CURRICULUM VITAE

PERSONAL DATA

Name	Dr. Salem Ali Alyami
Nationality	Saudi Arabia
Position	Associate Professor
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EDUCATION

Year	Academic Degree	Institution
2016	Doctorate (PhD)	Monash University – Australia
2008	Master (McS)	King Saud University – Saudi Arabia

WORK EXPERIENCE

Period	Position	Address
2008 - 2009	Teaching Assistant	Department of Mathematics and Statistics - IMSIU
2010 - 2016	Lecturer	Department of Mathematics and Statistics - IMSIU
2017 - 2020	Assistant Professor	Department of Mathematics and Statistics - IMSIU
2021 - Now	Associate Professor	Department of Mathematics and Statistics - IMSIU
2017	Assistant Vice-Dean of Science College for Educational Affairs	Science College - IMSIU
2018	Head of the Academic Advising Unit	Science College - IMSIU
2018 - 2020	Vice-Dean of Scientific Research	IMSIU
2021 - Now	Dean of Scientific Research	IMSIU

RESEARCH INTERESTS

Applied Statistics, Biostatistics, Mathematical Statistics, Simulation, Bayesian Graphs, Neural Networks, Markov chain Monte Carlo Methods, Systems Biology, Modelling, Learning Causality, Data Mining, and Signalling Pathways.

PUBLICATIONS

1) Mim, TR; Amatullah, M; Afreen, S; Yousuf, MA; Uddin, S; **Alyami, SA**; Hasan, KF; Moni, MA. **(2023)**. GRU-INC: An inception-attention based approach using GRU for human activity recognition *EXPERT SYSTEMS WITH APPLICATIONS*; Volume 216, Article Number 119419. http://dx.doi.org/10.1016/j.eswa.2022.119419.

2) Ahamad, MM; Aktar, S; Uddin, MJ; Rashed-Al-Mahfuz, M; Azad, AKM; Uddin, S; **Alyami, SA**; Sarker, IH; Khan, A; Lio, P; Quinn, JMW; Moni, MA. **(2023)**. Adverse Effects of COVID-19 Vaccination: Machine Learning and Statistical Approach to Identify and Classify Incidences of Morbidity and Postvaccination Reactogenicity. *HEALTHCARE*; Volume 11, Issue 1, Article Number 31. http://dx.doi.org/10.3390/healthcare11010031 .

3) **Alyami, SA**; Babu, MG; Elbatal, I; Alotaibi, N; Elgarhy, M. **(2022)**. Type II Half-Logistic Odd Frechet Class of Distributions: Statistical Theory and Applications. *SYMMETRY-BASEL*; Volume 14, Issue 6, Article Number 1222. http://dx.doi.org/10.3390/sym14061222 .

4) Elbatal, I; Alotaibi, N; **Alyami, SA**; Elgarhy, M; El-Saeed, AR. **(2022)**. Bayesian and Non-Bayesian Estimation of the Nadaraj ah-Haghighi Distribution: Using Progressive Type-1 Censoring Scheme. *MATHEMATICS*; Volume 10, Issue 5, Article Number 760. http://dx.doi.org/10.3390/math10050760 .

5) Hashem, AF; **Alyami, SA**; Abdel-Hamid, AH **(2022)**. Inference for a Progressive-Stress Model Based on Ordered Ranked Set Sampling under Type-II Censoring. *MATHEMATICS*; Volume 10, Issue 15, Article Number 2771. http://dx.doi.org/10.3390/math10152771 .

6) Alotaibi, N; Elbatal, I; Almetwally, EM; **Alyami, SA**; Al-Moisheer, AS; Elgarhy, M. **(2022)**. Truncated Cauchy Power Weibull-G Class of Distributions: Bayesian and Non-Bayesian Inference Modelling for COVID-19 and Carbon Fiber Data. *MATHEMATICS*; Volume 10, Issue 9, Article Number 1565. http://dx.doi.org/10.3390/math10091565 .

7) **Alyami, SA**; Elbatal, I; Alotaibi, N; Almetwally, EM; Elgarhy, M. **(2022)**. Modeling to Factor Productivity of the United Kingdom Food Chain: Using a New Lifetime-Generated Family of Distributions. *SUSTAINABILITY*; Volume 14, Issue 14, Article Number 8942. http://dx.doi.org/10.3390/su14148942 .

