DR. MOHAMMAD RASHEDUR RAHMAN [RRN]

Professor

Ph.D.

MS

Canada

in

in

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Biography

Dr. Mohammad Rashedur Rahman joined NSU in 2008 and is currently working as a Professor in the department. Dr. Rahman got his Ph.D. in Computer Science from University of Calgary, Canada under the supervisor Dr. Ken Barker who served as a Department Chair, Computer Science and Dean of Science, University of Calgary, Canada. He has his Masters degree from University of Manitoba, Canada.

During his graduate studies in both schools he has been awarded with a number of prestigious scholarships that include Queen Elizabeth II Fellowship (15,000 CAD), Province of Alberta Graduate Fellowship (10,000 CAD), University of Calgary Research award (24,000 CAD for 3 Consecutive Years) , University of Manitoba Graduate Fellowship (64,000 CAD-declined for Ph.D. in University of Calgary), Departmental Research Award in University of Manitoba. He had also been awarded Deans Award in BUET and Entrance scholarship in BUET for securing 20th position in BUET admission test among 3500 students. He is a recipient of a Gold Medal and Monetary Award of Outstanding Research from School of Engineering and Physical Sciences (SEPS) for the period 2018-2020.

Since his joining, Dr. Rahman devoted himself completely in teaching and research with his students of his department. He has taught different ranges of courses, as well engaged himself with different Masters and Undergraduate research theses and projects. He had supervised more than 10 Masters Students in ECE Department. Since his joining at NSU, he had worked as an external thesis examiner for more than 15 Master's theses. Additionally, he served on the dissertation committee for two students who received Ph.D. degrees from BUET in computer science and engineering. Additionally, he worked as an external Ph.D. examiner for two students, one from Griffith University in Queensland, Australia, and the other from University of New Castle in New South Wales, Australia.

He had published a good number of international journal articles and research papers in conference proceedings with the students of NSU. All of those papers are indexed in Scopus, ISI Web of Science, and Google Scholar. His published papers are well cited and a good number of citations (around 3700 till October 24) from Google Scholar and Scopus has been recorded .

Apart from teaching and research, he also engaged himself in reviewing funding projects that include both national and international level grant applications. He served as the SRC (Scientific Review Committee) Chair from School of Engineering and Physical Sciences (SEPS) for 2020-23. He also served as an external reviewer of a grant application amounting 50,000 Euro from Department of Water and Climate Risk, Vrije University (VU) Amsterdam, Netherlands and RISE funding from BUET.

Dr. Rahman also review and set different questions for Information Technology Engineers Examination (ITEE) examination organized by JICA (Japan International Cooperation Agency) and Bangladesh Computer Council under the umbrella of ICT Division, Ministry of Posts, Telecommunications & IT, Bangladesh. With JICA's invitation and sponsorship he attended international question formulation

workshop in Tokyo, Japan, 2015 . He also attended international question formation meeting (QFP) in Ulaanbaatar, Mongolia and Bangkok, Thailand in 2017 and 2019 respectively with joint sponsorship of JICA and GOB (Govt. of Bangladesh). Dr. Rahman served as an evaluation committee member of Scholarship & Fellowship award committee of ICT Division.

He is a Senior Member of IEEE and a Fellow of the Bangladesh Computer Society. He is serving as an editorial board member in a number of renowned journals and a program committee member of several conferences organized by ACM, IEEE and Springer. He was the organizing chair of 24th IEEE International Conference on Computer and Information Technology(ICCIT 2021) hosted by NSU.

Research Areas

▪ Database and Information Systems

▪ Artificial Intelligence & Robotics

▪ Cloud Computing and Distributed Systems

Selected Publications

Journals

▪ Nahian Ahmed, Rashedur M. Rahman, "Label noise tolerance of deep semantic segmentation networks for extracting buildings in ultra-high-resolution aerial images of semi-built environments," Geocarto International, Taylor and Francis, UK, 2021, https://doi.org/10.1080/10106049.2021.1992022 (Impact Factor (IF): 4.889), 2021

▪ Ahmed, N., Rahman, R.M., Adnan, M.S.G., Ahmed, B., "Dense prediction of label noise for learning building extraction from aerial drone imagery," International Journal of Remote Sensing (IJRS), 2021, https://doi.org/10.1080/01431161.2021.1973685, (IF: 3.151), 2021

▪ Mustafizur Rahaman, Md. Monsur Hillas, Jannatul Tuba, Jannatul Ferdous Ruma, Nahian Ahmed & Rashedur M. Rahman, "Effects of Label Noise on Performance of Remote Sensing and Deep Learning-Based Water Body Segmentation Models," Cybernetics and Systems, https://doi.org/10.1080/01969722.2021.1989171, (IF: 1.879), 2021

▪ Mohammed Sarfaraz Gani Adnan, Md Salman Rahman, Nahian Ahmed, Bayes Ahmed, Md. Fazleh Rabbi, Rashedur M. Rahman, "Improving Spatial Agreement in Machine Learning-Based Landslide Susceptibility Mapping," Remote. Sens. 12(20): 3347 (2020)

