Outcome Based Education and Practice of Accreditation in Public Engineering Universities of Bangladesh

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Introduction

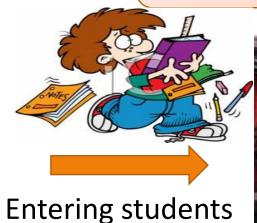
Quality Education • The public engineering universities of Bangladesh inherently possess all the essential features for providing quality education.

Quality Enhancement • There is no alternative to quality enhancement through internal quality assurance program and its validation through external accreditation.

Operational IQAC

• At present, 31 public universities of Bangladesh have operational IQAC.



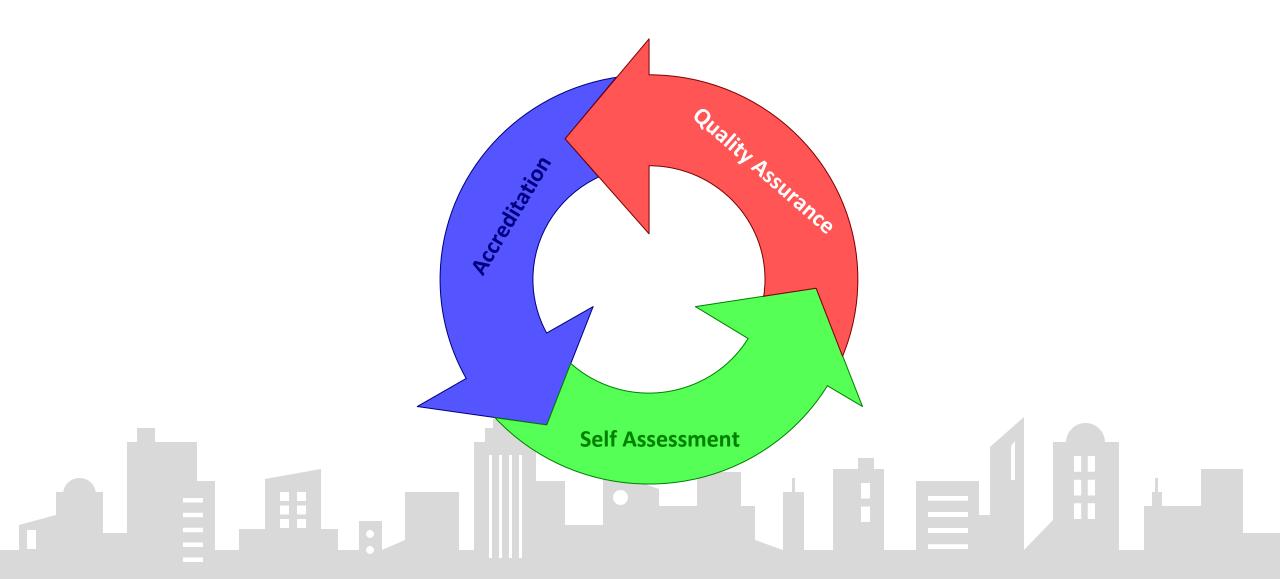




Outgoing graduates

Fitness of the university graduates to meet the needs of stakeholders in terms of knowledge, skills, attitudes and performance with relevance.

The Quality Assurance Process



Internal and External Quality Assurance

- Curriculum
- Governance
- Teaching-Learning
- Learning Assessment
- Stakeholders' consultation
-
-
-

- ProgramOutcomes
- Self Assessment
 - Self Accreditation

Peer Review based on

external standard

BAC (NQFB)

BAETE (WA)