8) Elbatal, I; Alotaibi, N; Almetwally, EM; **Alyami, SA**; Elgarhy, M. **(2022)**. On Odd Perks-G Class of Distributions: Properties, Regression Model, Discretization, Bayesian and Non-Bayesian Estimation, and Applications. *SYMMETRY-BASEL*; Volume 14, Issue 5, Article Number 883. http://dx.doi.org/10.3390/sym14050883 .

9) Alotaibi, N; Hashem, AF; Elbatal, I; **Alyami, SA**; Al-Moisheer, AS; Elgarhy, M. **(2022)**. Inference for a Kavya-Manoharan Inverse Length Biased Exponential Distribution under Progressive-Stress Model Based on Progressive Type-II Censoring. *ENTROPY*; Volume 24, Issue 8, Article Number 1033. http://dx.doi.org/10.3390/e24081033 .

10) **Alyami, SA**; Elgarhy, M; Elbatal, I; Almetwally, EM; Alotaibi, N; El-Saeed, AR. **(2022)**. Frechet Binomial Distribution: Statistical Properties, Acceptance Sampling Plan, Statistical Inference and Applications to Lifetime Data. *AXIOMS*; Volume 11, Issue 8, Article Number 389. http://dx.doi.org/10.3390/axioms11080389 .

11) Alotaibi, N; Elbatal, I; Almetwally, EM; **Alyami, SA**; Al-Moisheer, AS; Elgarhy, M**. (2022)**. Bivariate Step-Stress Accelerated Life Tests for the Kavya-Manoharan Exponentiated Weibull Model under Progressive Censoring with Applications. *SYMMETRY-BASEL*; Volume 14, Issue 9, Article Number 1791. http://dx.doi.org/10.3390/sym14091791 .

12) Hossain, MM; Hasan, MM; Rahim, MA; Rahman, MM; Abu Yousuf, M; Al-Ashhab, S; Akhdar, HF;

Alyami, SA; Azad, A; Moni, MA. **(2022)**. Particle Swarm Optimized Fuzzy CNN With Quantitative Feature Fusion for Ultrasound Image Quality Identification. *IEEE JOURNAL OF TRANSLATIONAL ENGINEERING IN HEALTH AND MEDICINE*; Volume 10, Article Number 1800712. http://dx.doi.org/10.1109/JTEHM.2022.3197923 .

13) Al-Ashhab, S; Wei, DM; **Alyami, SA**; Azad, AKM; Moni, MA. **(2022)**. Mutual Interdependence of the Physical Parameters Governing the Boundary-Layer Flow of Non-Newtonian Fluids. *APPLIED SCIENCES-BASEL*; Volume 12, Issue 10, Article Number 5275. http://dx.doi.org/10.3390/app12105275 .

14) Mohamed, MS; Barakat, HM; **Alyami, SA**; Abd Elgawad, MA. **(2022)**. Cumulative Residual Tsallis Entropy-Based Test of Uniformity and Some New Findings. *MATHEMATICS*; Volume 10, Issue 5, Article Number 771. http://dx.doi.org/10.3390/math10050771 .

15) **Alyami, SA**; Elbatal, I; Alotaibi, N; Almetwally, EM; Okasha, HM; Elgarhy, M. **(2022)**. Topp-Leone Modified Weibull Model: Theory and Applications to Medical and Engineering Data. *APPLIED SCIENCES-BASEL*; Volume 12, Issue 20, Article Number 10431. http://dx.doi.org/10.3390/app122010431 .

16) Ahamad, MM; Akta r, S; Uddin, MJ; Rahman, T; **Alyami, SA**; Al-Ashhab, S; Akhdar, HF; Azad, AKM; Moni, MA. **(2022)**. Early-Stage Detection of Ovarian Cancer Based on Clinical Data Using Machine Learning Approaches. *JOURNAL OF PERSONALIZED MEDICINE*; Volume 12, Issue 8, Article Number 1211. http://dx.doi.org/10.3390/jpm12081211 .

17) Khatun, MA; Abu Yousuf, M; Ahmed, S; Uddin, MZ; **Alyami, SA**; Al-Ashhab, S; Akhdar, HF; Khan, A; Azad, A; Moni, MA. **(2022)**. Deep CNN-LSTM With Self-Attention Model for Human Activity Recognition Using Wearable Sensor. *IEEE JOURNAL OF TRANSLATIONAL ENGINEERING IN HEALTH AND MEDICINE*; Volume 10, Article Number 2700316. http://dx.doi.org/10.1109/JTEHM.2022.3177710 .

