CURRICULUM VITAE

Dr. Tahir Mahmood

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Vision & Objective:

Looking for a challenging career with scope for demonstration, always on the lookout for a positive & bigger outlook, imagination & passion, rigorous thinking, and boundless curiosity, and sets levels & standards that exceed expectations.

Academic Record:

Degree	***Institute***	***Subject***	***Year***	***Marks***
PhD	*City University of Hong Kong, Hong Kong* ***(Ranked* 53)***	*Systems Engineering and Engineering Management*	*2017-2020*	*4.00/4.30 (CGPA)*
MS	*King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia* ***(Ranked* 163)***	*Applied Statistics*	*2015-2017*	*3.50/4.00 (CGPA)*
BS (4 Years)	*University of Sargodha, Sargodha, Pakistan*	*Statistics*	*2008-2012*	*3.77/4.00 (CGPA)*

**QS World University Rankings® 2022.*

Experience:

- **Lecturer (Assistant Professor) (18 September 2023 to today)** in the division of Web & Mobile Development at the School of Computing, Engineering and Physical Sciences, University of the West of Scotland, Paisley, PA12BE, United Kingdom.
- **Assistant Professor (22 August 2021 to 31 August 2023)** in the Industrial and Systems Engineering Department, College of Computing and Mathematics, King Fahd University of Petroleum and Minerals, Dhahran, 31261, Saudi Arabia.

- **Lecturer (15 September 2020 to 16 August 2021)** in the Department of Technology, School of Science and Technology, Hong Kong Metropolitan University (The Open University of Hong Kong), Kowloon, Hong Kong.

- **Teaching Assistant** experience (**September 2017 to June 2020**) in the Department of Systems Engineering and Engineering Management, City University of Hong Kong, Kowloon, Hong Kong.

- **Two years and four months** of working experience in the **University of Sargodha, Sargodha, Pakistan** as a **Teaching Assistant**.

Period	***Courses Taught***	***Institute***
2023	***Teaching Courses:*** • Database Development **(COMP08002)** • Database Applications **(COMP09050)** ***Coordination of Courses:*** • Database Development **(COMP08002)** • Database Applications **(COMP09050)** ***Hons Project:*** • *Supervising 6 students.* • *Moderating 6 students.*	*University of the West of Scotland*
2021-2023	***Teaching Courses:*** • Introduction to Data Science **(ISE 291)** • Engineering Probability & Statistics **(ISE 205)** • Quality Control and Industrial Statistics **(ISE 320)** • Industrial Engineering Design **(ISE 391)** • Data Analytics for Reliability and Maintenance **(ISE 518)** • Advanced Quality Control **(ISE-534)** ***Coordination of Courses:*** • Introduction to Data Science **(ISE 291)** • Industrial Engineering Design **(ISE 391)** ***Graduate Advising:*** • *Co-Supervising 3 students.* ◦ ***Fuhad Ahmed***, Thesis: *On Statistical Surveillance of Two-Sampled High-Dimensional (MS Applied Statistics2023)* ◦ ***Huda Hakem Alshammari***, Thesis: *On Designing Efficient Control Charts Under Process Drifts (MS Applied Statistics-2023)* ◦ **Hajar Shafi M Alsubaie**, Thesis: *On improved Statistical Tests for Means testing (MS Applied Statistics-2023)* ***Final Year Project:*** • *Supervised 16 students.* ***Coop Advising:***	*King Fahd University of Petroleum and Minerals*

	• *Supervised 11 students.* ***Summer Training:*** • *Supervised 5 students.* ***Department/University Committees:*** • *Member of the NCAAA and ABET committee.* • *Member of Design committee.* • *Member of Recruitment committee.* • *Member of the University exam scheduling committee.* ***Student Supervision:*** • ***Abdullah Al-hadad**, Summer Undergraduate Research (SURE-213)* • ***Muath Abdulmajeed Aqeel**, Undergraduate Research Program(UXPLORE-221)*	
2020-2021	***Teaching Courses:*** ▪ Engineering Mathematics I **(MATH S131F)** ▪ Algebra and Calculus **(MATH S141F)** ▪ SAS Programming **(STAT S366F)** ▪ Advanced Topics in Data Mining **(STAT S460F)** ▪ Data Analytics with Applications **(STAT S261F)** ▪ High Dimensional Data Analysis **(STAT S313F)** ***Final Year Project:*** ▪ *Bachelor*; Data Science Project **(STAT S461F)** ▪ *Master*; Research Project in Quantitative Analysis and Management Science **(STAT S822F)** ***Course Coordination:*** ▪ Statistical Methods for Decision Analysis **(MATH S280)** ▪ Applied Probability Models for Decision Making **(STAT S350)** ▪ Linear Algebra **(MATH S215)** ▪ Linear Statistical Modelling **(STAT S346)** ▪ Quantitative Models for Financial Risk **(MATH S390)** ***Course Development:*** ▪ Data Analytics with Applications **(STAT S261F)** ▪ Big Data in Organizations **(STAT S263F)**	*Hong Kong Metropolitan University*
2017-2020	▪ Quality Engineering **(SEEM 3102)** ▪ Project Management **(SEEM 4024)** ▪ Quality Improvement Methodologies **(SEEM 3053)**	*City University of Hong Kong*
2014-2015	▪ Linear Algebra **(MATH-204)** ▪ Official Statistics **(STAT-609)** ▪ Research Methods **(STAT-405)** ▪ Statistical Packages **(STAT-301)**	*University of Sargodha, Sargodha, Pakistan.*