Internal Quality Assurance

External Quality Assurance

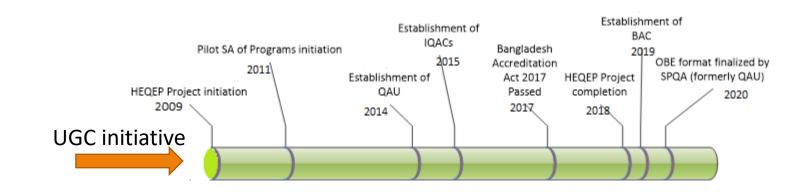
BAC: Bangladesh Accreditation Council

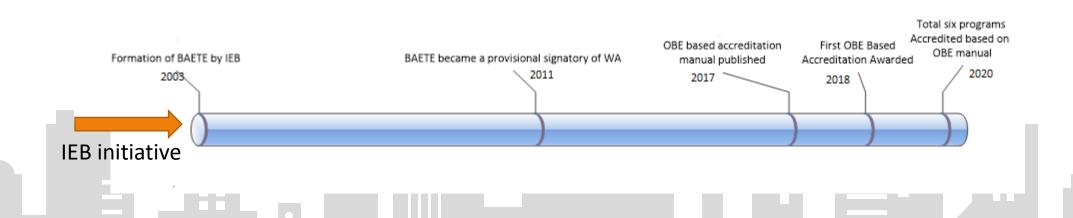
BAETE: Board of Accreditation for Engineering and Technical Education

NQFB: National Qualification Framework of Bangladesh

WA: Washington Accord

Timeline of Quality Assurance in Bangladesh UGC and BAETE





QA Activities by UGC

- ➤ Under the AIF, 25 self-assessments were conducted in 15 universities which laid the foundation for introduction of QA in the higher education system in Bangladesh.
- ➤ A Quality Assurance Unit (QAU) within the organizational structure of University Grants Commission (UGC) of Bangladesh was created under HEQEP to initiate the QA mechanism in Bangladesh's HEIs.
- ➤ This component was designed to support (i) strengthening of the UGC's QAU (SPQA) and establishment of the QAAC (BAC) and (ii) establishment of IQACs at the universities.

AIF: Academic Innovation Fund

SPQA: Strategic Planning, Quality Assurance Division QAAC: Quality Assurance and Accreditation Council

QAU and IQAC activities

Local Resource Pool

Members are from different universities of Bangladesh. Facilitated training.

O2 External Peer Reviewer

Members are from different universities at home and abroad. Facilitated EPR.

Different IQACs paid visit to other IQACs.

Workshops/ Seminars

IQACs arranged programs where other IQACs/ universities were invited.

Experience Sharing

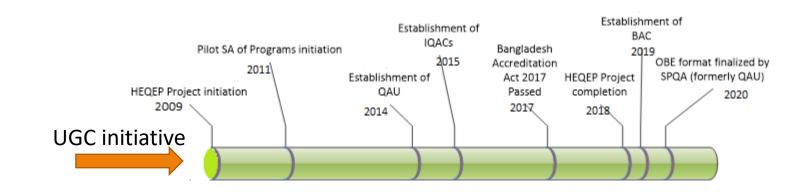
Occasional programmes by the QAU for the IQACs to share and learn.

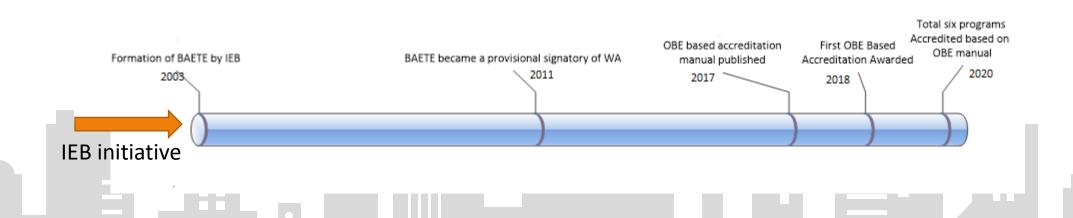
QAU as a Hub (SPQA)
QAU served as the centra

QAU served as the central platform for the 69 IQACs to communicate and learn.



Timeline of Quality Assurance in Bangladesh UGC and BAETE





Mapping of Graduate Attributes

BAC

Fundamental Skills

BAETE

- Knowledge (WA 1)
- Design (WA 3)
- Modern Tool usage (WA 5)
- •Engineer and the society (WA 6)

BAC

Problem Solving Skills

BAETE

- Problem Analysis (WA 2)
- Investigation (WA 4)
- Management (WA 11)

BAC

Social Skills

BAETE

- Team Working (WA 9)
- Communication (WA 10)
- Environment (WA 7)

BAC

Personal Skills

BAETE

- Life-long learning (WA 12)
- Ethics (WA8)



