

Dr. Abdel-Salam G. Abdel-Salam, Ph.D., MBA, 2 MSc.

Associate Professor of Applied Statistics, Department of Mathematics and Statistics,
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Employment History

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| Oct. 2019 - Present | 📌 Associate Professor of Statistics , Department of Mathematics and Statistics, College of Arts and Sciences, Qatar University, Doha, Qatar. |
| Nov. 2018 - Sep. 2023 | 📌 Head of Student Data Management Section , Student Affairs Sector, Vice President for Student Affairs, Qatar University, Doha, Qatar. |
| Oct. 2015 - Nov. 2018 | 📌 Coordinator of the Statistics BS and MS Programs , College of Arts and Sciences, Qatar University, Doha, Qatar. |
| Sep. 2014 - Dec. 2019 | 📌 Coordinator of the Statistical Consulting Unit , College of Arts and Sciences, Qatar University, Doha, Qatar. |
| Aug. 2013- Oct. 2019 | 📌 Assistant Professor in the Department of Mathematics, Statistics, and Physics, College of Arts and Sciences, Qatar University, Doha, Qatar. |
| Jan. 2011 - Aug. 2013 | 📌 Assistant Vice President , Mortgage Banking-Modeling and Forecasting / Business Banking Risk Management, JPMorgan Chase & Co., 1111 Polaris Parkway, Columbus, Ohio, USA. |
| Aug. 2010- Jan. 2011 | 📌 Visiting Assistant Professor in the Department of Statistics in Oklahoma State University, Oklahoma, USA. |
| May. 2010- (on Leave) | 📌 Assistant Professor in the Department of Statistics at the Faculty of Economics and Political Science, Cairo University, Giza, Egypt. |
| Jan. 2010 - May. 2010 | 📌 Instructor in the Department of Statistics in Virginia Polytechnic Institute and State University, Virginia, USA. |
| Aug. 2005 - Dec. 2009 | 📌 Teaching Assistant in the Department of Statistics in Virginia Polytechnic Institute and State University, Virginia, USA. |
| Aug. 1998 - Aug. 2005 | 📌 Assistant Lecturer in the Faculty of Economics and Political Science, Cairo University, Giza, Egypt. |

Education

- 2006 – 2009  **Ph.D., Virginia Polytechnic Institute and State University (Virginia Tech)**, Department of Statistics (Quality Control), USA.
Thesis title: *Profile Monitoring with Fixed and Random Effects using Nonparametric and Semiparametric Methods*.
- 2005 – 2006  **M.Sc., Virginia Polytechnic Institute and State University (Virginia Tech)**, Department of Statistics (Applied Statistics), USA.
- 2002 – 2004  **M.Sc., Cairo University, Economics and Political Science**, Department of Statistics (Operation Research).
Thesis title: *Selection of Variables in Discriminant Analysis using Mathematical Programming Approach with an Environmental Application*.
- 1994 – 1998  **B.Sc. in Statistics with Minor in Economics**.
Cairo University, Economics and Political Science, Egypt.

Profession Degree & Certifications

- **Harvard–Qatar University Faculty Fellowship** – Exposure to global models of excellence in teaching. May 2024.
- **Qatar University, College of Business and Economics, Doha, Qatar.** May 2023.
 - **Master of Business Administration (MBA) with *Distinguish***.
Thesis title: "Assessing Research and Development Strategy at Macro-Microeconomic Levels in Qatar"
- **Accredited Professional Statistician (PStat)**, American Statistical Association, USA. (Oct. 2018).
- **Chartered Statistician (CStat)**, The Royal Statistical Society, UK. (April 2018).

Research Interest

Health-related Monitoring, Prospective Public Health Surveillance, Economic Capital Models, Regression Analysis, Mixed Models, Nonparametric and Semiparametric Regression, Exploratory and Robust Data Analysis, Profile Monitoring, Biostatistics, Quality Control, Quality Improvement, Industrial, Social, Educational, and Medical Applications, Operations Research, and Multivariate Analysis.

Relevant Coursework

Quality Control Methods, Advanced Quality Control Methods, Advanced Biostatistics, Experimental Design, Response Surface Methods, Applied Reliability, Statistical Computing, Statistical Methods and Theory, Linear Models, Regression and Advanced Regression, Mixed Models, Generalized Linear Models, Multivariate Statistics, Exploratory Data Analysis, Operations Research, Stochastic Processes, Statistical Consulting.

Research Publications

REFEREED JOURNAL ARTICLES:

- **Abdel-Salam G. Abdel-Salam & Ahmad, I. A.** (2025). Nonparametric Functions Estimation Using Biased Data. *Mathematics*, 13(24), 4037. <https://doi.org/10.3390/math13244037>
- Al Fakih, B., & **Abdel-Salam G. Abdel-Salam** (2025). On the Gaussian Process for Stationary and Non-stationary Time Series Prediction for the Qatar Stock Market. In *Innovative and Intelligent*

Digital Technologies; Towards an Increased Efficiency: Volume 2 (pp. 63-75). Cham: Springer Nature Switzerland.

- Hamada, B. I., & **Abdel-Salam G. Abdel-Salam** (2025). Determinants of watchdog journalism: A global empirical approach. *International Communication Gazette*, 87(3), 191-216.
- Haddad, M., Abbes, Z., & **Abdel-Salam G. Abdel-Salam** (2025). Bridging the gap: investigating discrepancies between subjective and objective sleep assessment in university students. *Biological Rhythm Research*, 56(1), 63-74.
- Noorizadeh, M., Alhajyaseen, W. K., Al-Qudah, H., Dias, C., Hussain, Q., Soliman, A., **Abdel-Salam G. Abdel-Salam**, & Al-Quradaghi, S. (2025). Exploring the impact of perceived in-vehicle distractions on crashes and violations: investigating the mediating effects of inside-vehicle activities. *Procedia Computer Science*, 257, 388-395.
- Athamneh, S., **Abdel-Salam G. Abdel-Salam**, Alajlouni, R. A., & Athamneh, A. I. (2025). Toward Objective Assessment of the Stray Dog Problem in Jordan. *Journal of Applied Animal Welfare Science*, 1-13.
- Mollazehi, M., & **Abdel-Salam G. Abdel-Salam** (2025). Understanding the alternative Mantel-Haenszel statistic: Factors affecting its robustness to detect non-uniform DIF. *Communications in Statistics-Theory and Methods*, 1-25. <https://doi.org/10.1080/03610926.2024.2330668>
- **Abdel-Salam G. Abdel-Salam**, Boone, E. L., Ghanam, R. (2024). Multivariate Techniques for Monitoring Susceptible, Exposed, Infected, Recovered, Death, and Vaccination Model Parameters for the COVID-19 Pandemic for Qatar. *International Journal of Environmental Research and Public Health*, 21(12), 1580. <https://doi.org/10.3390/ijerph21121580>
- El-Horbaty, Y. S., & **Abdel-Salam G. Abdel-Salam** (2024). An ANOVA-based test for random effects in a nonlinear mixed model using a Monte Carlo permutation procedure. *Journal of Statistical Computation and Simulation*, 94(13), 2976-2991. <https://doi.org/10.1080/00949655.2024.2362409>
- Haddad, M., Abbes, Z., Moustafa, A., Bibi, K., Barham, A., **Abdel-Salam G. Abdel-Salam** (2024). Sleep, Activity & Cognition: Analysis Of Academic Impacts In University Students. *Medicine & Science in Sports & Exercise*, 56(10S), 638-639. <https://doi.org/10.1249/01.mss.0001058024.27504.09>
- Hamada, B. I., **Abdel-Salam G. Abdel-Salam**, Bebawi, S. (2024). Journalism Practices in Western and Muslim Majority Countries: Culture Matters. *The International Journal of Press/Politics*. <https://doi.org/10.1177/19401612241260730>
- Haddad, M., Abbes, Z., **Abdel-Salam G. Abdel-Salam** (2024). The impact of online classes on sleep, physical activity, and cognition functioning among physical education students. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1397588>
- **Abdel-Salam G. Abdel-Salam**, Ismail, R., Rhouma, M., Elatawneh, A., Al Hazaa, K., and Romanowski, M. H. (2023). Using Grades in Core Curriculum Chain Courses as Predictors of Academic Performance in Subsequent Courses: A Study at Qatar University. *SAGE Open*, 13(4). DOI: 10.1177/21582440231206631
- Ahmed Ben Said, **Abdel-Salam G. Abdel-Salam**, and Al Hazaa, K. (2023). Performance prediction in online academic course: a deep learning approach with time series imaging. *Multimedia Tools and Applications*. <https://doi.org/10.1007/s11042-023-17596-9>
- **Abdel-Salam G. Abdel-Salam**, Sohail, A., Sherin, L., Azim, Q. U. A., Faisal, A., Fahmy, M. A., and Li, Z. (2023). Optimization of tank engine crank shaft material properties. *Mechanics Based Design of Structures and Machines*, 51:6, 3066-3082, DOI: 10.1080/15397734.2021.1916754
- Jones, C. L., **Abdel-Salam G. Abdel-Salam** and Mays, D. A. (2023). Novel Bayesian CUSUM and EWMA control charts via various loss functions for monitoring processes. *Qual Reliab Eng Int*. 39: 164-189. <https://doi.org/10.1002/qre.3229>

