Dr SAIFUL ISLAM

- **Fellow** in Higher Education Academy (AFHEA), UK since July 2020.
- **First Year Coordinator** and **Program Advisor** of Graduate Certificate in Information Technology**.**

School of Information and Communication Technology

Griffith University, Gold Coast, Australia.

Email: saiful.islam@griffith.edu.au **Phone:** + 61 424 422 409

Web: https://sites.google.com/site/mdsaifulislamit/home

DBLP: http://dblp.uni-trier.de/pers/hd/i/Islam_0003:Md=_Saiful

Google Scholar: https://scholar.google.com.au/citations?user=ZZUtmJ0AAAAJ&hl=en

Research Direction: Advanced Data Management, Spatial and Graph Data Analytics, Artificial Intelligence, Health Informatics, Security and Human in the Loop Analytics.

Education Background

Swinburne University of Technology, Melbourne, Australia Apr. 2010 ~ Oct. 2013

PhD in Computer Science

Thesis Title: ''*On Answering Why and Why-not Questions in Databases*".

University of Dhaka, Bangladesh Mar. 2005 ~ Jul. 2006

Master of Science in Computer Science and Engineering

University of Dhaka, Bangladesh Jul. 1999 ~ Mar. 2005

Bachelor of Science (Honors) in Computer Science and Engineering

Professional Experience

School of Information and Communication Technology
Griffith University, Australia Feb. 2017 ~ Now

Lecturer (Big Data Analytics) & **First Year Coordinator**

La Trobe University, Melbourne, Australia May. 2016 ~ Feb. 2017

Postdoctoral Research Fellow (Computer Science)

Swinburne University of Technology, Melbourne, Australia Nov. 2013 ~ May. 2016

Research Associate (Computer Science)

Charles Sturt University, Albury, NSW, Australia Oct. 2012 ~ Apr. 2013

Research Officer (Computer Science)

Swinburne University of Technology, Melbourne, Australia Apr. 2010 ~ Oct. 2013

Postgraduate Researcher (Computer Science)

University of Dhaka, Bangladesh Jan. 2008 ~ Apr. 2010

Lecturer (Software Engineering)

State University of Bangladesh, Bangladesh Sep. 2005 ~ Dec. 2007

Lecturer (Computer Science and Engineering)

Research / Industry Projects

Australian Research Council Projects:

- ***Swinburne University of Technology: Research Associate*** 11/2013 ~ 05/2016
  - ARC-DP "On Effectively Answering Why and Why-not Questions in Databases" (DP140103499).

Collaborative Research - Griffith Uni. & Healthcare logic: *Chief Investigator* 07/2019 ~ 07/2020

- Prediction of the likelihood of Patient Readmission after Hospital Discharge ($14,981)

Griffith University Equipment Grants

- **GPU Computing Nodes for Real-time Visualisation** ($12,508) 01/2018 ~ 12/2018
- Application Specific **Internet of Things** (ASIoT) EDGE Ecosystem ($40,000) 01/2019 ~ 12/2019

New Researcher Grant in Griffith University: *Chief Investigator* 01/2018 ~ 12/2018

- Framework for Computing Top-k Most Important Targets/Aspects from Tourism Opinions ($9,727)

University of Dhaka Projects: *Chief Investigator*

- "**Filtering Junk E-mail: A Machine Learning Approach**" (BDT 100,000). 07/2008 ~ 07/2009

Publications

Best Papers

1. (***Best Paper Runner-up Award***) H. Kayesh, **M.S. Islam** and J. Wang, A Causality Driven Approach to Adverse Drug Reactions Detection in Tweets, The 15th International Conference on Advanced Data Mining and Applications (**ADMA**), pp. 316-330, Dalian, China, 2019. **[ERA/CORE Ranking: B] [Research Area: Artificial Intelligence & Deep Learning] [15 Pages, Single-Column]**
2. (***Best Paper Runner-up Award***) S. Anirban, J. Wang and **M. S. Islam**, Multi-level Graph Compression for Fast Reachability Detection, The 24th International Conference on Database Systems for Advanced Applications (**DASFAA**), pp. 229-246, Chiang Mai, Thailand, 2019. **[ERA/CORE Ranking: B] [Research Area: Graph Analytics] [18 Pages, Single-Column]**
3. (***Best Paper Award***) **M.S. Islam**, W. Rahayu, C. Liu, T. Anwar and B. Stantic, Computing Influence of a Probabilistic Product through Uncertain Reverse Skyline, Proc. of the 29th ACM Intl. Conf. on Scientific and Statistical Database Mgmt. (**SSDBM**), pp. 4:1-4:12, 2017, Chicago, USA. **[ERA/CORE Ranking: A] [Research Area: Advanced Data Analytics] [12 Pages, Double-Column]**

