

Mahmoud Mohamed Abdelraouf

ASSISTANT PROFESSOR - MATHEMATICAL STATISTICS

Biography

Dr/Mahmoud Mohamed Abdel Raouf has been an assistant professor at Arab Academy for Science, Technology, and Maritime Transport (AASTMT) since 2019. He dedicated Mathematical Statistics professional with a Ph.D. in 2019. He was assigned to head the International Research Projects Department at AASTMT in 2021. His goal is to make a positive impact on both academia and the statistical community through dedicated teaching and innovative research. He is eager to contribute my expertise in statistical theory and data analysis to advance both the academic and practical applications of mathematics and statistics. His research interests are Probability Distributions and Statistics, Reliability Theory, Statistical Modelling and Inference, Regression Analysis, Data Analysis, Data Science, and Machine Learning.

Education

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| Nov. 2019 | PhD in Mathematical Statistics, Faculty of Science, Tanta University
Dissertation: "Modeling and Analysis of Systems Reliability and Availability" |
| Sep. 2011 | MSc in Mathematical Statistics, Faculty of Science, Tanta University
Dissertation: "Error Contrasts In Some Linear Model" |
| May. 2006 | BSc in Mathematical Statistics, Faculty of Science, Tanta University |

Positions

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| Des. 2021 | Head of the International Research Projects Department, Arab Academy for Science and Technology |
| Des. 2019 | Assistant Professor in Basic and Applied Sciences Institute, College of Engineering and Technology, Arab Academy for Science and Technology, Alex- Egypt |
| Sep. 2013 | Assistant Lecturer in Basic and Applied Sciences Department, College of Engineering and Technology, Arab Academy for Science and Technology, Alex- Egypt |
| Aug. 2009 | General Teacher Assistant (GTA) in Basic and Applied Sciences Department, college of engineering and technology, Arab Academy for Science and Technology, Alex- Egypt |

Teaching experience

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| 2020 - Present | College of Management & Technology (AASTMT)
(Statistics – Statistical Inference – Statistical Application using Excel) |
| 2020 - Present | Graduate School of Management (AASTMT)
(Applied Statistics – Statistics for business) |

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2019 - Present	Productivity and Quality Institute (AASTMT) (Statistics for Industry – Biostatistics)	
2019 - Present	International Transport & Logistics Institute (AASTMT) (Quantitative Methods – Analysis of Variance)	
2010 - Present	College of Computing & Information Technology (AASTMT) (Probability and statistics – advanced statistics – Data Analysis)	
2009 - Present	College of Engineering & Technology (AASTMT) (Probability Theory – Engineering Statistics– Distributions Theory – Calculus – Differential Equations)	
2009 - Present	College of International Transport & Logistics (AASTMT) (Statistical Application using SPSS)	

Conferences and Forums

2016	AASTMT, Alex. Egypt International conference of Informatics and Arab Impact Factor
2016	AASTMT, Alex. Egypt International conference on chemical sciences and applications
2010	Tanta University. Egypt The 6th international conference on biological sciences
2010	Cairo French Cultural Center. Egypt Egypt-France mathematical conference
2009	Tanta University. Egypt A Workshop on "Research Methods & Statistics"
2007	Suez-Canal University. Egypt The 21st forum on "Topology and its Applications"
2006	Tanta University. Egypt A forum on "Data Reduction Between Statistics and Rough Set Theory"
2006	Tanta University. Egypt The 2nd Conference of the Total Quality Management Center

Project and funded

2020 - 2021	Egypt after Corona (in higher education), funded by the Academy of Scientific Research, Egypt
2020 - 2021	Egypt after Corona (in industry, transportation, and technology), funded by the Academy of Scientific Research, Egypt
Jun 2020 – 2023	B_A.3.1_0048_GREENLAND project funded by ENI CBC MED