- Edward L. Boone, **Abdel-Salam G. Abdel-Salam**, Indranil Sahoo, Ryad Ghanam, Xi Chen and Aiman Hanif (2023). Monitoring SEIRD model parameters using MEWMA for the COVID-19 pandemic with application to the state of Qatar, *Journal of Applied Statistics*, 50:2, 231-246, DOI: 10.1080/02664763.2021.1985091
- Al-Tameemi, R., Johnson, C., **Abdel-Salam G. Abdel-Salam**, Al Hazaa, K., BenSaid, A., and Romanowski, M. H. (2023). Determinants of poor academic performance among undergraduate students—A systematic literature review. *International Journal of Educational Research Open*, 4, 100232.
- Zied Abbes, Monoem Haddad, and **Abdel-Salam G. Abdel-Salam** (2023). Relationship between physical characteristics and 200-metre swimming performance in young amateur swimmers. *Acta Kinesiologica* 17(1).
- Hammoudi Halat, D., **Abdel-Salam G. Abdel-Salam**, Bensaid, A., Abderrezzaq Soltani, Lama Alsarraj, Roua Dalli and Ahmed Malki (2023). Use of machine learning to assess factors affecting progression, retention, and graduation in first-year health professions students in Qatar: a longitudinal study. *BMC Med Educ* 23, 909 (2023). <https://doi.org/10.1186/s12909-023-04887-w>
- **Abdel-Salam G. Abdel-Salam**, Hazaa, K., and Abu-Shanab, E. A. (2022). Evaluating the Online Learning Experience at Higher Education Institutions, *International Journal of Cyber Behavior, Psychology and Learning (IJCPL)*, 12(1), 1-23.
- Chithira Johnson, Rizwan Gitay, **Abdel-Salam G. Abdel-Salam**, Ahmed BenSaid, Radwa Ismail, Rusol Adil Naji Al-Tameemi, Michael H Romanowski, Batoul Mohamad Kazem Al Fakih, Khalifa Al Hazaa (2022). Student support in higher education: campus service utilization, impact, and challenges. *Heliyon*, e12559.
- Eid, A. G., **Abdel-Salam G. Abdel-Salam** & Jaleel, F. A. (2022). Assessing the Impact of Major Political and Institutional Factors on New Businesses: The Case of Qatar. In *Government Incentives for Innovation and Entrepreneurship*, (pp. 105-124). Springer, Cham.
- AlYafei, N. A., Jaleel, B. N. F., **Abdel-Salam G. Abdel-Salam**, Al-Saadi, H. A., & Al Abdulla, S. A. (2022). Association of Serum Vitamin D level and COVID-19 infection: A Case-control Study. *Qatar Medical Journal*, 2022(4), 48.
- Johnson, C., Gitay, R., Al Hazaa, K., **Abdel-Salam G. Abdel-Salam**, Mohamed, R. I., BenSaid, A. & Romanowski, M. H. (2022). Causes of Undergraduate Students' Underachievement in a Gulf Cooperation Council Country (GCC) University. *SAGE Open*, 12(3), <https://doi.org/10.1177/21582440221079847>
- Ben Said, A., **Abdel-Salam G. Abdel-Salam**, Abu-Shanab, E., & Alhazaa, K. (2022). Factors Affecting Student Satisfaction Towards Online Teaching: A Machine Learning Approach. In **Digital Economy, Business Analytics, and Big Data Analytics Applications** (pp. 309-318). Springer, Cham.
- Haza, K. A., **Abdel-Salam G. Abdel-Salam**, Mollazehi, M. D., Mohamed, R. I., Hasan, M. A., Al-Tameemi, R. A. & Romanowski, M. H. (2022). Factors affecting university image among graduate alumni: A case study of Qatar university. *Heliyon*, 8(6), e09668.
- Soliman, A., **Abdel-Salam G. Abdel-Salam** and Ahmed, M. (2022). A diagnostic tool for family and marriage counseling with Muslim couples. *Humanities and Social Sciences Communications*, 9(1), 1-9.
- Sara, H. N., **Abdel-Salam G. Abdel-Salam** (2022). Robust profile monitoring for phase II analysis via residuals. *Quality and Reliability Engineering International*, 38(1), 432-446.
- Sara, H. N., **Abdel-Salam G. Abdel-Salam** (2021), Semiparametric MEWMA for Phase II profile monitoring, *Quality and Reliability Engineering International*. <http://dx.doi.org/10.1002/qre.2829>

- Atif, M., Zaman, Q., Shafiq, M., and **Abdel-Salam G. Abdel-Salam** (2021). Estimation of Health-Related Quality of Life in the Presence of Missing Values in EQ-5D. *Mathematical Problems in Engineering*, 2021.
- Yu, Z., **Abdel-Salam G. Abdel-Salam**, Sohail, A., and Alam, F. (2021). Forecasting the impact of environmental stresses on the frequent waves of COVID19. *Nonlinear Dynamics*, 1-15.
- Shaofu, M., Al-Juboori, A. M., Alwan, A. H., and **Abdel-Salam G. Abdel-Salam** (2021). On the Investigation of Monthly River Flow Generation Complexity Using the Applicability of Machine Learning Models. *Complexity*, 2021.
- Abdella, G. M., Kucukvar, M., Ismail, R., **Abdel-Salam G. Abdel-Salam**, Onat, N. C., and Dawoud, O. (2021). A mixed model-based Johnson's relative weights for eco-efficiency assessment: The case for global food consumption. *Environmental Impact Assessment Review*, 89, 106588.
- Al-Utaibi, K. A., Sohail, A., Yu, Z., Arif, R., Nutini, A., **Abdel-Salam G. Abdel-Salam**, and Sait, S. M. (2021). Dynamical analysis of the delayed immune response to cancer. *Results in Physics*, 26, 104282.
- Abdella, G. M., Kucukvar, M., Kutty, A. A., **Abdel-Salam G. Abdel-Salam**, Sen, B., Bulak, M. E., and Onat, N. C. (2021). A novel approach for developing composite eco-efficiency indicators: The case for US food consumption. *Journal of Cleaner Production*, 299, 126931.
- Alam, F., **Abdel-Salam G. Abdel-Salam**, Sohail, A., Yousaf, M., and Tunç, S. (2021). Exploration of The Novel Corona Virus Transition Graphs With Petrinet Modeling. *Biomedical Engineering: Applications, Basis and Communications*, 2150028.
- Jones, C. L., **Abdel-Salam G. Abdel-Salam**, and Mays, D. A. (2021). Practitioners guide on parametric, nonparametric, and semiparametric profile monitoring. *Quality and Reliability Engineering International*, 37(3), 857-881.
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- **Abdel-Salam G. Abdel-Salam**, Ramzan, M., and Siddiqui, Z. (2021). Statistical analysis for the impact of smoking on the behavior and health of Qatari adolescents. *International journal of adolescent medicine and health*, 33(1).
- Al Hazaa, K., **Abdel-Salam G. Abdel-Salam**, Ismail, R., Johnson, C., Al-Tameemi, R. A. N., Romanowski, M. H., ... Elatawneh, A. (2021). The effects of attendance and high school GPA on student performance in first-year undergraduate courses. *Cogent Education*, 8(1), 1956857.
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- Ryad Ghanam, Edward L. Boone **Abdel-Salam G. Abdel-Salam** (2021), SEIRD Model for Qatar COVID-19 Outbreak, *Letters in Biomathematics*, 8 (1), 19-28.
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- Ufuk Beyaztas and **Abdel-Salam G. Abdel-Salam** (2020), Stationary Bootstrap Based Multi-Step Forecasts for Unrestricted VAR Models, *Journal of Data Science*, 18, 682-696.
- Jones, C. L., **Abdel-Salam G. Abdel-Salam** and Mays, D. A. (2020), Practitioners guide on parametric, nonparametric, and semiparametric profile monitoring, *Quality and Reliability Engineering International*. <https://doi.org/10.1002/qre.2770>
- Ufuk Beyaztas, Han Lin Shang and **Abdel-Salam G. Abdel-Salam** (2020), Functional linear models for interval-valued data, *Communications in Statistics-Simulation and Computation*, DOI: 10.1080/03610918.2020.1714662
- **Abdel-Salam G. Abdel-Salam**, Mollazehi, M., Bandyopadhyay, D., Malki, A. M., Shi, Z. and Zayed, H. (2020), Assessment of lung cancer risk factors and mortality in Qatar: A case series study, *Cancer Reports*, e1302.
- Azevedo, D. R., Bandyopadhyay, D., Prates, M. O., **Abdel-Salam G. Abdel-Salam** and Garcia, D. (2020), Assessing spatial confounding in cancer disease mapping using R, *Cancer Reports*, e1263.
- Shi, Z., Malki, A., **Abdel-Salam G. Abdel-Salam**, Jianghong Liu and Hatem Zayed (2020), Association between Soft Drink Consumption and Aggressive Behaviour among a Quarter Million Adolescents from 64 Countries Based on the Global School-Based Student Health Survey (GSHS), *Nutrients*, 12, 694. <https://doi.org/10.3390/nu12030694>
- A. Khan, S. Cheema, Z. Hussain and **Abdel-Salam G. Abdel-Salam** (2020), Measuring skewness: we don not assume much , *Scientia Iranica*.
- Zainab Siddiqui and **Abdel-Salam G. Abdel-Salam** (2019), A Semi-Parametric Profile Monitoring via Residuals, *Quality and Reliability Engineering International*, 35, 959-977.
- Sepehr Piri, **Abdel-Salam G. Abdel-Salam** and Edward Boone (2019), A Wavelet Approach for Profile Monitoring of Poisson Distribution With Application, *Communications in Statistics - Simulation and Computation*, 4, 1-12.
- **Abdel-Salam G. Abdel-Salam** and Jeffrey B. Birch (2019), A semiparametric Nonlinear Mixed Model Approach to Phase I Profile Monitoring, *Communications in Statistics - Simulation and Computation* , 48, 1677-1693.
- Hamada, Basyouni I., **Abdel-Salam G. Abdel-Salam** and ElKilany, ElSayed A. (2019), Press freedom and corruption: An examination of the relationship, *Global Media and Communication*, <https://doi.org/10.1177/1742766519871676>
- Saddam Abbasi, Tahir Abbas, Muhammad Riaz and **Abdel-Salam G. Abdel-Salam** (2018), Bayesian Monitoring of Linear Profiles Using Bayesian DEWMA Control Structures with Random X , *IEEE Access*, 6, 78370-78385.
- Soliman, H. H., Koran, J. and **Abdel-Salam G. Abdel-Salam** (2018), Parents' perception of school violence, awareness of risk factors, and school safety: An Ecological Perspective, *International Journal of School Social Work*, 3, 1-25.
- **Abdel-Salam G. Abdel-Salam**, Mahjabeen Ramzan, and Zainab Siddiqui (2018), Statistical Analysis for the Impact of Smoking on the Behavior and Health of Qatari Adolescents, *International Journal of Adolescent Medicine and Health (IJAMH)*, DOI: <https://doi.org/10.1515/ijamh-2018-0045>.
- Hassan Aziz, **Abdel-Salam G. Abdel-Salam**, Al-Obaide MAI, Alobydi HW and Al-Humaish S (2018), Kynurenine 3-Monooxygenase Gene Associated With Nicotine Initiation and Addiction: Analysis of Novel Regulatory Features at 5' and 3' Regions, *Front. Genet.* doi: 10.3389/fgene.2018.00198
- Monica Zolezzia, Oraib Abdallaha, Nadir Kheira and **Abdel-Salam G. Abdel-Salam** (2018), Evaluation of community pharmacists' preparedness for the provision of cardiovascular disease risk assessment