Journal Papers

4. **M.S. Islam**, B. Shen, C. Wang, D. Taniar and J. Wang, Efficient Processing of Reverse Nearest Neighborhood Queries in Spatial Databases, *Information Systems* (**IS**)-Elsevier, vol. 92, 2020. **[ERA/CORE Ranking: A*] [SCIMago: Q1] [Research Area: Spatial Data Analytics] [16 Pages, Double-Column]**
5. H. Kayesh, **M.S. Islam**, J. Wang, A.S.M. Kayes and Paul Watters, A Deep Learning Model for Mining and Detecting Causally Related Events in Tweets, Concurrency and Computation: Practice

and Experience (CPE), Wiley, 2020. **[ERA/CORE Ranking: B] [SCIMago: Q1] [Research Area: Deep Learning] [16 pages, Single-Column]**

Online First: https://onlinelibrary.wiley.com/doi/abs/10.1002/cpe.5938

6. B. Shen, **M.S. Islam** and D. Taniar, Direction-based Spatial Skyline for Retrieving Arbitrary Shaped Surrounding Objects, accepted for publication in *the Computer Journal* (**COMPJ**), 2019. **[ERA/CORE Ranking: B] [SCIMago: Q2] [Research Area: Spatial Data Analytics] [21 Pages, Double-Column]**

   Online First: https://academic.oup.com/comjnl/advance-article/doi/10.1093/comjnl/bxz099/5625928

7. N. Allheeib, D. Taniar, H. A. Khalidi, **M. S. Islam**, K. M. Adhinugraha, and M. A. Cheema, Safe Regions for Moving Reverse Neighbourhood Queries in a Peer-to-Peer Environment, *IEEE Access* (**ACCESS**) 8: 50285- 50298, 2020. **[SCIMago: Q1] [Research Area: Spatial Data Analytics]**

8. A. S. M. Kayes, R. Kalaria, I.H. Sarker, **M.S. Islam**, P. Watters, A. Ng, M. Hammoudeh, S. Badsha and I. Kumara, A Survey of Context-Aware Access Control Mechanisms for Cloud and IoT Sensor Networks: Taxonomy and Empirical Analysis, **Sensors** 2020, 20(9), 2464. **[2018 WoS Rank: Q1] [Research Area: Security and Access Control]**

9. K. Hasan, K. Ahmed, K. Biswas, **M.S. Islam** and O. A. Sianaki, Software Defined Application Specific Traffic Management for Wireless Body Area Network, *Future Generation Computer Systems* (**FGCS**), vol. 107, pp. 274-285, 2020. **[ERA/CORE Ranking: A] [SCIMago: Q1] [Research Area: Wireless Body Area Network] [20 Pages, Single-Column]**

10. B. Shen, **M.S. Islam**, D. Taniar and J. Wang, Direction-based Spatial Skyline for Retrieving Surrounding Objects, *World Wide Web Journal* (**WWWJ**) 23: 207–239, 2020. **[ERA/CORE Ranking: A] [SCIMago: Q2] [Research Area: Spatial Data Analytics] [33 Pages, Single-Column]**

11. N. Allheeib, **M.S. Islam**, D. Taniar, Z. Shao and M. A. Cheema, Density-based reverse nearest neighbourhood search in spatial databases, accepted for publication in *Journal of Ambient Intelligence and Humanized Computing* (**JAIHC**), 2019. **[SCIMago: Q2] [Research Area: Spatial Data Analytics] [12 Pages, Double-Column]**

    Online First: https://link.springer.com/article/10.1007%2Fs12652-018-1103-x

12. M. Naseriparsa, **M.S. Islam**, C. Liu and L. Chen, XSnippets: Exploring Semi-Structured Data via Snippets, *Data and Knowledge Engineering* (**DKE**) - Elsevier, vol. 124, 2019. **[ERA/CORE Ranking: B] [SCIMago: Q2] [Research Area: Advanced Data Analytics] [17 Pages, Single-Column]**

13. S. Anirban, J. Wang and **M. S. Islam**, Modular Decomposition-Based Graph Compression for Reachability Detection, *Data Science and Engineering* (**DSE**) 4(3): 193-207, 2019. **[Research Area: Graph Analytics] [15 Pages, Double-Column]**

14. K. Hasan, K. Biswas, K. Ahmed, N. S. Nafi and **M. S. Islam**, A Comprehensive Review of Wireless Body Area Network, *Journal of Network and Computer Applications* (**JNCA**), 143(1): 178-198, 2019. **[ERA/CORE Ranking: A] [SCIMago: Q1] [Research Area: Wireless Body Area Network] [21 Pages, Double-Column]**

