CURRICULUM VITA

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I am listed among the world's top 2% scientist by Stanford University 2021: 176760

ACADEMIC QUALIFICATIONS

1- Ph.D.Complex Systems: Centre of Modelling and Data Sciences - University Kebangsaan Malaysia (UKM) 2011.
2- Post doctoral in Cloude Computing Center, University Malaya 2016.
3- Google Data Analytics Certificate-Issuing organization: Coursera(May 2022)

AREAS OF SPECIALIZATION

1- Complex systems
2- Mathematical modeling.
3- Applied Mathematics.
4- Pure Mathematics

CAREER HISTORY AFTER PhD

1 -Lecturer- University Malaya- Malaysia.2011-2015.
2 -Senior Researcher - University Malaya- Malaysia.2015-2016.
3 -Associate Professor in Modern College of Business and Science, Oman 2017-2019.
4-Researcher part time/ Ton Duc Thang University, Ho Chi Minh City, Vietnam 2019-2020.

ADMINISTRATIVE DUTIES

(1) Member of seminar committee Institute of Mathematical Sciences, Faculty Of Science, University of Malaya 01/01/2012 – 01/08/2015.
(2) Committee member for Seminar in Mathematical Sciences 2013 held at Bayu Beach Resort, Port Dickson, Malaysia. , National, 2013-10-25 - 2013-10-27.
(3) Member organizing committee SMS 2014, Committee member for THE 22nd NATIONAL SYMPOSIUM ON MATHEMATICAL SCIENCES (SKSM22) 2014 - 2014, Institute of Mathematical Sciences, University of Malaya and Malaysian Mathematical Sciences Society (PERSAMA), Chairperson, 2014-2014, (National).
(4) Member of techniqual committee ICCEMS (International conference on computer engenering and mathematical science) 2012-2017.

TEACHING

1. Complex Analysis
2. TOPOLOGY
3. BASIC MATHEMATICS
4. CALCULUS I
5. Basic Engineering Algebra,
6. BASIC MATHEMATICS
7. ALGEBRA I
8. CALCULUS II
9. ALGEBRA II
10. STATISTICS and Probability

11. Linear Algebra
12. Discrete Mathematics

RESEARCH GRANTS

	Project Title	**Project No.**	**Total Allocation** (Malaysian Ringgits)	**Project Duration**
1	Studies in Differential Equations(Principal Investigator)	RG208-11AFR. University of Malaya	30 000	2012-2013
2	A Robust Method For Copy-Forgery Detection in Digital Images., High Impact Research (Co-Researcher)	UM.C/625/1/HIR/132. University of Malaya	65 000	2012 –2015
3	Covid-19	University Ajman :2020-COVID-19-08.	10000 -UAED	2020

REVIEWER

- Applied Mathematics Letters.
- Applied Mathematics and Computation
- Journal of the Association of Arab Universities for Basic and Applied Sciences.
- Physics Letters A
- Computers and Mathematics with Applications.
- Computer Methods and Programs in Biomedicine
- Mathematical and Computer Modeling.
- International Journal of differential equation.
- Abstract and Applied Analysis.
- Mathematical Problems in Engineering
- International Journal of Analysis (Hindawi).
- Asian European Journal of Mathematics.
- Arab Journal of Mathematics and Mathematical Sciences.
- Annals of Oradea University - Mathematics Fascicola.
- Boundary Value Problem
- Journal of Quality Measurement and Analysis (JQMA).
- Journal of Fractional Calculus and Applications.(Editor)
- Mathematical Scinces (Springer)
- Fibers and Polymers(Springer)
- Indian Journal of Physics (Springer)
- Nural Computing and Applications.(Springer)
- Journal of Inequalities and Applications(Springer).
- Afrika Matematika(Springer)
- Mathematica Slovaca (Springer)