and management services: A study with simulated patients in Qatar, *Research in Social and Administrative Pharmacy*. Doi: 10.1016/j.sapharm.2018.04.032

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- Mohammed A. Al-Obaide, Buthainah A. Ibrahim, Saif Al-Humaish and **Abdel-Salam G. Abdel-Salam** (2018), Genomic and Bioinformatics Approaches for Analysis of Genes Associated With Cancer Risks Following Exposure to Tobacco Smoking, *Front. Public Health*.
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- Hassan A. Aziz and **Abdel-Salam G. Abdel-Salam** (2017), Coronary Heart Disease Risk Factors among University Female Students, *Quality in Primary Care*, 25, pp. 229-234.
- **Abdel-Salam G. Abdel-Salam**, Mohammad D. M., Ibrahim A. E., Yousuf A. D., Irfan J. I. and Salman U. (2017), Testing the Consistency of a Novel Bowling Scoring System Against the Current Approach, *Communication in Mathematical Modeling and Applications*, 2, 23-38.
- Amjad M. Shraim, Duna A. Alenazi, **Abdel-Salam G. Abdel-Salam**, Prashant Kumar (2016), Loading Rates of Dust and Metals in Residential Houses of Arid and Dry Climatic Regions, *Aerosol and Air Quality Research*, 16, 2462-2473.
- **Abdel-Salam G. Abdel-Salam**, Mohammed A. Al-Obaide and Hytham Alobydy (2016), Statistical and Bioinformatics Analysis of 5'-regulatory Region of *TM4SF1* Locus Involved in Cancer and Drug Resistance, *Sci-Afric Journal of Scientific Issues, Research and Essays*, 4, 913-918.
- Mohammed A. Al-Obaide, **Abdel-Salam G. Abdel-Salam**, Hytham Alobydy and Kalkunte S. Srivenugopal (2016), Bioinformatic Analysis of Human OPN3 Alternative Promoters Associated with Cancer, *Appl. Math. Inf. Sci.*, 10, 1223-1229.
- **Abdel-Salam G. Abdel-Salam** and Jeffrey B. Birch (2015), Robust Techniques for Phase I Profile Monitoring. In *JSM Proceedings, Quality and Productivity Section*. Seattle, WA: American Statistical Association. 1104-1118.
- Mohannad G. Al-Saghir and **Abdel-Salam G. Abdel-Salam** (2015), Genetic Diversity of Peanut (*Arachis hypogea* L.) Cultivars as Revealed by RAPD Markers, *American Journal of Plant Sciences*, 6, 2303-2308.
- Al-Obaide, M. A., Alobydy, H., **Abdel-Salam G. Abdel-Salam**, Zhang, R., Srivenugopal, K. S. (2015), Multifaceted Roles of 5'-Regulatory Region of the Cancer Associated Gene B4GALT1 and its Comparison with the Gene Family, *International Journal of Oncology*, 47, 1393-1404.
- James D. Williams, Jeffrey B. Birch and **Abdel-Salam G. Abdel-Salam** (2015), Outlier Robust Nonlinear Mixed Model Estimation, *Statistics in Medicine*, 34, 1304-1316.
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- **Abdel-Salam G. Abdel-Salam**, Jeffrey B. Birch, and Willis A. Jensen (2013), A Semiparametric Mixed Model Approach to Phase I Profile Monitoring, *Quality and Reliability Engineering International*, 29, 555-569.

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- Ihab El-Shawarby, Ahmed Amer, **Abdel-Salam G. Abdel-Salam**, and Hesham Rakha (2011), Empirical Study of Yellow and Red Light Running Behavior on High-Speed Signalized Intersection Approaches, *Operations and Traffic Management-OPS:Journal of the Transportation Research Board*, No. 2075, Transportation Research Board of the National Academies, Washington, D.C., 2011.
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- William H. Woodall, J. Brooke Marshall, Michael D. Joner, Shannon E. Fraker, and **Abdel-Salam G. Abdel-Salam** (2008), On The Use Of Scan Methods In Prospective Public Health Surveillance, *Journal of the Royal Statistical Society, Series A*, 171, 223-237.
- Medina Flintsch, A., Rakha, H., Arafeh, M., Dua, D., **Abdel-Salam G. Abdel-Salam**, and Abbas, M. (2008), Safety Impacts of Access Control Standards on Crossroads in the Vicinity of Highway Interchanges, *Transportation Research Record: Journal of the Transportation Research Board*, No. 2075, Transportation Research Board of the National Academies, Washington, D.C., 2008, 42-52.