18) Abdelkawy, MA; **Alyami, SA**. **(2021)**. A Spectral Collocation Technique for Riesz Fractional Chen-Lee-Liu Equation. *JOURNAL OF FUNCTION SPACES*; Volume 2021. http://dx.doi.org/10.1155/2021/5567970 .

19) Hashem, AF; **Alyami, SA**. **(2021)**. Inference on a New Lifetime Distribution under Progressive Type II Censoring for a Parallel-Series Structure. *COMPLEXITY*; Volume 2021, Article Number 6684918. http://dx.doi.org/10.1155/2021/6684918 .

20) Abdelkawy, MA; **Alyami, SA. (2021)**. Legendre-Chebyshev spectral collocation method for two-dimensional nonlinear reaction-diffusion equation with Riesz space-fractional. *CHAOS SOLITONS & FRACTALS*; Volume 151, Article Number 111279. http://dx.doi.org/10.1016/j.chaos.2021.111279 .

21) Chakraborty, P; Ahmed, S; Abu Yousuf, M; Azad, A; **Alyami, SA**; Moni, MA. (2021). A Human-Robot Interaction System Calculating Visual Focus of Human's Attention Level. *IEEE ACCESS*; Volume 9. http://dx.doi.org/10.1109/ACCESS.2021.3091642 .

22) Chowdhury, UN; Ahmad, S; Islam, MB; **Alyami, SA**; Quinn, JMW; Eapen, V; Moni, MA. **(2021)**. System biology and bioinformatics pipeline to identify comorbidities risk association: Neurodegenerative disorder case study. *PLOS ONE*; Volume 16, Issue 5, Article Number e0250660. http://dx.doi.org/10.1371/journal.pone.0250660 .

23) Abd Elgawad, MA; Barakat, HM; Xiong, SW; **Alyami, SA**. **(2021)**. Information Measures for Generalized Order Statistics and Their Concomitants under General Framework from Huang-Kotz FGM Bivariate Distribution. *ENTROPY*; Volume 23, Issue 3, Article Number 335. http://dx.doi.org/10.3390/e23030335 .

24) Islam, MN; Sulaiman, N; Al Farid, F; Uddin, J; **Alyami, SA**; Rashid, M; Majeed, APPA; Moni, MA. **(2021)**. Diagnosis of hearing deficiency using EEG based AEP signals: CWT and improved-VGG16 pipeline. *PEERJ COMPUTER SCIENCE*; Volume 7, Article Number e638. http://dx.doi.org/10.7717/peerj-cs.638 .

25) Oany, AR; Mia, M; Pervin, T; **Alyami, SA**; Moni, MA. **(2021)**. Integrative Systems Biology Approaches to Identify Potential Biomarkers and Pathways of Cervical Cancer. *JOURNAL OF PERSONALIZED MEDICINE*; Volume 11, Issue 5, Article Number 363. http://dx.doi.org/10.3390/jpm11050363 .

26) Rashed-Al-Mahfuz, M; Moni, MA; Uddin, S; **Alyami, SA**; Summers, MA; Eapen, V A. **(2021)**. Deep Convolutional Neural Network Method to Detect Seizures and Characteristic Frequencies Using Epileptic Electroencephalogram (EEG) Data. *IEEE JOURNAL OF TRANSLATIONAL ENGINEERING IN HEALTH AND MEDICINE*; Volume 9, Article Number 2000112. http://dx.doi.org/10.1109/JTEHM.2021.3050925 .

27) Pal, B; Gupta, D; Rashed-Al-Mahfuz, M; **Alyami, SA**; Moni, MA. (2021). Vulnerability in Deep Transfer Learning Models to Adversarial Fast Gradient Sign Attack for COVID-19 Prediction from Chest

Radiography Images. APPLIED SCIENCES-BASEL; Volume 11, Issue 9, Article Number 4233. http://dx.doi.org/10.3390/app11094233.

28) Azad, AKM; **Alyami, SA**. **(2021)**. Discovering novel cancer bio-markers in acquired lapatinib resistance using Bayesian methods. *BRIEFINGS IN BIOINFORMATICS*; Volume 22, Issue 5, Article Number bbab137. http://dx.doi.org/10.1093/bib/bbab137 .

