



People's Republic of Bangladesh

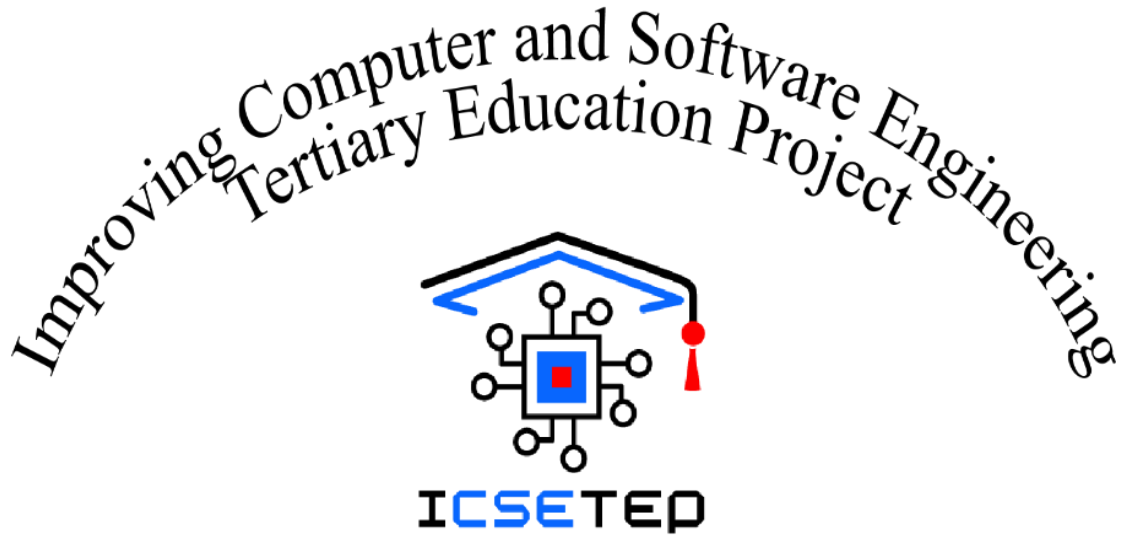
Ministry of Education

Secondary and Higher Education Division

Improving Computer and Software Engineering Tertiary Education Project

# Progress Report

(November 2023 - December 2024)



<https://icsetep.ugc.gov.bd>

Date of Submission: 30 March 2025



## **ABBREVIATIONS**

ADB	Asian Development Bank
ADP	Annual Development Plan
BUET	Bangladesh University of Engineering and Technology
CSE	Computer Science and Engineering
DPA	Direct Project Aid
DPP	Development Project Proposal
DU	University of Dhaka
EA	Executing Agency
EMP	Environmental Management Plan
FE	Foreign Exchange
GOB	Government of Bangladesh
ICSETEP	Improving Computer and Software Engineering Tertiary Education Project
IEE	Initial Environmental Evaluation
IT	Information Technology
IA	Implementing Agency
ITES	Information Technology Enabled Service
JUST	Jashore University of Science and Technology
MOE	Ministry of Education
PA	Project Aid
PAM	Project Administration Manual
PIU	Project Implementation Unit
PMU	Project Management Unit
R&D	Research and Development
RDG	Research and Development Grant
RGM	Research Grant Mechanism
RPA	Reimbursable Project Aid
RPIS	Revised Project Implementation Schedule
SE	Software Engineering
SHED	Secondary and Higher Education Division
UGC	University Grants Commission of Bangladesh

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## **1. Introduction and Basic Data**

### **1.1 Project Description**

Bangladesh is a land of potential and its information technology (IT) as well as information technology enabled service (ITES) sector is growing rapidly. For this reason, Computer Science and Engineering (CSE), Software Engineering (SE), and Information Technology (IT) Programs is huge in Bangladesh. However, the number of skilled graduates is insufficient for the IT industries. In these circumstances, the government initiates a project in this field which is very relevant in the context of the country. Due to the importance of CSE/IT Programs, the implementation of a project in this area is crucial and the Government of Bangladesh (GOB) and Asian Development Bank (ADB) are financings project- “Improving Computer and Software Engineering Tertiary Education Project (ICSETEP)”. The sponsoring Ministry/ Division is Secondary and Higher Education Division (SHED), Ministry of Education. The University Grants Commission (UGC) of Bangladesh is the Implementing Agency (IA) for overall coordination of the project. The locations of the major components the project spread in three public universities as Project Implementation Units (PIUs): University of Dhaka (DU), Bangladesh University of Engineering and Technology (BUET), and Jashore University of Science and Technology (JUST). According to Development Project Proposal (DPP), the date of commencement of the project is 1 March 2023 and the date of completion is 30 June 2028. However, the project started its journey in November 2023, and the revised closing date is December 2028.

The expected impact of the project is to develop a pool of highly skilled labor force equipped with technical and professional expertise. It is important to increase the number of graduates from industry relevant degree programs. The expected outcome of the project is to improve industry responsiveness of tertiary level CSE/IT education. This is expected to be achieved 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 entrepreneurs to lead the country in IT/ ITES sectors.

UGC is the executing agency (EA) of ICSETEP. A Project Management Unit (PMU) has been established in UGC to ensure proper management and smooth implementation of the project. The PMU under UGC will take the responsibility of coordinating the implementation planning, monitoring, and reporting and support the university level implementation to ensure the project outcome and outputs are achieved within the project duration and budget, as approved by the government and ADB. Apart from overall project management responsibility, the PMU will facilitate (i) Consultancy supervision; (ii) Overseas training programs common to three universities and training programs that are open to other universities; (iii) Studies and Sub-contract; (iv) Development of the Digital Library of UGC; and (v) Management of R&D grant and stipend / scholarship that are open to all universities.

