tensor.
- Proving M is an Einstein manifold if M is an almost Kahler manifold of a pointwise holomorphic sectional curvature tensor with J-invariant Ricci tensor.
- Attending International Conferences of Mathematics and its Applications at University of Basrah.

University of Thi-Qar, Thi-Qar, Iraq   Dec 2005 – Sep 2006
  Teaching Assistant
- Teaching concepts of Probability and Statistic and Mathematical Analysis.
- Assessing and evaluating performance of students on monthly basis.
- Giving presentations in areas of Mathematical Analysis.

University of Thi-Qar, Thi-Qar, Iraq   Dec 2005 – Mar 2006
  Lab Assistant
- Preparing lesson plans on the basic component of a computer and differentiate between system software and application software.
- Designing curriculum as well as lab exercises for the students.

Memberships and Activities
- Ph.D. scholarship for high rank faculty member sponsored by Iraqi government.
- Iraqis Student Union Coordinator International Fest at Florida Tech.
- Attending workshops and seminars about Coronavirus.
- Iraqi mathematical Society (IMS) member.

Conferences
- Presenting at the 4th International Scientific Conference of Engineering Science and Advances Technologies (IICESAT), Iraqi Academic Syndicate, May 7-8, 2022.

- Presenting at the Eighth International Scientific Conference, In cooperation with preparatory Institute for Engineering studies at the University of Tunis El Manar and the Research Unit for Education, Graduate and Educational Technologies at the Virtual University of Tunis, August 29-30, 2021.
- Presenting at the Doctoral Student Research Showcase, Florida Institute of Technology, Melbourne, Florida United States, November 7, 2019.
- Presenting at the Joint Mathematics Meeting of AMS and the Society for Industrial and Applied Mathematics (SIAM) Conference, Baltimore, Maryland United States, January 17, 2019.
- Presenting at the Doctoral Candidate Research Showcase, Florida Institute of Technology, Melbourne, Florida United States, November 30, 2018.
- Presenting at the 38th Southeastern -Atlantic Regional Conference on Differential Equations (SEARCDE), University of North Georgia, Georgia United States, October 7, 2018.
- Presenting at the Joint Mathematics Meeting of AMS and the Society for Industrial and Applied Mathematics (SIAM) Conference, San Diego, California United States, January13, 2018.
- Presenting at the American Mathematical Society (AMS) Sectional Meetings, University of central Florida, Orlando, Florida United States, September 23, 2017.

Project
- Nonlinear Degenerate and Singular Parabolic Equations in Non-smooth Domains.
- Interfaces for the Nonlinear Degenerate Parabolic PDEs.

Research interests
- Partial differential Equations
- Fractional Differential equation
- Dynamical system
- Manifold

Publications

- L. K. Alzaki, H. K. Jassim, An Efficient Model for Solving Fractional Order Partial Differential Equations, Acceptance to publish in 02-progress in fractional differentiation and applications.

- L. K. Alzaki, H. K. Jassim, Analytical Approximations for a system of Fractional Partial Differential Equations, Journal of 02-progress in fractional differentiation and applications, Appl., 10(1), 81-89, Jan. 2024.

- A.R. Saeid, L. K. Alzaki, Fractional Differential Equations with an Approximate Solution using the Natural Variation Iteration Method, Journal of Results in Nonlinear Analysis (RNA), 6(3), 107-120, 2023.

- A. R. Saeid and L. K. Alzaki, Analytical solutions for the nonlinear homogeneous Fractional Biological equation using a local fractional operator, J. College Edu. Pure Sci., 13(3), 1-17 (2023).

- H. K. Jassim, M. Y. Zair, H. Ahmad, L. K. Alzaki, A.H. Shuaa, M.H. Cherif, Approximate Analytical Solutions of Fractional Navier-Stokes equation, AIP Conference Proceedings (ISSN: 0094-243X, 1551-7616), No. IICESAT_476, 2834 (1), 2023.

- L. K. Alzaki , H. K. Jassim, "Time-Fractional Differential Equations with an Approximate Solution", J. Nig. Soc. Phys. Sci., vol. 4, no. 3, p. 818, Aug. 2022.

- L. K. Alzaki, M. A. Abdlhusein and A. K. Yousif, Stability of (1,2)-total pitchfork domination, Int. J. Nonlinear Anal. Appl. 12(2) (2021) 265–274.

- L. K. Alzaki, H. K. Jassim, The approximate analytical solutions of nonlinear fractional ordinary differential equations, International Journal of Nonlinear Analysis and Applications, 12(2) (2021) 527-535.

- J. M. Jawad, L. K. Alzaki, Flat Bochner Curvature Tensor of Locally Conformal Kahler Manifold, Journal of Basra Research (Sciences), vol. 37, No. 4, pp. 181-186, 1-3 March 2011.

- L. K. Alzaki, Almost Kahler Manifold of The Pointwise Holomorphic Sectional Curvature Tensor," College of Education Journal, vol. 2, No. 2, July 2010.