15. A.A. Haryanto, **M.S. Islam**, D. Taniar and M.A. Cheema, IG-Tree: An Efficient Spatial Keyword Index for Planning Best Path Queries on Road Networks, *World Wide Web Journal* (**WWWJ**), 22(4): 1359-1399, 2019. **[ERA/CORE Ranking: A] [SCIMago: Q2] [Research Area: Spatial Data Analytics] [41 Pages, Single-Column]**
16. M. Naseriparsa, C. Liu, **M.S. Islam** and R. Zhou, XPloreRank: Exploring XML Data via You May Also Like Queries, *World Wide Web Journal* (**WWWJ**), 22(4): 1727-1750, 2019. **[ERA/CORE Ranking: A] [SCIMago: Q2] [Research Area: Advanced Data and Human in the Loop Analytics] [24 Pages, Single-Column]**
17. A.S.M. Kayes, J. Hun, W. Rahayu, T. Dillon, **M.S. Islam** and A. Colman, A Policy Model and Framework for Context-Aware Access Control to Information Resources, *The Computer Journal* (**COMPJ**), 62(5):670-705, 2019. **[ERA/CORE Ranking: B] [SCIMago: Q2] [Research Area: Security Analytics] [36 Pages, Double-Column]**
18. M. Naseriparsa, **M.S. Islam**, C. Liu and I. Moser, No-But-Semantic-Match: Computing Semantically Matched XML Keyword Search Results, *World Wide Web Journal* (**WWWJ**) 21(5): 1223-1257, 2018. **[ERA/CORE Ranking: A] [SCIMago: Q2] [Research Area: Advanced Data and Human in the Loop Analytics] [35 Pages, Single-Column]**
19. T. Anwar, C. Liu, H. Vu, **M.S. Islam** and T. Sellis, Capturing the Spatiotemporal Evolution in Road Traffic Networks, *IEEE Trans. Know. Data Eng.* (**TKDE**) 30(8): 1426-1439, 2018. **[ERA/CORE Ranking: A*] [SCIMago: Q1] [Research Area: Spatial Data Analytics] [14 Pages, Double-Column]**
20. **M.S. Islam** and C. Liu, Know Your Customer: Computing k-Most Promising Products for Targeted Marketing, *The VLDB Journal* (**VLDBJ**), 25(4): 545-570, 2016. **[ERA/CORE Ranking: A*] [SCIMago: Q1] [Research Area: Advanced Data Analytics] [26 Pages, Double-Column]**
21. **M.S. Islam**, C. Liu and J. Li, Efficient Answering of Why-Not Questions in Similar Graph Matching, *IEEE Trans. Know. Data Eng.* (**TKDE**) 27(10): 2672-2686, 2015. **[ERA/CORE Ranking: A*] [SCIMago: Q1] [Research Area: Advanced Data and Graph Analytics] [15 Pages, Double-Column]**
22. **M.S. Islam**, C. Liu and R. Zhou, FlexIQ: A Flexible Interactive Querying Framework by Exploiting the Skyline Operator, *Journal of Systems and Software* (**JSS**), Elsevier, 97: 97-117, 2014. **[ERA/CORE Ranking: A] [SCIMago: Q1] [Research Area: Advanced Data Analytics] [21 Pages, Double-Column]**
23. **M.S. Islam**, C. Liu and R. Zhou, A Framework for Query Refinement with User Feedback, *Journal of Systems and Software* (**JSS**), Elsevier, 86(6): 1580-1595, 2013. **[ERA/CORE Ranking: A] [SCIMago: Q1] [Research Area: Advanced Data Analytics] [16 Pages, Double-Column]**
24. M.R. Islam, **M.S. Islam** and M.U. Chowdhury, Detecting Unknown Anomalous Program Behavior using API System Calls, *Communications in Computer and Information Science*, vol. 254, pp. 383–394, 2011. doi:10.1007/978-3-642-25483-3_31 **[Research Area: Security Analytics] [12 Pages, Single-Column]**

25. M. R. Tabassum, A. Gias, M. M. Kamal, H. M. Muctadir, M. Ibrahim, A. K. Shakir, A. Imran, S. Islam, M. G. Rabbani, S. M. Khaled, **M. S. Islam** and Z Begum, Comparative Study of Statistical Skin Detection Algorithms for Sub-Continental Human Images, *Information Technology Journal*, 9(4): 811-817, 2010. doi:10.3923/itj.2010.811.817 **[ERA/CORE Ranking: C] [Research Area: Computer Vision] [7 Pages, Double-Column]**
26. **M. S. Islam**, M.M. Rahman, Z. Begum and M. Z. Hafiz, Realization of a Novel Fault Tolerant Reversible Full Adder Circuit in Nanotechnology. *Int. Arab J. Inf. Technol.* 7(3): 317-323, 2010. **[ERA/CORE Ranking: C] [Research Area: Fault Tolerance in Logic] [7 Pages, Double-Column]**
27. **M.S. Islam**, MM Rahman, Z. Begum and M.Z. Hafiz, Low cost quantum realization of reversible multiplier circuit, *Information Technology Journal* (ITJ), 8(2): 208-213, 2009. **[ERA/CORE Rank: C] [Google Scholar Citations: 128] [Research Area: Fault Tolerance in Logic] [6 Pages, Double-Column]**
28. **M.S. Islam** and R. Islam, Minimization of Reversible Adder Circuits, *Asian Journal of Information Technology* (AJIT), 4 (12): 1146-1151, 2005. **[ERA/CORE Ranking: C] [Google Scholar Citations: 67] [Research Area: Fault Tolerance in Logic] [6 Pages, Double-Column]**
29. **M. S. Islam**, M. Z. Hafiz, and Z. Begum, Quantum Cost Efficient Reversible BCD Adder for Nanotechnology Based Systems, IJCEE 2012 Vol.4(1): 10-13 ISSN: 1793-8163. **[Research Area: Fault Tolerance in Logic] [4 Pages, Double-Column]**
30. **M. S. Islam**, MM Rahman, Z Begum, M Hafiz, Fault Tolerant Variable Block Carry Skip Logic (VBCSL) Using Parity Preserving Reversible Gates, IJCEE 2011 Vol.3(1): 1-7 ISSN: 1793-8163. **[Research Area: Fault Tolerance in Logic] [7 Pages, Double-Column]**