29) Mahmud, S; Rafi, MO; Paul, GK; Promi, MM; Shimu, MSS; Biswas, S; Bin Emran, T; Dhama, K; **Alyami, SA**; Moni, MA; Abu Saleh, M. **(2021)**. Designing a multi-epitope vaccine candidate to combat MERS-CoV by employing an immunoinformatics approach. *SCIENTIFIC REPORTS*; Volume 11, Issue 1, Article Number 15431. http://dx.doi.org/10.1038/s41598-021-92176-1 .

30) Mohamed, MS; Barakat, HM; **Alyami, SA**; Abd Elgawad, MA. **(2021)**. Fractional Entropy-Based Test of Uniformity with Power Comparisons. *JOURNAL OF MATHEMATICS*; Volume 2021, Article Number 5331260. http://dx.doi.org/10.1155/2021/5331260 .

31) Saikat, AM; Uddin, ME; Ahmad, T; Mahmud, S; Imran, MA; Ahmed, S; **Alyami, SA**; Moni, MA. **(2021)**. Structural and Functional Elucidation of IF-3 Protein of Chloroflexus aurantiacus Involved in Protein Biosynthesis: An In Silico Approach. *BIOMED RESEARCH INTERNATIONAL*; Volume 2021, Article Number 9050026. http://dx.doi.org/10.1155/2021/9050026 .

32) Auwul, MR; Zhang, CQ; Rahman, MR; Shahjaman, M; **Alyami, SA**; Moni, MA. **(2021)**. Network-based transcriptomic analysis identifies the genetic effect of COVID-19 to chronic kidney disease patients: A bioinformatics approach. *SAUDI JOURNAL OF BIOLOGICAL SCIENCES*; Volume 28, Article Number 10. http://dx.doi.org/10.1016/j.sjbs.2021.06.015 .

33) Das, BC; Anwar, MM; Bhuiyan, MAA; Sarker, IH; **Alyami, SA**; Moni, MA. **(2021)**. Attribute Driven Temporal Active Online Community Search. *IEEE ACCESS*; Volume 9. http://dx.doi.org/10.1109/ACCESS.2021.3093368 .

34) Rashed-Al-Mahfuz, M; Haque, A; Azad, A; **Alyami, SA**; Quinn, JMW; Moni, MA. **(2021)**. Clinically Applicable Machine Learning Approaches to Identify Attributes of Chronic Kidney Disease (CKD) for Use in Low-Cost Diagnostic Screening. *IEEE JOURNAL OF TRANSLATIONAL ENGINEERING IN HEALTH AND MEDICINE*; Volume 9. http://dx.doi.org/10.1109/JTEHM.2021.3073629 .

35) Akter, T; Ali, MH; Khan, MI; Satu, MS; Uddin, MJ; **Alyami, SA**; Ali, S; Azad, AKM; Moni, MA. **(2021)**. Improved Transfer-Learning-Based Facial Recognition Framework to Detect Autistic Children at an Early Stage. *BRAIN SCIENCES*; Volume 11, Issue 6, Article Number 734. http://dx.doi.org/10.3390/brainsci11060734 .

36) Satu, MS; Howlader, KC; Mahmud, M; Kaiser, MS; Islam, SMS; Quinn, JMW; **Alyami, SA**; Moni, MA. **(2021)**. Short-Term Prediction of COVID-19 Cases Using Machine Learning Models. *APPLIED SCIENCES-BASEL*; Volume 11, Issue 9, Article Number 4266. http://dx.doi.org/10.3390/app11094266 .

37) Aktar, S; Ahamad, MM; Rashed-Al-Mahfuz, M; Azad, A; Uddin, S; Kamal, A; **Alyami, SA**; Lin, PI; Islam, SMS; Quinn, JMW; Eapen, V; Moni, MA. **(2021)**. Machine Learning Approach to Predicting COVID-19 Disease Severity Based on Clinical Blood Test Data: Statistical Analysis and Model Development. *JMIR MEDICAL INFORMATICS*; Volume 9, Issue 4, Article Number e25884. http://dx.doi.org/10.2196/25884 .

38) Singh, B; Mal, G; Verma, V; Tiwari, R; Khan, MI; Mohapatra, RK; Mitra, S; **Alyami, SA**; Bin Emran, T; Dhama, K; Moni, MA. **(2021)**. Stem cell therapies and benefaction of somatic cell nuclear transfer cloning in COVID-19 era. *STEM CELL RESEARCH & THERAPY*; Volume 12, Issue 1, Article Number 283. http://dx.doi.org/10.1186/s13287-021-02334-5 .