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Sep 2020 - 2025	TouMaLi project (67MM0001) funded by Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV) Germany	
Jun 2022 – 2024	UniGreen project funded by the European Union represented by the European commission	
Mar 2023 - 2025	“Nano Resonators Under Theory of Two-Temperature Generalized Thermoelasticity Based on Thermomass Motion” project funded by STDF, , Egypt	

References

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Scopus	Abd El-Raouf, Mahmoud M. - Author details - Scopus
google scholar	Mahmoud Mohamed Abdelraouf - Google Scholar
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Publications

- 2023 Lai Ting, M. M. Abd El-Raouf, ME Bakr, Arwa M Alsahangiti “Analysis of bitcoin prices using a heavy-tailed version of Dagum distribution and machine learning methods” Alexandria Engineering Journal, Vol:80,P: 572-583 (DOI: 10.1016/j.aej.2023.08.025)
- 2023 M. M. Abd El-Raouf, Mohammed AbaOud “A novel extension of generalized Rayleigh model with engineering applications” Alexandria Engineering Journal, Vol 72,P 269-283 (DOI: 0.1016/j.aej.2023.04.063)
- 2023 Alanazi Talal Abdulrahman, Etaf Alshawarbeh, M. M. Abd El-Raouf “Statistical Modeling Using a New Distribution with Application in Health Data” Mathematics (DOI: 10.3390/math11143108)
- 2023 Eslam Hussam, Mohamed A. Sabry, M. M. Abd El-Raouf, Ehab M. Almetwally “Fuzzy vs. Traditional Reliability Model for Inverse Weibull Distribution” Axioms (DOI: 10.3390/axioms12060582)
- 2023 Najwan Alsadat, Mohammed Elgarhy, Kadir Karakaya, Ahmed M. Gemeay, Christophe Chesneau, M. M. Abd El-Raouf “Inverse Unit Teissier Distribution: Theory and Practical Examples” Axioms (DOI: 10.3390/axioms12050502)
- 2023 M.M. Abd El-Raouf, Mohammed AbaOud “A Novel Extension of Generalized Rayleigh Model with Engineering Applications” Alexandria Engineering Journal (DOI: 10.1016/j.aej.2023.04.063)

- 2023 Bahady I. Mohammed, Yusra A. Tashkandy, M. M. Abd El-Raouf, Md. Moyazzem Hossain, Mahmoud E. Bakr "The Markov Bernoulli Lomax with Applications Censored and COVID-19 Drought Mortality Rate Data" Axioms (DOI:10.3390/axioms12050439)
- 2023 Abdulaziz S. Alghamdi, M. M. Abd El-Raouf "Exploring the Dynamics of COVID-19 with a Novel Family" Mathematics (DOI: 10.3390/math11071641)
- 2023 Yusra Tashkandy, Mahmoud E. Bakr, Ahmed M. Gemeay, Eslam Hussam, M M. Abd El-Raouf, Md Moyazzem Hossain "Modeling COVID-19 Real Data Set by a New Extension of Haq Distribution" Alexandria Engineering Journal (DOI: 10.3390/axioms12040327)
- 2023 Ahmed M Gemeay, Zeghdoudi Halim, M.M Abd El-Raouf, Eslam Hussam, Alanazi Talal Abdulrahman, Nour Khaled Mashaqbah, Nawaf Alshammari, Nicholas Makumi "General two-parameter distribution: Statistical properties, estimation, and application on COVID-19" Plos one ,Vol 18-2 (DOI: 10.1371/journal.pone.0281474)
- 2023 Abdulaziz S Alghamdi, MM Abd El-Raouf "A New Alpha Power Cosine-Weibull Model with Applications to Hydrological and Engineering Data" Mathematics,vol 11-,p673 (DOI: 10.3390/math11030673)
- 2023 Mustafa Kamal, Mintodê Nicodeme Atchadé, Yves Morel Sokadjo, Sabir Ali Siddiqui, Fathy H Riad, MM Abd El-Raouf, Ramy Aldallal, Eslam Hussam, Huda M Alshanbari "Influence of COVID-19 vaccination on the dynamics of new infected cases in the world" Mathematical Biosciences and Engineering ,vol 20-2,p 3324-3341(Doi: 10.3934/mbe.2023156)
- 2022 Yusra Tashkandy, Walid Emam, Clemente Cesarano, MM Abd El-Raouf, Ayman Elsharkawy "Generalized Spacelike Normal Curves in Minkowski Three-Space" Mathematics,vol 10-21 p 4145 (DOI: 10.3390/math10214145)
- 2022 Muqrin A Almuqrin, Ahmed M Gemeay, MM Abd El-Raouf, Mutua Kilai, Ramy Aldallal, Eslam Hussam "A flexible extension of reduced kies distribution: Properties, inference, and applications in biology" Complexity (DOI: 10.1155/2022/6078567)
- 2022 Faruq Abdulla, M.M.Abd El-Raouf, Azizur Rahman, Ramy Aldallal, Mohamed S. Mohamed, and Md. Moyazzem Hossain "Prevalence and determinants of wasting among under-5 Egyptian children: Application of quantile regression" Food Science & Nutrition (DOI: 10.1002/fsn3.3144)
- 2022 Yusra A.Tashkandy, Ehab M.Almetwally,Randa Ragab, Ahmed M.Gemeay, M.M.Abd El-Raouf, Saima KhanKhosa, EslamHussam, and M.E.Bakri "Statistical inferences for the extended inverse Weibull distribution under progressive type-II censored sample with applications" Alexandria Engineering Journal (DOI: 10.1016/j.aej.2022.09.023