In addition, DU, BUET, and JUST, which are the implementing agencies of the project, have set up a project implementation Unit (PIU) that will implement university- specific activities under the overall coordination of the PMU.

## 1.2 Main Project Data

This Asian Development Bank (ADB) financed project is implementing by the University Grants Commission (UGC). The main data of the project are as below:

Project Number	: 50140-002
Loan Number	: 4348 BAN
Project investment	: Total US\$114 Million
ADB Loan	: US\$100 Million
Loan effective date	: 24 December 2023
Loan closing date	: December 2028

## 1.3 Mode of Financing

The mode of ADB finance project is Project Aid (RPA) but counterpart fund is contributed by the government of Bangladesh. The financing mode and year wise distribution are shown below:

### A. Mode of Financing with Source

Taka in Million					
Source/Mode	GOB(FE)	PA(RPA)	Own Fund (FE)	Others (Specify)	PA Source
1	2	3	4	5	6
Loan/Credit	-	10700.00 (9057.8)	-	-	ADB
Grant	1498.00	-	-	-	-
Equity	-	-	-	-	-
Others (Specification)	-	-	-	-	-
<b>Total</b>	<b>1498.00</b>	<b>10700.00 (9057.8)</b>	<b>-</b>	<b>-</b>	<b>-</b>

### B. Year wise Estimated Cost

Taka in Million						
Financial Year	GOB(FE)	PA		Own Fund (FE)	Others (Specify)	Total
		RPA	DPA			
1	2	3	4	5	6	7
2022-2023	17.324	96.667	30.792	-	-	144.782
2023-2024	2,97.362	17,97.904	3,30.492	-	-	24,25.758
2024-2025	4,89.821	29,86.571	3,28.440	-	-	38,04.832
2025-2026	3,01.687	18,24.503	3,28.440	-	-	24,54.630
2026-2027	2,38.290	14,35.106	3,28.440	-	-	20,01.836
2027-2028	1,53.516	9,17.050	2,95.596	-	-	13,66.162
<b>Grand Total:</b>	<b>14,98.00</b>	<b>90,57.80</b>	<b>1642.20</b>	<b>-</b>	<b>-</b>	<b>121,98.00</b>

## 1.4 Yearly Progress

The project was approved by the Executive Committee of the National Economic Council (ECNEC) on 18 April 2023 and the Project was effective on 24 December 2023. The project implementation started after joining the Project Director (PD) on 19 November 2023. As the well-executed project need to begins with meticulous groundwork—laying a strong foundation through strategic planning, resource allocation, and risk assessment—before seamlessly transitioning into the execution required to spent some time. According to Project Administration Manual (PAM), the First Quarterly Progress Report (QPR) would cover November and December 2023. As implementation stated after joining the PD the QPR was not prepared for the First and 2<sup>nd</sup> Quarter. In this situation, the project is going to submit the progress report covering all information up to December 2024. After this, a quarterly report will be submitted in accordance with the PAM.

This 2024 progress report mainly summarizes the implementation of the project which includes procurement, contract and project management, finance, environment, and compliance with loan covenants. The report indicates corrective measures for ensuring proper implementation of the project.

## 2. Utilization of Funds/Financial Progress

As it is the first report of this project, this progress report covers Q2, Q3 and Q4 of FY 2023-2024, and Q1 and Q2 of FY 2024-2025. As in the Q2 (October, 2023 to December, 2023) there was no allocation, so no expenditure occurred during the period. In Q4 (April 2024 – June 2024) total 107.20 million BDT (61.20 million of GoB and 46 million BDT was RPA) was allocated in the RADP and total 2.6 million was spent during the reporting period.

The following table shows the financial progress during Q4 of FY 2023-2024.

### 2.1 Q4 (April-June/2024) FY 2023-2024 RADP Allocation and Progress

	Taka in Million		
	<b>Total</b>	<b>GOB</b>	<b>RPA</b>
RADP Allocation (FY 2023-2024) (Q4)	107.20	61.20	46.00
Progress (FY 2023-2024) (Q4)	2.60	2.60	-
Progress in %	2.43%	4.25%	-

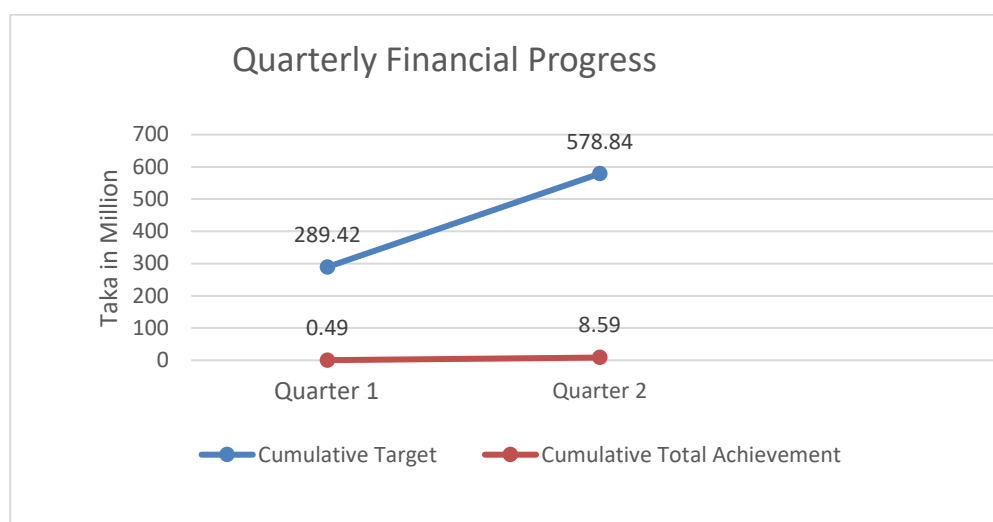
### 2.2 Quarterly Financial Progress (FY 2024-2025 up to December 2024)

Q1(July-September/2024) of FY 2024-2025 and Q2(October-December/2024) of FY 2024-2025 was some progress in financial expenditure which shows

<b>Component</b>	<b>Target</b>	<b>Cumulative Target</b>	<b>Achievement</b>	<b>Cumulative Achievement</b>
Quarter 1 (July-September/2024)	289.43	289.43	0.49	0.49
Quarter 2 (October-December/2024)	289.43	578.85	8.10	8.59

The financial progress of the project of Q1 was only 0.49 million BDT out of targeted Tk. 289.43 million; and the progress of Q2 was only 8.10 million BDT.