39) Islam, MR; Moni, MA; Islam, MM; Rashed-Al-Mahfuz, M; Islam, MS; Hasan, MK; Hossain, MS; Ahmad, M; Uddin, S; Azad, A; **Alyami, SA**; Ahad, MAR; Lio, P. **(2021)**. Emotion Recognition From EEG Signal Focusing on Deep Learning and Shallow Learning Techniques. *IEEE ACCESS*; Volume 9. http://dx.doi.org/10.1109/ACCESS.2021.3091487 .

40) Rabaan, AA; Al-Ahmed, SH; Muhammad, J; Khan, A; Sule, AA; Tirupathi, R; Al Mutair, A; Alhumaid, S; Al-Omari, A; Dhawan, M; Tiwari, R; Sharun, K; Mohapatra, RK; Mitra, S; Bilal, M; **Alyami, SA**; Bin Emran, T; Moni, MA; Dhama, K. **(2021)**. Role of Inflammatory Cytokines in COVID-19 Patients: A Review on Molecular Mechanisms, Immune Functions, Immunopathology and Immunomodulatory Drugs to Counter Cytokine Storm. *VACCINES*; Volume 9, Issue 5, Article Number 436. http://dx.doi.org/10.3390/vaccines9050436 .

41) Rabaan, AA; Al-Ahmed, SH; Garout, MA; Al-Qaaneh, AM; Sule, AA; Tirupathi, R; Mutair, AA; Alhumaid,

S; Hasan, A; Dhawan, M; Tiwari, R; Sharun, K; Mohapatra, RK; Mitra, S; Emran, TB; Bilal, M; Singh, R; **Alyami, SA**; Moni, MA; Dhama, K. **(2021)**. Diverse Immunological Factors Influencing Pathogenesis in Patients with COVID-19: A Review on Viral Dissemination, Immunotherapeutic Options to Counter Cytokine Storm and Inflammatory Responses. *PATHOGENS*; Volume 10, Issue 5, Article Number 565. http://dx.doi.org/10.3390/pathogens10050565 .

42) Shrahili, M; Alotaibi, N; Kumar, D; **Alyami, SA**. *(2020)*. Inference for the Two Parameter Reduced Kies Distribution under Progressive Type-II Censoring. *MATHEMATICS*, Volume 8, Issue 11, Article Number 1997. http://dx.doi.org/10.3390/math8111997 .

43) Md Shahriare Satu, Khair Ahammed, Mohammad Zoynul Abedin, Md Auhidur Rahman, Sheikh Mohammed Shariful Islam, AKM Azad, **Alyami, SA**, Mohammad Ali Moni. **(2020)**. Convolutional neural network model to detect COVID-19 patients utilizing chest X-ray images. *MedRxiv*; https://doi.org/10.1101/2020.06.07.20124594.

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46) **Alyami, SA**; Azad, AKM; Keith, JM. **(2016)**. Uniform Sampling of Directed and Undirected Graphs Conditional on Vertex Connectivity. *Electronic Notes in Discrete Mathematics*; Volume 53. https://doi.org/10.1016/j.endm.2016.05.005 .

47) **Alyami, S. A.**, Azad, A. K. and Keith, J. M. **(2015)**. Uniform sampling of directedand undirected graphs conditional to vertix connectivity. *International Conference on Graph Theory and its Applications (ICGTA)*. Amrita University, Coimbatore, India, page 36–37.

48) **Alyami, S. A.**, Azad, A. K. and Keith, J. M. **(2015)**. A new version of the Hit-and-Run algorithm to sample graph spaces. *The 39th Australasian Conference on Combinatorial Mathematics and Combinatorial Computing (39ACCMCC)*. Queens-land University of Technology, Brisbane, Australia, page 7.

49) **Alyami, S. A.**, Cheung, W., Jin, Y., and Keith, J. **(2014)**. Sampling graph space with the Neighbourhood sampler. *Australian Bioinformatics Conference (ABC)*. Royal Children's Hospital, Melbourne, AUSTRALIA, Poster (61).

50) **Alyami, S. A.** and Keith, J. M. **(2014)**. Bayesian Inference using Neighbourhood Sampler for learning Bayesian networks. *Sixth Annual Conference of the Aus-tralasian Bayesian Network Modelling Society (ABNMS)*. Rotorua, New Zealand, OP (8) page 19.