BOOKS/CHAPTER(S):

- **Abdel-Salam, G. Abdel-Salam**, & Birch, J. B. (2026). *Exploratory and Robust Data Analysis: A Modern Applied Statistics Guide with SPSS and R* (1st Ed.). **Chapman and Hall/CRC**.
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- **Abdel-Salam, G. Abdel-Salam** (2025). *Data and simplified statistical analysis for applied sciences*. **Cairo: Al-Arabi Publishing & Distribution**. (In Arabic) (1st Ed.). ISBN 978-9778911596
- **Abdel-Salam, G. Abdel-Salam** (2025). *Advanced Statistical Analysis Guide for Applied Sciences: Part II*. **Cairo: Al-Arabi Publishing & Distribution**. (In Arabic) (1st Ed.). ISBN 978-9778911602
- Al Fakih, B., & **Abdel-Salam, G. Abdel-Salam** (2024). On the Gaussian Process for Stationary and Non-stationary Time Series Prediction for the Qatar Stock Market. In: *Studies in Systems, Decision and Control* (pp. 63–75). **Springer Nature Switzerland**. https://doi.org/10.1007/978-3-031-71649-2_5
- Elsouly, R., & **Abdel-Salam, G. Abdel-Salam** (2024). Continuous Versus Categorical Imputation Method for Unobserved Count with Zero-Inflation. In: *Springer Proceedings in Mathematics & Statistics* (pp. 1–24). **Springer Nature Singapore**. https://doi.org/10.1007/978-981-97-4876-1_1
- Ben Said, A., **Abdel-Salam, G. Abdel-Salam**, Abu-Shanab, E., & Alhazaa, K. (2022). Factors Affecting Student Satisfaction Towards Online Teaching: A Machine Learning Approach. In S. G. Yaseen (Ed.), *Digital Economy, Business Analytics, and Big Data Analytics Applications*. *Studies in Computational Intelligence* (Vol. 1010, pp. 15–31). **Springer, Cham**. https://doi.org/10.1007/978-3-031-05258-3_25

- Eid, A. G., **Abdel-Salam, G. Abdel-Salam**, & Jaleel, F. A. (2022). Assessing the Impact of Major Political and Institutional Factors on New Businesses: The Case of Qatar. In M. M. Abdellatif, B. Tran-Nam, M. Ranga, & S. Hodžić (Eds.), *Government Incentives for Innovation and Entrepreneurship. Innovation, Technology, and Knowledge Management* (pp. 1–25). **Springer, Cham**.
https://doi.org/10.1007/978-3-031-10119-9_6
- Verma, J. P., & **Abdel-Salam, G. Abdel-Salam** (2019). *Testing Statistical Assumptions in Research*. **Wiley, USA**. ISBN-13: 978-1119528418 (Hardcover), ISBN-10: 1119528410 (eBook).
- Rakha, H., Arafah, M., **Abdel-Salam, G. Abdel-Salam**, Guo, F., & Medina (2008). Linear Regression Crash Prediction Models: Issues and Proposed Solutions. In I. Al-Qadi, T. Sayed, N. Alnuaimi, & E. Masad (Eds.), *Efficient Transportation and Pavement Systems: Characterization, Mechanisms, Simulation and Modeling* (pp. 241–256). **Taylor and Francis**. ISBN: 978-0-415-48979-9 (Hardcover), ISBN: 978-0-203-88120-0 (eBook).

Conference Proceedings:

- **Abdel-Salam G. Abdel-Salam** and Jeffrey B. Birch (2015), Robust Techniques for Phase I Profile Monitoring. In *JSM Proceedings, Quality and Productivity Section*. Seattle, WA: American Statistical Association. pp. 1104-1118.
- Al-Obaide M.A. Hytham Alobydi, **Abdel-Salam G. Abdel-Salam**, Ruiwen Zhang, Kalkunte S. Srivenugopal, 2015. Proceedings of AACR Annual meeting 2015.
- **Abdel-Salam G. Abdel-Salam**, Ramadan Hamed and Ali El-Hefnawy (2004), Mathematical Programming Approach for Variable Selection in Discriminant Analysis: an Environmental Application, 39th Annual Conference on Statistics, Computer Sciences and Operation Research, Institute of Statistical Studies And Research, Cairo University, Giza, Egypt, pp. 80-94.
- **Abdel-Salam G. Abdel-Salam**, Ramadan Hamed and Ali El-Hefnawy (2003), Selection of Variables in Discriminant Analysis Using Mathematical Programming Approach, 38th Annual Conference on Statistics, Computer Sciences and Operation Research, Institute of Statistical Studies And Research, Cairo University, Giza, Egypt, pp. 115-131.

TECHNICAL REPORTS:

- Megan J. Waterman, Jeffrey B. Birch, and **Abdel-Salam G. Abdel-Salam** (2012), Nonparametric and Semiparametric Linear Mixed Models, Technical Report,
http://www.web-e.stat.vt.edu/dept/web-e/tech_reports/Technical_Report_12-4.pdf
- **Abdel-Salam G. Abdel-Salam**, Jeffrey B. Birch, and Willis A. Jensen (2010), Nonparametric and Semiparametric Methods for Phase I Profile Monitoring, Technical Report,
http://www.web-e.stat.vt.edu/dept/web-e/tech_reports/Technical_Report_10-2.pdf
- Rakha, H., Medina Flintsch A., Arafah, M., **Abdel-Salam G. Abdel-Salam**, Dua, D., and Abbas, M., Access Control Design on Highway Interchanges, submitted to Virginia Transportation Research Council (VTRC 08-CR7).

PAPERS SUBMITTED FOR PUBLICATION/ WORK IN PROGRESS:

- **Abdel-Salam G. Abdel-Salam** (2026), Generalized Non-linear Mixed Model Robust Regression for Residuals, *In Progress*.
 - **Abdel-Salam G. Abdel-Salam** and *et.al.* (2026), Cardiac Surgery Performance Monitoring via the Control Charts, *In Progress*.
- Abdel-Salam G. Abdel-Salam**, and *et.al* (2026), Bayesian MEWMA and MCUSUM Control Charts Under Different Loss Functions, *In Progress*.

Abdel-Salam G. Abdel-Salam, and et.al (2026), MNLM Profile Monitoring Using Residuals, *In Progress*.

Courses Taught

Advanced Biostatistics, Statistical Consulting, Applied Statistics, Engineering Statistics, Statistical Methods I for Social Sciences, Statistical Methods I, Mathematical Programming, Operations Research, Statistics for Economics, Mathematical Analysis, Stochastic Process, Time Series, Game Theory, Linear Algebra, Econometrics, Linear Models, Regression Analysis, Probability, Biostatistics, Thesis, Senior Projects, Introduction to Quality Control, Biological Statistics I & II, Introductory Statistics and Applied Multivariate Analysis.

Conference Presentations/Posters

- Monitoring Parametric, Nonparametric, and Semiparametric Linear Regression Models using a Multivariate CUSUM Bayesian Control Chart, *Contributed talk*, Fall Technical Conference 2025 (FTC2025), Houston, Texas, USA. **October 2025**.
- Gaussian Process for Stationary and Non-Stationary, *Contributed talk*, 2nd International Conference on Science, Engineering and Advanced Technology, Bahrain. **August 2024**.
- Data Mining in Higher Education, *Contributed talk*, The Engineering Education and Instructional Technologies Conference 2024, Qatar University, Qatar. **February 2024**.
- Data Mining in Higher Education: Challenges, Innovations, and Future Directions, *Contributed talk*, 15th Excellence Day, Qatar University, Qatar. **May 2024**.
- Not Your Client's Regular Regression: Dealing with Complex Curves in Consulting, *Contributed talk*, The Joint Statistical Meetings 2023 (JSM2023), Toronto, Canada. **August 2023**.
- The Power of Numbers: How Statistics Reveal the Essence of KPIs, *Invited Speaker*, Students Affairs Conference, QU, Qatar. **October 2023**.
- Phase II Profile Monitoring via Robust Semi-Parametric MCUSUM, *Contributed talk*, 38th Quality and Productivity Research Conference, San Francisco State University, California, **June 2022**.
- Robust Profile Monitoring for Phase II Profile Monitoring via Residuals, *Keynote Speaker*, 9th International Conference on Applied Analysis and Mathematical Modeling, Biruni University, Istanbul, Turkey. **June 2021**.
- Evaluating the Online Teaching Experience at Higher Education Institutes from Students' Perspective, *Invited Speaker*, Education, Engineering Education and Instruction Technology Conference (EEEITC 21), QU, Qatar. **February 2021**.
- Novel Nonparametric and Semiparametric Control Charts Utilizing Residuals, *Invited Speaker*, 36th Quality and Productivity Research Conference, American University in Washington D.C., USA, **June 2019**.
- Fitting Models to Continuous and Binary Responses With Applications, *Invited Speaker*, Minitab Insights Conference 2018, Scottsdale, AZ, USA. **September 2018**.
- Model Robust Profile Monitoring for Generalized LM Model for Phase I Analysis, *Keynote Speaker*, 6th International Conference on Biostatistics and Bioinformatics, Atlanta, USA. **November 2017**.
- Testing the Consistency of a Novel Bowling Scoring System Against the Current Approach, *Keynote Speaker*, International Conference on Applied Analysis and Mathematical Modeling (ICAAMM-2017), Istanbul, Turkey. **July 2017**.