Conference Papers

31. H. Kayesh, **M.S. Islam**, J. Wang, Shikha Anirban, A.S.M. Kayes and Paul Watters, Answering Binary Causal Questions: A Transfer Learning Based Approach, The International Joint Conference on Neural Networks (IJCNN), 19 - 24th July 2020, Glasgow, UK. **[ERA/CORE Ranking: A] [Research Area: Deep Learning and NLP] [9 Pages, Double-Column]**
32. J. Wang, S. Anirban, T. Amagasa, H. Shiokawa, Z. Gong and **M. S. Islam**, A Hybrid Index for Exact Shortest Distance Queries, 21st International Conference on Web Information Systems Engineering (WISE), 20 - 24 October 2020, Amsterdam and Leiden, Netherlands. **[ERA/CORE Ranking: A] [Research Area: Graph Data Management] [15 Pages, Single-Column]**
33. R. Ohira and **M.S. Islam**, GPU Accelerated Genetic Algorithm with Sequence-based Clustering for Ordered Problems, The IEEE Congress on Evolutionary Computation (IEEE CEC), 19 - 24th July 2020, Glasgow, UK. **[ERA/CORE Ranking: B] [Research Area: Artificial Intelligence – Adaptive Genetic Algorithms] [8 Pages, Double-Column]**
34. H. Kayesh, **M.S. Islam** and J. Wang, Event Causality Detection in Tweets by Context Word Extension and Neural Networks, The 20th International Conference on Parallel and Distributed

Computing, Applications and Technologies (PDCAT), 5-7 December 2019, Australia. **[ERA/CORE Ranking: B] [Research Area: Artificial Intelligence - Deep Learning] [6 Pages, Double-Column]**

35. R. Ohira and **M.S. Islam**, A Distributed Genetic Algorithm with Adaptive Diversity Maintenance for Ordered Problems, The 20th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT), 5-7 December 2019, Australia. **[ERA/CORE Ranking: B] [Research Area: Artificial Intelligence - Genetic Algorithms] [6 Pages, Double-Column]**
36. B. Shen, **M.S. Islam**, D. Taniar and J. Wang, Retrieving Textually Relevant Surrounding Objects in Spatial Databases, Proc. of the 33rd IEEE Intl. Conf. on Advanced Information Networking and Applications (**AINA**), pp. 927-939, Matsue, Japan, 2019. **[ERA/CORE Ranking: B] [Research Area: Spatial Data Analytics] [13 Pages, Single-Column]**
37. R. Ohira, **M.S. Islam**, J. Jo and B. Stantic, AMGA: An Adaptive and Modular Genetic Algorithm for Travelling Salesman Problem, The 10th World Congress on Nature and Biologically Inspired Computing (**NaBIC**) - Part of Intl. Conf. on Hybrid Intelligent Systems (**HIS**), Advances in Intelligent Systems and Computing, vol. 2, pp. 1096-1109, 2018. **[ERA/CORE Ranking: C] [Research Area: Artificial Intelligence - Genetic Algorithms] [14 Pages, Single-Column]**
38. R. Ohira, **M.S. Islam**, J. Jo and B. Stantic, LCS based Diversity Maintenance in Adaptive Genetic Algorithms, Proc. of the 16th Australasian Data Mining Conf. (**AusDM**), Communications in Computer and Information Science, Springer, vol. 996, pp. 56-68, 2018. **[ERA/CORE Ranking: B] [Research Area: Artificial Intelligence - Genetic Algorithms] [13 Pages, Single-Column]**
39. J.H. Jones, C. Wang, **M.S. Islam** and B. Stantic, Interdependent Model for Point-of-Interest Recommendation via Social Networks, Proc. of the Australasian Database Conference (**ADC**), pp. 161-173, 2018, Gold Coast, Australia. **[ERA/CORE Ranking: B] [Research Area: Recommendation Algorithms] [13 Pages, Single-Column]**
40. **M.S. Islam**, C. Liu, W. Rahayu and T. Anwar, Q+Tree: An Efficient Quad Tree based Data Indexing for Parallelizing Dynamic and Reverse Skylines, ACM Intl Conf. on Information and Knowledge Management (**CIKM**), pp. 1291-1300, 2016. **[ERA/CORE Ranking: A] [Research Area: Advanced Data Analytics] [10 Pages, Double-Column]**
41. **M.S. Islam**, C. Liu and J. Li, Efficient Answering of Why-Not Questions in Similar Graph Matching, Proc. of the 32nd Intl Conference on Data Engineering (**ICDE**), pp. 1476-1477 2016. **[ERA/CORE Ranking: A*] [Research Area: Advanced Data, Graph and Human in the Loop Analytics] [2 Pages, Double-Column]**
42. T. Anwar, C. Liu, H. Vu and **M.S. Islam**, Tracking the Evolution of Congestion in Dynamic Urban Road Networks, ACM Intl Conf. on Information and Knowledge Management (**CIKM**), pp. 2323-2328, 2016. **[ERA/CORE Ranking: A] [Research Area: Spatial Data Analytics] [6 Pages, Double-Column]**
43. T. Anwar, C. Liu, H. Vu and **M.S. Islam**, RoadRank: Traffic Diffusion and Influence Estimation in Dynamic Urban Road Networks, pp.1671-1674, ACM Intl Conference on Information and

