

Journey of Engineering Education in Bangladesh Toward Outcome-Based Accreditation

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Abstract

Accreditation of engineering programs in Bangladesh has come a long way since its beginning in 2000, when the Board of Accreditation for Engineering and Technical Education (BAETE) was first established by the Institute of Engineers (IEB). Not too many higher learning universities paid attention to BAETE accreditation initially. However, once the IEB began to require that with the exception of the few oldest and most reputed public universities, only graduates from accredited programs were eligible to become IEB members, accreditation became important to many private universities offering degrees in engineering, as well as to a number of newer public universities. The BAETE becoming a provisional member of the Washington Accord in 2011 also contributed to the increased value of accreditation. Outcome-based education (OBE) had already become the standard globally for tertiary education in engineering. However, no engineering program in Bangladesh was practicing OBE at that time. Despite that fact, the BAETE decided that it needed to adopt outcome-based accreditation (OBA) as well. The BAETE organized many training workshops on OBE for the academic leaders of the higher learning institutes. Around the same time, the Government of Bangladesh, through the University Grants Commission (UGC), launched a Higher Education Quality Enhancement Project (HEQEP) to address the globalization challenges in higher education. Seventy-six institutes of the country, both public and private, were brought under this project. Workshops and trainings on modern educational paradigms and techniques, including OBE, were conducted at the 76 academic institutes. The academic departments of these institutes also conducted self-assessments. Many revised curricula and teaching-learning practices based on outcomes. The HEQEP project had a synergic effect on the efforts of the BAETE to introduce OBA. When the BAETE finally launched the first version of the OBA manual in 2017, most institutions were aware of OBE, and a few were ready to adopt OBE. The importance of accreditation was also increasing among the stakeholders, particularly among the prospective students of private universities. Within a year of introduction of the OBA manual, the BAETE received 26 applications from 14 academic institutions for accreditation under the new manual. In this presentation, we will share the experiences of the higher learning institutes and the BAETE during this journey toward OBE and OBA.



Dr. Anisul Haque has been working as a professor in the Department of Electrical and Electronic Engineering, East West University since 2006. Before East West University, he taught in the Electrical and Electronic Engineering Department, BUET for 18 years. He has served as a visiting faculty member at Tokyo Institute of Technology, Japan; University of Connecticut, USA; and Clarkson University, USA. He is a member of the Board of Accreditation for Engineering and Technical Education (BAETE), Institute of Engineers, Bangladesh (IEB). Prof. Haque is also a member of the BAETE task force for the formulation and revision of the BAETE accreditation manual for outcome-based accreditation (OBA). He has performed as the chair of many accreditation evaluation teams and has conducted a number of on-site workshops on outcome-based education and accreditation for institutions of higher learning aspiring to get accredited by the BAETE. Prof. Haque's research interests

include the physics, modeling, simulation, and characterization of nanoelectronic devices and photovoltaic devices and systems. He was the recipient of the Bangladesh University Grants Commission Award in 2006 and the gold medal from the Bangladesh Academy of Science in 2010. Prof. Haque is an editor of IEEE Transactions on Electron Devices and an associate editor of IEEE Access. He has also been serving as an IEEE Distinguished Lecturer.