Mayada Gassab Mohammed Al-Badri

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EDUCATION

PhD. (Applied Mathematics)	University of Southern Queensland	2015
M.Sc. (Pure Mathematics)	University of Baghdad / Iraq	2003
B.Sc. (Mathematics)	Basrah University / Iraq	2000

COURSES TAUGHT

- Calculus
- Advanced calculus
- The foundations of mathematics
- Applied mathematics
- Numerical analysis
- Topological space
- Mathematical modelling and dynamical systems
- Finite difference method

RESEARCH INTERESTS

- Nonlinear dynamics
- Active dissipative systems
- Mathematical modelling
- Topological space
- Numerical analysis

EMPLOYMENT:

PROFESSOR - DEPARTMENT OF MATHEMATICS

Thi-Qar University (2020 – 2021)
- Successfully supervising 12 masters students through to completion of qualification
- Supervising undergraduate students to assist in completion of mathematics degree
- Providing quality learning experiences utilising different learning platforms and teaching methods
- Planning, preparation, marking and assessment for undergraduate and post-gradaute Mathematics courses
- Entering and analysis of marking data and reviewing attaintment of course outcomes
- Ensure quality and currency of course materials and updating lecturing staff
- Developed Matlab code to solve mathematical equations in collaboration with masters students
- Research and publication in international Mathetical Journals

HEAD OF MATHEMATICS DEPARTMENT

Thi-Qar University (2017-2021)
- Coordination of Mathematics Department courses for undergraduate and post-graduate studies
- Allocation of classes for teaching staff and mentoring of Lecturers
- Attend meeting with College Dean and communicate updates and requirements to Department staff
- Liaise with students to resolve academic problems and negotiate options to complete course requirements

ASSCOCIATE PROFESSOR - DEPARTMENT OF MATHEMATICS

Thi-Qar University (2016- 2020)
- Supervision of 8 masters students who have successfully completed qualification
- Teaching undergragute subjects in Mathematics including Calculas, diffential equations, the foundations of mathematics, applied Mathematics and others
- Writing and delivering lecturers for Masters courses in mathematics
- Planning, preparation, marking and administration for all courses

ASSISTANT HEAD OF MATHEMATICS

Thi-Qar University (2016-2017)
- Liaise with students to resolve academic problems and negotiate options to complete course requirements.
- Help the head of the department with some of their duties.

LECTURER - DEPARTMENT OF MATHEMATICS

ASSOCIATE LECTURER- DEPARTMENT OF MATHEMATICS
Thi-Qar University (2004-2009)
- Teaching undergragute students differents subjects in Mathematics
- Supervised undergraduate students to assist in completion of mathematics degree
- Planning and preparation of courses including reviewing existing courses for quality and currency
- Marking and assessments, data related to entering grades and reviewing courses outcomes.

RECENT AWARDS

- Award from the head of Thi-Qar University for scientific activities 2016
- Award from the head of Thi-Qar University for quality work 2017
- 9 different awards from the 'Dean of college Education for Pure Science' for quality work, the scientific activities and my contribution as member of the Panel for the Master students 2018

PUBLICATIONS

BOOKS
Mohammed Al-Badri, M. G. (2015). *Dynamics of active systems with nonlinear excitation of the phase,* Create Space Publishing

JOURNALS
Mohammed, M. G., & Jassim, H. K. (2021). Numerical simulation of arterial pulse propagation using autonomous models. International Journal of Nonlinear Analysis and Applications, 12(1), 841-849.

Jassim, H. K., & Mohammed, M. G. (2021). Natural homotopy perturbation method for solving nonlinear fractional gas dynamics equations. International Journal of Nonlinear Analysis and Applications, 12(1), 813-821.

Kadhim, S. M., Mohammad, M. G., & Jassim, H. K. (2021). How to obtain Lie point symmetries of PDEs. Journal of Mathematics and Computer science, 22, 306-324.

Hussain, E. A., Mohammad, M. G. (2021). IRFBEN method for solving higher order differential equations. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(12), 461-479.

Hussain, E. A., Mohammad, M. G. (2021). Solve fourth order differenatial equation using IRFBEN method, College of eduction for pure scineces journal.

Mahdi, R. , Mohammad, M. G. (2021). On Hesitant fuzzy ideal topological space, Third International conference, college of eduction for pure scineces journal, Karbala.