Knowledge Mgmt. (**CIKM**), pp. 1671-1674, 2015. **[ERA/CORE Ranking: A] [Research Area: Spatial Data Analytics] [4 Pages, Double-Column]**

44. J. Li, C. Liu and **M.S. Islam**, Keyword-based Correlated Network Computation over Large Social Media, Proc. of the 30th Intl Conference on Data Engineering (**ICDE**), pp. 268-279, 2014. **[ERA/CORE Ranking: A*] [Research Area: Social Network Analytics] [12 Pages, Double-Column]**
45. **M.S. Islam**, M. R. Islam, A. S. M. Kayes, C. Liu and I. Altas, A Survey on Mining Program-Graph Features for Malware Analysis. **SecureComm** (2) 2014: 220-236. **[ERA/CORE Ranking: A] [Research Area: Security Analytics] [17 Pages, Single-Column]**
46. A. S. M. Kayes, J. Han, A. Colman and **M. S. Islam**, RelBOSS: A Relationship-Aware Access Control Framework for Software Services. **OTM Conferences**, pp. 258-276, 2014. **[ERA/CORE Ranking: A] [Research Area: Security Analytics] [19 Pages, Single-Column]**
47. **M.S. Islam**, R. Zhou and C. Liu, On Answering Why-not Questions in Reverse Skyline Queries, Proc. of the 29th International Conference on Data Engineering (**ICDE**), pp. 973-984, 2013. **[ERA/CORE Ranking: A*] [Google Scholar Citations: 72] [Research Area: Advanced Data and Human in the Loop Analytics] [12 Pages, Double-Column]**
48. **M.S. Islam**, On Answering Why and Why-not Questions in Databases, Proc. of the 29th Intl Conference on Data Engineering (ICDE), pp. 298-301, 2013. **[ERA/CORE Ranking: A*] [Research Area: Advanced Data and Human in the Loop Analytics] [4 Pages, Double-Column]**
49. **M.S. Islam**, C. Liu and R. Zhou, User Feedback Based Query Refinement by Exploiting Skyline Operator, Proc. of the 31st International Conference on Conceptual Modeling (**ER**), pp. 423-438, 2012. **[ERA/CORE Ranking: A] [Research Area: Advanced Data and Human in the Loop Analytics] [16 Pages, Single-Column]**
50. R. Islam, I. Altas and **M.S. Islam**, Exploring Timeline-Based Malware Classification, 28th IFIP Information Security and Privacy Conference (**SEC**), pp. 1-13, 2013. **[ERA/CORE Ranking: B] [Research Area: Security Analytics] [13 Pages, Single-Column]**
51. **M.S. Islam**, C. Liu and R. Zhou, On Modeling Query Refinement by Capturing User Intent through Feedback, Proc. of the 23rd Australasian Database Conference (**ADC**), pp. 11-20, 2012. **[ERA/CORE Ranking: B] [Research Area: Advanced Data and Human in the Loop Analytics] [10 Pages, Double-Column]**
52. **M.S. Islam**, A. Kabir, K. Sakib and M. A. Hossain, NcPred for Accurate Nuclear Protein Prediction Using n-mer Statistics with Various Classification Algorithms. Proc. Of the Intl. Conference on Practical Applications of Computational Biology & Bioinformatics (**PACBB**), pp. 285-292, 2011. **[ERA/CORE Ranking: C] [Research Area: Bioinformatics] [8 Pages, Single-Column]**
53. **M.S. Islam**, AA Mahmud and MR Islam, Machine Learning Approaches for Modeling Spammer Behavior, Asia Information Retrieval Symposium (**AIRS**), LNCS 6458, pp. 251–260, 2010. **[ERA/CORE Ranking: C] [Research Area: Security Analytics] [10 Pages, Single-Column]**