2013-2014	▪ Statistics in Criminology **(CRM-503)** ▪ Probability and Statistics **(MTH-350)** ▪ Applied Multivariate Analysis **(STAT-403)** ▪ Design and Analysis of Experiment-II **(STAT-310)** ▪ Probability and Probability Distributions-II **(STAT-306)**	*University of Sargodha, Sargodha, Pakistan.*
2012-2013	▪ Bio-Statistics **(STAT-620)** ▪ Probability and Statistics **(MTH-250)** ▪ Applied Multivariate Analysis **(STAT-403)** ▪ Design and Analysis of Experiment-I **(STAT-309)** ▪ Probability and Probability Distributions-I **(STAT-305)**	*University of Sargodha, Sargodha, Pakistan.*

Teaching Interest:

- Introduction to Data Science
- Big Data & Artificial Intelligence
- Advanced Topics in Data Mining
- Machine Learning
- High Dimensional Data Analysis
- Data Analytics with Applications
- Statistical Process Monitoring
- Design of Experiments
- R and Python Programming
- Regression Analysis
- Stochastic Process
- Industrial Engineering Design
- Engineering Probability & Statistics
- SAS Programming
- Algebra and Calculus
- Project Management and Planning

Research Interest:

- Statistical Process Monitoring
- Design of Experiments
- Regression Analysis
- Data Mining
- Big Data & Artificial Intelligence
- Machine Learning

Academic Distinction:

- **Outstanding Academic Performance Award** (September 2019), Chow Yei Ching, School of Graduate Studies, City University of Hong Kong, Kowloon, Hong Kong.
- **Research Tuition Scholarships** (September 2019), Chow Yei Ching, School of Graduate Studies, City University of Hong Kong, Kowloon, Hong Kong.
- **Visiting Research Student** (10 June 2019 to 10 August 2019) under the supervision of Professor Narayanaswamy Balakrishnan in the Department of Mathematics and Statistics, McMaster University, Hamilton, Ontario, Canada.
- **Research Tuition Scholarships** (September 2018), Chow Yei Ching, School of Graduate Studies, City University of Hong Kong, Kowloon, Hong Kong.

- **Outstanding Academic Performance Award** (September 2018), Chow Yei Ching, School of Graduate Studies, City University of Hong Kong, Kowloon, Hong Kong.
- **Academic Exchange Program with Zhejiang University** (25-29 June 2018), College of Control Science and Engineering, Zhejiang University, Hangzhou, China.
- **Best Performance Award** (Teaching Students: first steps (SG8001) course in the semester in A, 2017-18), Chow Yei Ching, School of Graduate Studies, City University of Hong Kong, Kowloon, Hong Kong.
- **Postgraduate Studentship award** for PhD from the Department of Systems Engineering and Engineering Management, City University of Hong Kong, Kowloon, Hong Kong.
- **Student Travel Award (AN16)** for SIAM Annual Meeting 2016 from Society for Industrial and Applied Mathematics (SIAM), 3600 Market Street, 6th Floor, Philadelphia, PA 19104-2688 United States of America (USA).
- **Scholarship for MS (Applied Statistics)** from Deanship of Graduate Studies, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia.
- **Gold Medal** in BS (Statistics) session 2008-2012, from University of Sargodha, Sargodha, Pakistan.
- **Academic Executive** (2011–2012) in Sargodhian Statistical Society, Department of Statistics, University of Sargodha, Sargodha, Pakistan.

Thesis:

1. **Mahmood, T.** On the Enhancement of Statistical Methods for Process Monitoring. Submitted for the fulfillment of Ph.D. (Applied Statistics) study in the Department of Systems Engineering and Engineering Management (current Advance Design and Systems Engineering), City University of Hong Kong, Kowloon, Hong Kong.
2. **Mahmood, T.** Enhancing the Monitoring of Linear Profile Parameters. Submitted for the fulfillment of MS (Applied Statistics) study in the Department of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. April 2017.
3. **Mahmood, T.**, Determinants of Unemployment in Pakistan. Submitted for the fulfillment of BS (4 years) study in the Department of Statistics, University of Sargodha, Punjab Pakistan. June 2012.