The financial progress linked with the procurement-related activities. PMU and PIUs have initiated steps for procurement actions but targeted procurement process yet to completed. On the other hand, due to the political situation the review by the ADB also required a little bit long time.



This figure illustrates the quarterly financial progress of Q1 and Q2 of FY 2024-2025. The financial progress is low but initiative has been taken by the PMU to achieve the target.

### 2.3 Total Contract Award and Disbursement as of November 2023-December 2024

Indicators	Taka in Million
Total Contract Awards	68.14
Total Disbursement	11.91

The above table shows that total contract awards as of November 2023-December 2024 were Tk. 68.14 million whereas total disbursement was only Tk. 11.91 million and Tk. 56.23 million was as undisbursed. The PMU has taken the initiative to change the situation in a positive manner.

### 2.4 RADP Allocation and Progress up to December 2024 are shown below:

	Taka in Million		
	Total	GOB	RPA
RADP Allocation (FY 2024-2025)	1,157.90	174.90	983.00
Progress Up to December 2024	8.59	2.74	5.85
Progress in %	0.74%	1.56%	0.59%

This above table shows that the financial progress of RPA, up to December 2024 is only Up to December 2024, the total disbursed amount is Tk 11.91 million, but total allocation is Tk 983.00 million. The initiatives have been taken to speed up the implementation of the project.

## **2.5 Summary of the planned activities in Q2, Q3 and Q4 of FY 2023-2024, and Q1 and Q2 of FY 2024-2025**

Financial progress as well as procurement progress status was none in Q2, and Q3 of FY 2023-2024. The progress of the ICSETEP project began in Q4 of FY 2023-2024. The planned activities and status of each activity of this project have been illustrated in the revised project implementation schedule which is attached as Appendix 2. The activities of this Procurement Plan for procuring the goods, services, consultants, and vehicles to support the implementation of ICSETEP. There are three procurement categories: goods, services (Individual Consultants and Firms), and Non-Consulting Services (NCS). There are three packages of goods, including computers, accessories, office equipment (projectors, ACs, fridge), and furniture. Most of the packages have been completed, and one package (office furniture) has completed only 50%, by November 2023 to December 2024 time period.

There are three short-term consultants under PMU/S-10, focusing on research grant review, policy development, and monitoring and evaluation, in which one expert has fully completed the assignment, and two experts have been working on the assignments. There are three packages of non-consulting services, such as vehicle hiring (4WD, microbus) and outsourcing staff. All packages are fully completed with long-term durations (up to 2028). There are senior individual consultants, with six positions available covering procurement, financial management, environment, and industry relations expertise. Five consultants have been hired. The employment of Procurement Specialist is under the negotiation stage

## **3. ICSETEP Progress Status**

The overall objective of the project is to improve socio-economic condition of Bangladesh by introducing 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 the country in IT/ITES sectors. The outcomes of the project are:

- (a) Industry responsiveness of tertiary level CSE/IT education improved,
- (b) Increased utilization of information and communication technology to enhance labor markets, and
- (c) Improving industry relevance and quality of CES/IT programs at higher education. This section discusses the various indicative activities under each of the output. We are discussing the progress in accordance with the output.

### **3.1 Output 1 - Modern learning, research and startup supporting environment established**

In the project, establishment of Modern learning, research and startup facilities in BUET, DU and JUST are the vital components of the project. The project is supporting establishing a building in each of the three university to create modern facilities and space for learning

research and to create a sustainable Startup-Innovation supporting facilities. Progress of setting up the physical facility in 3 universities are discussed below:

**A. Modern learning, research and startup facilities at DU**

For construction of the building for setting up modern learning, research and startup facilities, a Design firm was appointed by the PIU Dhaka University. The Design Firm prepared all the Design of both the Architectural & Structural with specification. The appointed firm was also prepared a Bid Document. The bid was published on 26 November 2024 in newspaper along with the e-GP by following all procurement related regulation. The bid will be opened on 16 January 2025 and evaluation is ongoing.

**B. Modern learning, research and startup facilities at BUET**

In BUET, there was a land issues for construction of the building which has been solved. Currently, the BUET is working to appoint a design firm for preparation the architectural and structural design of the learning, research and startup Building. Hopefully, the bid for the construction firm could be published in July-September 2025

**C. Modern learning, research and startup facilities at JUST**

In JUST a Design Firm has been appointed to prepare the architectural and structural design of the building for learning, research and startup facilities which called “IT Excellence Centre”. The JUST also allocated the land for this purpose. The appointed firm will complete the Architectural Design by May 2025 and Structural Design by September 2025 and working to prepare the structural design.

**Output 1.3 - Preparation of operations manual for startup facilities and services**

Creating startup and innovation culture is another vital task under the project. For smooth and effective operation of the startup activity, required a guideline/ Operation Manual. So, the project has taken the initiative to appoint a consultant (Stipend Program Specialist) to formulate the operation manual. The appointment process has been initiated and hopefully, Consultant will be onboard by June 2025. It is mentionable that separate Operational Manual will be used by each university.