Mohammad, M. G., Jassim, H. K., & Hossein Eaued, S. M. (2020). Modification Fractional Homotopy Analaysis Method for solving Partial differential equations arising in mathematical physics, 2nd international Scientific Conference of Al-Ayen University.

Eaued, H. A., Jassim, H. K., & Mohammed, M. G. (2020). A novel method for the analytical solution of partial differential equations arising in mathematical physics, IOP Conf. Series: Materials Science and Engineering, 928(042037), 1-16.

Waleed Khalid Jaber, Khairy Salman Hasan, Sajid Mohammad Kadhim, Mayada Gassab Mohammad. (2020) Using Lie symmetry to solve first and second order Linear Differential Equation. IJAAMM- International Journal of Advances in Applied Mathematics and Mechanics. pp: 91-99.

Mohammad, M. G., Jassim, H. K., & Kadhim, S. M. (2019). Symmetry Classification of First Integrals for Scalar Linearizable.

Jassim, H. K., Mohammed, M. G., & Khafif, S. A. (2019). The Approximate solutions of time-fractional Burger's and coupled time-fractional Burger's equations. Int. J. Adv. Appl. Math. Mech, 6, 64-70.

Kadhim, S. M., Mohammad, M. G., & Jassim, H. K . (2019). How to obtain Lie point symmetries of PDEs.

Mohammed, M. G., & Hussein, H. (2018). New Forms Of Gpe In Reaction Diffusion Systems. Journal of Education for Pure Science, 8(3), 119-128.

Ahmed, F. Z., Mohammed, M. G., Strunin, D. V., & Ngo-Cong, D. (2018). Simulations of autonomous fluid pulses between active elastic walls using the 1D-IRBFN method. Mathematical Modelling of Natural Phenomena, 13(5), 47.

M. G. MOHAMMED, K. H. YASSAR, TH. H. DAHESS . (2018). Mathematical Modeling of auto-pulses in a channel flow with elastic boundaries. Journal of College of Education for Pure Science(JCEPS), Iraq.

Ahmed, F., Strunin, D., & Mohammed, M. (2015). Numerical solution for the fluid flow between active elastic walls. ANZIAM Journal, 57, C221-C234.

Mohammed Al-Badri, M. G. (2015). Dynamics of active systems with nonlinear excitation of the phase (Doctoral dissertation, University of Southern Queensland).

Strunin, D. V., & Mohammed, M. G. (2015). Range of validity and intermittent dynamics of the phase of oscillators with nonlinear self-excitation. Communications in Nonlinear Science and Numerical Simulation, 29(1-3), 128-147.

Mohammed, M., & Strunin, D. (2014). Finite-difference Approach for a 6th-order Nonlinear Phase Equation with Self-excitation. In Proceedings of the 12th Asia Pacific Physics Conference (APPC12) (p. 016003).

Strunin, D., & Mohammed, M. (2013). Validity and dynamics in the nonlinearly excited 6th-order phase equation. In Conference Publications. American Institute of Mathematical Sciences.

Strunin, D. V., & Mohammed, M. G. (2011). Parametric space for nonlinearly excited phase equation. ANZIAM Journal, 53, C236-C248.

Mohammed, M. J., & Mohammed, M. G. (2009). On δ-open sets in bitopological space. Univesity of Thi-Qar Journal, 5(1).

Mohammed, M. G. (2015). F-CONTINUOUS FUNCTIONS AND SUB-F-CONTINUOUS. University of Thi-Qar Journal, 10(3), 136-140.

Mayada G. Mohammed & Mohammed J.Mohammed. (2009). K$*\alpha$ AND K$**\alpha$ SETS, Journal of Thi-Qar University, No.1 Vol. 6.

Mayada G. Mohammed. (2009). On some types of connectedness in bitopological space, Journal of Thi-Qar, University, No.1 Vol. 6.

Mayada G. Mohammed. (2004). W- δ- Connected topological Space, Journal of Thi-Qar University, No.1 Vol. 2.

SEMINARS

Department of Mathematics and Computing, USQ, Australia, 2011.
Department of Mathematics, College of Education for Pure Science, 2005, 2006, 2007, 2009, 2016

CONFERENCE PRESENTER

10th Engineering Mathematics and Applications Conference, EMAC 2011, 4th - 7th December 2011, University of Technology 15 Broadway, Ultimo, Sydney. NSW, Australia .