Md Abid Hasan, M.Sc.

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Employment

Feb 2026 - Ongoing	**Data Scientist,** German Research Center for AI (DFKI).
Oct 2024 – Jan 2026	**AI Project Manager,** expandAI GmbH.
Oct 2022 – Sept 2024	**Scientific Assistant**, IMI, University of Lübeck.
Jan 2019 – Sep 2021	**Assistant Professor**, American International University, BD.
Aug 2017 – Dec 2018	**Lecturer**, City University, BD.
Feb 2013 – Aug 2014	**Front-end Developer** Softwind Tech Ltd, BD.

Projects

Aug 2025 - Feb 2026	**ExRohr** Fault detection and system automation of sewer pipeline system of Schleswig-Holstein state, Germany. Source of Fund: ExRohR GmbH
Oct 2024 – Feb 2026	**KIgG**: AI-Based diagonistics of autoimmune diseases Source of Fund: German Federal Ministry of Education and Research (BMBF).
Oct 2024 – Feb 2025	**Half-Hourly Sales Forecasting** Source of Fund: Junge Die Bäckerei GmbH
Dec 23 – Sept 2024	**INDICATE-FH**: Explainability of food intolerance with deep learning. Source of Fund: German Federal Ministry of Education and Research (BMBF)
June 2023 – Oct 2024	**SAM-SMART**: Cost-effective security solutions and automated AI-based corrective measures for low-quality products for the mass market. Source of Fund: German Federal Ministry of Education and Research (BMBF).
Oct 2022 – Nov 2026	**TSDA**: Effective time series data augmentation algorithm for wearable sensors. Source of Fund: German Academic Exchange Service (DAAD).

Education

Oct 2022 – ongoing	**PhD/Doctoral candidate** University of Lübeck, Germany. Advised by Prof. Dr.-Ing. habil. Marcin Grzegorzek
Sept 2014 – Apr 2017	**M.Sc. Mechatronics,** University of Siegen, Germany. Advised by Prof. Dr.-Ing. habil. Marcin Grzegorzek
Jan 2009 – Dec 2012	**B.Sc. EEE,** American International University-BD. Advised by Pro. Syed Mustafa Khelat Bari

Skills

Coding	Python, LaTeX, JavaScript
Web Dev	Angular, React, Vue.js, Django, Html, css
Databases	MySQL, SQL
Infrastructure	Docker, AWS (Amazon Web Services)
Misc.	Academic research, Teaching, Training, Consultation, and Publishing.

Research Publications

Journal Articles

1. S. Sieciński et al., "Assessment of quality of electrocardiograms, seismocardiograms, and gyrocardiograms based on features derived from symmetric projection attractor reconstruction in healthy subjects," *Biomedical Signal Processing and Control*, vol. 111, p. 108 170, 2026.
2. M. A. Hasan, F. Li, A. Piet, P. Gouverneur, and M. Grzegorzek, "A comprehensive survey and comparative analysis of time series data augmentation in medical wearable computing," *Plos one*, 2025.
3. A. Kordowski et al., "Indicate-fh-neue wege in der diagnostik und therapie von nahrungsmittelunverträglichkeiten-technologische neuerungen zur verbesserung der diagnostik und therapie von weizenunverträglichkeit," 2025.
4. R. Doniec et al., "Sensor-based classification of primary and secondary car driver activities using convolutional neural networks," *Sensors*, vol. 23, no. 12, p. 5551, 2023.
5. M. A. A. R. Rakib, M. S. R. Zishan, and M. A. Hasan, "Energy harvesting technology by converting waste heat energy from automobiles," *AIUB Journal of Science and Engineering (AJSE)*, vol. 20, no. 4, pp. 127–132, 2021.
6. M. A. Hasan and M. H. Rahman, "Smart phone based sensor fusion by using madgwick filter for 3d indoor navigation," *Wireless Personal Communications*, vol. 113, no. 4, pp. 2499–2517, 2020.
7. M. A. Hasan and M. N. Mishuk, "Mems imu based pedestrian indoor navigation for smart glass," *Wireless Personal Communications*, vol. 101, no. 1, pp. 287–303, 2018.