SUPERVISION

(1) Yass Khudhair Salih (PE20331): Framework for Handover in the Heterogeneous Wireless Environment.(2011-2015).PhD/Universiti Tenaga Nasional (Completed _2015)
(2) Sayydah Abdullah Qasem Saeed: Computational studies in a class of nonlinear fractional differential equations ; M.Sc (2013-2015 SII-) UM (Completed_2015)
(3) Arwa Qassim, P65613, Problems in Language machine Arabic-English , (2013_ Completed 2017) PhD.UKM.
(4) Zainab Esa, Certin fractional operators and their applications on spaces of analytic and univalent functions, PhD, UPM (2014-2017) Completed
(5) Kassim Hussain, Numerical solutions of fractional differential equation, PhD , UPM.(2014_ Completed 2017)

(6) Faten Hassan, Fractional itterative differential equations, PhD, UPM.(2014-2019-completed)
(7) Hiba Fawzi, A study In Some Selected Topics In Theory Of Geometric Function, PhD (UniMaP, 2014-2016) (Cpmpleted_2016).
(8) Nadia Faeq, Algebraic statistical methods, PhD, UPM.(2014-2017, Completed-2018)

CHAPTER IN BOOK.

(1) Ibrahim, R.W, 2011 Existence of Solutions for Fractional Integral Inclusions with Time Delay, (Topics in Integration Research) *NOVA* SCIENCE PUBLISHERS Integration: Mathematical Theory and Applications Volume 4, Number 2
(2) Maslina Darus, Rabha W. Ibrahim, ON NEW INTEGRAL OPERATOR IN COMPLEX DOMAIN, *Nova* 2011 In: Integration: Mathematics Theory and Applications Volume 2, Number 2, pp. 233–242,
(3) Hamid A. Jalab and Rabha W. Ibrahim, 2012, Texture Feature Extraction Based on Fractional Mask Convolution with Cesaro Means for Content-Based Image Retrieval, (Artificial Intelligent) *Springer*.
(4) Ibrahim R.W., Stability of a Class of Fractional Cauchy Problem in the book, Fractional Calculus: Theory, *Nova* Sciences Publisher. (2014).
(5) Rabha W.Ibrahim, (2014), Mathematics without boundaries: surveys in pure mathematics: Fractional Cauchy problem in Sense of the Complex Hadamard Operators. Springer
(6) Rabha W Ibrahim, (2014), Mathematics without boundaries: surveys in pure mathematics: Studies on Generalized Fractional Operators in Complex Domain. Springer
(7) Rabha W Ibrahim, (2016), Measurement of the communication possibility of service requests for multi-servers in parallel connection in cloud computing systems, *InTech* - Complex Systems, Sustainability and Innovation, ISBN 978-953-51-4902-6.
(8) Rabha W. Ibrahim (2019), Operator Inequalities Involved Wiener–Hopf Problems in the Open Unit Disk, Springer Optimization and Its Applications, ISSN 1931-6828.
(9) Suzan et al. (2019), Hypersingular Integrals in Integral Equations and Inequalities: Fundamental, Springer Optimization and Its Applications, ISSN 1931-6828.
(10) A Solution of the System of Integral Equations in Product Spaces via Concept of Measures of Noncompactness: Advances in Metric Fixed Point Theory and Application-Springer, by Hemant Kumar Nashine, Reza Arab, Rabha W. Ibrahim (2021).

