MD RAIHAN KHAN

IT Manager | IT Project Manager | e-GP Tender and Procurement Specialist | Founder of e-GP Bangla, Chakri Bangla, Visa Bangla and ABCL TECH

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PROFESSIONAL SUMMARY

Technology and project leader with over 11 years of progressive experience (2015 – present) spanning UI/UX design, full-stack development, training-management platforms, e-Government systems, and public-sector digital transformation. Currently IT Manager at Management and Training International Ltd. (MTI), having advanced through Programmer and Senior System Analyst roles, directing technical delivery for national projects of the ICT Division (a2i, BDSET, iDEA), IMED, the Ministry of Liberation War Affairs, the Bangladesh Water Development Board, and the Ministry of Commerce, as well as EU-funded international training programmes delivered across Europe.

Public procurement specialist managing the complete e-GP tender cycle (tender search, technical and budget preparation, submission, contracting, and project liaison) for MTI since 2018 and, since 2025, as e-GP Consultant to Crystal Technology Bangladesh Ltd. Founder of four digital platforms (ABCL TECH, Visa Bangla, Chakri Bangla, and e-GP Bangla) and editor of more than 30 published books on e-GP, competitive job preparation, and IELTS, PTE, and GRE preparation. Holds a B.Sc. in Computer Science and Engineering from North South University (2023), JICA–BCC–BASIS B-TopSE training in software architecture, cloud, agile, and AI, a PMI Authorized PMP Exam Prep Course (35 contact hours), and ISO 14001:2015 internal auditor training.

Active independent researcher in trustworthy Artificial Intelligence, with current work on hallucination measurement, retrieval-augmented generation (RAG), knowledge graph retrieval, and low-resource Bangla-language Natural Language Processing, and hands-on daily use of modern AI tools, agents, and workflow automation. Committed to bridging policy objectives and engineering execution to build transparent, inclusive, and trustworthy digital public services, and seeking to formalise this expertise through advanced study in Human-Centred Artificial Intelligence.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Java, C, C++, SQL, HTML5, CSS3, PHP

Artificial Intelligence and Machine Learning: PyTorch, TensorFlow, Scikit-learn, Hugging Face Transformers, LangChain, OpenCV, ARIMA Time Series Forecasting, Convolutional Neural Networks, Statistical Modelling

Large Language Models and Retrieval-Augmented Generation: LLaMA, Qwen, Gemma, Vector RAG, Knowledge Graph RAG, Hybrid Retrieval Architectures, FAISS, Neo4j, RAGAS Evaluation Framework, Prompt Engineering

AI Tools, Agents and Automation: ChatGPT, Gemini, Claude, Grok, DeepSeek, AI Agent Design and Development, Agent Skill Creation for LLM-based Systems, n8n Workflow Automation, AI-Assisted Software Development

Trustworthy AI and Evaluation: Hallucination Measurement, Faithfulness Evaluation, Answer Relevancy, Context Precision and Recall, Semantic Similarity, Data Anonymisation, Privacy-by-Design, EU AI Act Awareness

Natural Language Processing: Bangla NLP, Low-Resource Language Processing, Multilingual Tokenisation, Mixed-Script (Bangla–Latin) Text Processing, Optical Character Recognition (OCR)

User Experience and Visual Design: UI/UX Design, User Interface Development, Visual Branding, Digital Graphics, Web Design, Front-End Prototyping, Client Requirements Translation

Web and Software Development: React, Node.js, Express, REST APIs, Full-Stack Development, Object-Oriented Programming, Software Engineering Principles

Databases and Data Engineering: MySQL, PostgreSQL, MongoDB, Neo4j (Graph Databases), Relational Database Design, ETL Workflows

Tools and Platforms: Git, GitHub, Linux, Visual Studio Code, Jupyter Notebook, Google Colab, ReportLab (PDF Generation), Microsoft Office Suite

Public Sector and e-Government Systems: e-Government Procurement (e-GP), ePMIS, Result-Based Monitoring and Evaluation, Digital Archiving, National Stakeholder Coordination, Project Implementation Support

Project and Programme Management: Cross-Functional Team Coordination, Stakeholder Management, International Logistics, Bilateral Project Delivery, Donor-Funded Programme Execution

PROFESSIONAL EXPERIENCE

IT Manager (July 1, 2025 – Present)

Management and Training International Ltd., Dhaka, Bangladesh

ISO 9001:2015 (Quality Management Systems) and ISO 14001:2015 (Environmental Management Systems) certified training management and consulting firm (www.mtibkk.com), delivering national and international training, research, consultancy and software for government and development-sector clients since 2007.