54. SM Khaled, **M.S. Islam**, et al., Combinatorial Color Space Models for Skin Detection in Sub-Continental Human Images, pp. 532-542, **IVIC**, LNCS, 2009. **[ERA/CORE Ranking: C] [Research Area: Computer Vision] [11 Pages, Single-Column]**

55. **M.S. Islam**, S.M. Khaled, K. Farhan, M.A. Rahman and J. Rahman, Modeling Spammer Behavior: Naïve Bayes vs. Artificial Neural Networks, Proc. of IEEE ICIMT, Jeju Island, South Korea, December 16-18, 2009, pp. 52-55. **[ERA/CORE Ranking: C] [Research Area: Security Analytics] [4 Pages, Double-Column]**

56. **M.S. Islam**, MM Rahman, Z. Begum, M.Z. Hafiz and A.A. Mahmud, Synthesis of fault tolerant reversible logic circuits, IEEE Circuits and Systems International Conference on Testing and Diagnosis, 2009. **[ERA/CORE Ranking: C] [Google Scholar Citations: 75] [Research Area: Fault Tolerance in Logic Design] [4 Pages, Double-Column]**

Book Chapter

57. **M. S. Islam**, M.R. Islam, Modeling Spammer Behavior: Artificial Neural Network vs. Naïve Bayesian Classifier, Artificial Neural Networks - Application, Ed. by Chi Leung Patrick Hui, ISBN 978-953-307-188-6, INTECH Open Access Publisher, 2011. **[Research Area: Security Analytics] [14 Pages, Single-Column]**

In Submission / Under Review

58. R. Ohira, **M.S. Islam**, J. Jo and B. Stantic, Sequence-based Diversity Measurement in Adaptive Genetic Algorithms for Optimising Ordered Problems, revised for possible publication in *Expert Systems with Applications*, Elsevier, 2020. **[ERA/CORE Ranking: B] [SCIMago: Q1] [Research Area: Artificial Intelligence – Adaptive Genetic Algorithms]**

59. R. Ohira and **M.S. Islam**, Speedup vs. Quality: Asynchronous and Cluster-based Distributed Adaptive Genetic Algorithms for Ordered Problems, under review in ***Parallel Computing***, Elsevier, 2020. **[SCIMago: Q2] [Research Area: Artificial Intelligence – Adaptive Genetic Algorithms]**

60. R. Ohira and **M.S. Islam**, Genome Editing in Adaptive Genetic Algorithms for Ordered Problems, under review in IEEE Symposium Series on Computational Intelligence, 2020. **[Research Area: Artificial Intelligence – Adaptive Genetic Algorithms] [8 pages, Double-Column]**

61. A.A. Haryanto, D. Taniar, **M.S. Islam** and M.A. Cheema, wBestPath: A Spatio-Textual Route Planning Query on Weighted Regions, under review in the *Journal of Ambient Intelligence and Humanized Computing* (**JAIHC**), 2020. **[SCIMago: Q2] [Research Area: Spatial Data Analytics]**

62. K. Hasan, M. J. M. Chowdhury, K. Biswas, K. Ahmed and M. S. Islam, Blockchain based Secure Data Sharing Platform for Software Defined Wireless Body Area Network, under review in *Elsevier Computers and Security Journal*, 2020**. [CORE Ranking: A] [SCIMago: Q1] [Research Area: Security Analytics]**

63. T. Anwar, C. Liu, H. Vu, **M.S. Islam**, D. Yu and N. Hoang, Influence Ranking of Road Segments in Urban Road Traffic Networks, under review in *Computing*, 2020. **[ERA/CORE Ranking: B] [Research Area: Spatial Data Analytics]**

64. K. Hasan, K. Ahmed, K. Biswas and **M. S. Islam**, An Optimal Control Plane Design for SDN-based WBAN Framework, under review in *Sensors*, 2020. **[ERA/CORE Ranking: A] [SCIMago: Q1] [Research Area: Wireless Body Area Network]**

65. B. Shen, **M.S. Islam**, D. Taniar and J. Wang, Efficient Retrieval of Text-based Surrounding Objects in Spatio-Textual Databases, under review in *Computing* - Springer, 2020. **[ERA/CORE Ranking: A] [Research Area: Spatial Data Analytics]**

Supervised Students

PhD Graduates:

1. **Dr. Khalid Hasan** (**Principle Supervision**, with **Griffith University**, 2017 ~ 2020): "A Secure and Efficient Communication Framework for Software Defined Wireless Body Area Network", graduated in June 16, 2018. **[Research Area: Wireless Body Area Network and Security Analytics]**
2. **Dr. Mehdi Naseriparsa** (**Associate Supervision**, with Swinburne Uni. of Technology, 2015 ~ 2018): "On Improving the Usability of Exploration over Semi-Structured Data", graduated in May 31, 2018. **[Research Area: Advanced Data and Human in the Loop Analytics]**
3. **Dr. Agnes Haryanto** (**Associate Supervision**, with Monash University, 2015 ~ 2019): "Finding Best Paths in Spatio-Textual Queries", graduated in June 28, 2019. [**Research Area: Spatial Data Analytics]**