(IF: 4.848), 2020

▪ N Ahmed, RB Mahbub, RM Rahman, "Learning to extract buildings from ultra-high resolution drone images and noisy labels," International Journal of Remote Sensing 41 (21), 8216-8237. (IF: 3.151)., 2020

▪ Karim Redwanul, Islam M.A., Muhiminul Simanto, Sazid Rahman , Chowdhury Saif Ahmed, Roy Kalyan, Al Neon Adnan , Hasan Md. Sajid, Firoze Adnan, Rahman Rashedur M., "A step towards information extraction: Named entity recognition in Bangla using deep learning," Journal of Intelligent and Fuzzy Systems, 37(2), IOS Press (IF: 1.851), 2019

▪ Deb Tonmoay, Ali, Mohammad Zariff Ahsham, Bhowmik Sanchita, Firoze Adnan. Ahmed Syed Shahir, Tahmeed Muhammad Abeer Rahman N.S.M. Rezaur, Rahman Rashedur M, "Oboyob: A sequential-semantic Bengali image captioning engine," Journal of Intelligent and Fuzzy Systems, 37(2), IOS Press (IF: 1.851), 2019

▪ Rashedur M Rahman, Fazle R. Hasan, "Using and Comparing Different Decision Tree Classification Techniques for Mining ICDRR,B Hospital Surveillance Data," Expert Systems with Applications: 38(9), pp. 11421-11436, Elsevier Science (IF:6.954), 2011

▪ Rashedur M Rahman, K. Barker and R. Alhajj, "Replica Placement Strategies in Data Grid," Journal of Grid Computing, Springer, 6(1): 103-123 (IF:3.986), 2008

▪ Rashedur M Rahman, K. Barker, and R. Alhajj, "Replica selection strategies in Data Grid," Journal of Parallel and Distributed Computing, Elsevier Science, 68(12): 1561-1574 (IF:3.734), 2008

▪ Syed Akib Anwar Hridoy, M Tahmid Ekram, Mohammad Samiul Islam, Faysal Ahmed, Rashedur M Rahman, "Localized twitter opinion mining using sentiment analysis," Decision Analytics, 2:8, pp.1-19, Springer, 2015

▪ Mohammed Rashid Chowdhury, Mohammd Raihan Mahmud, Rashedur M Rahman, "Implementation and performance analysis of various VM placement strategies in CloudSim," Journal of Cloud Computing 4 :20, Springer, pp. 1-21 (IF: 3.222), 2015

▪ Ashiqur M Rahman, Rashedur M Rahman, "CAPM Indexed Hybrid E-Negotiation for Resource Allocation in Grid Computing," International Journal of Grid and High

Performance Computing, IGI-Global, USA, Vol:5, Issue: 2, pp. 72-91, 2013

▪ Mohammad Alaul Haque Monil, Rashedur M Rahman, "VM consolidation approach based on heuristics, fuzzy logic, and migration control," Journal of Cloud Computing 2016 5:8, pp. 1-18, Springer (IF: 3.222), 2016

Conference Papers

▪ Mohammad Alaul Haque Monil, Rashedur M. Rahman, "Fuzzy Logic Based Energy Aware VM Consolidation," 8th International Conference on Internet and Distributed Computing Systems (IDCS 2015), London, U.K., Lecture Notes in Computer Science 9258, Springer, pp. 31-38 , 2015

▪ Md. S. Q. Zulkar Nine, Md. Abul Kalam Azad, Saad Abdullah, Rashedur M. Rahman, "Fuzzy logic based dynamic load balancing in virtualized data centers.," 22nd IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 2013

▪ Mohammad Alaul Haque Monil, Romasa Qasim, Rashedur M. Rahman, "Speed and direction based fuzzy handover system," 22nd IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 2013

▪ Mohammed Rashid Chowdhury, Mohammad Raihan Mahmud, Rashedur M. Rahman, "Clustered based VM placement strategies," 14th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2015,USA, June 28 – July 1, pp.247 252, 2015

▪ Adnan Firoze, Rashedur M Rahman, "Mining ICDDR, B Hospital Surveillance Data Using Locally Linear Embedding Based SMOTE Algorithm and Multilayer Perceptron," 7th Asian Conference on Intelligent Information and Database Systems, Lecture Notes in Computer Science 9011, pp.398-407, Springer, 2015

Research Projects & Grants

1. Project Title: Hybridized Artificial Intelligence-Based Spatio-Temporal Flood Susceptibility Mapping, ICT Innovation Fund, ICT Division, Taka 6 Lac BDT, Year 2021

2. Project Title: Dense prediction under pseudo-random and non-random noise in multidimensional labels, Role: Principal Investigator, Fund: 5 Lac BDT Equivalent to $6000, From: Conference Travel and Research Grants (CTRG), North South University,

Duration: 2020-21.

3. Project Title: Hybridization of E-Commerce Platforms using Blockchain, Smart Contract and Data Mining, Travel and Research Grants (CTRG), North South University, Duration: 2021-22.

4. Project Title: Can Artificial Intelligence Perceive Beauty? Role: Co-Principal Investigator, Fund: 3 Lac BDT Equivalent to $4,000, Conference Travel and Research Grants (CTRG), North South University, Duration: 2016