- **IT Operations and Team Leadership:** Lead and supervise the IT team across concurrent government projects; plan and allocate work, ensure system uptime and performance, resolve escalated issues and coordinate with client project offices and ministries on delivery and support.
- **Strategic Project Oversight:** Directing technical operations for the "Bangladesh-Bharot Digital Service and Employment Training (BDSET) Center Project" and the "TCMS" software, ensuring robust system performance and seamless user experiences.
- **Digital Preservation Leadership:** Supervising the maintenance and expansion of the "Birer Konthe Birgatha" digital archive, managing data security and integration with National Archives for public access.
- **Consultancy Management:** Coordinated and supported key digital transformation initiatives for the Aspire to Innovate (a2i) program under the ICT Division, specifically managing the "Hiring a Consulting firm for Project Implementation Support at a2i" component.
- **Platform Delivery and Integration:** Oversee the design, development and maintenance of training portals (participant registration, online pre-test and post-test examinations, automated results, training and trainer evaluation, analytical reporting), training databases, and the integration of digital attendance and digital payment systems.
- **IT Procurement, Budgeting and Contracts:** Prepare technical specifications, budgets and budget analysis for e-GP tenders, manage post-award legal and contract documentation, and liaise with project offices through contract completion, a responsibility held continuously since 2018.
- **Corporate Website:** Built and maintain MTI's corporate website, www.mtibkk.com, covering its services, projects, team and training portfolio.

e-GP Consultant (January 1, 2025 – Present) — Consultancy Engagement (Part-Time)

Crystal Technology Bangladesh Ltd., Dhaka, Bangladesh

IT solutions company specialising in government software, hospital automation, digital attendance and shared health records since 2009 (www.crystaltechbd.com).

- **Tender Identification and Preparation:** Search and shortlist e-Government Procurement (e-GP) tenders; prepare technical documents and tender budgets, including budget analysis in accordance with the SLT.
- **Tender Submission and Contracting:** Submit tenders through the national e-GP portal and, upon award, prepare the legal documents and finalise the contract agreement.
- **Project Liaison:** Liaise with the project office from contract signing through to contract completion and close-out of the tender.
- **Company Website:** Built and maintain the company website, www.crystaltechbd.com, covering its services, projects, clients and track record.

Senior System Analyst (June 1, 2023 – June 30, 2025)

Management and Training International Ltd., Dhaka, Bangladesh

- **System Architecture:** Engineered and managed the complete data archiving system for "Birer Konthe Birgatha," a national-level project preserving the testimonies of Bangladesh's freedom fighters.
- **Capacity Building:** Strengthened government monitoring capacity by analyzing and supporting the ePMIS training program for the "Capacity Enhancement for Effective Practice of Result Based M&E System in IMED (CEEPRM & ESI) (1st Revised)" project, improving digital evaluation practices.
- **Digital Transformation:** Supported high-level initiatives for the Aspire to Innovate (a2i) program aimed at building a "smart" government, society and economy.
- **Requirements and Systems Analysis:** Translated client and project requirements into system designs, data models and implementation plans, and supported deployment, user training and documentation.

Programmer (January 1, 2021 – May 31, 2023)

Management and Training International Ltd., Dhaka, Bangladesh

- **EdTech Development:** Developed and maintained the Online Classroom Management system for the iDEA Project (ICT Division), a government initiative supporting digital education and tech innovation.
- **Training Software Engineering:** Engineered and maintained training software for the "Bangladesh-Bharot Digital Service and Employment Training (BDSET) Center Project," enhancing digital literacy and employment skills.
- **Project Operations:** Coordinated large-scale government initiatives, managing daily operations, optimizing resources, and maintaining comprehensive documentation to ensure project milestones were met.