- Novel Semiparametric Control Charts for Phase I Profile Monitoring via the LM Model Residuals, *Invited talk*, 10th ICSA (International Chinese Statistical Association), Shanghai, China. **December 2016.**
- Statistical and bioinformatics analysis for cancer and drug resistance, *Invited talk*, Genomics & Systems Biology VI symposium, New York University Research Institute and Center for Genomics and Systems Biology, Abu Dhabi, United Arab Emirates. **February 2016.**
- Statistical and bioinformatics analysis of 5'-regulatory region of TM4SF1 locus involved in cancer and drug resistance, *Invited talk*, 5th International Conference on Mathematics and Information Sciences, Zewail City of Science and Technology, Egypt. **February 2016.**
- Outlier Robust Nonlinear Mixed Model Estimation on Gene Expression II, *Invited talk*, 4th International Conference and Exhibition on Biometrics Biostatistics, San Antonio, TX, USA. **November 2015.**
- Robust Techniques for Phase I Profile Monitoring, *Contributed talk*, The Joint Statistical Meetings 2015 (JSM2015), Seattle, WA, USA. **August 2015.**
- Outlier Robust Nonlinear Mixed Model Estimation on Gene Expression, *Contributed talk*, European Meeting of Statisticians 2015 (EMS2015), Amsterdam, Netherlands. **July 2015.**
- Epidemiological Characteristics of Lung Cancer in the State of Qatar, *Poster*, International Conference on Bioinformatics and Biostatistics Applications in Cancer Genomics Research (BBACGR 2015), Qatar University, Doha, State of Qatar. (Collaborating with others). **April 2015.**
- Structural features of alternative promoters of cisplatin resistance genes, *Poster*, BBACGR-2015, Qatar University, Doha, State of Qatar. (Collaborating with others). **April 2015.**
- Bioinformatic analysis of O⁶-methylguanine-DNA methyltransferase (MGMT) regulatory region, *Poster*, BBACGR-2015, Qatar University, Doha, State of Qatar. (Collaborating with others). **April 2015.**
- Characterization of a Complex 5'-Regulatory Region of The Cancer Associated Gene B4GALT1 And Its Comparison With the Gene Family, *Poster*, BBACGR-2015, Qatar University, Doha, State of Qatar. (Collaborating with others). **April 2015.**
- Understanding Smokers Attitude: From Gender Prospective, *Poster*, BBACGR-2015, Qatar University, Doha, State of Qatar. (Collaborating with others). **April 2015.**
- Robust Techniques for Profile Monitoring via Non-linear Mixed, *Invited Talk*, 4th International Conference on Mathematics & Information Science (ICMIS 2015), Zewail City of Science and Technology, Egypt. **(February 2015).**
- Novel Techniques for Phase I Profile Monitoring via Non-linear Mixed Models, *Contributed Paper*, Joint Research Conference, Seattle, Washington. **(June 2014).**
- Interview Strategies and Practical Tips: Personal Experiences from Academics to Business, *Invited Session*, Ohio State University, ESA, Columbus, Ohio. **(January 2013).**
- Model Robust Regression, *Invited Talk*, Dow AgroSciences, Global Business, Indianapolis, Indiana. **(September 2012).**
- A Semiparametric Mixed (Linear & Non-Linear) Model Approach to Phase I Profile Monitoring, *Invited Talk*, Information Systems, Statistics & Management Science, The University of Alabama, Tuscaloosa, Alabama. **(March 2012).**
- Nonparametric and Semiparametric Profile Monitoring by Nonlinear Mixed Effects Modeling, *Contributed Paper*, 2011 Quality and Productivity Research Conference, Roanoke, Virginia. **(June 2011).**

- New Methods for Profile Monitoring, *Invited Talk*, Department of Statistics, Oklahoma State University, Stillwater, Oklahoma. **(December 2010)**.
- Model Robust Regression: An Overview and Update, *Invited Talk*, JPMorgan Chase & Co., Columbus, Ohio. **(December 2010)**.
- New Methods for Profile Monitoring, *Gulf Coast Conference on Probability and Statistics-GCCPS*, University of South Florida, Tampa, Florida. **(February 2010)**.
- Profile Monitoring with Fixed and Random Effects using Nonparametric and Semiparametric Methods, *Section on Quality and Productivity*, The 2009 Joint Statistical Meetings (JSM), Washington, DC. **(August 2009)**.
- Parametric Regression Analysis: A Short Overview, *Short Course*, Graduate Life Center, Laboratory for Interdisciplinary Statistical Analysis at Virginia Tech, Blacksburg, Virginia. **(July 2009)**.
- Interpreting Multiple Regression: A Short Overview, *Invited Talk*, Graduate Seminar Course, The Alliance of Transportation Engineering Students at Virginia Tech, Blacksburg, Virginia. **(January 2009)**.
- Profile Monitoring using Nonparametric and Semiparametric Methods, *Contributed talk*, 2008 Quality and Productivity Research Conference, Madison, Wisconsin. **(June 2008)**.
- Profile Monitoring using Nonparametric and Semiparametric Methods, Virginia Academy of Science, *Statistics Session*, 86th Annual Meeting, Hampton University, Hampton, Virginia. **Winner Best Student Paper Award. (May 2008)**.
- Selection of Variables in Discriminant Analysis Using Mathematical Programming Approach, *Applied Statistics*, 38th Annual Conference on Statistics, Computer Sciences and Operation Research, Institute of Statistical Studies And Research, Cairo University, Giza, Egypt. **(April 2003)**.

Workshops and Seminars

I organized and offered several workshops, short-courses and training programs international and regional; Texas, Atlanta, Virginia Tech University, Oklahoma State University, JPMorgan Chase & Co., Ohio State University, different organizations (HMC, Ministry of Education, Al-Amal Hospital, ..., etc.) and at Qatar University. In the following sample for my workshops, short-courses and trainings:

- Conduct a workshop on "Advancing Multidisciplinary Research Excellence through Analytical, Computational, and Communication Competencies", Qatar University Young Scientists Center, Summer Internship for the QU Students, June-August 2025.
- Conduct a workshop on "Empowering Your Data Analysis: Visualization and Modeling with R and SPSS", in the Center for Excellence in Teaching and Learning (CETL) for the QU faculty members, Fall 2024 and Spring 2025.
- Conduct a workshop on "Statistics for Social Research using SPSS", in the Qatar National Library, Social Sciences Researchers, October 2024.
- Conduct a workshop on "Empowering Your Data Analysis: Visualization and Modeling with R and SPSS", in the Center for Excellence in Teaching and Learning (CETL) for the QU faculty members-Fall 2024.
- Conduct a workshop on "Advanced Statistical Techniques using SPSS for Professionals", in the Center for Excellence in Teaching and Learning (CETL) for the QU faculty members-Fall 2023.

- Give a seminar on "Practical Aspects of Using Statistics in Research: Common Mistakes and Their Resolutions", Science and Applied Sciences Cluster (SAS) for the faculty members-Spring 2023.
- Invited lecture "Hands-on Statistical Analysis for Honor Students using SPSS", Honor Program, Qatar University-Spring 2023.
- Conduct a workshop on "Linking Your Research Questions to Data Analysis Methods", in the Center for Excellence in Teaching and Learning (CETL) for the QU faculty members-Fall 2022.
- Conduct an Online International Webinar on "How to Publish Scientific Research in the Renowned Journals", in collaboration with Sri Sri Aniruddhadeva Sports University, India, December 2022.
- Conduct two workshops on "Linking Your Research Questions to Data Analysis Methods", in the Center for Excellence in Teaching and Learning (CETL) and Graduate Studies Office-Fall 2021.
- Gave a series (8 days-40 hours) on "Basic Skills for Preparing Scientific and Security Studies" for the Interior Ministry-Qatar, January 2021.
- Gave a series (2 sessions-4 hours) about "Statistical Analysis Using SPSS for Researchers" in the Center for Excellence in Teaching and Learning (CETL)-Fall 2020.
- Gave a series (8 days-40 hours) on "Designing Questionnaires and Statistical Analysis" for Ministry of Education and Higher Education-Qatar, October-November 2019.
- Gave a series (4 lectures-6 hours) on "Statistics Series for Graduate Students" -The Office of Graduate Studies -Qatar University, October-November 2019.
- Gave a series (6 lectures-9 hours) about "Basic Statistical Analysis Using SPSS" in the Office of Faculty and Instructional Development (OFID) facilities-Fall2018.
- Gave a series (4 lectures-6 hours) on "Statistics Series for Graduate Students" -The Office of Graduate Studies -Qatar University, October-November 2018.
- Gave a series (6 lectures-9 hours) about "Advanced Statistical Analysis Using SPSS" in the Office of Faculty and Instructional Development (OFID) facilities-Spring 2018.
- Gave a series (4 lectures-6 hours) on "Statistics Series for Graduate Students" -The Office of Graduate Studies -Qatar University, March-April 2018.
- Conduct a workshop on "Parametric Regression Analysis for Biostatisticians", at the 6th International Conference on Biostatistics and Bioinformatics, Atlanta, USA. **November 2017.**
- Conduct a comprehensive workshop on "Item Response Analysis", Ministry of Education, Qatar. (October 1-5, 2017).
- Founder and Chairman of the Organizing Committees for the **"2nd Global Training on Research Designs and Statistical Meta-Analysis for Empirical Researchers"**, Qatar University, Qatar. (February 6-7, 2017). [http : //www.qu.edu.qa/global_training2017/](http://www.qu.edu.qa/global_training2017/)
- Conduct "The workshop on Research Methods and Statistical Designs for Medical Researchers", Heart Hospital, HMC, Qatar. (February 2-4, 2017).
[https : //www.hamad.qa/EN/All – Events/RMSD – 2017/Pages/default.aspx](https://www.hamad.qa/EN/All – Events/RMSD – 2017/Pages/default.aspx)
- Gave a series (4 lectures-6 hours) on "Statistics Series for Graduate Students" -The Office of Graduate Studies -Qatar University, October-November 2017.
- Gave a series (6 lectures-9 hours) about "Hands-on Statistical Analysis Using SPSS" in the Office of Faculty and Instructional Development (OFID) facilities-Fall2017.