- 2022 M. E. Bakr, Abdulhakim A. Al-Babtain , Zafar Mahmood, R. A. Aldallal , Saima Khan Khosa , M.M. Abd El-Raouf , Eslam Hussam , Ahmed M. Gemeay “Statistical modelling for a new family of generalized distributions with real data applications” .Mathematical Biosciences and Engineering (DOI: 10.3934/mbe.2022404)
- 2022 Mahdi Rasekhi, Mohammad Mehdi Saber, G. G Hamedani, M.M. Abd El-Raouf, Ramy Aldallal, Ahmed M. Gemeay “Approximate Maximum Likelihood Estimations for the Parameters of the Generalized Gudermannian Distribution and Its Characterizations” Journal of Mathematics (DOI: 10.1155/2022/4092576)
- 2022 Mohammad Mehdi Saber, Zohreh Shishebor, M.M. Abd El Raouf, E.H. Hafez, Ramy Aldallal “Most Effective Sampling Scheme for Prediction of Stationary Stochastic Processes” Complexity (DOI: 10.1155/2022/4997675)
- 2022 Hazar A.Khogeer, Amani Alrumayah, M.M. Abd El-Raouf, Mutua Kilai, Ramy Aldallal “Exponentiated Gull Alpha Exponential Distribution with Application to COVID-19 Data” Journal of Mathematics (DOI: 10.1155/2022/4255079)
- 2022 Bouhadjar Meriem, Ahmed M. Gemeay, Ehab M. Almetwally, Zeghdoudi Halim, Etaf Alshawarbeh, Alanazi Talal Abdulrahman, M.M. Abd El-Raouf, Eslam Hussam “The Power XLindley Distribution: Statistical Inference, Fuzzy Reliability, and COVID-19 Application”. Journal of Function Spaces (DOI: 10.1155/2022/9094078)
- 2022 Mustafa Kamal, Shahnawaz Khan, Ahmadur Rahman, R. A. Aldallal, M. M. Abd El-Raouf, Abdisalam Hassan Muse, Abdalla Rabie “Reliability Analysis of Hybrid System Using Geometric Process in Multiple Level of Constant Stress Accelerated Life Test through Simulation Study for Type-II Progressive Censored Masked Data” . Mathematical Problems in Engineering (DOI: 10.1155/2022/9528479)
- 2022 El-Sayed Atlam, Ashraf Ewis , M.M. Abd El-Raouf , Osama Ghoneim , Ibrahim Gad “A new approach in identifying the psychological impact of COVID-19 on university student’s academic performance”. Alexandria Engineering Journal. Vol 61-7, Pages 5223-5233 (DOI: 10.1016/j.aej.2021.10.046)
- 2022 Mutua Kilai, Gichuhi A.Waititu ,Wanjoya A. Kibira, M.M. AbdEl-Raouf, Tahani A.Abushald. . “A new versatile modification of the Rayleigh distribution for modeling COVID-19 mortality rates” Results in Physics. Vol. 35 (DOI: 10.1016/j.rinp.2022.105260)
- 2022 J Khaleeq, M Amanullah, AT Abdulrahman, EH Hafez, M. M. Abd El-Raouf. “Influence diagnostics in Log-Logistic regression model with censored data”. Alexandria Engineering Journal. Vol 61-3, Pages 2230-2241 (DOI: 10.1016/j.aej.2021.06.097)