Research Publications: *(* Represents Corresponding Authorship)*

1. Zwetsloot, I. M., **Mahmood, T.***, Taiwo, F. M., & Wang, Z. (Accepted/In press). A real-time monitoring approach for bivariate event data. *Applied Stochastic Models in Business and Industry*. https://doi.org/10.1002/asmb.2800 ***[IMF: 1.4]***

2. Hyder, M., Raza, S. M. M., **Mahmood, T.***, & Abbas, N. (2023). Enhanced Dispersion Monitoring Structures Based on Modified Successive Sampling: Application to Fertilizer Production Process. *Symmetry*, 15(5), 1108. ***[IMF: 2.940]***

3. Cheema, M., Amin, M., **Mahmood, T.,** Faisal, M., Brahim, K., Elhassanein, A. (2023). Deviance and Pearson Residuals Based Control Charts with Different Link Functions for Monitoring Logistic Regression Profiles: An Application to COVID-19 Data. *Mathematics*. 11, 1113. https://doi.org/10.3390/math11051113 ***[IMF: 2.592]***

4. Erem, A. & **Mahmood, T.***, (2023). A bivariate CUSUM control chart based on exceedance statistics. Quality and Reliability Engineering International. (Accepted). ***[IMF: 3.007]***

5. **Mahmood, T.**, & Erem, A. (2023). A bivariate exponentially weighted moving average control chart based on exceedance statistics. *Computers & Industrial Engineering*. 108910. DOI: 10.1016/j.cie.2022.108910 ***[IMF: 7.18]***

6. **Mahmood, T.***, Riaz, M., Iqbal, A., & Mulenga, K. (2023). An improved statistical approach to compare means. *AIMS Mathematics*, 8(2), 4596-4629. ***[IMF: 2.739]***

7. Mumtaz, T., Awan, U.A., Mushtaq, A., Afzal, M.S., **Mahmood, T.**, Wasif, S., Ali, A., Ajmal, K., Mohamed, T., Muhammad, A., Liu, H., Ahmed, H., & Cao, J. (2022). Prevalence of Toxoplasmosis in Sheep and Goats in Pakistan: A Systematic Review and Meta-Analysis. *Pathogens*. 11, 1331. ***[IMF: 4.531]***

8. Riaz, M., Ahmad, S., **Mahmood, T.*,** & Abbas, N. (2022). On Reassessment of the HWMA Chart for Process Monitoring. *Processes*. 10(6), 1129. ***[IMF: 3.352]***

9. Rizwan, M., Khan, M. R., Afzal, M. S., Manahil, H., Yasmeen, S., Jabbar, M., Irum, S., Simsek, S., Wasif, S., **Mahmood, T**., Ahmed, H., & Cao, J. (2022). Prevalence of Fascioliasis in Livestock and Humans in Pakistan: A Systematic Review and Meta-Analysis. Tropical Medicine and Infectious Disease, 7(7), 126. ***[IMF: 3.711]***

10. Shoukat, T., Awan, U.A., **Mahmood, T.,** Afzal, M.S., Wasif, S., Ahmed, H., & Cao, J. (2022). Epidemiology of Toxoplasmosis among the Pakistani Population: A Systematic Review and Meta-Analysis. *Pathogens*. 11(6), 675. ***[IMF: 4.531]***

11. Iqbal, A., **Mahmood, T.***, Nazir, H. Z., & Chakraborty, N. (2022). On the improved generalized linear model-based monitoring methods for Poisson distributed processes. *Concurrency and Computation: Practice and Experience.* 34(11), e6889. ***[IMF: 1.831]***

12. Hyder, M., **Mahmood, T.***, Butt, M. M., Raza, S. M. M., & Abbas, N. (2021). On the location-based memory type control charts under modified successive sampling scheme. Quality and Reliability Engineering International. 38(4), 2200-2217. ***[IMF: 3.007]***

13. Iqbal, A., **Mahmood, T.***, Ali, Z., & Riaz, M. (2022). On Enhanced GLM-Based Monitoring: An Application to Additive Manufacturing Process. *Symmetry*, 14(1), 122. ***[IMF: 2.94]***

14. Iqbal, A., Haq, W., **Mahmood, T.**, & Raza, S. H. (2021). Effect of meteorological factors on the COVID-19 cases: a case study related to three major cities of the Kingdom of Saudi Arabia. *Environmental Science and Pollution Research*. 29, 21811–21825. ***[IMF: 5.19]***