Why BAETE Accreditation Matters

BAETE

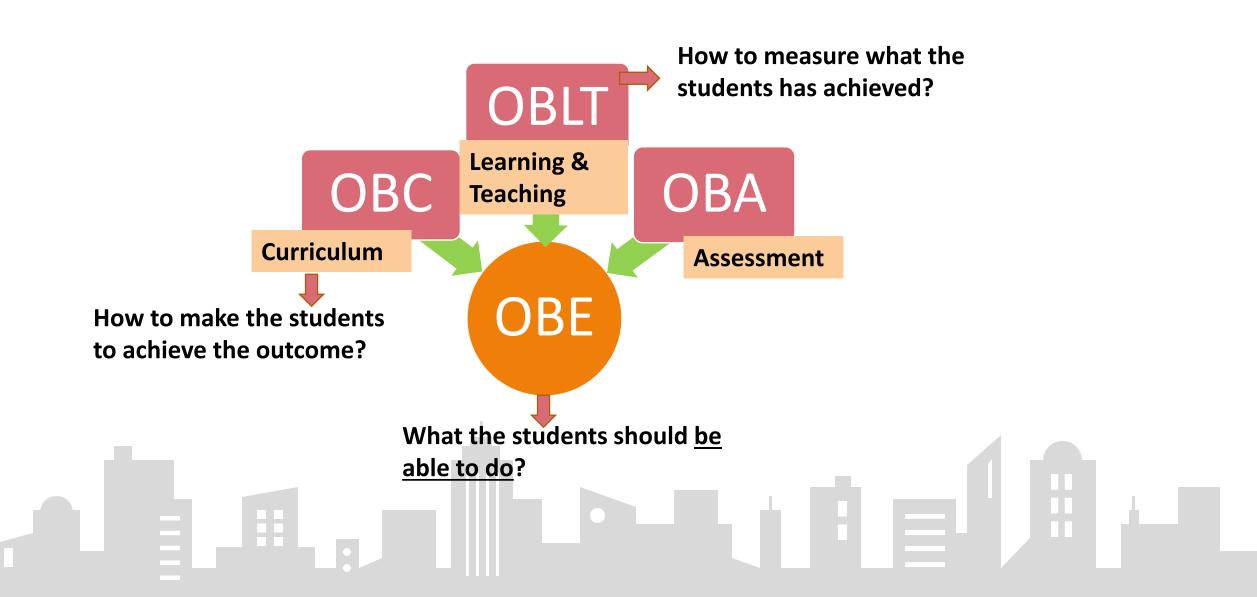
- A proof that a program has met certain standards
- Graduates have access to enhanced opportunities
- Involves faculty and staff in selfassessment and continuous quality improvement process
- Professional Membership
- Mobility of graduates

BAC

Accreditation by Recognition



Outcome Based Education



Public Engineering Universities Covered in This Study





Established in 1876 as Dhaka Survey School and 1947 as Ahsanullah Engineering College



Rajshahi University of Engineering and Technology (RUET)

Established in 1964 as Rajshahi Engineering College



Khulna University of Engineering and Technology (KUET)

Established in 1967 as Khulna Engineering College



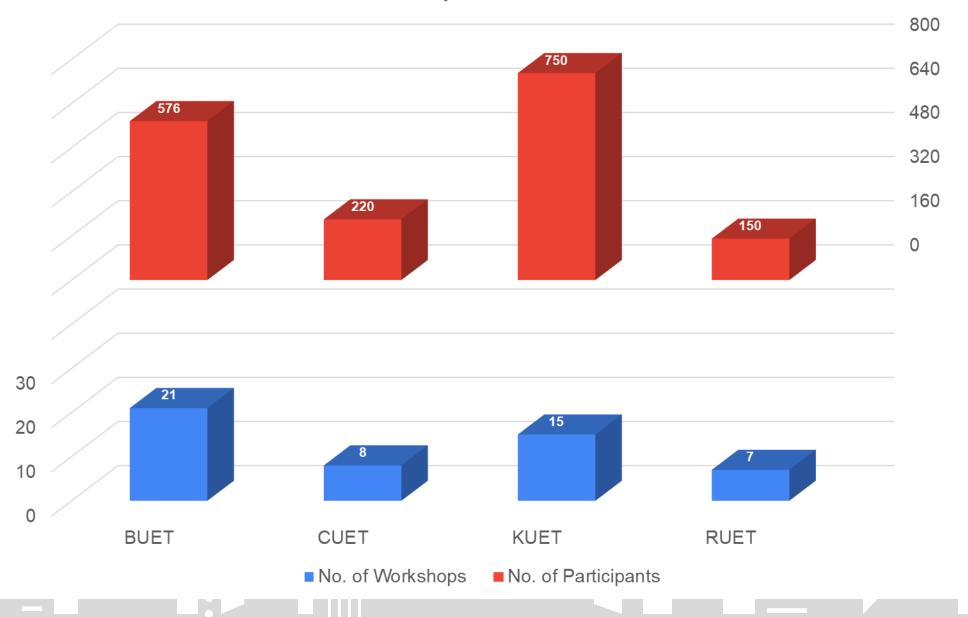
Chittagong University of Engineering and Technology (CUET)