- Founder and Chairman of the Organizing Committees for the "**Global Training on Research Designs and Data Analysis for Empirical Researchers**", Qatar University, Qatar. (February 17-18, 2016). [http : //www.qu.edu.qa/global_training2016/](http://www.qu.edu.qa/global_training2016/)
- Gave a series (6 lectures-9 hours) about SPSS for the introductory, intermediate (English) about "Statistical Analysis uses SPSS" in the Office of Faculty and Instructional Development (OFID) facilities.
- Invited lectures for the master students (3 hours) about "Qualitative and Quantitative Data Analysis using the SPSS " at the Department of Accounting and Information Systems, College of Business and Economics, QU.
- Invited talk about " Practical Aspects in using Statistics in Research and Common Mistakes", at Pharmaceutical Sciences Section, College of Pharmacy, QU.
- **Judge and Moderator** for a session at 10th ICSA (International Chinese Statistical Association), Shanghai, China. December 2016.
- **Judge** for "The Undergraduate Awards 2016 academic programme", International Academic Awards Programme. UA JUDGING PROCESS 2016.
- Served as **an organizing and scientific committee member** at the 2nd *International Conference on Pure and Applied Sciences(ICPAS-2016)*, Yildiz Technical University, Turkey. (**Jun, 2016**).
- Conduct an International training in "Advanced Analytic Techniques using SPSS" at Zewail Education City, Egypt. (February 11-13, 2016).
- Served as **an organizing committee member** at the 5th *International Conference on Mathematics & Information Science (ICMIS 2016)*, Zewail City of Science and Technology, Egypt. (**February 2016**).
- **Judge and Moderator** for a session at 4th *International Conference and Exhibition on Biometrics & Biostatistics*, San Antonio, TX, USA. (**November 2015**).
- **Judge and Moderator** for a session at *The Joint Statistical Meetings 2015 (JSM2015)*, Seattle, WA, USA. (**August 2015**).
- Conduct an International training in "Advanced Statistical Analysis using SPSS" at the 4th *International Conference and Exhibition on Biometrics Biostatistics*, United States. (November 16-18, 2015).
- "**Qualitative and Quantitative Data Analysis using SPSS**", Invited Lectures, MS students, **College of Business and Economics**, Qatar University, Doha, State of Qatar. 2015.
- "**Biostatistics and Bioinformatics**", Short Course collaborating with others, International attendees, Qatar University, Doha, State of Qatar. 2015.
- "**Common Mistakes in Utilizing Statistics**", Invited Seminar, **College of Pharmacy**, Qatar University, Doha, State of Qatar. 2015.
- "**Statistical Analysis via SPSS for Social Science**", Invited Lectures, **Department of Social Sciences**, Qatar University, Doha, State of Qatar. 2015.
- "**Topics in Biostatistics**", Invited Lecture, **Department of Health Sciences**, Qatar University, Doha, State of Qatar. 2015.
- SPSS Intermediate and Advanced Series (18 lectures, 27 hours), **Office of Faculty Instruction Development (OFID)**, Qatar University, Doha, State of Qatar. 2014/2015.
- Trainings on "Leadership and Decision Making", "Scientific Approach and Administration Challenges" and "Information Systems and Problem Solving" (15 hours), **National Academy for Professional Training (NAPT) for Qatar Security and Military Forces**. 2014/2015.

- SPSS Introductory and Advanced Series (18 lectures, 27 hours), **Office of Faculty Instruction Development (OFID)**, Qatar University, Doha, State of Qatar. **2013/2014.**
- Sampling Techniques and Strategies, **Social Rehabilitation Center**, Doha, State of Qatar. **March 20th, 2014.**
- Descriptive Statistical Analysis using the SPSS, **Institutional Planning and Development (OIPD)**, Qatar University, Doha, State of Qatar. **December, 2013.**
- Advanced Statistical Analysis using the SPSS, **Foundation Program**, Qatar University, Doha, State of Qatar. **December, 2013.**
- Interview Strategies and Practical Tips: Personal Experiences from Academics to Business, **Ohio State University, ESA, Columbus, Ohio, USA. January 2013.**
- How to Implement Advanced Statistical/Economic Analysis, including statistical and financial models, to evaluate the performance of different business segment relationships, **JPMorgan Chase & Co., Ohio, USA.**
- How to Extract and Manipulate Large data sets using SAS programming, **JPMorgan Chase & Co., Ohio, USA.**
- Parametric Regression Analysis: A Short Overview, **Laboratory for Interdisciplinary Statistical Analysis** at Virginia Tech, Blacksburg, Virginia, USA.
- Interpreting Multiple Regression: A Short Overview, **The Alliance of Transportation Engineering Student** at Virginia Tech, Blacksburg, Virginia, USA.
- Advanced Statistical Analysis Techniques for Quality Assessment and Quality Assurance, **Center for Highway Asset Management Programs (CHAMPS) and the Virginia Department of Transportation (VDOT)**, Virginia, USA.

Editorial Service/others

- Served as **Judge** at the *American Statistical Association: SPES and Quality Productivity Section*, American Statistical Association. (Fall 2025-Present).
- Served as **Judge** at the *CODEAVOUR 6*, International Competition, Doha, Qatar. (May 2025).
- **Judge** for "The Global Undergraduate Awards 2025 Programme", The Global Undergraduate Awards. *UA JUDGING PROCESS* 2025.
- **Judge** for the *Undergraduate Statistics Project Competition (USPROC)* 2025, American Statistical Association (ASA).
- Served as **Judge** at the *American Statistical Association: Undergraduate Statistics Project Competition*, American Statistical Association. (Fall 2024-Present).
- **Judge** for "The Global Undergraduate Awards 2024 Programme", The Global Undergraduate Awards. *UA JUDGING PROCESS* 2024.
- Served as **Coordinator, Annual Assessment Report for BSc.** at the *Statistics Program*, Department of Mathematics and Statistics, CAS, Qatar University. (Fall 2025-Present).
- Served as **Committee Member** at the *Research Outreach and Enabling Committee*, Department of Mathematics and Statistics, CAS, Qatar University. (Fall 2023-Present).
- Served as **Committee Member** at the *Student Success and Activities Committee*, Department of Mathematics and Statistics, CAS, Qatar University. (Fall 2023-Present).