15. Ajadi, J. O., Wong, A., **Mahmood, T.***, & Hung, K. (2021). A new multivariate CUSUM chart for monitoring of covariance matrix with individual observations under estimated parameter. *Quality and Reliability Engineering International.* 38(2), 834-847. ***[IMF: 3.007]***

16. **Mahmood, T.**, Iqbal, A., Abbasi, S. A., & Amin, M. Efficient GLM-based control charts for Poisson processes. *Quality and Reliability Engineering International.* 38(1), 389-404. ***[IMF: 3.007]***

17. Chakraborty, N., & **Mahmood, T.*** (2021), Failure Rate Monitoring in Generalized Gamma-Distributed Process. *Quality Technology & Quantitative Management*. 18(6), 718-739. ***[IMF: 2.614]***

18. Khan, S. A., Shahid, S., **Mahmood, T.**, & Lee, C. S. (2021). Contact Lenses Coated with Hybrid Multifunctional Ternary Nanocoatings (Phytomolecule-coated ZnO nanoparticles: Gallic Acid: Tobramycin) for the Treatment of Bacterial and Fungal Keratitis. *Acta Biomaterialia*. 128, 262-276. ***[IMF: 10.63]***

19. Ajadi, J.O., Hung, K., Ajadi, N.A., Riaz, M., & **Mahmood, T.** (2021), On the Multivariate Progressive Control Chart for Effective Monitoring of Covariance Matrix. *Quality and Reliability Engineering International*. 37(6), 2724-2737. ***[IMF: 3.007]***

20. Jamal, A., **Mahmood, T.***, Riaz, M., Al-Ahmadi, H. M. (2021). GLM-based Flexible Monitoring Methods: An Application to Real-Time Highway Safety Surveillance. *Symmetry*. 13(2), 362. ***[IMF: 2.94]***

21. **Mahmood, T.***, Balakrishnan, N., Xie, M. (2021). The generalized linear model-based exponentially weighted moving average and cumulative sum charts for the monitoring of high-quality processes. *Applied Stochastic Models in Business and Industry*. 37(4), 703-724. ***[IMF: 1.497]***

22. Hussain, S., Sun, M., **Mahmood, T.**, Riaz, M., Abid, M. (2021). IQR CUSUM charts: An Efficient Approach for Monitoring Variations in Aquatic Toxicity. *Journal of Chemometrics*. 35(5), e3336. ***[IMF: 2.5]***

23. Al-Rashid, M.A., Goh, H.C., Harumain, Y.A.S., Ali, Z., Campisi, T., & **Mahmood, T**. (2021). Psychosocial Barriers of Public Transport Use and Social Exclusion among Older Adults: Empirical Evidence from Lahore, Pakistan. *International Journal of Environmental Research and Public Health*. 18(1), 185. ***[IMF: 4.614]***

24. Amin, M., **Mahmood, T.***, & Kinat, S. (2021). Memory Type Control Charts with Inverse-Gaussian Response: An Application to Yarn Manufacturing Industry. *Transactions of the Institute of Measurement and Control*. 43(3), 656-678. ***[IMF: 2.146]***

25. Haq, W., Raza, S. H., & **Mahmood, T.** (2020). The pandemic paradox: domestic violence and happiness of women. *PeerJ, 8,* e10472. ***[IMF: 3.061]***

26. **Mahmood, T.,** & Abbasi, S. A. (2020), Efficient Monitoring of Coefficient of Variation with an Application to Chemical Reactor Process. *Quality and Reliability Engineering International*. 37(3), 1135-1149. ***[IMF: 3.007]***

27. Zwetsloot, I. M., **Mahmood, T.**, & Woodall, W. H. (2020). Multivariate Time-Between-Events Monitoring-An overview and some (overlooked) underlying complexities. *Quality Engineering*. 33(1), 13-25. ***[IMF: 2.286]***

28. Rizwan, K., Rasheed, T., Khan. S.A., Bilal, M., **Mahmood, T.** (2020). Current perspective on diagnosis, epidemiological assessment, prevention strategies, and potential therapeutic

interventions for severe acute respiratory infections caused by 2019 novel coronavirus (SARS-CoV-2). *Human Vaccines & Immunotherapeutics*. 16(12), 3001-3010. ***[IMF: 4.562]***

29. Riaz, M., Saeed, U., **Mahmood, T.**, Abbas, N., & Abbasi, S. A. (2020). An Improved Control Chart for Monitoring Linear Profiles and its Application in Thermal Conductivity. *IEEE Access*. 8, 120679-120693. ***[IMF: 3.476]***

30. Mahmood, T.*, (2020), Generalized Linear Model based Monitoring Methods for High-yield Processes. *Quality and Reliability Engineering International*. 36(5), 1570-1591. ***[IMF: 3.007]***

