

ABDULLAH AL MAHMOOD

Research Intern, XIoT Lab, Multimedia University · Electrical and electronic engineer · Prospective PhD candidate, 2027

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Bangladeshi national, long-term pass holder in Malaysia

PROFILE

Research intern at the XIoT Lab, Multimedia University, and electrical and electronic engineer with six and a half years in applied engineering, four in a dedicated research role. My work spans digital healthcare, telemedicine, AI-powered motion detection, healthcare device design, and generative AI, with one common aim: measuring behavior as it happens rather than reconstructing it afterwards. MSc in ICT (CGPA 3.81 / 4.00); four peer-reviewed papers and a fifth presented in September 2026. Seeking a funded doctoral position from 2027.

EDUCATION

MSc, Information and Communication Technology · CGPA 3.81 / 4.00 **2019 – 2022**

Bangladesh University of Professionals, Dhaka

Thesis: Deep learning-based automated speed and lane-change detection from naturalistic traffic footage.

BSc, Electrical and Electronic Engineering · CGPA 3.21 / 4.00 **2008 – 2012**

Ahsanullah University of Science and Technology, Dhaka

Thesis: Optimal peak-shaving operation of a hydroelectric power station to reduce load shedding.

RESEARCH EXPERIENCE

Research Intern, XIoT Lab **2026 – present**

Faculty of Computing and Informatics, Multimedia University, Cyberjaya

Research Collaborator, Environmental and climate-health machine learning **2025 – present**

Multimedia University, Malaysia · Miraiyo, Bangladesh · Centre for Electric Energy and High Voltage Engineering

Field study, telemedicine adoption **2020 – 2021**

35 in-depth interviews with clinicians, patients, and platform staff under institutional ethics approval, published as [5].

Research Engineer, Debonair Electrical & Electronics Ltd., Dhaka **2015 – 2019**

Applied product research and technical evaluation of electrical and electronic systems for international suppliers.

Support Engineer, Ahsan Automation Ltd., Dhaka **2013 – 2015**

Design and implementation of industrial automation systems.

PUBLICATIONS

- [1] Chakraborty, A., Kabir, J., **Mahmood, A. A.**, Santo, I. A., Islam, S., & Siow, C. L. (2026). Forecasting Dengue Outbreaks in Malaysia: A Machine Learning Approach Using Open Weather Data. MECON2026, Multimedia University, Malaysia.
- [2] Chakraborty, A., Santo, I. A., Kabir, J., **Mahmood, A. A.**, Sajid, A., & Siow, C. L. (2026). Air Quality Crisis Prediction in Dhaka: Benchmarking Machine Learning with Seasonal Brick Kiln Features. MECON2026, Multimedia University, Malaysia.
- [3] **Mahmood, A. A.** (2026). Ethical Impact of Generative AI on Malaysia's Digital Art: A Survey of Creative Professionals. 8th ASEAN-UEC Workshop on Informatics and Engineering, Cyberjaya. Presented.
- [4] Kabir, J., Chakraborty, A., **Mahmood, A. A.**, & Chakraborty, A. (2024). Exploring Explainable Artificial Intelligence: A Comparative Analysis of Interpretability Techniques. IJARCC, 13(3). doi:10.17148/IJARCC.2024.13301
- [5] **Mahmood, A. A.**, et al. (2021). COVID-19 Pandemic and AI-Based Telemedicine in Bangladesh: A Communicational Analysis. Asian Journal of Multidisciplinary Research & Review, 2(2), 592–621.
- [6] **Mahmood, A. A.** Applying AI for Optimal Hydroelectric Power Management. In preparation.

THESIS

- [7] **Mahmood, A. A.**, et al. (2022). Towards Deep Learning-Based Automated Speed and Lane Change Detection System in the Perspective of Bangladesh. MSc thesis, Bangladesh University of Professionals, Dhaka.
- [8] **Mahmood, A. A.** (2012). Optimal Peak Shaving Operation of a Hydroelectric Power Station in Bangladesh and Its Impact on the Reduction of Severe Load Shedding. BSc thesis, Ahsanullah University of Science and Technology, Dhaka.

CONFERENCE PRESENTATIONS

8th ASEAN–UEC Workshop and 13th UEC Seminar in ASEAN, Multimedia University, Cyberjaya, 5–6 Sept 2026. Presented [3] and [2].

7th Multimedia University Engineering Conference (MECON2026), Malaysia, 5–7 May 2026. Co-author of [1] and [2].

SKILLS

Methods	Experimental design and A/B testing, survey and interview design, thematic analysis, research ethics.
Machine learning	Supervised learning, model benchmarking, explainable AI (LIME, SHAP), deep learning for computer vision, forecasting.
Tools	Python, JavaScript, HTML/CSS, Google Analytics 4, Tag Manager, Looker Studio, WordPress.

PROFESSIONAL EXPERIENCE

Engineering roles from 2013 to 2019, including four years as a research engineer, are listed under Research Experience above. The roles below have run alongside that research record rather than replacing it: the MSc was completed in full during the 2019–2022 period, and publications appeared in 2021, 2024 and 2026.

Social Media & Content Manager, Paid Media2024 – present

Black Swan Business Setup Services, UAE (remote)

- Designs and runs controlled experiments across five national markets; randomised creative, audience, and landing-page trials with outcomes and success criteria pre-specified before results are read.
- Builds and operates the measurement stack end to end: event schema design, Google Analytics 4, Tag Manager, server-side Conversions API, and Looker Studio reporting, the applied equivalent of instrument design and data pipeline construction.
- Analyses behavioural response at population scale: segmentation, attribution across touchpoints, and the recurring divergence between what respondents state and what they are observed to do.
- Operates the automated bidding and targeting systems that algorithmic-accountability research studies from the outside, which is the empirical basis of one of my research interests.
- Leads a team of creators, editors, and SEO specialists; negotiates data and measurement agreements with commercial partners.

Technical Writer · Marketing Manager · Assistant Manager2019 – 2024

BuddyBoss (Canada) · STUDiLOG (Bangladesh) · Enzaime Bangladesh

- Developer documentation and structured pre-release software testing at BuddyBoss: reproducing defects against specification and reporting them in a form engineers could act on.
- Systematic competitor and market analysis; design and supervision of content research workflows; team leadership.
- At Enzaime Bangladesh, sector access to clinicians, patients, and digital-health platform staff, which provided the field access behind study [5]. The MSc was completed in full over this same period.

LANGUAGES AND REFEREES

Bengali	Native speaker; a working research capability for fieldwork, interviewing and primary-document access in Bangladesh.
English	Full professional proficiency; medium of instruction throughout secondary and higher education. IELTS Academic, overall band 7.0; the certificate lapsed in Jan 2026, and a retest can be arranged at short notice if a valid score is required.
Hindi	Good working proficiency in speech and comprehension; sufficient for interviewing and for South Asian source material.
Malay	Basic working familiarity, sufficient for regional source material with reference support.
Referees	Two academics and one professional referee are available on request.
Available	Immediately, and available to relocate. Seeking a funded doctoral position beginning in 2027.