CURRICULUM VITAE

PERSONAL DATA

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Position	Professor
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EDUCATION

Year	Academic Degree	Institution
2003	Ph.D.	Tezpur University, India
2001	M.Tech.	Tezpur University, India
1996	M.Sc.	Tezpur University, India
1993	B.Sc.	Guwahati University, India

WORK EXPERIENCE

Period	Position	Address
November 2019 – Present	Professor	College of Science, Imam Mohammad Ibn Saud Islamic University, Riyadh
April 2019 – August 2019	Professor	College of Computer and Information Science, Imam Mohammad Ibn Saud Islamic University, Riyadh
December 2012 – April 2019	Associate Professor	College of Computer and Information Science, Imam Mohammad Ibn Saud Islamic University, Riyadh
September 2004 – December 2012	Assistant Professor	College of Computer and Information Science, Imam Mohammad Ibn Saud Islamic University, Riyadh
September 2003 – September 2004	Senior Lecturer	Jaypee University of Engineering & Technology, India
August 2002 – September 2003	Senior Lecturer	Asansol Engineering College, India

RESEARCH INTERESTS

Artificial Intelligence, Combinatorial Optimization, Digital Image Processing and Pattern Recognition, Exact methods, Genetic Algorithms, Heuristics.

PUBLICATIONS

Published in International Journals:

[P1] **Ahmed ZH**, Yousefikhoshbakht M, Saudagar AKJ, and Khan S. (2023): Solving the travelling salesman problem using an ant colony system algorithm, *IJCSNS International Journal of Computer Science and Network Security*, Vol. 23, No. 2, pp. 55-64. [WoS, Emerging Sources Citation Index]. http://paper.ijcsns.org/07_book/202302/20230206.pdf.

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[P4] Kumar A, …., **Ahmed ZH**, …(2023). Next-Gen mulsemedia: virtual reality haptic simulator's impact on medical practitioner for higher education institutions, Electronics, 12(2), 356. [ISI-Impact factor **2.690**, 2021]. DOI: 10.3390/electronics12020356.

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[P6] **Ahmed ZH**, and Yousefikhoshbakht, M. (2023): An improved tabu search algorithm for solving heterogeneous fixed fleet open vehicle routing problem with time windows, *Alexandria Engineering Journal*, 64 (1), 349-363. [ISI-Impact factor **6.626**, 2021]. DOI: 10.1016/j.aej.2022.09.008.

[P7] **Ahmed ZH**, Hameed AS, and Mutar ML. (2022): Hybrid genetic algorithms for the asymmetric distance-constrained vehicle routing problem, *Mathematical Problems in Engineering*, Vol. 2022, Article ID 2435002, 20 Pages. [ISI-Impact factor **1.430**, 2021]. DOI: 10.1155/2022/2435002.

[P8] **Ahmed ZH**, Hameed AS, Mutar ML, Alrifaie MF and Taresh MM. (2021): Experimental study of hybrid genetic algorithms for the maximum scatter travelling salesman problem, *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 12, No. 8, pp. 471-482 [WoS, Emerging Sources Citation Index]. DOI: 10.14569/IJACSA.2021.0120855.

[P9] Alrifaie MF, **Ahmed ZH**, Hameed AS, and Mutar ML. (2021): Using machine learning technologies to classify and predict heart disease, Internati*onal Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 12, No. 3, pp. 123-127 [WoS, Emerging Sources Citation Index]. DOI: 10.14569/IJACSA.2021.0120315.

[P10] Hameed AS, Mutar ML, Alrikabi HMB, **Ahmed ZH**, Abdul–Razaq AA, and Nasser HK. (2021): A hybrid method integrating a discrete differential evolution algorithm with tabu search algorithm for the quadratic assignment problem: a new approach for locating hospital departments, *Mathematical Problems in Engineering*, Vol. 2021, Article ID 6653056, 21 pages [ISI-Impact factor **1.430**, 2021]. DOI: 10.1155/2021/6653056.