- Served as a **scientific committee member** at the 8th *International Conference on Arabic Impact Factor*, Jordan. (August, 2023).
- **Judge** for "The Global Undergraduate Awards 2023 Programme", The Global Undergraduate Awards. UA JUDGING PROCESS 2023.
- **Judge** for "The Global Undergraduate Awards 2022 Programme", The Global Undergraduate Awards. UA JUDGING PROCESS 2022.
- Served as an **organizing and scientific committee member** at the 2nd *International Conference on Applied Analysis and Mathematical Modeling (ICAAMM2018)*, Istanbul Gelisim University, Putra University, Malaysia and Malaysian Mathematical Sciences Society, Turkey. (**Jun, 2018**).
- Served as an **organizing committee member** at the 7th *International Conference on Mathematics and Information Sciences*, Cairo, Egypt. (**February, 2018**).
- **Founder, Trainer and Chairman of the Organizing Committees** for the 1st and 2nd *Global Training on Research Designs and Data Analysis for Empirical Researchers*, Qatar University, Qatar. (**February 2016-2017**).
- Served as an **organizing and scientific committee member** at the 4th *International Conference on Pure and Applied Sciences (ICPAS-2017)*, Istanbul, Turkey. (**November, 2017**).
- Served as an **organizing committee member** at the 3th *International Conference on Pure and Applied Sciences*, Dubai, UAE. (**March, 2017**).
- Served as an **organizing committee member** at the 6th *International Conference on Mathematics and Information Sciences*, Cairo, Egypt. (**February, 2017**).
- Served as an **organizing and scientific committee member** at the 2nd *International Conference on Pure and Applied Sciences (ICPAS-2016)*, Yildiz Technical University, Turkey. (**Jun, 2016**).
- Served as an **organizing committee member** at the 5th *International Conference on Mathematics & Information Science (ICMIS 2016)*, Zewail City of Science and Technology, Egypt. (**February 2016**).
- **Judge and Moderator** for a session at 4th *International Conference and Exhibition on Biometrics Biostatistics*, San Antonio, TX, USA. (**November 2015**).
- **Judge and Moderator** for a session at *The Joint Statistical Meetings 2015 (JSM2015)*, Seattle, WA, USA. (**August 2015**).
- **Founder and Chairman of the Organizing Committees** for the *International Conference on Bioinformatics and Biostatistics Applications in Cancer Genomics Research*, Qatar University, Qatar. (**April 2015**).
- **Judge and Moderator** for a session at *Scientific Research is a Pillar for Sustainable Development in the Numeric Age*, Social Containment Consulting Center with Social Consultancy London, Qatar. (**March 2015**).
- Served as a **moderator for an invited session** at the 4th *International Conference on Mathematics & Information Science (ICMIS 2015)*, Zewail City of Science and Technology, Egypt. (**February 2015**).
- Served as an **organizing committee member** at the 4th *International Conference on Mathematics & Information Science (ICMIS 2015)*, Zewail City of Science and Technology, Egypt. (**February 2015**).
- Served as a **moderator for a contributed session** at the Joint Research Conference, Seattle, Washington. (**June 2014**).
- Editorial Board member for **Quality Engineering Journal**. 2024-Present.
- Editorial Board member for **Sage Open**. 2024-Present.

- Editorial Board member for **The Egyptian Statistical Journal**. 2024-Present.
- Editorial Board member for **Journal of Advanced Academics**. 2023-Present.
- Editorial Board member for **the journal Sumerianz Journal of Scientific Research**. 2022-Present.
- Editorial Board member for **Scientia Academia**. 2018-Present.
- Editor-in Chief for **Journal of Statistics Applications & Probability**-An International Journal. 2014-Present.
- Main Editor for **Journal of Statistics Applications & Probability Letters**-An International Journal. 2014-Present.
- Editorial Board member for **International Journal of Electromagnetics**-An International Journal. 2015-Present.
- Editorial Board member for **Pakistan Journal of Statistics**-An International Journal. 2014-2020.
- Reviewer for **Medicine Journal**. 2023-Present.
- Reviewer for **Journal of Statistical Theory and Practice**. 2020-Present.
- Reviewer for **Environmetrics**. 2018-Present.
- Reviewer for **IEEE Access**. 2018-Present.
- Reviewer for **Communications in Statistics – Theory and Methods**. 2017-Present.
- Reviewer for **Computers & Industrial Engineering - Journal - Elsevier**. 2017-Present.
- Reviewer for **Journal of Statistical Computation and Simulation**. 2013-Present.
- Reviewer for **International Journal of Statistics and Applications**. 2012-Present.
- Reviewer for **American Journal of Operational Research**. 2012-Present.

Supervision for MSc. and PhD. Students

- Hadi Fadel Hasan (Expected-Fall 2025). MSc. Thesis Title: "Comparative Analysis of Traditional and Machine Learning-Based Imputation Techniques for Missing Data in Synthetic Medical Datasets." Qatar University, Qatar.
- Amira Ali Qaid (Fall 2024). MSc. Thesis Title: "AI and Statistical Techniques for Medical Application: Comparative Study." Qatar University, Qatar.
- Batoul AL Fakihi (Spring 2024). MSc. Thesis Title: "On the Gaussian process for Stationary and Non-stationary Time Series Prediction for the Qatar Stock Market." Qatar University, Qatar.
- Reem Elsousy (2023). MSc. Thesis Title: "On the Preference of Zero-Inflation Models with the Presence of Data Contamination." Qatar University, Qatar.
- Radwa Mohamed Ismail Mohamed (2022). MSc. Thesis Title: "On Variable Selection with the Presence of Missing Data in Longitudinal Panel Studies." Qatar University, Qatar.
- Mashael Mohammed Aldosari (2021). MSc. Thesis Title: "Generalize Point Biserial Correlation Coefficient to Measure the Association Between a set of Binary Variables and a Continuous Variable." Qatar University, Qatar.

- Chelsea Jones (2021). PhD. Dissertation Title: "Bayesian EWMA and CUSUM Control Charts Under Different Loss Functions", Systems Modeling and Analysis, Virginia Commonwealth University, VA, USA. Working: Data Modeler Risk Solutions, LexisNexis Co., USA.
- Sara Husam Nassar (2020). MSc. Thesis Title: "Phase II Non-Parametric and Semi-Parametric Profile Monitoring". Qatar University, Qatar.
- Mohammad Mollazehi (2019). MSc. Thesis Title: "Factors of the Asymmetric Non-Uniform DIF Detection Rate When Using the Alternative MANTEL-HAENSZEL Procedure". Qatar University, Qatar.
- Zainab Khalid Siddiqui (2018). MSc. Thesis Title: "Semi-Parametric Profile Monitoring for Residuals". Qatar University, Qatar.
- Sepehr Piri (2017). PhD. Dissertation Title: "Parametric, Nonparametric and Semiparametric Approaches in Profile Monitoring of Poisson Data", Systems Modeling and Analysis, Virginia Commonwealth University, VA, USA. Working: Data Modeler Risk Solutions, LexisNexis Co., USA.
- A.M.K.R. Bandara (2016). PhD. Dissertation Title: "Nonparametric and Semiparametric Profile Monitoring Methods for Non-normal Data". Working: Head of the Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Sri Lanka.

Honors and Awards

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| 2022/2023 |  Distinguished MBA Graduate , for exceptional performance, College of Business and Economics, Qatar University, Doha, Qatar. |
| 2018/2019 |  Academic and Teaching Excellence Award , College of Arts and Sciences, Qatar University, Doha, Qatar. |
| 2017/2018 |  Qatar University's Outstanding Faculty Service Award , Qatar University, Qatar, Doha, Qatar. |
| 2016/2017 |  Outstanding Programs' Coordinator Award , College of Arts and Sciences, Qatar University, Doha, Qatar. |
| June, 2016 |  Best Presentation Award , International Conference on Pure and Applied Sciences, Yildiz Technical University, Istanbul, Turkey. |
| 2013/2014 |  The Cairo University Award for international publication , Cairo University, Giza, Egypt. |
| 2008/2009 |  Jesse C. Arnold Award for Teaching Excellence , given for superior teaching by a teaching assistant, Department of Statistics, Virginia Polytechnic Institute and State University, Virginia, USA. |
| |  Richard A. Freund International Scholarship from American Society for Quality (ASQ)-USA, for outstanding graduate study of the theory and application of Quality Control, Quality Assurance, Quality Improvement, and Total Quality Management. |

Honors and Awards (continued)

- **Mary G. Natrella Scholarship** from Quality and Productivity Section of ASA-USA, for demonstrating interest in Quality applications as evidenced by cocourseworkresearch topic, and prior work experience.
- May, 2008 ■ **Best student paper** presentation award in Virginia Academy of Science , 86th Annual Meeting, Hampton University , Hampton, Virginia, USA.
- February, 2008 ■ **Graduate School's Featured Graduate Student** for February 2008, Virginia Tech, Virginia, USA.
- 2005-2009 ■ **Graduate Teaching Assistantship**, Department of Statistics, Virginia Tech, Virginia, USA.
- 1997/1998 ■ **Academic Excellence Award** from "Suez Canal Bank", College of Economics and Political Science, Cairo University, Egypt.

Grants

- 2025-2026 ■ Project Title "**Using Gamification to boost student experience in Economics in Qatar.**", Collaborative Grant, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** 290,000.
- 2024-2026 ■ Project Title "**Exploring the Factors Contributing to Driver Distraction in Qatar: A Comprehensive Analysis of Road Infrastructure, Traffic Conditions, and Demographics.**", Collaborative Grant, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** 300,000.
- 2025-2026 ■ Project Title "**Assessing the Impact of AI Tools on Undergraduate Students' Academic Performance: An Analytical Study at Qatar University.**", UREP₃₁₋₀₇₈₋₅₋₀₁₅, Qatar National Research Fund, Qatar. **Role:** Lead Principal Investigator **Budget:** 53,000.
- 2024-2026 ■ Project Title "**Mediation of the physical activity in the relation between chronotype, anxiety, neuropsychological variables, and academic performance.**", Collaborative Grant, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** 210,000.
- Project Title "**Exploring the Factors that Contribute to Driver Distraction in Qatar: A Comprehensive Analysis of Road Infrastructure, Traffic Conditions, and Demographics.**", Collaborative Grant, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** 300,000.
- Project Title "**Application of big data to improve Qatar Rail's planning and operations.**", Collaborative Grant, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** 294,000.