LIST OF PRESENTATIONS IN CONFERENCES

(1) Jalab, Hamid A., and Rabha W. Ibrahim. "Texture feature extraction based on fractional mask convolution with cesáro means for content-based image retrieval." *Pacific Rim International Conference on Artificial Intelligence*. Springer, Berlin, Heidelberg, 2012.
(2) Jalab, Hamid A., et al. "Numerical solution of Lane-Emden equation using neural network." AIP Conference Proceedings. Vol. 1482. No. 1. AIP, 2012.
(3) Ibrahim, Rabha W., and Maslina Darus. "Infective disease processes based on fractional differential equation." *AIP Conference Proceedings*. Vol. 1602. No. 1. AIP, 2014.
(4) Ibrahim, Rabha W., and Hamid A. Jalab. "The generalization of Plackett-Burman design based on fractional calculus of complex order." *AIP Conference Proceedings*. Vol. 1635. No. 1. AIP, 2014.
(5) Qasem, Sayyedah A., Rabha W. Ibrahim, and Zailan Siri. "On mild and strong solutions of fractional differential equations with delay." *AIP Conference Proceedings*. Vol. 1682. No. 1. AIP Publishing, 2015.
(6) Mohamed, Ibrahim, et al., eds. "Organizing Committee: The 22nd National Symposium on Mathematical Sciences (SKSM22)." *AIP Conference Proceedings*. Vol. 1682. No. 1. AIP Publishing, 2015.
(7) Ibrahim, Rabha W., and Zailan Siri. "Existence of a coupled system of fractional differential equations." *AIP Conference Proceedings*. Vol. 1682. No. 1. AIP Publishing, 2015.
(8) Esa, Zainab, et al. "Application of modified complex tremblay operator." *AIP Conference Proceedings*. Vol. 1739. No. 1. AIP Publishing, 2016.
(9) Jalab, Hamid A., et al. "Medical image enhancement based on statistical distributions in fractional calculus." *Computing Conference*. 2017.
(10) Al-abayechi, Alaa Ahmed Abbas, et al. "Image Enhancement Based on Fractional Poisson for Segmentation of Skin Lesions Using the Watershed Transform." *International Visual Informatics Conference*. Springer, Cham, 2017.

(11) Ibrahim, Rabha W., and Ali M. Hasan. "Image Enhancement Based on Fractional Poisson for Segmentation of Skin Lesions Using the Watershed Transform." *Advances in Visual Informatics: 5th International Visual Informatics Conference, IVIC 2017, Bangi, Malaysia, November 28–30, 2017, Proceedings*. Vol. 10645. Springer, 2017.

(12) 1st International E-Conference in Mathematical Sciences and Fractional Calculus (ICMSFC Feb 2021),February 16-18, 2021 / Alexandria – Egypt.

SOME OF PUBLICATIONS

(1) Ibrahim, Rabha W. "Conformal Geometry of the Turtle Shell." ***Journal of King Saud University-Science*** Elsevier (2020, scopus:Q1:Scopus; Q1:1.51 ISI).

(2) Rabha W. Ibrahim, Dumitru Baleanu, Geometric behavior of a class of algebraic differential equations in a complex domain using a majorization concept, ***AIMS Mathematics***, 6(1): 806–820.(Q2)

(3) Hemant Kumar Nashine et al., Existence of local fractional integral equation via a measure of non-compactness with monotone property on Banach spaces, ***Advances in Difference Equations*** (2020) 2020:697 https://doi.org/10.1186/s13662-020-03153(Q1:1.51)

(4) Hemant Kumar Nashine , Rabha W. Ibrahim, B E Rhoades, R Pant, Unified Feng-Liu type fixed point theorems solving control problems, ***Revista de la Real Academia de Ciencias Exactas***, (115:5)2021, 1--17.(Q1)

(5) Ibrahim, R.W., Baleanu, D. On quantum hybrid fractional conformable differential and integral operators in a complex domain. ***RACSAM* 115,** 31 (2021). Q1

(6) Rabha W. Ibrahim, Dania Altulea, and Rafida M. Elobaid, Dynamical system of the growth of COVID-19 with controller, ***ADE***: 9 (2021) https://doi.org/10.1186/s13662-020-03168-w (Q1).

(7) Jalab et al., Fractional Rényi Entropy Image Enhancement for Deep Segmentation of KidneyMRI, ***CMC-Computers, Materials & Continua***, Vol.67, No.2, pp. 2061-2075, 2021, DOI:10.32604/cmc.2021.015170, (Q1).