Assistant Program Officer (January 1, 2018 – December 31, 2020)

Management and Training International Ltd., Dhaka, Bangladesh

- **Program Execution:** Organized and executed customized overseas training programs, study tours, and workshops for high-level officials from various ministries of Bangladesh.
- **International Liaison:** Coordinated logistics by liaising with diverse international stakeholders, including renowned universities and government organizations.
- **Stakeholder Management:** Managed communication, travel logistics, and program documentation to ensure successful project delivery.

Graphic and Web Designer (January 1, 2015 – December 31, 2017)

Crystal Technology Bangladesh Ltd., Dhaka, Bangladesh

- **UI/UX Design:** Designed and developed user-friendly websites and user interfaces (UI) for a leading national ICT organization.
- **Visual Branding:** Created visually engaging digital graphics and branding materials for high-impact client sectors, including enterprise software and hospital automation projects.
- **Client Solutions:** Partnered with development teams to translate complex client requirements into effective, user-centric digital solutions.

PROFESSIONAL PROJECT EXPERIENCE (NATIONAL)

Selected national-level projects delivered under Management and Training International Ltd. as the consulting and implementation partner for various ministries of the Government of Bangladesh.

Climate-Smart Agriculture and Water Management (CSAWM) Project (BWDB Part) — Professional Training for BWDB Officials, Package Nos. CSAWMP-WDB-PCU-WD-21 and WD-22 (Packages 21 and 22)

Client: Project Director, CSAWM Project (BWDB Part), Bangladesh Water Development Board (BWDB), Government of Bangladesh | MTI Ltd. engaged as Training Service Provider (TSP) | 2026 – 2027

- **Project Scope:** Two training packages totalling 75 batches of professional training for 1,875 BWDB officials (25 per batch) across six and seven disciplines respectively, to be completed by 31 May 2027; Notifications of Award issued on 29 March 2026 and contracts signed on 09 April 2026.
- **Training Portal Development:** Designed and developed the Training Portal for participant information collection, pre-test and post-test examinations, automated result generation, and online collection of training and trainer evaluations, with report analysis and generation.
- **Database and Digital Integration:** Created and maintain the training database; integrated a digital attendance application and a digital payment system into the training workflow.
- **IT Team Leadership and Coordination:** Lead and supervise the IT team and coordinate with the Project Office on the conduct and implementation of the training programme.

Skill and Capacity Development of Women Entrepreneurs Engaged in the Production of Diversified Jute Products, Handicrafts and Agro-Processing Including Trade-Related Regulatory Issues — Bangladesh Regional Connectivity Project (BRCP-1), Package No. SD42

Client: Ministry of Commerce, Government of Bangladesh | Financed by the International Development Association (IDA), World Bank Group

- **Project Context:** Technical assistance component (Part-02) of BRCP-1, an IDA-financed (SDR 150 million) project jointly implemented by the Bangladesh Land Port Authority, the National Board of Revenue, and the Ministry of Commerce to strengthen trade-related institutional capacity and advance the economic empowerment of women traders.
- **Assignment Scope:** Refinement of training needs, development of three sector-specific training modules with implementation manuals and a monitoring and evaluation framework, and full-scale training implementation for approximately 1,050 participants, followed by three refresher workshops and a national refresher workshop.
- **Training Portal and Database:** Developed the Training Portal for participant information collection and created and maintain the training database.

- **e-Commerce Training of Trainers (ToT):** Delivered ToT sessions on e-Commerce to help young women entrepreneurs market and sell their products online, including a cyber-awareness orientation, and prepared the e-Commerce training manual.
- **IT Team Leadership:** Lead and supervise the IT team for the assignment.

Hiring a Consulting Firm for Project Implementation Support at a2i

Client: ICT Division, Ministry of Posts, Telecommunications and Information Technology, Government of Bangladesh

- **Implementation Support:** Provided dedicated implementation support to the Aspire to Innovate (a2i) programme, the Government of Bangladesh's flagship initiative for citizen-centric digital service transformation.
- **Technology Coordination:** Coordinated technology delivery across multiple e-Government workstreams aligned with the national digital strategy.

