

# MD RASHEDUL ISLAM

ENVIRONMENTAL ENGINEER | SUSTAINABILITY & COMPLIANCE PROFESSIONAL | RESEARCHER & EDUCATOR

rashedul.env@gmail.com | +1 409-264-0426 | [LinkedIn](#) | [Google Scholar](#) | [ORCID](#)

## PROFESSIONAL SUMMARY

Environmental engineer, sustainability and management-systems professional, applied researcher, and science educator with 5+ years of experience across third-party auditing, environmental compliance, quality assurance, industrial sustainability, research, and technical communication. Certified ISO 14001, ISO 45001, and ISO 9001 Lead Auditor with experience evaluating EMS, OHSMS, QMS, traceability, responsible sourcing, corrective actions, and internationally recognized textile and sustainability standards. Graduate research spans water and wastewater treatment, life cycle assessment, coastal carbon and water-quality modeling, GIS/digital-twin environmental assessment, smart monitoring, and AI-enabled environmental systems. Brings a cross-sector perspective that connects engineering analysis, field implementation, research evidence, and science education to support practical environmental improvement.

## CORE EXPERTISE

### Environmental Engineering & Research

### Management Systems & Compliance

### Sustainability & Responsible Sourcing

### Audit, QA & Communication

Water & wastewater treatment | Water quality | LCA | GIS |  
Environmental monitoring | Resource efficiency | Applied research  
ISO 14001 EMS | ISO 45001 OHSMS | ISO 9001 QMS | ISO 19011 |  
Integrated management systems | Regulatory/compliance evaluation  
GOTS | GRS | RCS | OCS | RDS | RWS | Better Cotton | Ocean Bound  
Plastic | Chain of custody | Traceability | Circularity  
Third-party auditing | CAP review | Root cause analysis | Audit reporting  
| QA review | Auditor training | Technical writing | Teaching & science  
communication

## PROFESSIONAL EXPERIENCE

### Environmental Systems Teacher

Aug 2026 – Present

Port Arthur Independent School District | Texas, USA

- Teach Environmental Systems using standards-aligned lessons that connect ecosystems, Earth systems, sustainability, human-environment interactions, and environmental problem solving to real-world examples.
- Design daily instruction, bell ringers, guided notes, worksheets, visual demonstrations, formative checks, and assessments to support diverse learners and strengthen scientific literacy.
- Use classroom management strategies, structured routines, differentiated support, and collaborative learning to maintain a safe and productive learning environment.
- Integrate professional environmental engineering and sustainability experience into classroom explanations to help students connect science concepts with careers, industry, and community challenges.

### Research Assistant - Center for Resiliency

Mar–Apr 2025; Feb–Mar 2026

Lamar University | Beaumont, Texas, USA

- Conducted research supporting environmental management, sustainability, resilience, and resource-efficiency initiatives.
- Analyzed environmental data and prepared technical documentation and analytical summaries for sustainability-related research.
- Supported Life Cycle Assessment (LCA), environmental impact evaluation, and sustainable resource-management research.

### Supervisor - Quality Assurance

Jan 2022 – Jun 2024

GSCS International Ltd. | Bangladesh | Multi-country QA coverage

- Planned, coordinated, reviewed, and supported third-party audits of ISO 14001, ISO 45001, ISO 9001, sustainability, and social-compliance management systems across manufacturing facilities.
- Oversaw certification work involving GOTS, OCS, RCS, GRS, RDS, RWS, Better Cotton, Ocean Bound Plastic, and Textile Exchange standards, including traceability and chain-of-custody requirements.
- Reviewed audit reports, objective evidence, nonconformities, root-cause analyses, and Corrective Action Plans (CAPs) for technical accuracy and certification conformity.
- Delivered technical feedback, training, and mentoring to auditors and supported consistency and continual improvement across international audit programs.
- Built working relationships with clients, certification bodies, auditors, and international stakeholders across global manufacturing supply chains.

### Reviewer - Quality Assurance

Aug 2021 – Dec 2021

GSCS International Ltd. | Bangladesh

- Reviewed third-party audit reports for management-system, sustainability, and textile-certification programs to verify technical accuracy, completeness, and compliance.
- Evaluated nonconformities, CAPs, traceability documentation, and supporting evidence; provided technical feedback to improve audit consistency and reporting quality.