31. Abbas, N., Abujiya, M. A. R., Riaz, M., & **Mahmood, T.** (2020). Cumulative Sum Chart Modeled under the Presence of Outliers. *Mathematics*, 8(2), 269. ***[IMF: 2.592]***

32. Hussain, H., **Mahmood, T.***, Riaz, M., & Nazir, H. Z. (2020). A New Approach to Design Median Control Charts for Location Monitoring. *Communications in Statistics - Simulation and Computation*. DOI: 10.1080/03610918.2020.1716245. ***[IMF: 1.162]***

33. Touqeer, F., **Mahmood, T.*,** Riaz, M. & Abbas, N., (2020), On developing linear profile methodologies: a ranked set approach with engineering application. *Journal of Engineering Research*, 8(2), 225-248. ***[IMF: 1.325]***

34. Abbas, T., **Mahmood, T.**, Riaz, M., & Abid, M. (2020). Improved linear profiling methods under classical and Bayesian setups: An application to chemical gas sensors. *Chemometrics and Intelligent Laboratory Systems*, 196, 103908. ***[IMF: 4.175]***

35. Kinat, S., Amin, M., **Mahmood, T.,** (2019), GLM-Based Control Charts for the Inverse-Gaussian Distributed Response Variable. *Quality and Reliability Engineering International*, 36(2), 765-783. ***[IMF: 3.007]***

36. Abbas, T., Rafique, F., **Mahmood, T.**, & Riaz, M. (2019). Efficient Phase II Monitoring Methods for Linear Profiles Under the Random Effect Model. *IEEE Access*, 7(1), 148278-148296. ***[IMF: 3.476]***

37. Riaz, M., Ajadi, J. O., **Mahmood, T.***, & Abbasi, S. A. (2019). Multivariate Mixed EWMA-CUSUM Control Chart for Monitoring the Process Variance-Covariance Matrix. *IEEE Access*, 7(1), 100174-100186. ***[IMF: 3.476]***

38. Mahmood, T.* & Xie, M. (2019). Models and Monitoring of Zero-inflated Processes: The Past and Current Trends. *Quality and Reliability Engineering International*, 35, 2540-2557. ***[IMF: 3.007]***

39. Riaz, M., **Mahmood, T.***, Abbas, N., & Abbasi, S. A. (2019). On improved monitoring of linear profiles under modified successive sampling. *Quality and Reliability Engineering International*, 35, 2202-2227. ***[IMF: 3.007]***

40. Mahmood, T., Wittenberg, P., Zwetsloot, I. M., Wang, H., & Tsui, K. L. (2019). Monitoring data quality for telehealth systems in the presence of missing data. *International Journal of Medical Informatics*, 126, 156-163. ***[IMF: 4.73]***

41. Mahmood, T.*, Abbasi, S. A., Riaz, M., & Abbas, N. (2019). An Efficient Phase I Analysis of Linear Profiles with Application in Photo-Voltaic System. *Arabian Journal for Science and Engineering*, 44, 2699-2716. ***[IMF: 2.807]***

42. Saeed, U., **Mahmood, T.*,** Riaz, M., & Abbas, N. (2018). Simultaneous monitoring of linear profile parameters under progressive setup. *Computers & Industrial Engineering*, *125*, 434-450. ***[IMF: 7.18]***

43. **Mahmood, T.***, Riaz, M., Omar, M. H., & Xie, M. (2018). Alternative Methods for the Simultaneous Monitoring of Simple Linear Profile Parameters. *The International Journal of Advanced Manufacturing Technology*, 97(5-8), 2851-2871. ***[IMF: 3.563]***

44. Faisal M., Zafar, R. F., Abbas, N., Riaz, M., & **Mahmood, T.** (2018). A modified CUSUM control chart for monitoring industrial processes. *Quality and Reliability Engineering International*, 34, 1045-1058. ***[IMF: 3.007]***

45. Zafar, R. F., **Mahmood, T.,** Abbas, N., Riaz, M., & Hussain, Z. (2018). A progressive approach to joint monitoring of process parameters. *Computers & Industrial Engineering*, 115, 253-268. ***[IMF: 7.18]***

46. Abbas, N., Riaz, M., & **Mahmood, T.** (2017). An improved S^2 control chart for cost and efficiency optimization. *IEEE Access*, 5, 19486-19493. ***[IMF: 3.476]***

47. Riaz, M., Abbas, N., & **Mahmood, T.** (2017). A communicative property with its industrial applications. *Quality and Reliability Engineering International*, 33(8), 2761-2763. ***[IMF: 3.007]***

48. Riaz, M., **Mahmood, T.***, Abbasi, S. A., Abbas, N., & Ahmad, S. (2017). Linear Profile Monitoring using EWMA structure under Ranked set schemes. *The International Journal of Advanced Manufacturing Technology*, 91(5-8), 2751-2775. ***[IMF: 3.563]***

