

Keynote Talk by Major General Md Hasan Uz Zaman

Leadership in Engineering Practice

ABSTRACT

This lecture explores the multi-dimensions of leadership in engineering and explains why it is becoming increasingly important in today's fast-changing world. It begins by showing that strong engineering leadership combines three key elements: technical expertise, effective management skills, and a strong sense of ethics. Together, these qualities help engineers make informed decisions in uncertain situations and ensure that engineering projects remain safe, reliable, and beneficial for society.

The lecture then highlights why leadership is essential for modern engineers, focusing on how it supports innovation, improves risk management, encourages multidisciplinary teamwork, and contributes to national development. It also draws lessons from military engineering, demonstrating how decision-making under pressure, system resilience, redundancy, and team coordination can guide better leadership in civilian engineering contexts.

The final part of the lecture explains how academic institutions and BAETE play a vital role in developing engineering leaders by promoting outcome-based education, ethical training, real-world learning, and alignment with global accreditation standards. Overall, the lecture emphasizes that effective engineering leadership is crucial for public welfare, national resilience, and sustainable development.



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Major General Md Hasan Uz Zaman is the Engineer in Chief at Army Headquarters of Bangladesh Army, leading national-level military and civil engineering initiatives. As a respected fellow of the Institution of Engineers, Bangladesh and a member of the Board of Accreditation for Engineering and Technical Education (BAETE), he contributes to strengthening engineering education and professional standards in Bangladesh. He holds a BSc in Civil Engineering from BUET, an MSc and MPhil from BUP, and a Master's in Development Studies. Internationally, he earned a Master's in Military Science from National Defence University, China and completed prestigious courses including the Armed Forces War Course, Army Staff Course, APCSS Crisis Management Course, and Joint Planning Course.

He oversees all military as well as delegated national infrastructure projects, heads the Military Engineering Services (MES), and leads key initiatives such as the flagship housing of Defence Officers like Jolshiri Abashon and Trust Green City. His career includes command, instructional, and staff appointments, as well as service in three UN peacekeeping missions.