Hiring a Firm for Implementing Digital Transformation for Smart Citizens, Government, Society, and Economy

Client: ICT Division, Government of Bangladesh (a2i Programme) | 2024 – 2025

- **Technical Support:** Delivered technical support for flagship national initiatives focused on building a smart government and a digitally inclusive society.
- **Smart Services:** Supported smart-city services, citizen engagement platforms, and public-sector digital infrastructure.

Capacity Enhancement for Effective Practice of Result-Based Monitoring and Evaluation System in IMED (CEEPRM & ESI – 1st Revised)

Client: Implementation Monitoring and Evaluation Division (IMED), Ministry of Planning, Government of Bangladesh | 2024 – 2025

- **Capacity Building:** Strengthened government monitoring and evaluation capacity by analysing and supporting the ePMIS training programme for result-based evaluation across ministries.
- **Systems Analysis:** Conducted systems analysis to align M&E workflows with international standards, improving data-driven decision making in public investment management.

Birer Konthe Birgatha — Documentaries and Memoirs of Freedom Fighters

Client: Ministry of Liberation War Affairs, Government of Bangladesh | 2023 – Present

- **System Architecture:** Engineered and managed the complete data archiving system to preserve testimonies, documentaries, and memoirs of Bangladesh Liberation War freedom fighters.
- **National Archives Integration:** Ensured system integration with the National Archives, applying digital preservation standards, metadata schemas, and long-term accessibility principles.

Bangladesh-Bharot Digital Service and Employment Training (BDSET) Center Project

Client: ICT Division, Government of Bangladesh | Bilateral Bangladesh–India Initiative | 2021 – Present

- **Training Software:** Developed, maintained, and now oversee the core training software for a bilateral Bangladesh–India initiative enhancing digital literacy and employment skills for citizens.
- **TCMS Delivery:** Delivered the “TCMS” training-content management software supporting nationwide deployment of the BDSET training network.

Innovation Design and Entrepreneurship Academy (iDEA) — 1st Revised

Client: ICT Division, Government of Bangladesh | 2021 – 2023

- **Online Classroom System:** Developed and maintained a secure Online Classroom Management System for a national initiative supporting digital education and tech-startup growth.
- **Core Modules:** Built core modules for user authentication, course delivery, and learner progress tracking serving entrepreneurs and innovators across Bangladesh.

PROFESSIONAL PROJECT EXPERIENCE (INTERNATIONAL)

Selected international project assignments delivered under Management and Training International Ltd., supporting Bangladeshi ministerial delegations and EU-funded cross-border programmes across the European Union.

Views Sharing and Observation about Simulation/Skill Lab, Paris Graduate School

Client: Ministry of Health and Family Welfare, Government of Bangladesh | Locations: France, Italy, Belgium | 2018 – 2020

- **Programme Execution:** Organised and executed a high-level ministerial study tour across three European countries, managing all international logistics and stakeholder coordination.
- **Stakeholder Liaison:** Liaised between the Bangladeshi delegation and academic stakeholders in France, Italy, and Belgium to support knowledge exchange on medical simulation and skill-lab infrastructure.

EU Support to Health and Nutrition to the Poor in Urban Bangladesh — International Training Components

Clients: Ministry of Health and Family Welfare; Local Government Division (under MoLGRD); European Union | Locations: Italy, France, Switzerland, Germany | 2018 – 2020

- **Programme Delivery:** Executed the international training components of a major EU-funded urban public-health and nutrition project, managing all programme logistics across four European countries.
- **Knowledge Transfer:** Coordinated communication and knowledge transfer between Bangladeshi ministries and European partners across Italy, France, Switzerland, and Germany.

ENTREPRENEURIAL VENTURES

Self-founded digital platforms and publishing initiatives serving Bangladesh, each personally designed and developed.

e-GP Bangla — Founder (2026 – Present)

Country: Bangladesh | Website: www.egpbangla.com

- **Platform:** Online platform that publishes electronic Government Procurement (e-GP) advertisements for clients and news on the latest tender rules and regulations of the Government of Bangladesh, and provides tender-based consultancy to clients.
- **Publishing:** Editor of two books: “Learn e-GP in Bangla: Tender Submitter” and “Learn e-GP in Bangla: Procuring Entity”.
- **Technology:** Designer and developer of the website portal.