49. **Mahmood, T.*,** Nazir, H. Z., Abbas, N., Ali, A. & Riaz, M. (2017). Performance evaluations of joint monitoring control charts. *Scientia Iranica*, 24(4), 2152-2163. ***[IMF: 1.416]***

50. Mehmood, R., Riaz, M., **Mahmood, T.**, Abbasi, S. A., & Abbas, N. (2017). On the extended use of auxiliary information under skewnesss correction for process monitoring. *Transactions of the Institute of Measurement and Control*, 39(6), 883-897. ***[IMF: 2.146]***

51. Ali, A., **Mahmood, T**., Nazir, H. Z., Sana, I., Akhtar, N., Qamar, S., & Iqbal, M. (2015). Control Charts for Process Dispersion Parameter under Contaminated Normal Environments. *Quality and Reliability Engineering International*, 32(7), 2481-2490. ***[IMF: 3.007]***

52. Erum, A., Bashir, S., Saghir, S., Hina, S., Batool, A., & **Mahmood, T.** (2014). Arabinoxylan Isolated from Ispaghula Husk: A Better Alternative to Commercially Available Gelling Agents. Asian Journal of Chemistry, 26(24), 8366-8370. ***[IMF: 0.355]***

53. Mustafa, I., Shabbir, R. M. K., Subhani, M., Ahmad, I., Raza, A., Jamil, Muqaddas, H., Shabbir, R, G., Ghani, A., **Mahmood, T.,** Aslam, M., Khan, M, R., Asif, S., Malik, I, U., Raza, A, B, M., Aqeel, M, A., Qayyum, M., Waqas, A., & Ahmed, H. (2014). Seasonal Activity of Tick Infestation in Goats and Buffalo of Punjab Province (District Sargodha), Pakistan. (2014), *Kafkas Üniversitesi Veteriner Fakültesi Dergisi*, *20*(5), 655-662. ***[IMF: 0.633]***

Book Chapter: *(* Represents Corresponding Authorship)*

1. **Mahmood T.***, Sanusi R.A., Xie M. (2021) Flexible Monitoring Methods for High-yield Processes. In: Knoth S., Schmid W. (eds) Frontiers in Statistical Quality Control 13. ISQC 2019. Frontiers in Statistical Quality Control. Springer, Cham. https://doi.org/10.1007/978-3-030-67856-2_4
2. Xie, M., Goh, T. N., & **Mahmood, T.*** (2023). Statistical Models for Monitoring the High-Quality Processes. In Springer Handbook of Engineering Statistics (pp. 261-274). London: Springer London. https://link.springer.com/chapter/10.1007/978-1-4471-7503-2_14

Conferences:

1. **Mahmood, T.** (2022). On the Enhanced Surveillance Methods for High-quality Processes presented in the IEEE International Conference on Industrial Engineering and Engineering Management (IEEM2022) held on 07-10 December 2022 in Kuala Lumpur, Malaysia.
2. AL-Sayed, A. M., **Mahmood, T.,** & Saleh, H. H. (2022). Residual Based Control Charts for Zero-inflated Poisson Processes presented in the IEEE International Conference on Industrial Engineering and Engineering Management (IEEM2022) held on 07-10 December 2022 in Kuala Lumpur, Malaysia.
3. Aysegul Eerem **& Mahmood, T.** (2022). Applications of Exceedance Statistics in Control Charts presented as a *plenary speech* in the 8th International Conference on Advances in Statistics (ICAS) held on 16-18 May 2022 in the Turkish Republic of Northern Cyprus.
4. **Mahmood, T.** (2022). Advances in the monitoring of telehealth data presented as a *keynote speaker* in the International Conference on Smart Health Technology (ICSHT-2022) held on 25-26 March 2022 virtually from the Hong Kong Metropolitan University, Hong Kong.
5. **Mahmood, T.**, Iqbal, A., and Kinat, S. (2021). On the comparison of GLM-based charts for industrial processes presented in the 4th International Conference on Econometrics and Statistics (EcoSta 2021) held on 24-26 June 2021 virtually from the Hong Kong University of Science and Technology, Hong Kong.
6. **Mahmood, T.,** (19, August 2019). Entropy and Extropy in the Courtroom. 62nd ISI World Statistics Congress 2019 (ISI WSC 2019), held on 18-23 August 2019 in Kuala Lumpur, Malaysia.
7. **Mahmood, T.,** & Xie, M. (21, August 2019). Process monitoring and decision based on Zero-Inflated Models. 62nd ISI World Statistics Congress 2019 (ISI WSC 2019), held on 18-23 August 2019 in Kuala Lumpur, Malaysia.
8. **Mahmood, T.,** Ridwan A. S., & Xie, M. (13-15 August 2019). A Flexible Monitoring Method for High-Yield Processes. XIIIth International Workshop on Intelligent Statistical Quality Control, City University of Hong Kong, Kowloon, Hong Kong.
9. **Mahmood, T.,** & Zwetsloot, I. M. (03 June - 07 June 2019). Monitoring of Multivariate Time-between-events. 11th International Conference on Mathematical Methods in Reliability (MMR2019), City University of Hong Kong, Kowloon, Hong Kong.
10. **Mahmood, T.**, Wittenberg, P., Zwetsloot, I. M., Wang, H., & Tsui, K. L. (03 June - 07 June 2019). Controlling Data Quality in a Personalized Health Monitoring System. 11th

