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Professional Preparation

Baghdad University, Iraq	Mathematics	B.S. 05/2001
Tikrit University, Iraq	Pure Mathematics	M.S. 04/2004
Missouri University of Science and Technology, USA	Applied Mathematics	M.S. 07/2017
Missouri University of Science and Technology, USA	Applied Mathematics	Ph.D. 05/2020

Professional Appointments

- ❖ **Assistant Professor** 01/2006 – present
Department of Mathematics College of Sciences
Al-Mustansiriyah University, Iraq
- ❖ **Assistant Professor** 10/2004 –2008
Lecturer assistant in college of teachers for females
Ministry of education, Iraq
- ❖ **Assistant Professor** 10/2006 – 2010
Department of Mathematics College of Open Learning Education
Ministry of education, Iraq
- ❖ **Teaching Assistant** 1/2018 – 5/2020
Department of Mathematics and Statistics
Missouri University of Science and Technology, Rolla, MO 65409
- ❖ **Award** 2019 – 2020
GTA teaching excellence award from Department of Mathematics and Statistics
Missouri University of Science and Technology
- ❖ **Assistant Professor** 02/2025
Lecturer assistant in Madenat Al-Elem university college
Department of medical physics (class of image processing), Iraq

Related Publications

1. *Certain Types of Separation Axioms in Intuitionistic Bitopological Spaces*, H. Khudhair, Al-Mustansiriyah J. Sci., **22** (2011), pp. 299–306.
2. *Another Type of Separation Axioms Depend on a θg -open set*, A. Al-Sheikhly, and H. Khudhair, **1** (2012), pp. 66–75.
3. *New Kinds of open sets*, A. Al-Sheikhly, and H. Khudhair, Journal of the College of Basic Education., **17** (2019), pp. 13–18.
4. *βM - Continuous Functions in Intuitionistic Minimal structure*, H. Khudhair, Journal of College of Education, **1** (2013), pp. 1–10.

5. *Pattern selection in the Schnakenberg equations: from normal to anomalous diffusion*, Hatim Kareem Khudhair, Y. Zhang, and Nobuyuki Fukawa, Numerical methods for partial differential equations journal, <https://doi.org/10.1002/num.22842> (2021).
6. *Formulating and solving DEA model in symmetric fuzzy environment*, Rasheed Al-salih, Hatim Kareem Khudhair, Ahmed Rasheed and Watheq Laith, AIP conf. Proc.3264, 050086 (2025).
7. *A new embedded improved Runge-Kutta approach to solve first order ordinary differential equation*, Kasim Abbas Hussain, Hatim Kareem Khudhair, and Mohammed Abdulhadi Sarhan, (accepted).
8. *Solving some two-dimensional Elliptic differential equations with modified Fourier method*, Hassan Abd Salman Al-Dujaiy, and Hatim Kareem Khudhair, (accepted).
9. *b-open sets on intuitionistic Bitopological Separation Axioms*, H. Khudhair, (under submission).
10. *Pattern formation in the Schnakenberg equations with superdiffusion*, H. Khudhair, and Y. Zhang, (to be submitted).
11. *Spatio-temporal pattern formation in the Gray-Scott models: Effect of anomalous diffusion*, H. Khudhair, and Y. Zhang, (to be submitted).
12. *Turing patterns in the two-layer Schnakenberg reaction-diffusion equations*, H. Khudhair, and Y. Zhang, (to be submitted).

Synergistic Activities

- Attendee of conference: The 1st Iraqi-French Mathematics Conference in Cooperation with College of Science, Salahaddin University, Erbil, Iraq, November 14–17, 2009.
- Presenter of minisymposium “*Another Type of Separation Axioms Depend on a θ -open set*”, The international conference in mathematics and its applications (ICMA), education, Basra university, Basra, Iraq, March 1–3, 2011.
- Presenter of minisymposium “*Certain Types of Separation Axioms in Intuitionistic Bitopological Spaces*”, The 7th Scientific Conference, College of sciences -Al-Mustansiriyah University, Baghdad, Iraq, 2011.
- Attendee of conference: The 1st Annual Meeting of SIAM Central States Section, Rolla, MO, USA, April 11–12, 2015.
- Presenter of minisymposium “*Pattern formation in the Gray-Scott equations with superdiffusion*”, The 4th Annual Meeting of SIAM Central States Section, Norman, OK, USA, October 5–7, 2018.
- Presenter of minisymposium “*Numerical simulation of Pattern formation of the spatial-fractional in the Gray-Scott equations*”, The 1142nd Meeting of AMS, Fayetteville, AR, USA, November 3–4, 2018.

- Presenter of minisymposium “*Turing Patterns in the Schnakenberg equations: From normal to anomalous diffusion*”, The 5nd Annual Meeting of SIAM Central States Section, Ames, IA,USA, October 19– 20, 2019.
- Presenter of minisymposium “*Pattern selection in the Schnakenberg equations: From normal to anomalous diffusion*”, “Inverse problem: direct method and optimization”: at the Nesin Mathematics village - Izmir–Turkey, 28 November to 4 December, 2021.
- Attendee of conference: Sixth symposium of the Roman number theory association, San Gregorio, Lecce, Italy, May 16–21, 2022.
- Presenter of minisymposium “*Formulating and solving DEA model in symmetric fuzzy environment*”, at BAYAN university- Erbil–Iraq, 27 April, 2024.
- Presenter of minisymposium “*Solving some two-dimensional Elliptic differential equations with modified Fourier method*”, at Al-Hilla university college- Hilla–Iraq, 28-29 November, 2024.