Honours Graduates:

4. **Mr. Bojie Shen** (Associate Supervision, with Monash University, 2018~2019): "Finding Surrounding Objects in Spatial Databases". **[Research Area: Spatial Data Analytics]**

Current PhD Students:

5. Ryoma Ohira (**Principle Supervision**, with **Griffith University**, 2017 ~ present): "A Novel Framework for Adaptive and Modular Genetic Algorithms for Ordered Problems". **[Research Area: Artificial Intelligence – Adaptive Genetic Algorithms]**
6. Shikha Anirban (Associate Supervision, with **Griffith University**, 2018 ~ present): "Multilevel Graph Compression for optimizing different types of Pattern Queries". **[Research Area: Graph Data Analytics]**
7. Humayun Kayesh (**Co-principle Supervision**, with **Griffith University**, 2018 ~ present): "Detecting Event Causality from Social Media Short Text". **[Research Area: Artificial Intelligence – Deep Learning and NLP]**
8. Nasser Allheeib (Associate Supervision, with Monash University, 2016 ~ present): "Neighborhood Query Processing in Spatial Data". **[Research Area: Spatial Data Analytics]**

Talks and Presentations

- "A Causality Driven Approach to Adverse Drug Reactions Detection in Tweets", The 15th International Conference on Advanced Data Mining and Applications (**ADMA**), China, 2019.
- "The Role of the Computing Industry in Combatting Cybercrime", Griffith University- Logan Campus, **Cyber Safety Symposium**, June 27, 2019.
- "Computing Influence of a Probabilistic Product through Uncertain Reverse Skyline", ACM SSDBM, 2017, **Chicago, USA**.
- "Q+Tree: An Efficient Quad Tree based Data Indexing for Parallelizing Dynamic and Reverse Skylines", ACM Intl Conf. on Information and Knowledge Management (CIKM), October 2016, **Indianapolis, USA**.
- "Data Exploration via Answering WHY and WHY-NOT Queries in Databases", **The University of Western Australia** (UWA), May 19, 2016, Perth, Australia.
- "On Answering Why-not Questions in Reverse Skyline Queries", The 29th International Conference on Data Engineering (**ICDE**), 10th April 2013.
- "On Answering Why and Why-not Questions in Databases", The 29th International Conference on Data Engineering (**ICDE**), 8th April 2013.
- "A Survey on Mining Program-Graph Features for Malware Analysis", The 10th Intl. Conference on Security and Privacy in Communication Networks (**SECURECOMM**), 23rd October 2014, **Beijing, China**.
- User Feedback Based Query Refinement by Exploiting Skyline Operator", The 31st International Conference on Conceptual Modeling (ER 2012), **Florence, Italy**.
- "On Modeling Query Refinement by Capturing User Intent through Feedback", The 23rd Australasian Database Conference (ADC), 30 January - 2 February 2012, Melbourne, Australia.
- "User Feedback Based Query Refinement by Exploiting Skyline Operator", Swinburne University of Technology, Melbourne, Australia, 6th March 2012.
- "Forward and Backward Provenance: Lets think about it", Swinburne University of Technology, Melbourne, Australia, June 2010.
- "PROVENANCE: Does it make sense anymore?", Swinburne University of Technology, Melbourne, Australia, May 2010.
- "Minimization of Reversible Logic Circuits", the International Center for Theoretical Physics (ICTP), **Trieste, Italy**, November 2009.

Training and Summer Schools

- Second NICTA Software Systems Summer School, Sydney, 3–4 February 2014, Supported by UNSW, Oracle and ANU.
- 2010 PhD School in Cloud Computing, Service Computing & Social Networks, 23-27 Nov 2010, The University of Queensland, Brisbane, Australia.
- BioInfoSummer 2010, AMSI Summer Symposium in Bioinformatics, 29 Nov- 3 Dec 2010, Melbourne, Australia.

- Advanced Training Course in FPGA Design and VHDL for Hardware Simulation and Synthesis, the Intl Center for Theoretical Physics, Trieste, Italy [26 Oct ~ 20 Nov 2009].