(8) Ibrahim, R.W., Baleanu, D, On a combination of fractional differential and integral operators associated with a class of normalized functions, ***AIMS,*** Volume 6, Issue 4, 4211–4226. (Q2)

(9) Nashine, H.K., Ibrahim, R.W., Cho, Y.J., Kim, J.K. Fixed Point Theorems for the Modified Simulation Function and Applications to Fractional Economics Systems, ***Nonlinear Functional Analysis and Applications***,2021, olume 26, Issue 1, March 2021, Pages 137-155 (Q1)

(10) Nashine, H.K., Ibrahim, R.W.,R. Agrwal, moments solution of fractional evolution equation found by new krasnoselskii type fixed point theorems, ***Fixed Point Theory***, 22(2021), No. 1, 263-278,(Q1)

(11) Hemant Kumar Nashinea, Lakshmi Kanta Dey ,Rabha W. Ibrahim , Stojan Radenovi, Feng–Liu-type fixed point result in orbital b-metric spaces and application to fractal integral equation, ***Nonlinear Analysis: Modelling and Control,*** Vol. 26, No. 3, 522–533(Q1).

(12) Hamid A. Jalab, Rabha W. Ibrahim, Ali M. Hasan, Faten Khalid Karim, Ala'a R. Al-Shamasneh1 and Dumitru Baleanu**, A New** Medical Image Enhancement Algorithm Based on Fractional Calculus, ***Computers, Materials & Continua*** DOI:10.32604/cmc.2021.016047(Q1)

(13) Razi J. Al-Azawi , Nadia M. G. Al-Saidi , Hamid A. Jalab , Hasan Kahtan and Rabha W. Ibrahim (2021). Efficient classification of COVID-19 CT scans by using q-transform model for feature extraction. ***PeerJ Computer Science***. DOI 10.7717/peerj-cs.553 (Q1-ISI-Indexed)

(14) Meshram, C., Ibrahim, R.W., Obaidat, M.S. *et al.* An effective mobile-healthcare emerging emergency medical system using conformable chaotic maps. ***Soft Comput*** (2021).(Q1)

(15) Rabha W. Ibrahim and Ibtisam Aldawish, Difference formula defined by a new differential symmetric operator for a class of meromorphically multivalent functions, ADE(2021) 2021:281 (Q1).

(16) Wasim Jamshed et al. Thermal Expansion Optimization in Solar Aircraft Using Tangent Hyperbolic Hybrid Nanofluid: A Solar Thermal Application, ***Journal of Materials Research and Technology***, (Q1:5.28)

(17) Wasim Jamshed et al. Computational Frame Work of Cattaneo-Christov Heat Flux Effects on Engine Oil Based Williamson Hybrid Nanofluids: A Thermal Case Study ***Case Studies in Thermal Engineering* (Q1:4.01)**

(18) Ibrahim, R.W et al., A medical image enhancement based on generalized class of fractional partial differential equations, ***Journal: Quantitative Imaging in Medicine and Surgery***, Manuscript ID: QIMS-21-15,doi: 10.21037/qims-21-15 (Q2)

(19) Samir Hadid and Ibrahim Rabha W., Fractional dynamic system simulating the growth of microbe, ***Advances in Difference Equations***, *DOI: 10.1186/s13662-021-03498-3* (IF2.803: Q1).