Conference Proceedings

1. M. A. Hasan et al., "Deep-learning-based detection of food hypersensitivity from confocal laser endomicroscopy images of the gastro-intestinal tract," in *Proceedings of the 58th Hawaii International Conference on System Sciences*, HICSS, 2025, pp. 3286–3296.
2. M. Kręcichwost et al., "Automated segmentation of polish sibilants using modified yamnet architecture for computer-aided speech diagnosis in children," in *International Conference on Information Technologies in Biomedicine*, Springer, 2025, pp. 144–154.
3. M. A. Hasan, F. Li, A. Piet, P. Gouverneur, M. T. Irshad, and M. Grzegorzek, "Exploring the benefits of time series data augmentation for wearable human activity recognition.," in *Proceedings of the 8th international Workshop on Sensor-Based Activity Recognition and Artificial Intelligence*, 2023, pp. 1–7.
4. M. A. Hasan, N. T. Rouf, M. S. Hossain, L. B. Latif, A. Tasnim, and M. Grzegorzek, "A location-independent flood prediction model for bangladesh's rivers," in *2023 IEEE 35th International Conference on Tools with Artificial Intelligence (ICTAI)*, IEEE, 2023, pp. 143–148.
5. S. Siecinski, M. T. Irshad, M. A. Hasan, E. Tkacz, and M. Grzegorzek, "Assessment of quality of gyrocardiograms based on features derived from symmetric projection attractor reconstruction," in *Proceedings of the 8th international Workshop on Sensor-Based Activity Recognition and Artificial Intelligence*, 2023, pp. 1–5.
6. S. Sieciński, M. T. Irshad, M. A. Hasan, E. J. Tkacz, P. S. Kostka, and M. Grzegorzek, "Symmetric projection attractor reconstruction analysis as a method for assessment of the quality of seismocardiograms in healthy population," in *45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, 2023.
7. M. S. U. Ahmed et al., "Development of a secured and low-budget biometric electronic voting machine for bangladesh," in *2021 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST)*, IEEE, 2021, pp. 753–757.
8. M. S. Samrat, M. F. Ali, M. A. Islam, M. Hasan, and M. A. Hasan, "Hybrid sensor based path-planning for autonomous vehicle," in *2021 International Conference on Electronics, Communications and Information Technology (ICECIT)*, IEEE, 2021, pp. 1–4.
9. M. A. Hasan, E. J. Munia, S. K. Pritom, M. H. Setu, M. T. Ali, and S. C. Fahim, "Cardiac arrhythmia detection in an ecg beat signal using 1d convolution neural network," in *2020 IEEE Region 10 Symposium (TENSYMP)*, IEEE, 2020, pp. 352–357.

10. S. Ahmad, R. R. Hasan, R. Hasan, M. A. Al Rakib, M. A. Hasan, and M. Zubayar, "A low sar in-body antenna for wireless monitoring purpose of pacemaker system," in *2019 4th International Conference on Electrical Information and Communication Technology (EICT)*, IEEE, 2019, pp. 1–6.

11. J. Metzger, J. Wieland, J. Jensen, J. Bender, and M. A. Hasan, "A novel free jet turbine for using kinetic energy in the field of nano-hydropower," in *E-proceedings of the 37th IAHR World Congress*, 2017.

12. S. D. Gupta, M. F. Islam, M. R. Rayhan, M. A. Hasan, and K. M. Nuronnabi, "The ultimate fuel choice for power plants of bangladesh: An essential initiative towards national energy security," in *2012 IEEE Third International Conference on Sustainable Energy Technologies (ICSET)*, IEEE, 2012, pp. 327–333.

Books and Chapters

1. M. T. Islam et al., *Assessment of hydrogen as an alternative fuel: status, prospects, performance and emission characteristics*. Springer Singapore, 2022, pp. 135–171.

MOOCS

Machine Learning. Stanford University, Coursera, Credential Id: KHPU8ELRE7N2

Python for Data Science and Machine Learning Bootcamp. Udemy, Pierian Data Inc.

Introduction to TensorFlow for AI, ML & DL. Deeplearning.ai, Coursera, Credential Id: N3RPQXG6EQUB

Introduction to self-driving cars. University of Toronto, Coursera, Credential Id: C9VSVDRTPXHD

Synergistic Activities

Member at Local and Virtual Chair of 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST) 2021, organizing committee

Miscellaneous Experience

Awards and Achievements

Oct 2022 – Oct 2026 **Research Grants - Doctoral Programs**, DAAD scholarship.

March 2021 **Erasmus Mundus Scholarship**

2004 – 2009 **Multiple times got merit-based scholarship for academic performance from the government of BD**