Professional Services

- **Guest Editor of the Special Issue** "IoT and Artificial Intelligence Approaches to Defeat COVID-19 Outbreak", Sensors, MDPI.
- Reviewer of IEEE Transactions on Fuzzy Systems (**TFS**). **[ERA/CORE Ranking: A*]**
- Reviewer of IEEE Transactions on Parallel and Distributed Systems (TPDS). **[ERA/CORE Ranking: A*]**
- Reviewer of the **VLDB Journal** (VLDBJ). **[ERA/CORE Ranking: A*]**
- Reviewer of IEEE Transactions on Knowledge and Data Engineering (**TKDE**). **[ERA/CORE Ranking: A]**
- Reviewer of Springer Word Wide Web Journal (**WWWJ**). **[ERA/CORE Ranking: A]**
- Reviewer of the Journal of Systems and Software **(JSS**) and Future Generation Computer Systems (FGCS), Elsevier. **[ERA/CORE Ranking: A]**
- Reviewer of Information Sciences - Journal, Elsevier. **[ERA/CORE Ranking: A]**
- Reviewer of Knowledge-Based Systems (**KBS**) Journal, Elsevier. **[ERA/CORE Ranking: B]**
- Reviewer of Neural Computing and Applications, Springer. **[ERA/CORE Ranking: B]**
- **Program Committee** (PC) **member** of CIoTS 2018, ACM iiWAS 2017, IEEE BigComp 2018, 2019, 2020 & 2021, ADC 2018 & 2020, DASFAA 2018, 2019 & 2020 (**ERA/CORE Ranking: B**), ACM **SSDBM** 2018 (**ERA/CORE Ranking: A**), AusDM 2018 and ADMA 2019 & 2020 (**ERA/CORE Ranking: B**).
- **Senior Program Committee** (PC) **member** APWeb-WAIM 2020 (**ERA/CORE Ranking: B**).
- **Additional Reviewer** of DEXA 2010, APWeb 2011, ICDE 2014 (**ERA/CORE Ranking: A***), ICDM 2016 (**ERA/CORE Ranking: A**), SIGMOD 2016 (**ERA/CORE Ranking: A***), CIKM 2016 and CIKM 2017 (**ERA/CORE Ranking: A**).
- **Session Chair** in ADMA 2019, ADC 2018 and DASFAA 2018 (**ERA/CORE Ranking: B**).

Prizes and Honors

- ***Dean's Highly Commended Certificate** (2806ICT teaching team – Dr. Geraldine, Dr. Mohammad and Dr. Saiful), Griffith Sciences 2019***.
- **Associate Fellowship in Higher Education Academy**, UK, 2019.
- ***Best Paper Runner-up Award*** for the paper "A Causality Driven Approach to Adverse Drug Reactions Detection in Tweets" from the 15th Intl. Conference on Advanced Data Mining and Applications (**ADMA**), Dalian, China, 2019, which is an **ERA/CORE Ranked B conference.**
- ***Best Paper Runner-up Award*** for the paper "Multi-level Graph Compression for Fast Reachability Detection" from the 24th Intl. Conference on Database Systems for Advanced Applications (**DASFAA)**, Thailand, 2019, which is an **ERA/CORE Ranked B conference.**

- *__Best Paper Award__* for the paper "Computing Influence of a Probabilistic Product through Uncertain Reverse Skyline" from 29th ACM Intl. Conf. on Scientific and Statistical Database Mgmt. (**SSDBM**), 2017, Chicago, USA, which is an **ERA/CORE Ranked A Conference.**
- **Dean's Award Research Excellence**, FICT, Swinburne University of Technology, 2013.
- Travel Grant from EII to participate in 2010 PhD School in Cloud Computing, Service Computing & Social Networks, 23-27 November 2010, The University of Queensland, Australia.
- **Swinburne University Postgraduate Research Award** (SUPRA) by Swinburne University of Technology, Australia [2010 ~ 2013].
- Travel Grant from Faculty of ICT, Swinburne University of Technology, Australia [April 2010].
- **Travel Grant from the International Center for Theoretical Physics (ICTP), Trieste, Italy** for participating in the Advanced Training Course in FPGA Design and VHDL for Hardware Simulation and Synthesis [26 October ~ 20 November 2009].
- **Best Faculty Award 2006** in the Dept. of Comp. Sc. And Eng. in State University of Bangladesh.
- **Faculty Merit Scholarship –** awarded by University of Dhaka for getting 4th highest mark in B.Sc. in the whole university science faculty.
- **Undergraduate Merit Scholarship** - awarded by Bangladesh government in recognition of performance in Higher Secondary School Certificate Examination. Received this award in 1st, 2nd, 3rd and 4th year of B.Sc.
- **Junior Scholarship (Talent Pool)** - awarded by Bangladesh government in 9th and 10th grade for outstanding performance in 8th grade.

Technical Skills

- **Programming Languages**: C/C++, Python, PHP, Java, JDBC, JavaScript, XML, XPath, XQuery, XSLT, PROLOG, Assembly Languages, VHDL, SQL and MPI.
- **Tools/IDE**: OpenGL, R, MATLAB, Octave, LATEX, Eclipse and WEKA.
- **Database Systems**: Hadoop, MongoDB, MySQL, MS SQL Server and Oracle.

Professional Memberships

2019 – Current Australian Computer Society (ACS).

2010 – Current IEEE Computer Society, IEEE TCDE and ACM SIGMOD Member.

References

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Monash University, Melbourne, Australia

(3) Prof. Chengfei Liu (PhD Supervisor and Research Collaborator)
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