**Output: 1.4 - Procurement of Computer, Laptops, Furniture, Equipment, IT equipment for DU, BUET, and JUST**

All the 3 universities and PIU as well as need computers, laptop, furniture and other necessary equipment and those are included in the procurement plan. Some computers, laptop and furniture has been procured for PMU and 3 PIUs as well as. But most of the procurement is related to learning, research and startup building will be procured after progressing the construction work.

**3.2 Output 2 - Quality and industry relevance of computer science and engineering, software engineering and information technology programs enhance**

To achieve the project objectives, DU, BUET and JUST are going to introduce new or upgrading existing degree programs. Latest technology, global academic & industry practices will be incorporated in the updated program as international standard.

The university will be provided with the following inputs to make upgradation:

- (a) Interaction with Industry;
- (b) CSE/IT curriculum expert;
- (c) Visiting Professors;

To ensure the quality program the following activities has been included in the program:

- (i) Introduction of Online open Courseware;
- (ii) Strengthening UGC Digital Library;
- (iii) International accreditation;
- (iv) Increase in faculty member.
- (v) Long term training for faculty members;
- (vi) Short term training for faculty members and support staff;
- (vii) Upgrading and expanding training programs for IT Professional;
- (viii) Strengthening student and industry relations services;
- (ix) Mandatory industry attachment programs for undergraduates;
- (x) Undergraduate scholarships/stipends to female and poor students;
- (xi) Support for female employment promotion.

To achieve the program objects several consultants are appointed to ensure the proper & smooth implementation of these targeted assignments. The project has appointed an Industry Relation Expert on 01 August 2024 to take care of strengthening student and Industry relation. To build an academia – industry relationship including the internship program, several meeting & focused group discussions (FGD); visits were organized with the various IT firms including BASIS, BACCO. Based on consultation with the private firms and organization a draft MoU was prepared and shared with the ADB.

The project formulated a Guideline/policy for the Scholarship program. A guideline was prepared. Only JUST accepted/approved the Guideline but DU & BUET have some observation. The scholarship and stipend program will start in JUST soon. The project is also working to finalize the guidelines with DU and BUET.

The project had completed the process of appointing a Gender Specialist who will join on 01 January 2025. The Gender specialist will be responsible for carrying out various activity regarding Scholarship/stipend to female and poor student. She will also be responsible for ensuring targeted women participation in various programs under the program such as scholarship, stipend, female employment.

Project also taken initiative to appoint a Higher Education Specialist. The specialist hopefully will be on board in 2025. This Higher Education Specialist will take care implementing of the CSE/IT curriculum development, Visiting Professors, international accreditation, Increasing Faculty member and their training, Introduction of Online open Courseware etc.

The university PIU will take the lead in bringing the changes in their existing degree program. The initial plan was to make this change by Q4 of 2023 but no effective steps taken. However, all the 3 universities rescheduled are target to Q4 of 2027.

## **Output 2.6b - Conferences, seminars, job fairs etc.**

Conference, Seminars, Job fairs could be organized by both the PIU and BUET, DU and JU as well as to aware the stakeholder. The PIU organized following 3 workshops up to December 2024:

- Workshop on Research & Development Grants on 27 June 2024;
- Knowledge sharing Seminar on Digital library on 30 June 2024;
- Dissemination of RDG Manual on 01 December 2024.

The project has planned several relevant workshop/Seminars in next year 2025.

## **3.3 Output 3 - Research and development and technology entrepreneurship strengthened**

This project is also supporting increasing value addition of CSE/IT degree program to IT/ITES industry through fostering innovation and increasing technology enabled entrepreneurs. To achieve the objectives following important assignments are undertaken in the project:

- a. Competitive R&D grants scheme;
- b. Startup or Incubation support services;
- c. Postgraduate stipend Program;
- d. Software and Technology Competitions.

An Operational manual for research and development grant developed by the PIU and organized a workshop on 27 June 2024. After finalizing OP, it was sent to SHED and MOE on 22 October 2024. But the Authority suggested to revise the OP. The PIU is working to finalize the OP to start the R&D Grants program soon.

## **4. Project Purpose**

The project is to create an effective learning environment for the CSE students of the DU, BUET and JUST. Other universities could be part of the program. This will support scale up the quality education and research

### **4.1 Status of Project Scope/Implementation Arrangements**

There is no project scope change in implementation. The status of implementation arrangements is in accordance with those proposed in RPIS.

### **4.2 Likelihood of Achievement of the Project Outcomes and Remedial Measures**

See Appendix 1: Design and Monitoring Framework (DMF)

### **4.3 Changes to the Key Assumption and Risks**

See Appendix 1: DMF

## **5. ICSETEP Procurement Status**

According to DDP, the date of commencement of the project is 1 March 2023 and the date of completion is 30 June 2028. However, the project started its journey in November 2023, and the revised date of completion is 31st December 2028. Accordingly, the PMU in consultation

with ADB revised the project implementation schedule. The PMU is yet to fully staff and all the staff of PIUs have been employed as additional duties to implement the project. Therefore, it is a big challenge to implement the project in the long run through the official with additional duties.

## 5.1 Procurement

The project has to procure goods, services and works. It is mentionable that some of the items will be procured by the Project Management Unit (PMU) and some items by the Project Implementation Unit (PIU). The project has 3 PIU such as DU, BUET and JUST.

The PMU has taken initiatives to procure several items depicted in the DPP & procurement plan by conforming procurement rules & regulation. By the reporting period (Up to December 2023) the PMU have completed procurement of 06 packages to purchased Computer, furniture etc.

The PMU has also procured a Sr. Procurement Specialist (PMU/S-1), Financial Management Specialist (PMU/S-3), Industry Relations Expert (PMU/S-9), by Q2024.