Established in 1968 as Engineering College, Chittagong

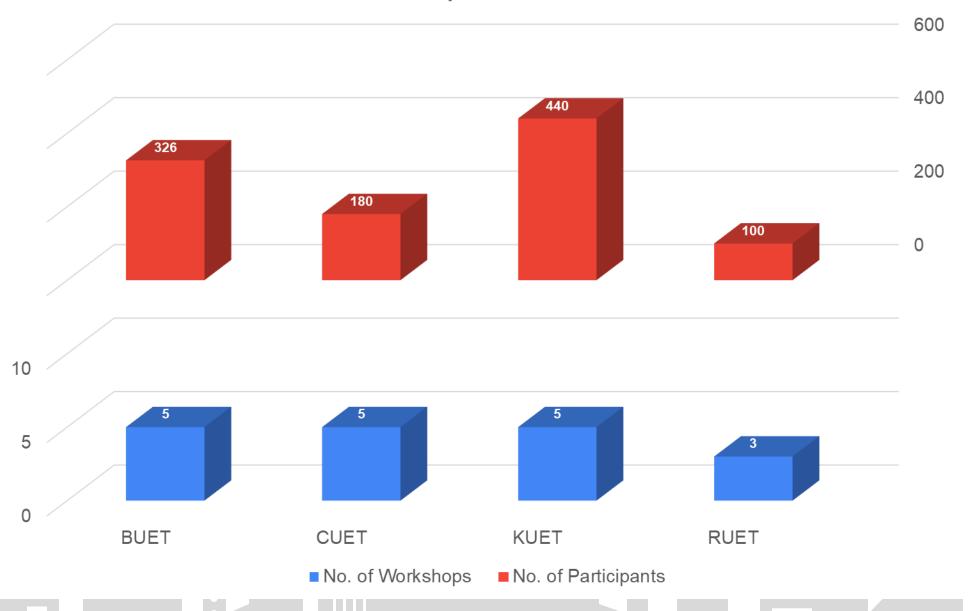
IQACs in UETs

- All universities have function IQACs
 - IQACs were formed under the HEQEP project
 - Universities continued QA activities through internalization of IQACs after the project phase
- Major activities of IQAC:
 - Develop an Institutional QA Strategic Plan for every 5 years and ensure its implementation and monitoring of achievements
 - Co-ordinate all QA related activities within the university
 - Liaise with QAU (now SPQA) and other external QA agencies
 - Organize workshops, seminars and appropriate training for capacity building and promoting
 QA culture at all levels of the university