International Conference on Mathematical Methods in Reliability (MMR2019), City University of Hong Kong, Kowloon, Hong Kong.

11. **Mahmood, T.,** Xie, M., & Riaz, M. (28 July - 02 August 2018). The Analysis of Means in the Presence of Covariate (ANOMC). 2018 Joint Statistical Meetings - American Statistical Association, Vancouver Convention Centre, Vancouver, Canada (JSM2018).
12. Xie, M., Sanusi, Ridwan A., & **Mahmood, T.,** (4-6 July 2018). Some Approaches for the Monitoring Event Magnitude and Frequency. ISBIS 2018 Meeting on Statistics in Business and Industry, University of Piraeus, Athens, Greece.
13. **Mahmood, T.,** & Xie, M. (27-28 April 2018). Phase I method for linear profiles with example of solar power system. The Sixth International Research Conference on Systems Engineering and Management Science 2018 (IRC-SEMS2018).
14. Hussain, S., Song, L., Riaz, M., **Mahmood, T.,** & Ahmad, S. (27-28 April 2018). Efficient/Robust Control charts with dual use of Auxiliary Information. The Sixth International Research Conference on Systems Engineering and Management Science 2018 (IRC-SEMS2018).
15. **Mahmood, T.,** Abbasi, S. A., & Riaz, M. (2016). Online monitoring of climatic parameters: a statistical study about environmental changes in Qatar. QScience Proceedings, 2016(4), 42.
16. **Mahmood, T.,** Abbasi, S., Riaz, M., & Abbas, N. (13th July, 2016), Control chart for simultaneous monitoring of linear profile parameters. Presented in Annual Meeting (AN-16) of Society for Industrial and Applied Mathematics (SIAM), Boston, Massachusetts, United States of America (USA).
17. **Mahmood, T.,** Abbasi, S., Riaz, M., & Abbas, N. (12th March, 2016), Simultaneous monitoring of linear profile parameters under different sampling strategies. Presented in UAE Math day 2016, New York University Abu Dhabi, United Arab Emirates.
18. Qamar, S., Hussain, S, T., Akhtar, N., Iqbal, M., Shaheen, A., & **Mahmood, T.** (2013), Bayesian Analysis of Taste Sensing Data of Mineral Water in Sargodha By Using Paired Comparison Methods. Presented in 5th South Asian International Conference (SAICON 2013), Bhurban, Pakistan, December 4-6.

Seminars:

1. **Mahmood, T.,** On real-time monitoring of telehealth data: A case study for Hong Kong elderly. Presented in the technical forum on Applications of Industrial and Systems Engineering from the platform of KFUPM Institute for Knowledge Exchange (KIKX), Industrial and Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. 29, March, 2022.
2. **Mahmood, T.,** A Novel Surveillance Approach for Time-Between-Events. Presented in Industrial and Systems Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. 20, October, 2021.

3. **Mahmood, T.,** The Analysis of Means in the Presence of Covariate (ANOMC). Presented in Department of System Engineering and Engineering Management, City university of Hong Kong, Kowloon, Hong Kong. June, 2018.
4. **Mahmood, T.** & Riaz, M., Simultaneous Monitoring of Mean and Variability. Presented in Department of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. March, 2017.
5. **Mahmood, T.,** On the Enhancement of Linear profile parameters using EWMA structure. Presented in Department of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. October, 2016.
6. **Mahmood, T.,** Online Profile Monitoring by using different Sampling Environments. Presented in Department of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. December, 2015.