Chakri Bangla — Founder (2024 – Present)

Country: Bangladesh | Website: www.chakribangla.com

- **Platform:** Job-preparation and news portal for competitive examinations in Bangladesh (BCS, Bank, NTRCA, Primary Teacher, BJS, and Bar Council); publishes job news and circulars, each supervised and approved personally before publication.

- **Publishing:** Editor of the company's 11 subject-wise books covering Bangla, English, Mathematics, Bangladesh Affairs, Computer & Information Technology, Ethics, Values & Good Governance, General Science, Geography, Environment & Disaster Management, International Affairs, Mathematical Reasoning, and Mental Ability, together with featured question banks for the BCS, NTRCA, Primary Assistant Teacher, Bank Job, BJS (Bangladesh Judicial Service), and Bar Council examinations.
- **Technology:** Designer and developer of the website portal.

Visa Bangla — Founder (2023 – Present)

Country: Bangladesh | Website: www.visabangla.com

- **Platform:** Online visa-consulting and visa-submission tutorial company that also provides IELTS, PTE, and GRE exam-preparation materials.
- **Responsibilities:** Create visa-submission tutorials for different countries, consult clients by phone to resolve their application problems, and develop IELTS, PTE, and GRE preparation materials.
- **Publishing:** Editor of the "IELTS: What, Why and How?", "PTE: What, Why and How?", and "GRE: What, Why and How?" book series, 19 books in total.
- **Technology:** Designer and developer of the website portal.

ABCL TECH — Founder (2020 – Present)

Country: Bangladesh | Website: www.abcltech.com

- **Platform:** ABCL TECH ("Anybody Can Learn Technology") is a Bangla-first technology media and education platform built for Bangladesh, publishing news as it breaks, editorials that make sense of it, and free courses that teach the code behind the headlines.
- **Coverage:** Artificial Intelligence, Machine Learning, Deep Learning, NLP and LLMs, Generative AI, Computer Vision, Cybersecurity, Programming, Fintech, Startups, and the Fourth Industrial Revolution; every article is written in accessible Bangla and every course ships with live runnable code, real-world projects, and exercises that mirror industry practice.
- **Technology:** Designer and developer of the website portal.

SELECTED RESEARCH PROJECTS

Benchmarking RAG, Knowledge Graph, and Hybrid Retrieval Architectures on Bangla-Language Regulatory Documents: A Multi-LLM Evaluation Harness for Low-Resource Question Answering

Independent Research Project, 2026

- **Evaluation System:** Built an end-to-end evaluation system that benchmarks three retrieval-augmented generation pipelines — standard vector RAG, Knowledge Graph-based retrieval, and a Hybrid approach — on the Bangladesh Public Procurement Rules 2025 (PPR_2025), a Bangla-language government regulatory document
- **Multi-LLM Evaluation:** Evaluated each pipeline across three open-source Large Language Models from Hugging Face (LLaMA, Qwen, Gemma) using a battery of automatic metrics, with hallucination rate as the primary measure of factual grounding, alongside faithfulness, answer relevancy, context precision, context recall, answer correctness, and semantic similarity
- **Test Harness:** Developed a Bangla question-answering test harness of several hundred queries with custom mixed-script (Bangla–Latin) PDF reporting to compare all nine pipeline–model combinations
- **Technologies:** Python, LangChain, Hugging Face Transformers, FAISS (vector search), Neo4j (knowledge graph), RAGAS (evaluation), ReportLab with NotoSans Bengali fonts for mixed-script PDF rendering

The Growing Need for Reliable AI Chatbot Information: Investigating Accuracy, Authenticity, and Up-to-dateness in Conversational AI Systems

Independent Research Project, 2025 | Supervised by Dr. Mohammad Ashrafuzzaman Khan

- **Misinformation Research:** Investigated methods to combat misinformation in conversational AI systems, focusing on enhancing information accuracy and authenticity to build public trust in deployed AI services
- **Trustworthiness Frameworks:** Surveyed and evaluated trustworthiness frameworks aligned with emerging AI governance principles, including transparency, factual grounding, and temporal accuracy of generated content