[P11] Al-Furhud MA and **Ahmed ZH.** (2020): Experimental study of a hybrid genetic algorithm for the multiple travelling salesman problem, *Mathematical Problems in Engineering*, Vol. 2020, 13 pages. [ISI-Impact factor **1.430**, 2021]. DOI: 10.1155/2020/3431420.

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Alabdulkareem K and **Ahmed ZH.** (2020): Comparison of four genetic crossover operators for solving distance-constrained vehicle routing problem, *IJCSNS International Journal of Computer Science and Network Security*, Vol. 20, No. 7, pp. 114-123 [WoS, Emerging Sources Citation Index]. http://paper.ijcsns.org/07_book/202007/20200715.pdf.	**[**P13**]**
Al-Furhud MA and **Ahmed ZH.** (2020): Genetic algorithms for the multiple travelling salesman problem, *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 11, No. 7, pp. 553-560 [WoS, Emerging Sources Citation Index]. DOI: 10.14569/IJACSA.2020.0110768.	[P14]
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Ahmed ZH. (2020): Genetic algorithm with comprehensive sequential constructive crossover for the travelling salesman problem, *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 11, No. 5, pp. 245-254 [WoS, Emerging Sources Citation Index]. DOI: 10.14569/IJACSA.2020.0110533.	**[**P16**]**
Ahmed ZH. (2020): Solving the traveling salesman problem using greedy sequential constructive crossover in a genetic algorithm, *IJCSNS International Journal of Computer Science and Network Security*, Vol. 20, No. 2, pp. 99-112 [WoS, Emerging Sources Citation Index]. http://paper.ijcsns.org/07_book/202002/20200214.pdf.	**[**P17**]**
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Bennaceur H, and **Ahmed ZH.** (2017): Frequency model-based crossover operators for genetic algorithms applied to the quadratic assignment problem, *The International Arab Journal of Information Technology*, Vol. 14(1), pp. 138-145. [ISI-Impact factor **0.967**, 2021]. https://ccis2k.org/iajit/PDF/Vol% 2014,%20No.%201/10123.pdf.	**[**P22**]**
Ahmed ZH. (2016): A lexisearch algorithm for the distance-constrained vehicle routing problem, *International Journal of Mathematical and Computational Methods*, Vol. 1, pp. 165-174. http://www.iaras.org/iaras/journals/ijmcm.	[P23]
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[P36] **Ahmed ZH.** (2011): A data-guided lexisearch algorithm for the asymmetric traveling salesman problem, *Mathematical Problems in Engineering*, Vol. 2011, Article ID 750968, 18 pages. [ISI-Impact factor **1.430**, 2021]. DOI:10.1155/2011/750968.	
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• **Published in Conference Proceedings:**
• Al-Omeer MA and **Ahmed ZH**. (2019): Comparative study of crossover operators for the MTSP, *2019 International Conference on Computer and Information Sciences (ICCIS)*, 2019, pp. 1-6, DOI: 10.1109/ICCISci.2019.8716483.
• **Ahmed ZH.** (2015): An improved genetic algorithm using adaptive mutation operator for the quadratic assignment problem, *2015 38th International Conference on Telecommunications and Signal Processing (TSP)*, 2015, pp. 1-5. DOI: 10.1109/TSP.2015.7296481.
• **Ahmed ZH,** Bennaceur H, Vulla MH, and Altukhaim F (2014): *A hybrid genetic algorithm for the quadratic assignment problem*, In: Proceedings of Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA 2014), Vol. 3, pp. 916-922. ISBN: 978951072621, During 1-3 August 2014, Bangalore, India.
• **Ahmed ZH**, Pandit SNN, and Borah M (1999): *Genetic algorithms for the travelling salesman problem with fixed position constraints*, Proceedings of International AMSE Conference on Computer Modelling, Simulation and Communication, pp 59-71, During 1-3 December 1999, Jaipur, India.
• **Ahmed ZH**, Pandit SNN, and Borah M (1999): *genetic algorithms for the min-max travelling salesman problem*, Proceedings of Annual Technical Session of Assam Science Society, pp. 64-71, Guwahati, India.