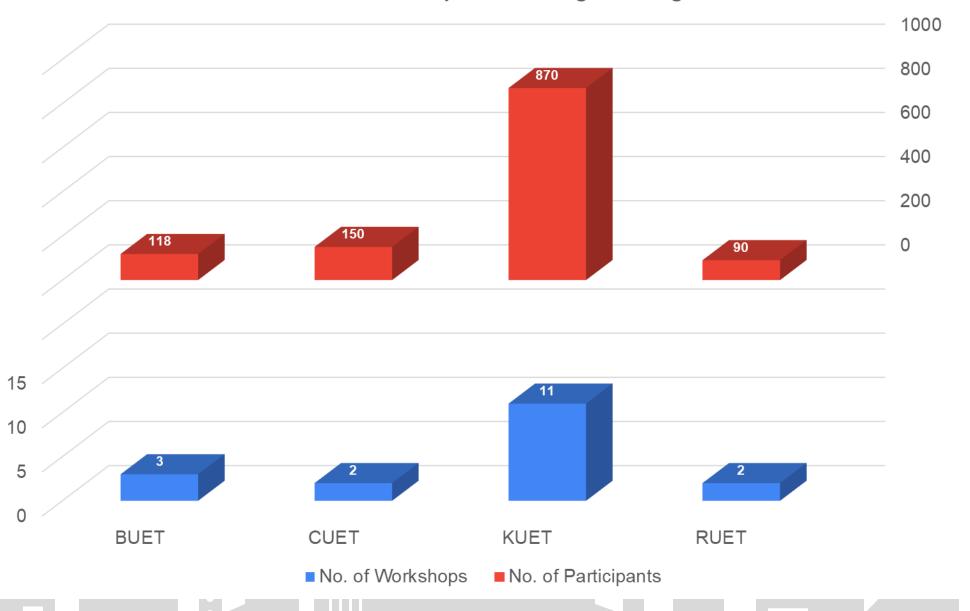
Workshop of Self Assessment



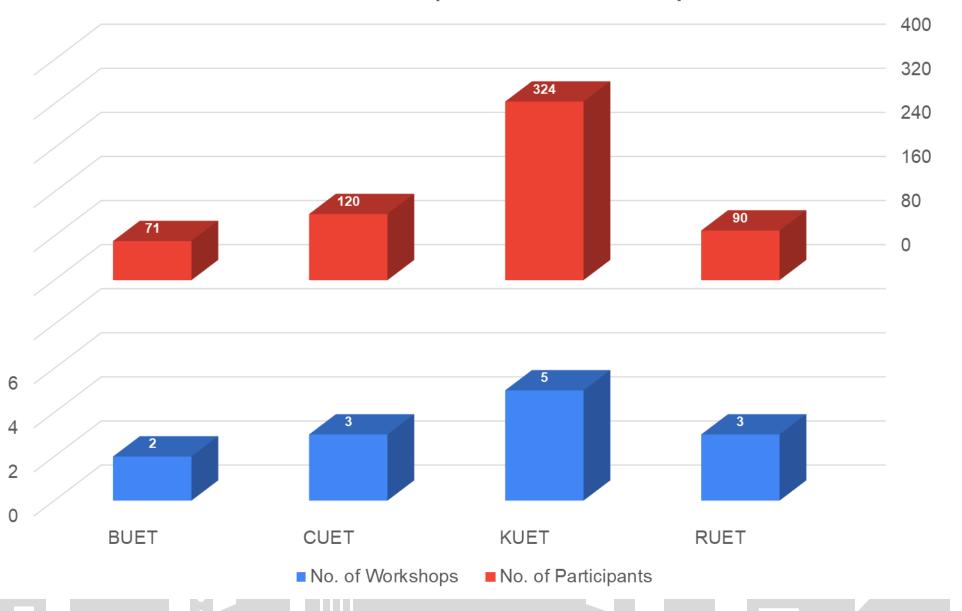
Workshop on OBE



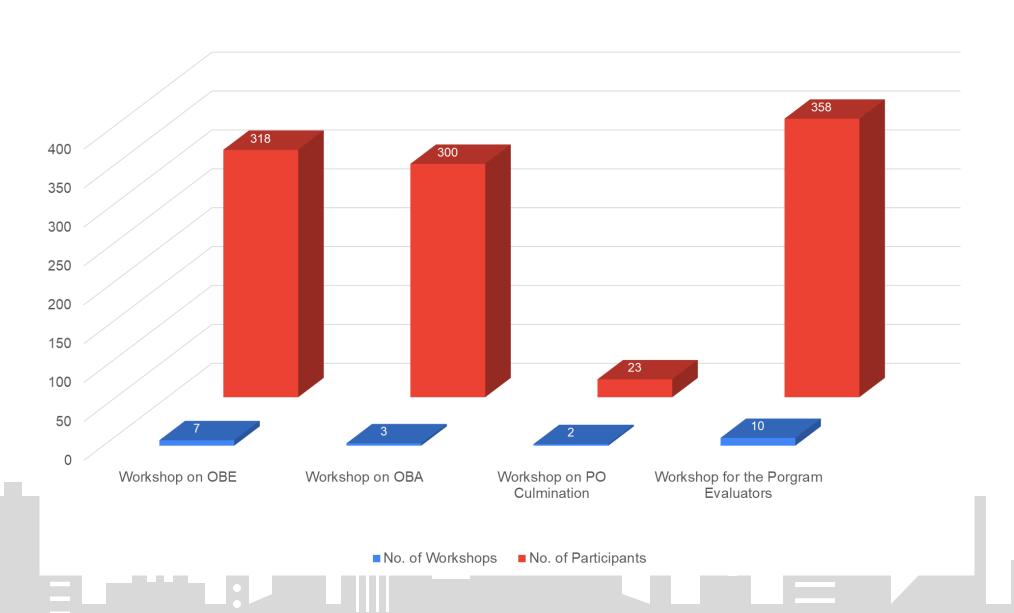
Workshop on Teaching-Learning



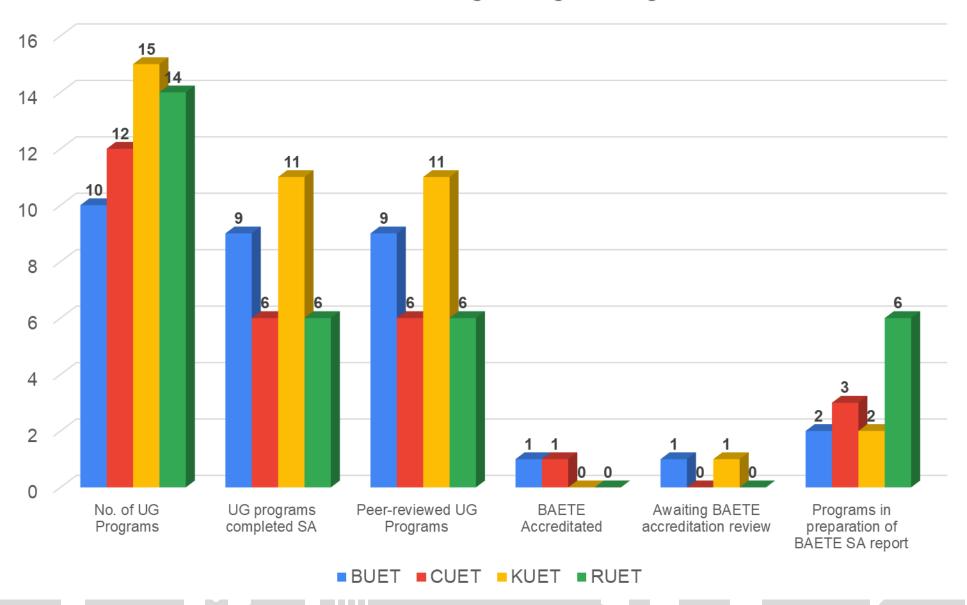
Workshop on Curriculum Development