- 2021 Mohamed S. Mohamed, Amani Almohaimeed , M. M. Abd El-Raouf . "Some new findings on the survival Rényi entropy and application of COVID-19 data". Results in Physics. Vol. 35 (DOI: 10.1016/j.rinp.2021.104966)
- 2021 Hassan Alsuhabi , Mohammad Mehdi Saber , and M. M. Abd El-Raouf . "Stress-Strength Parameter Estimation under Small Sample Size: A Testing Hypothesis Approach". Computational Intelligence and Neuroscience. (10.1155/2021/8705547)
- 2021 Fathy H. Riad, Mohammad Mehdi Saber, Mehrdad Taghipour, and M. M. Abd El-Raouf. "Classical and Bayesian Inference of Conditional Stress-Strength Model under Kumaraswamy Distribution". Computational Intelligence and Neuroscience (DOI:10.1155/2021/1087871)
- 2021 Basim S. O. Alsaedi, M. M. Abd El-Raouf, E. H. Hafez, Zahra Almaspoor, Osama Abdulaziz Alamri,Kamel Atallah Alanazi, and Saima Khan Khosa. . "Decision-Making for the Lifetime Performance Index". Computational Intelligence and Neuroscience (DOI: 10.1155/2021/3005067)
- 2021 Osama Abdulaziz Alamri, MM Abd El-Raouf, Eman Ahmed Ismail, Zahra Almaspoor, Basim SO Alsaedi, Saima Khan Khosa, M Yusuf." Estimate Stress-Strength Reliability Model Using Rayleigh and Half-Normal Distribution". Computational Intelligence and Neuroscience (DOI: 10.1155/2021/3005067)
- 2021 Heba S Mohammed, Zubair Ahmad, Alanazi Talal Abdulrahman, Saima K Khosa, EH Hafez, M. M. Abd El-Raouf, Marwa M Mohie El-Din. "Statistical modelling for Bladder cancer disease using the NLT-W distribution". AIMS Mathematics 6 (9), 9262-9276 (DOI:10.3934/math.2021538)
- 2019 Abd El-Monsef, M.M.E. and M. M. Abd El-Raouf., M.A. "Rayleigh-half normal distribution for modeling tooth movement data". Journal of Biopharmaceutical Statistics. (DOI: 10.1080/10543406.2019.1684312)
- 2019 Yones, M.S., Ma'moun SA.M., Farag R.MA., M. M. Abd El-Raouf.. "Hyperspectral application for early diagnosis of American foulbrood disease in the honeybee (*Apis mellifera L.*) larvae". The Egyptian Journal of Remote Sensing and Space Science 22 (3), 271-277 (DOI: 10.1016/j.ejrs.2019.05.002)