

Government of the People's Republic of Bangladesh
Secondary and Higher Education Division
University Grants Commission of Bangladesh
Improving Computer and Software Engineering Tertiary Education Project (50140-002)

PMU/S-5: Higher Education Specialist (Individual National)
Terms of Reference (ToR)

A. Background of the Project

1. The Government of Bangladesh (GoB) has secured a loan of \$100 million from the Asian Development Bank (ADB) to implement Improving Computer and Software Engineering Tertiary Education Project (ICSETEP). The main objective is to improve industry responsiveness of tertiary level computer science, software engineering and information technology (CSE/IT) education. The project will contribute to improved socio-economic condition of Bangladesh by establishing a more relevant Higher Education in CSE/IT Programs in terms of quality, efficiency and equity through increasing job ready graduates and cutting-edge research capacity to meet the challenges of Fourth Industrial Revolution (4IR) and develop technology entrepreneurship to lead of the country in IT/ITES sectors.
2. The ICSETEP will be implemented at the Institute of Information Technology (IIT) at University of Dhaka (DU); (ii) Computer Science and Engineering (CSE) department at Bangladesh University of Engineering and Technology (BUET); and (iii) CSE department at Jashore University of Science and Technology (JUST). The objectives will be achieved through the following four outputs:

Output 1: Modern learning, research and startup facilities establishment.
Output 2: Quality and industry relevance of CSE and IT programs enhancement.
Output 3: Research and development and technology entrepreneurship strengthen.
Output 4: Project management capacity strengthen.
3. The Secondary and Higher Education Division (SHED) of the Ministry of Education (MOE) through the University Grants Commission (UGC) is the executing agency of the ICSETEP. A Project Management Unit (PMU) will be established in UGC to coordinate and support the project activities. Besides, DU, BUET and JUST will have individual Project Implementation Unit (PIU) that will implement university specific activities under the overall coordination of the PMU. The procurement under the PMU includes most of the consultancy services of the project including several firm consultancies for different study and design of systems as well as several individual experts for PMU and PIU support. PMU will also recruit a pool of professors from foreign universities on short term basis to support across all universities to improve CSE/IT education.
4. In each of the three public universities plan to introduce new degree programs and updated programs will incorporate the latest technology and global academic and industry practices. New technology areas will be incorporated, to meet the growing demand of IT/ITES industry in those areas, including securing international accreditation of the given degree programs.
5. The universities will develop at least open courseware for at least 75 subjects from the upgraded CSE/IT degree programs and make them accessible online for all university students beyond the three universities through existing academic network such as Bangladesh Research and Education Network (BdREN).

B. Objectives of the Assignment, Scope of Services, Tasks and Expected Deliverables

1) Overall Objectives and Scope of Services under the Assignment:

The higher education specialist will assist PMU and PIUs in improving curriculum, pedagogy and assessment to make CSE/IT program more responsive to industry requirements in Bangladesh.

2) Detailed Tasks:

The consultant is expected to support but not limited to:

- (i) The consultant will be responsible for delivering necessary support to the UGC and universities for developing CSE/IT tertiary education and scientific research to meet the market demand from rapid technological changes from the 4th industrial revolution.
- (ii) Support the design of curriculum, syllabus, specialization course, teaching materials to make them more industry responsive.
- (iii) Facilitate short-term and long-term training programs under the project.
- (iv) Assist UGC in providing support beyond three universities such as stipend, competitive research grant, national competition and training.
- (v) Assist UGC, universities and curriculum specialist (international) in developing TOR for visiting professors.
- (vi) Assist PMU and PIUs in applying international accreditation (Washington Accord) in close consultation with BAETE.
- (vii) Maintain close coordination among UGC, universities, and industries.
- (viii) Assist in any relevant works that may be assigned by PMU and PIUs.

3) Reporting Arrangement:

The higher education specialist shall primarily report to the Project Director for his/her work.

C. Required Qualifications and Experience

- Bachelor in Computer Science and Engineering or ICT relevant subject;
- Master in Computer Science or ICT relevant subject;
- PhD in IT relevant subject;
- 15 years of experience in teaching and research;
- 7 years of experience in CSE/IT curriculum development for graduate or post graduate level;
- Experience in tertiary education level accreditation activities is preferable.
- Suitability for the Assignment.

D. Deliverables

- a) Curriculum development plan with timeline
- b) Reviews and inputs to the curriculum development
- c) Reviews and inputs to faculty development activities
- d) Inputs to quarterly progress reports

E. Assignment Duration and Payment Modalities

- Duration of the assignment: 40 Man-Month.
- Payment Schedule: Payment will be made monthly. Local taxes will be deducted as per applicable law.
- Assignment Location: Project office.