(20) Rabha W. Ibrahim and Dumitru Baleanu, On a new linear operator formulated by Airy functions in the open unit disk, Ibrahim and Baleanu ***Advances in Difference Equations***, (2021) 2021:366 (IF2.803: Q1). https://doi.org/10.1186/s13662-021-03527-1(Q1:0.803)

(21) Najla M. Alarifi and Rabha W. Ibrahim, Analytic Normalized Solutions of 2D Fractional Saint-Venant Equations of a Complex Variable, ***Journal of Function Spaces***, Volume 2021, Article ID 4797955, 11 pages, https://doi.org/10.1155/2021/4797955 (Q1: 1.807)

(22) Anupam Das, Hemant Kumar Nashine, Rabha W. Ibrahim and Manuel De la Sen, Best proximity point results and application to a system of integro-differential equations, ***Advances in Difference Equations*** (2021) 2021:414(1--13) https://doi.org/10.1186/s13662-021-03567-7(IF2.803: Q1).
(23) Najla M. Alarifi and Rabha W. Ibrahim, "A New Class of Analytic Normalized Functions Structured by a Fractional Differential Operator," ***Journal of Function Spaces***, vol. 2021, Article ID 6270711, 9 pages, 2021. https://doi.org/10.1155/2021/6270711 (Q1:1.807)
(24) Meshram, Chandrashekhar, Rabha W. Ibrahim, Sarita Gajbhiye Meshram, Sajjad Shaukat Jamal, and Agbotiname Lucky Imoize. "An efficient authentication with key agreement procedure using Mittag–Leffler–Chebyshev summation chaotic map under the multi-server architecture**."** ***The Journal of Supercomputing*** (2021): 1-22.(Q2)
(25) Meshram, Chandrashekhar, Rabha W. Ibrahim, Ahmed J. Obaid, Sarita Gajbhiye Meshram, Akshaykumar Meshram, and Alaa Mohamed Abd El-Latif. "Fractional chaotic maps based short signature scheme under human-centered IoT environments." ***Journal of Advanced Research*** 32 (2021): 139-148 (Q1).
(26) Faisal Shahzad et a.l, Comparative Numerical Study of Thermal Features Analysis between Oldroyd-B Copper and Molybdenum Disulfide Nanoparticles in Engine-Oil-Based Nanofluids Flow, ***Coatings***, (Q2)
(27) Chandrashekhar Meshram et al. Conformal Chebyshev chaoticmap-based remote user password authentication protocol using smart card, ***Complex & Intelligent Systems*** https://doi.org/10.1007/s40747-021-00555-y(Q2)
(28) Ibrahim, Rabha W., Ahmed M. Ajaj, Nadia MG Al-Saidi, and Dumitru Balean. "Similarity Analytic Solutions of a 3D-Fractal Nanofluid Uncoupled System Optimized by a Fractal Symmetric Tangent Function." ***CMES-computer modeling in engineering & sciences*** 130, no. 1 (2022): 221-232.
(29) Ibrahim, Rabha W., Husam Yahya, Arkan J. Mohammed, Nadia MG Al-Saidi, and Dumitru Baleanu. "Mathematical Design Enhancing Medical Images Formulated by a Fractal Flame Operator." ***intelligent automation and soft computing*** 32, no. 2 (2022): 937-950.
(30) Ibrahim, Rabha W., Hamid A. Jalab, Faten Khalid Karim, Eatedal Alabdulkreem, and Mohamad Nizam Ayub. "A medical image enhancement based on generalized class of fractional partial differential equations." ***Quantitative Imaging in Medicine and Surgery*** 12, no. 1 (2022): 172-183.
(31) Ibrahim, Rabha W., and Dumitru Baleanu. "Global stability of local fractional Hénon-Lozi map using fixed point theory." ***AIMS Mathematics*** 7, no. 6 (2022): 11399-11416.(Q2)
(32) Faisal Shahzad, et al. Raising thermal efficiency of solar water-pump using Oldroyd-B nanofluids' flow: An optimal thermal application**,** ***Energy Sci Eng***. 2022;1–18.(Q1)

REFEREES

(1) Hamid a. jalab , university malaya hamidjalab@um.edu.my
(2) Ali majeed hasan : university of salford, m5 4wt , school of computing, science & engineering, a.hasan4@edu.salford.ac.uk
(3) Suzan jabbar obaiys, assistant professor, University of Malaya, suzan@um.edu.my