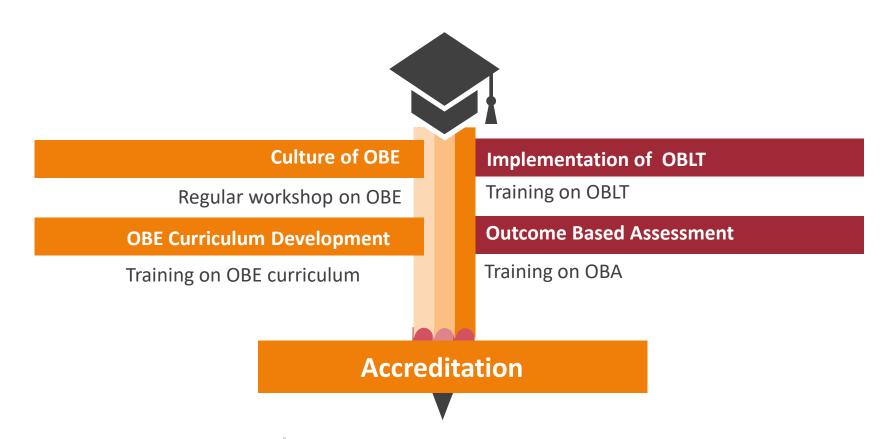
BAETE Workshops on OBE



Current Status of Engineering UG Programs



Way Forward



The engineering graduates from Bangladesh will have better opportunity for their qualification to be recognized globally.

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Thank you