On the other hand, procurement process for Women IT Leadership Program Socialist (PMU/S-8), Environment Specialist (PMU/S-6), Procurement Specialist (PMU/S-2), Higher Education Specialist (PMU/S-5), Gender Specialist (PMU/S-4) and Stipend Program Specialist (PMU/S-7) is ongoing.

The PMU also engaged necessary staff through Non -Consulting Service procurement.

The PIU DU have taken initiative to procure a Construction Firm to construct a Building for learning, research and Startup facilities. The Bid has been received and evaluation is ongoing.

## 5.2 Procurement Package Status

	Package	Description	Invitation of Bid	Completion date	Progress	
1	2	3	4	5	6	7
<b>Goods</b>						
1	PMU/G-2	Procurement of Computer & Accessories for PMU	21/05/2024	26/09/2024	100%	Completed
2	PMU/G-3A (Lot1, Lot2)	Procurement of Office equipment for PMU	21/05/2024			
		Lot 1(Projector, Photocopier, Television, Telephone (smart phone)		26/09/2024	100%	Completed
		Lot 2(Air Conditioner, Fridge)		26/09/2024	100%	Completed
3	PMU/G-1	Procurement of Office Furniture for PMU	03/11/2024	24/03/2025	50%	Completed
<b>Non-Consulting Service (NCS)</b>						
1	PMU/NC S-1	Hiring of Cross-Country Vehicle (4WD) for PMU at UGC	21/05/2024	30/6/2028		Completed

2	PMU/NC S-2 (NCS-1, Lot1)	Hiring Vehicle (Microbus) for PMU at UGC	22/08/2024	16/02/2028		Completed
3	PMU/NC S-3	Outsourcing of Support Staff for PMU, UGC	27/03/2024	30/06/2028		Completed
<b>Individual Consultant Service (ICS)</b>						
1	PMU/S-1	Senior Procurement Specialist	27/12/2023	18/8/2027		Completed
2	PMU/S-2	Procurement Specialist	19/08/2024			Negotiation Completed
3	PMU/S-3	Financial Management Specialist	27/12/2023	20/8/2027		Completed
4	PMU/S-6	Environmental Specialist	27/12/2023	28/02/2027		Completed
5	PMU/S-8	Women IT Leadership Specialist	19/08/2024	31/12/2026		Completed
6	PMU/S-9	Industry Relations Expert	27/12/2023	30/7/2025		Completed
7	PMU/S-10	Pool of short-term consultants (National)				
	STC-01	Research Grants Review Expert			100%	Completed
	STC-02	Startup/Incubation Policy Development Expert	01/08/2024	6/2/2025	50%	Ongoing
	STC-03	Monitoring and Evaluation Consultant		05/7/2025		Ongoing

## 6. Compliance with Covenants

### 6.1 Environmental Management

According to the agreement with ADB contracts for construction of three multi-storied buildings in three universities Campus such as Dhaka University, BUET and JUST campus. The contractor should follow all the regulations of Bangladesh and ADB guideline of environment, health and safety to the workers. EMP will be included in the all Works and Non-Consulting contacts.

The Social and Environmental Management Plan included in the Bid Document for construction of the learning, research and Startup facility's building of DU university.

### 6.2 Gender Equity and Social Inclusion (GESI) Action Plan

The project has to comply with all the conditions stated in the GIES. All the procurement process for procuring Women IT Leadership Specialist position has been completed within December 2024 and expecting to on-board by 1<sup>st</sup> week of January 2025. In the next quarter (January – March 2025), circular of Gender Specialist will be advertised to onboard her/his to implement the Gender Equity and Social Inclusion Action Plan of ICSETEP project. After his/her recruitment, relevant progress will be updated under this section in upcoming quarters. Women IT Leadership Specialist will support in the next quarter for integration of GESI issues in relevant areas till Gender Specialist joins. After joining, Gender Specialist with support from ADB Gender Focal and Women IT Leadership Specialist will draft sub-activities under every activity included in the outputs of GESI Action Plan and initiative necessary steps accordingly

to achieve the targets by working collaboratively with all other relevant wings of ICSETEP project (Annexure 04)

### **6.3 Design and Monitoring Framework**

The project performance, the performance of each university will be reviewed against indicators set in the PAM. The DMF is given in the Appendix 1

### **6.4 Status of Compliance with Loan Covenants**

Loan covenants—policy, financial, economic, environmental, and others—will be monitored through the semi-annual progress reports every year. The status of compliance with loan covenants is given in Appendix 3

## **7. Major Project Issues and Challenges**

The project was supposed to commence on 1 March 2023 but due to various reasons it commenced after joining the Project Director on 19 November 2023. After joining the PD take initiative to steps in the implementation process. There are some challenges in implementation of the project. The main challenges are:

- (a) There are three separate PIUs for DU, BUET, and JUST. Approximately, Tk 9,160.00 million (75% of total allocation) will be spend under the supervision of PIUs at universities. But there is no dedicated full-time PD or Staff for those PIUs. The PIU -Head and other staffs are working in the project as Additional duty. Moreover, the personnels including the PIU-Head working in the project, are not getting any monitory incentive for performing additional duties. So, they are not interested to provide time for the project implementation which is hampering project implementation.
- (b) Approximately, Tk 4,580.00 million which is 40% of total allocation, have been allocated to build three multi-storied buildings in three universities of the project and this expenditure will be made under the supervision of respective universities. All the 3 Building is not unique. The demand regarding the building shape Size is not similar. This inconsistency demand of the PIU is creating implementation delay.
- (c) The demand for digital library of UGC yet to be finalized and review of approved RDG operation manual making delay of the implementation.
- (d) Political agitation during June – September 2024 hinders the project implementation.