### Lead Auditor

Jan 2021 – Jul 2021

CERES - Certification of Environmental Standards GmbH | Bangladesh

- Conducted third-party audits of ISO 14001, ISO 45001, ISO 9001, and sustainability-certification programs using document review, facility inspection, operational observation, and management interviews.
- Identified nonconformities, prepared evidence-based audit reports, presented findings to management, and supported corrective-action and continual-improvement strategies.

### Auditor

Nov 2019 – Dec 2020

- Performed third-party manufacturing-facility audits for ISO management systems and sustainability certification standards.
- Reviewed policies, procedures, training records, operational controls, traceability documentation, and remediation evidence; prepared audit reports and communicated findings to management.

## EDUCATION

---

### Master of Science (MS) - Environmental Engineering | May 2026

Lamar University | Texas, USA

**Relevant coursework:** Water Supply & Treatment | Biological Wastewater Treatment | Water Quality Modeling/Monitoring | Life Cycle Analysis | GIS Applications in Engineering | Advanced GIS | Engineering with Nature | AutoCAD Civil 3D

### Master of Science (MS) - Environmental Sciences & Management | May 2022

Jahangirnagar University | Bangladesh

**Relevant coursework:** Environmental Impact Assessment | Environmental Policy | ISO 14001 | Waste Management | Wastewater Treatment | OHS Management | Green Technologies | Sustainability

### Bachelor of Science - Textile Engineering | Oct 2019

BGMEA University of Fashion & Technology (BUFT) | Bangladesh

**Relevant coursework:** CSR | Environment & Pollution Control | Industrial Management | Textile Testing & Quality Assurance | Supply Chain Management | Fabric Manufacturing

## PUBLICATIONS

---

- **Modeling of an AI-Integrated Predictive Framework for Coastal Ecosystem Carbon Sequestration and Water Quality Assessment (2025).** Review of Applied Science and Technology, 4(2), 669-696. DOI: 10.63125/z6h8ky18
- **AI-Driven Water Purification Model Implementation in Smart Cities: Real-Time Solar Desalination and Effluent Treatment (2025).** International Journal of Business and Economics Insights, 5(3), 270-293. DOI: 10.63125/fbxt92s
- **Carbon Sequestration in Coastal Ecosystems: A Review of Modeling Techniques and Applications (2025).** American Journal of Advanced Technology and Engineering Solutions, 1(1), 41-70. DOI: 10.63125/4z73rb29
- **Comparative Study of Physical Properties of Cotton and Cotton-Lycra Single Jersey Knit Fabrics: Grey Stage vs. Finished Stage (2025).** International Journal of Textile Science, 14(1), 5-14. DOI: 10.5923/j.textile.20251401.02
- **GIS-Integrated Digital Twin Framework for Dynamic Environmental Site Assessment and Contaminated Plume Delineation in Petroleum Hydrocarbon Spill Zones (2024).** American Journal of Data Science and Analytics, 5(12), 1-42. DOI: 10.63125/ks6je191
- **PRISMA Guided Review of AI Driven Automated Control Systems for Real Time Air Quality Monitoring in Smart Cities (2024).** Journal of Machine Learning, Data Engineering and Data Science, 1(1), 147-162. DOI: 10.70008/jmldeds.v1i01.51
- **MIS Solutions During Natural Disaster Management: A Review on Responsiveness, Coordination, and Resource Allocation (2024).** Academic Journal on Innovation, Engineering & Emerging Technology, 1(1), 145-158. DOI: 10.69593/ajieet.v1i01.145
- **Sustainable Water Purification Techniques: A Review of Solar-Based Desalination Methods (2024).** Frontiers in Applied Engineering and Technology, 1(1), 59-83.
- **Data-Driven Optimization of Reverse Osmosis Treatment Systems for Industrial Wastewater: A Machine Learning Approach to Effluent Compliance and Energy Reduction (2023).** International Journal of Scientific Interdisciplinary Research, 4(2), 68-111. DOI: 10.63125/pjxptw81
- **Sustainable and Circular Textiles: An Overview of Bangladesh's Ready-Made Garment Sector (2026).**

## CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

---

ISO 14001 EMS Lead Auditor (2021) | ISO 9001 QMS Lead Auditor (2020) | ISO 45001 OHS Lead Auditor (2020) | ISO 19011 Auditing Management Systems (2021) | SA8000 Basic Auditor Training (2019) | Higg Index Sustainability Training (2020) | APSCA Registered Auditor (RA)

## MEMBERSHIPS & AFFILIATIONS

---

American Society of Civil Engineers (ASCE), Student Member (2025-Present) | American Academy of Environmental Engineers and Scientists (AAEES) (2024-Present)