Handwritten Bangla Character Recognition: A Comparative Study

Directed Research / Capstone Project, 2023 | Supervised by Dr. Mohammad Ashrafuzzaman Khan

- **Comparative Study:** Contributed to digital inclusion and the preservation of cultural heritage by conducting a comparative study of neural network models to improve optical character recognition (OCR) for handwritten Bangla
- **Model Evaluation:** Compared multiple deep learning architectures on Bangla character datasets, evaluating accuracy, generalisation, and suitability for low-resource language deployment

Student Attendance and Behavior Monitoring in Classroom through Facial Recognition by analyzing Live Video Data

Senior Design Project, 2022 | Supervised by Dr. Mohammad Ashrafuzzaman Khan

- **Computer Vision System:** Developed a computer vision system to automate classroom attendance tracking using facial recognition, with a primary research focus on implementing data anonymisation techniques to ensure student privacy
- **Privacy-Preserving Design:** Designed privacy-preserving processing pipelines aligned with ethical AI principles, demonstrating early commitment to human-centred and rights-respecting AI design

EDUCATION

Bachelor of Science (B.Sc.) in Computer Science and Engineering

North South University, Dhaka, Bangladesh — September 2018 – November 2023 (degree completed 22 November 2023; conferred 7 December 2024)

- **Relevant Coursework:** Artificial Intelligence, Machine Learning, Data Structures and Algorithms, Design and Analysis of Algorithms, Database Management Systems, Software Engineering, Operating Systems Design, Computer Organization and Architecture, Microprocessor Interfacing and Embedded Systems, Digital Logic, Concepts of Programming Languages, Introduction to Theory of Computation, Discrete Mathematics, Linear Algebra, Probability and Statistics, Engineering Mathematics
- **Capstone Research:** Handwritten Bangla Character Recognition – A Comparative Study (supervised by Dr. Mohammad Ashrafuzzaman Khan)

Higher Secondary Certificate (HSC) — Science Group

Shahpur Madhugram College, Bangladesh — Board of Intermediate and Secondary Education, Jessore | 2013

Secondary School Certificate (SSC) — Science Group

Mikshimil Rudaghara Secondary School, Khulna, Bangladesh — Board of Intermediate and Secondary Education, Jessore | 2011

PROFESSIONAL QUALIFICATIONS AND TRAINING

Certificates for the training listed below are available on request.

- **B-TopSE Program (Basic Series): Architecture I, Cloud, Agile I and AI Training** (144 hours, physical classes; 27 July – 17 October 2026) — JICA–BCC–BASIS Technical Cooperation Project, Bangladesh Computer Council (BCC), ICT Division, 2026
- **PMI Authorized PMP Exam Prep Course** (35 contact hours; 2 May – 6 June 2026) — Project Management Institute (PMI) Authorized Training Partner, 2026
- **Internal Auditor Certificate Course on ISO 14001:2015 Environmental Management System (EMS)** — Bdjobs eLearning, 2024
- **Training on National e-Government Procurement (e-GP) System as Registered Tenderer (RT) User** (e-Tendering Process) — Bangladesh Public Procurement Authority (BPPA, formerly CPTU), IMED, Ministry of Planning, 2024
- **Simulation/Skill Lab** — IKI Paris Graduate School, Paris, France, 2022
- **Front End Web Development Master Course** (61.5 hours) — Udemy, 2021
- **Fundamentals of Digital Marketing** — Google Digital Garage, 2021

LANGUAGES

- Bengali (Bangla) — Native proficiency
- English — Full professional proficiency (sole medium of instruction throughout B.Sc. studies at North South University; verified by official Medium of Instruction Certificate)

REFERENCES

Academic Referee

Dr. Mohammad Ashrafuzzaman Khan

Faculty Member, Department of Electrical and Computer Engineering

North South University, Dhaka, Bangladesh

Capstone, Senior Design Project, and Directed Research Supervisor (Bangla NLP, OCR, Privacy-Aware Computer Vision)

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Professional Referee

Dr. Md. Manirul Islam Khan

Managing Director

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