## **8. Work Planned for Next Stage**

Due to the delay commencement of the project the PMU has revised the project implementation schedule in consultation with ADB to speed up the project. The PMU is taking necessary steps to speed up the implementation with an aim of implementing the project within stipulated timeframe.

## Design and Monitoring Framework (DMF)

Results Chain	Performance Indicators	Baseline	Achievement as of December 2024	Comment
<b>Outcome</b> Industry responsiveness of tertiary level CSE/IT education improved	By 2029 for all indicators: a. At least 40% of graduates (both men and women) with bachelor's degrees from the three universities are employed within 6 months of <i>graduation</i> <sup>b</sup>	a. 2018 baseline: 28.1%, male 28.2% and female 27.8%) (OP 2.2)	a. Initiative has been taken.  An Industry Relation Expert has on-board on 01 August 2024.	This indicator will be measured at the end of the project.
	b. CSE/IT programs in the three universities obtained accreditation aligned with international standards	b. 2022 baseline: N/A	b. Initiative has been taken to appoint Higher Education Specialist to carry out the indicator.	
	c. At least eight startups have begun generating revenues	c. 2022 baseline: N/A	-	Will be measured at the end of the project
<b>Outputs</b> 1.Modern learning, research, and startup facilities established  2.Quality and industry relevance of CSE/IT programs enhanced	By 2026 for all indicators: 1a. Classrooms, laboratories, and research spaces for expanded CSE/IT programs, including women-friendly facilities, established in three universities <sup>c</sup>  1b. Facilities for startup companies established in three universities	1a. (2022 baseline: N/A) (OP 2.4.1)  1b. (2022 baseline: 0) (OP 1.2.2)	1.a & 1b Bid invited for the building at DU.  Preparation of Design for the Building for BUET & JUST is ongoing	
	By 2028 for all indicators: 2a. At least 2,200 undergraduate and graduate students (25% women) completed CSE/IT programs in three universities <sup>b</sup>	2a. (2022 baseline: 480 students, 17.1% women) (OP 1.1, OP 1.1.1, OP 2.2.1)	2a & 2 b Initiative taken to appoint consultant for this purpose	

<p>3.R&amp;D and technology entrepreneurship strengthened</p>	<p>2b. At least four new or updated undergraduate degree curricula for outcome-based education and blended learning implemented with industry participation in three universities</p> <p>2c. At least 75 subjects of the CSE/IT undergraduate program made accessible as open courseware</p> <p>2d. Faculty members increased to at least 200 (at least 35% with doctorates and 20% women), with at least 75% trained in modern pedagogical approaches</p> <p>2e. At least 80% of graduates from the three universities (both men and women) and at least 300 students (at least 50% women) from other universities completed internships or industry-collaboration capstone projects</p> <p>2f. Number of IT professional training certificates issued by or through the three universities increased to 5,000 per year (2022 baseline: 200)</p> <p>By 2028 for all indicators: 3a. At least 10 university–industry research collaboration projects, 6 interdisciplinary research projects (including COVID-19 responses), and 4 research projects for disability solutions implemented</p>	<p>2b. (2022 baseline: 0)</p> <p>2c. (2022 baseline: 0)</p> <p>2d. (2022 baseline: 107, 38.3% with doctorates, and 13.1% women) (OP 2.1)</p> <p>2e.(2022 baseline: 8.3% of graduates [2.8% among women]) (OP 2.1.1)</p> <p>2f. (2022 baseline: 200)</p> <p>3a. (2022 baseline: 0)</p> <p>3b. (2022 baseline: 0)</p>	<p>2d. Faculty recruitment and development plans implementation over the project duration are yet to be developed.</p> <p>2e &amp; 2f DU IIT has been conducting internship programs. BUET and JUST CSE curriculum includes internship as part of their curriculum.</p> <p>Industry professional training programs are yet to be identified for implementation.</p> <p>3.a Draft Manual for research grant was prepared and approved by SHED but new UGC authority decided to review it again.</p>	
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<p>4. Project management capacity strengthened</p>	<p>3b. At least 2,000 students, faculty members, and IT professionals (30% women and 30% from other universities) reported enhanced knowledge and skills in technology entrepreneurship</p> <p>3c. At least 55 startup groups supported by three universities</p> <p>3d. At least 540 postgraduate students (40% women) from three universities supported under the stipend program for the duration of the study</p> <p>3e. At least five national software and technology competition events open to students completed</p> <p>4a. By 2024, manuals for stipend, research and development, internship program implementation and monitoring system (with data disaggregated by sex and social group<sup>d</sup>) developed</p> <p>4b. By 2028, student services and career guidance centers established and operational in three universities, with at least five annual job fair events open to all CSE/IT students from all higher education institutions and universities (and participated by at least 30% women students)</p> <p>4c. By 2028, coordination mechanism with industry associations established</p>	<p>3c. (2022 baseline: 0) (OP 1.2.2)</p> <p>3d. (2022 baseline: no stipend program implemented; 18.6% of postgraduate students were women)</p> <p>3e. (2022 baseline: 0)</p> <p>4a. (2022 baseline: manuals not available)</p> <p>4b. (2022 baseline: centers not existing)</p> <p>4c. (2022 baseline: not yet established)</p>	<p>3b. Technology entrepreneurship development training programs are yet to be designed and implemented.</p> <p>3.c Yet to be implemented.</p> <p>3d. Stipend program manual is yet to be approved.</p> <p>Yet to be implemented.</p> <p>3e &amp; 4a. Initiative taken to appoint the consultant for launching the program</p> <p>4b. Initiative take to organize Job fair in 2025.</p> <p>4.c Several meetings organized with various IT/ITES firms including Bangladesh Association of Software and Information Services (BASIS), Bangladesh Association of Contact Center and Outsourcing (BACCO) for this purpose. MoU will be finalized soon.</p>	
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*Inputs Asian Development Bank: \$100 million (loan) Government of Bangladesh: \$14 million*