Grants (continued)

2025-2026	Project Title "A Comprehensive Study: Evaluating Statistical Techniques and AI for Medical Application.", QUST-2-CAS-2024-072, Qatar University Fund, Qatar. Role: Lead Principal Investigator Budget: 13,000. Project Title "Leveraging Machine Learning for Efficient Patient Classification in Qatar's Emergency Departments.", QUST-1-CAS-2024-872, Qatar University Fund, Qatar. Role: Lead Principal Investigator Budget: 12,950.
Spring 2023	Project Title "On the Gaussian process for Stationary and non-stationary time series prediction in Real Application on the Qatar Stock Market", QUST-1-CAS-2023-812, Qatar University Fund, Qatar. Role: Principal Investigator Budget: 13,861. Project Title "On the Preference of Zero-Inflation Models with the Presence of Data Contamination: Comparison, Simulation, and Real Application", QUST-1-CAS-2023-788, Qatar University Fund, Qatar. Role: Principal Investigator Budget: 13,825.
2022-2023	Project Title "Speculating Student Performance and Satisfaction in Online Learning During a Pandemic", RRC02-0825-210045, Qatar National Research Fund, Qatar. Role: Principal Investigator Budget: QR 161,000. Project Title "Comparative Study of the Impact of <i>R&D</i> expenditures on Innovation in Qatar and EU", Collaborative Research (Cycle 05), Qatar University Fund, Qatar. Role: Principle Investigator Budget: QR 180,000.
2021-2022	Project Title "Cultural adaptation and Validation of MOCA (Arabic version) to MoCA- Middle East", MRC-01-20-1118, HMC, ABHATH, Qatar. Role: Co-Lead Principal Investigator Budget: 100,000.
Spring 2021	Project Title "A Novel Technique for Variable Selection with the Presence of Missing Data in Eco-efficiency of the Aviation Industry", QUST-1-CAS-2021-15, Qatar University Fund, Qatar. Role: Principal Investigator Budget: 13,525.
2019-2021	Project Title "Data-driven Approach for Modeling the Factors Affecting the University Image", National Capacity Building, <i>QUCP – CAS – 2020 – 2</i>, Qatar University Fund, Qatar. Role: Co-Lead Principal Investigator Budget: QR 136,000.
Fall 2020	Project Title "Phase II Non-Parametric And Semi-Parametric Profile Monitoring With Applications", QUST-2-CAS-2020-15, Qatar University Fund, Qatar. Role: Principal Investigator Budget: 14,000.
2019-2020	Project Title "Assessing the Impact of Introducing Value Added Tax on Price Levels and Consumers' Behavior in Qatar", UREP No.: UREP24-059-5-011, Qatar National Research Fund, Qatar. Role: Principal Investigator Budget: \$18,900.

Grants (continued)

-  Project Title "**Institutions introducing Islam to communities in the State of Qatar, challenges of reality and future prospects**", Collaborative Research, *QUCG – CSIS* – 20/21 – 3, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** QR 153,900.
-  Project Title "**Statistical Modeling for Effect of Several Treatments on Lung Cancer Patients Surviving Time: Case Study of Qatar**", *QUST – 1 – CAS* – 2019 – 1, Graduate Grant, Qatar University, Qatar. **Role:** Lead Principal Investigator **Budget:** QR14, 000.
- 2017-2018

 Project Title "**Semi-Parametric Profile Monitoring for Residuals**", *QUST – 1 – CAS* – 2018 – 1, Graduate Grant, Qatar University, Qatar. **Role:** Lead Principal Investigator **Budget:** QR13, 000.
-  Project Title "**Cardiac Surgery Performance Monitoring via the Control Charts**", UREP No.: UREP20-070-1-015, Qatar National Research Fund, Qatar. **Role:** Lead Principal Investigator **Budget:** \$25,700.
-  Project Title "**Factors that Influence Qatari Family Stability: Testing Vulnerability and Resiliency Models**", QNRF-DIFI OSRA No.: OSRA2-0209-17021, Qatar National Research Fund, Qatar. **Role:** Principal Investigator **Budget:** \$50,000.
- 2016-2017

 Project Title "**Discovery and Development of Diterpene-based Anticancer Agents**", Qatar University Fund, Qatar. **Role:** Co-Lead Principal Investigator **Budget:** QR 150,000.
- 2015-2016

 Project Title "**Statistical and bioinformatic analysis of novel genes associated with tobacco smoking behavior towards identification of novel avenues for personalized medicine**", QUUG-CAS-BSD-156-16, Qatar University Fund, Qatar. **Role:** Principal Investigator **Budget:** QR 120,000.
- 2014-2015

 Project Title "**International Conference on Bioinformatics and Biostatistics Applications in Cancer Genomics Research**", CWSP3-C-0415-14049, Qatar National Research Fund, Qatar. **Role:** Lead Principal Investigator **Budget:** \$71,250.
-  Project Title "**Addressing Attitudes To Water Consumption In Water-Challenged Societies: Case Study Of Doha Qatar**", UREP No.: 16-093-2-025, Qatar National Research Fund, Qatar. **Role:** Principal Investigator **Budget:** \$53,968.
-  Qatar University start-up grant, Qatar University, Qatar.

Consulting Experience

2014 - 2019

■ **Qatar University** - Coordinator of the Statistical Consulting Unit.

- Consulted with more than 350 research clients from the following departments: Biological and Environmental Sciences, Biomedical Sciences, Health Sciences, Mass Communication, Social Sciences, Sport Science and Foundation program.

2011 - 2013

■ **JPMorgan Chase & Co.** - Assistant Vice President, Ohio, USA.

- Develop economic capital models for the home mortgage business to identify the level of capital needed to ensure that the entity continues to operate even in the event of an extreme economic environment, considering all possible events that may result in adverse influences on the mortgage business.
- Implement advanced statistical/economic analysis, including statistical and financial models, to evaluate the performance of different business segment relationships. Extract and manipulate large data sets using SAS programming.
- Perform multi-stage regression models with various risk levels to forecast the criticized, non-accrual, and charge-offs in commercial portfolios based on internal rating information, PD (probability of default), EAD, UAD, and LGD (loss given default). Construct the datasets for modeling by manipulating data from various sources with more than 2 million observations. Develop a set of SAS MACRO programs for historical data constructing, model estimation, and forecasting. Examine the model performance by back-testing. Write reports illustrating the methodology, procedures of model implementation, and results of forecasting and back-testing.
- Support the stress test by providing the forecasts under baseline and stress scenarios. Involve in consumer loan roll rate model validation.
- Leverage cumulative default/prepay models to analyze the performance of subprime-graded portfolio under various economic scenarios. Write portfolio performance analysis monthly report and deliver/present to senior management of finance, treasury and other department. Write the Basel II documentation (PD, LGD, EAD, and UAD).

2006 - 2010

■ **Senior Consultant**, Virginia Tech, Laboratory for Interdisciplinary Statistical Analysis.

- Consulted with 120 research clients from the following departments: Industrial System Engineering, Biomedical Engineering, Biology, Chemical Engineering, Horticulture, Forestry and Fisheries & Wildlife.
- The techniques used include experimental design, multiple linear regression, logistic regression, ordinal regression, multivariate analysis, ANOVA, mixed models, regression power analysis, sequential testing, quality control, response surface methods, and probability modeling. Additional duties included organizing meetings and mentoring associate consultants.

Computer Skills

Statistical Software

■ SAS, SPSS, Python, R, Design Expert, JMP, Minitab, SAP, and STATA.

Office Package

■ $\LaTeX$, Word, Excel, Powerpoint, ...

Program

■ Matlab, Maple.

Computer Skills (continued)

Operating Systems  Linux, Windows.

Professional Society Memberships

- 2023-present  **Board Member, MENASA-NASBA.**

- 2020-present  **Board Member, Arabic Impact Factor.**

- 2017-present  **Fellow member of the Royal Statistical Society (RSS).**
- 2015-present  **Committee to Nominate Fellows Chair-** (American Statistical Association - Quality & Productivity Section).

- 2007-present  **Institute of Mathematical Statistics (IMS) - Member.**

- 2008-present  **American Society for Quality (ASQ) - Member.**

- 2008-2010  **Principal of ISNRV Sunday School**

- 2008/2009  **Vice President of VT Chapter of Mu Sigma Rho** (National Statistics Honor Society).
- 2009-present  **Sigma Xi, The Scientific Research Society - Member.**

- 2010-present  **Virginia Tech Postdoctoral Association - Member.**