Research Projects Collaboration:

1. ***Social Acceptance of Rooftop Solar PV System in The Kingdom of Saudi Arabia- A Survey Study.*** (01-03-2023 to 31-12-2023; 27,425 SAR) with Project number INRE2303 sponsored by Interdisciplinary Research Center for Renewable Energy and Power Systems (IRC-REPS), Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. ***(As a Co-Investigator)***
2. ***Real-time Monitoring of High-Quality Processes.*** (01-01-2022 to 31-12-2022; 2,60,475 SAR) with Project number INML2205 sponsored by Interdisciplinary Research Center Grant, Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. ***(As a Principle Investigator)***
3. ***Intelligent Decision Support Systems: An Emerging Tool to Enhance Smart City Concepts and Services for healthcare systems***. (01-01-2022 to 31-12-2022; 1,00,100 SAR) with Project number INML2204 sponsored by Interdisciplinary Research Center Grant, Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. ***(As a Co-Investigator)***
4. ***Advanced Surveillance Methods in Era of Industry 4.0.*** (01-01-2022 to 30-11-2022; 69,937 SAR) with Project number SR211006 sponsored by Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia. ***(As a Principle Investigator)***
5. ***Run Rules Based Skewness Correction Control Charts for Non-Normal Processes.*** (01-06-2014 to 30-12-2015; 62480 SAR) with Project number FT131017 sponsored by Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.
6. ***On some extension to EWMA and CUSUM charts to monitor process parameters.*** (11-04-2016 to 11-10-2017; 62480 SAR) with Project number FT151001 sponsored by Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

7. ***Process monitoring using Modified Successive Sampling.*** (25-10-2015 to 22-09-2016; 53790 SAR) with Project number FT151010 sponsored by Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.
8. ***Robust Control Charts based on Nonparametric Outliers Detector***. (11-04-2017 to 11-10-2018; 61160 SAR) with Project number IN161037 sponsored by Deanship of Scientific Research King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

Participation in Events:

- As a **Sessions Chair** in the IEEE International Conference on Industrial Engineering and Engineering Management **(IEEE IEEM2022)** held on 07-10 December 2022 in Kuala Lumpur, **Malaysia**.
- As a **Sessions Chair** in the IEEE International Conference on Industrial Engineering and Engineering Management **(IEEE IEEM2020)** held on 13-16 December 2021 virtually from **Singapore.**
- As a **Communications Chair** organized the International Conference of Quantum Computing and Applications 2021 **(ICQCA 2021)** held on 27 March 2021 virtually from The Open University of Hong Kong, **Hong Kong.**
- As a **Sessions Chair** in the IEEE International Conference on Industrial Engineering and Engineering Management **(IEEE IEEM2020)** held on 14-17 December 2020 virtually from **Singapore.**
- As a **student helper** in the IEEE International Conference on Industrial Engineering and Engineering Management **(IEEE IEEM2017)** held on 10-13 December 2017 in Suntec city **Singapore.**
- Mathematics in five minutes **(M5M)** held on 28th April 2016 in Department of Mathematics and Statistics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

Professional Development Courses/Seminars:

- **Online Teaching Skills and Strategies** (19 Oct 2020 – 13 Nov 2020) organized by Educational Technology and Development Unit (ETDU), The Hong Kong Metropolitan University, 30 Good Shepard Street, Ho Man Tin, Kowloon, Hong Kong.
- **Innovative Hybrid and Flexible Teaching** (01 & 08 Feb 2021) organized by the Institute for Research in OPen and INnovative Education (IROPINE), The Hong Kong Metropolitan University, 30 Good Shepard Street, Ho Man Tin, Kowloon, Hong Kong.
- **Seminar Series** (04-10 Feb 2021) on the following topics:
    - **i.** Planning an OBE course: From course goals to learning outcomes
    - **ii.** Overview of learning theories
    - **iii.** Criterion-referenced assessment: What is it and how to do it?
    - **iv.** Best practice in using OLE and iBookcase for teaching and learning
    - **v.** Varieties of assessment

vi. Introduction to rubrics and their use
vii. Theories of student motivation and engagement
viii. Zoom pedagogy for interactive tutorial classes

organized by Quality Assurance Office, The Hong Kong Metropolitan University, 30 Good Shepard Street, Ho Man Tin, Kowloon, Hong Kong.

- **Workshop on Blackboard** (Jan 2022) organized by the Deanship of Academic Development, King Fahd University of Petroleum and Minerals, Dhahran, 31261, Saudi Arabia.

Editorial Services:

- **Associate Editor** in Istatistik Journal of The Turkish Statistical Association. https://dergipark.org.tr/en/pub/ijtsa

Professional Membership:

- Institute of Industrial and Systems Engineers **(IISE)**.
- American Society for Quality **(ASQ).**
- Society for Industrial and Applied Mathematics **(SIAM)**.
- European Network for Business and Industrial Statistics **(ENBIS).**
- Institute of Mathematical Statistics **(IMS).**

Computer Skills:

- Statistical Software: Python, R, SAS, Tableau, Weka, TensorFlow, Apache Hadoop, Microsoft Power BI, SPSS, MINITAB, SQL, EVIEWS, Xlstat, Stats Direct.
- Other Software: LaTeX, MS (Office), JAVA, GitHub.

References:

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