CSE/IT = computer science and engineering, software engineering, and information technology, N/A = not applicable, OP = operational priority, Q = quarter, R = risk, R&D = research and development.

a Government of Bangladesh, Planning Commission. 2020. 8th Five Year Plan, July 2020–June 2025: Promoting Prosperity and Fostering Inclusiveness. Dhaka.

b The universities selected for this project are Bangladesh University of Engineering and Technology, University of Dhaka, and Jashore University of Science and Technology. The target refers to at least 40% men and 40% women separately.

c The women-friendly facilities, which are based on gender equity- and social inclusion-responsive considerations, have an adequate number and quality of sanitation facilities for women and people with disability; inclusive and friendly study areas for students; staff lounges for school administrator, teachers, and staff; day-care services; and security and safety features such as access control, increased lighting at night, and video surveillance system.

d This social group refers to, but is not limited to, transgender, small ethnic minorities, and people from hard-to-reach areas.

SOURCE: ASIAN DEVELOPMENT BANK.

## Improving Computer and Software Engineering Tertiary Education Project (ICSETEP)

Table-2: Revised Project Implementation Schedule

Indicative Activities	2023				2024				2025				2026				2027				2028				2029				Remarks	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>A. Design and Monitoring Framework</b>																														
<b>Output 1. Modern learning, research, and startup facilities established</b>																														
Original	1.1 Prepare civil works bidding documents for three universities (Q3&Q4 2023)																													
Revised	1.1a Finalization of Architectural Design and Structural Design by the PIU Universities.	DU																												
		BUET																												
		JUST																												
	1.1b Prepare bidding documents for Construction of Multi-Storied Building	DU																												
		BUET																												
		JUST																												
1.1c Publish Tender for Building Construction in e-GP	DU																													
	BUET																													
	JUST																													
Original	1.2 Commence construction (Q2 2024 – Q2 2026).																													
Revised	1.2a Contract Signing with Construction Firm	DU																												
		BUET																												
		JUST																												

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.2b Commencement of construction works	DU																													
	BUET																													
	JUST																													
1.2c Deploy Consultant Firm for supervision of Construction Works	DU																													
	BUET																													
	JUST																													
1.2d Completion of construction works	DU																													
	BUET																													
	JUST																													
Original	1.3 Prepare operations manual for startup facilities and services (Q4 2023)																													
Revised	1.3a Prepare operations manual for startup facilities and services	DU																												
	BUET																													
	JUST																													
Revised	1.3b Prepare dedicated space for startup or incubation facilities in the new constructed Building	DU																												
	BUET																													
	JUST																													
Original	1.4 Update equipment specifications and prepare bidding documents (Q3 2023)																													
Origin	1.5 Conduct bidding of goods (equipment and furniture) (Q1-Q4 2024).																													
	1.4a Procurement of computer and accessories for PIU, DU	DU																												

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
1.4b Procurement of Laptops for Needy Students (Multiple Packages)	DU																																	
1.4c Procurement of Office Equipment for PIU, DU	DU																																	
1.4d Procurement of furniture for PIU, DU	DU																																	
1.4e Procurement of equipment for IT HR Hub of Dhaka University	DU																																	
Lot -1: Procurement of Network equipment and establishment of wireless network system	DU																																	
Lot-2: Procurement of Desktop Computers, Virtual Devices, Dumb Terminal for IT HR Hub	DU																																	
Lot-3: Procurement of Security and Video Solution equipment for IP Surveillance and Access control system	DU																																	
Lot-4: Procurement of equipment for IP Telephony System	DU																																	
1.4f Procurement of IT equipment and Establishment of Data Centre at DU	DU																																	

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1.4g Procurement of furniture for IT HR Hub, DU	DU																														
1.4h Procurement of computer and accessories for PIU, BUET	BUET																														
1.4i Procurement of Laptops for Needy Students (Multiple Packages)	BUET																														
1.4j Procurement of Office Equipment for PIU, BUET	BUET																														
1.4k Procurement of furniture for PIU, BUET	BUET																														
1.4l Procurement of equipment for establishment of Incubator, new labs at BUET	BUET																														
Lot-1: Procurement of IT equipment for establishment of Incubator at BUET	BUET																														
Lot-2: Procurement of CSE lab equipment and establishment of 24 labs at BUET	BUET																														
1.4m Procurement of furniture for establishment	BUET																														

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
of new incubator, lab, and data center at BUET																																		
1.4n Procurement of computer and accessories for PIU, JUST	JUST																																	
1.4o Procurement of Laptops for Needy Students (Multiple Packages)	JUST																																	
1.4p Procurement of Office Equipment for PIU, JUST	JUST																																	
1.4q Procurement of furniture for PIU, JUST	JUST																																	
1.4r Procurement of computers & accessories, network equipment, communication devices, etc for JUST	JUST																																	
Lot-1: Procurement of Network equipment and establishment of network system	JUST																																	
Lot-2: Procurement of servers, Desktop Computers, Virtual Devices, Dumb Terminals, printers, teaching aid equipment etc for JUST	JUST																																	



Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Expert Services from Visiting Professors	DU																														
	BUET																														
	JUST																														
Introduction of Online Open Courseware	PMU																														
	DU																														
	BUET																														
	JUST																														
Strengthening UGC Digital Library with e-books and e-journals	PMU																														
Digital learning materials or other online service subscription through BdREN	PMU																														
Original	2.3 Complete required documentation for international accreditation (Q2 2024)																														
Revised	2.3 Complete requirements for international accreditation aligned with Washington Accord.	DU																													
		BUET																													
		JUST																													
Original	2.4 Apply for international accreditation for new technology programs (Q1 2025)																														
Revised	2.4 Apply for international accreditation for new technology programs	DU																													
		BUET																													
		JUST																													

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Original	2.5 Develop faculty recruitment and development plan (Q1 2024) and implement over the project duration																																	
Revised	Financial support to faculty members of JUST to obtained PhD degree from abroad	JUST																																
	Increase in faculty members at PIU Universities	DU																																
		BUET																																
		JUST																																
	Training for faculty members and support staff	PMU																																
		DU																																
		BUET																																
JUST																																		
Original	2.6 Identify industry partners for internship programs and joint capstone projects (from Q1 2024 onward)																																	
Revised	Industry attachment for undergraduate students through internship or capstone projects	PMU																																other univ.
		DU																																
		BUET																																
		JUST																																
	Conferences, seminars, job fairs, etc.	PMU																																

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
Original	2.7 Identify industry professional training programs and conduct them (from Q1 2025 onward)																																	
Revise	2.7 IT professionals training programs for students	DU																																
		BUET																																
		JUST																																
<b>Output 3. Research and development and technology entrepreneurship strengthened</b>																																		
Original	3.1 Develop an operation manual for research grant making (Q4 2023).																																	
Revised	3.1a Develop an operation manual for research and development grant																																	
	3.1b Research Grant mechanism awareness																																	
Original	3.2 Call for proposals for research grants for the following year (from Q1 2024 to Q1 2027 annually).																																	
Revised	3.2 Call for proposals for research grants in several rounds (from Q1 2025 to Q3 2026 Semiannually)																																	
Original	3.3 Award research grants and monitoring their progress (every year from 2024 to 2027).																																	





Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Software and technology competitions, boot camps, hackathon, etc. though event management consulting firm	DU																													
	BUET																													
	JUST																													
Outsourcing/ Self-employment programs	PMU																													
<b>Output 4. Project management capacity strengthened</b>																														
Original	4.1 Design the web-based systems for various project activities (Q4 2023 – Q2 2024)																													
Revised	Prepare ToR for the web-based MIS system																													
	Publish tender for MIS system development Contract with software firm for web-based MIS systems																													
Original	4.2 Train department staff on modern practices in higher education management (from Q1 2024 onward)																													
Revised	4.2 Training on modern pedagogy in technology education and other online training for faculty members	PMU																												
Original	4.3 Establish student service and industry																													

Indicative Activities		2023				2024				2025				2026				2027				2028				2029				Remarks	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
relations centers and carry out the activities and services (Q1 2024 onward)																															
4.3 Establish student service and industry relations centers and carry out the activities and services with career guidance programs	DU																														
	BUET																														
	JUST																														
<b>B. Project Management Activities</b>																															
Original	Establish PMU and PIUs (Q3 2023 onward) and produce quarterly progress reports (from Q4 2023)																														
Revised	Establish PMU and PIUs (Q3 2023 onward)																														
Revised	Produce quarterly progress reports (from Q1 2025 onward)																														
	Deploy the construction supervision consultant (Q4 2023–Q3 2025)																														
Revised	Deploy consultants for PMU and PIUs																														
Revised	Overseas Study Visits																														
Revised	Conduct Tracer Study and employer survey																														

DMF = design and monitoring framework, PIU = project implementation unit, PMU = project management unit, DU = Dhaka University, BUET = Bangladesh University of Engineering and Technology, JUST = Jashore University of Science and Technology. Source: Asian Development Bank.

## LOAN 4348 BAN: IMPROVING COMPUTER AND SOFTWARE ENGINEERING TERTIARY EDUCATION PROJECT (ICSETEP)

## STATUS OF COMPLIANCE WITH LOAN COVENANTS

## SCHEDULE 4

## Execution of Project; Financial Matters

Description	Schedule/Due Date	Status/Remarks
<b><u>Implementation Arrangements</u></b>		
1.The Borrower shall ensure, or cause, the Project Executing Agency and Implementing Agencies to ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower and ADB. In the event of any discrepancy between the PAM and this Loan agreement, the provisions of this Loan Agreement shall prevail.	Entire Project Period	Conformed to the Agreement
2.The Borrower shall ensure, or cause the Project Executing Agency and the implementing Agencies to ensure, that (a) all positions Identified as key personnel within each of the PMU and PIUs, as set forth in the PAM, are filled for the full duration of the Project by individuals with adequate skills and relevant to each position; (b) vacancies in such positions should they occur, are filled within 3 months, and (c) the PMU and PIUs are allocated the necessary office space, facilities, equipment, support staff and management information systems to carry out their responsibilities in an efficient and timely manner.	Project Period	Complied by both the PMU & PIU
<b><u>Procurement</u></b>		
3.The Borrower shall ensure, or cause the Project Executing Agency and Implementing Agencies to ensure, that (a) the procurement of Goods, Works and Services is carried out in accordance with the Procurement and the Procurement Regulations	Project Period	Compiling

(b)Goods, Works and Services shall be procured based on the detailed arrangements set forth in the Procurement Plan, including the procurement and selection methods, the type of bidding documents and ADB's review requirements. The Borrower may modify the detailed arrangements set forth in the Procurement Plan only with the prior agreement of ADB, and such modifications must be set out in updates to the Procurement Plan; and	Project Period	Compiling
(c)(i)a Goods and Works procured and Services Obtained (including all computer hardware software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party; and	Project Period	Compiling
(ii)all contracts for the procurement of Goods, Work and Services contain appropriate representations, warranties and, if appropriate, indemnities from the contractor, supplier, consultant or service provider with respect to the matters referred to in this subparagraph.	During implementation period	Compiling
<b><u>Conditions for Award of Contract</u></b>		
3.The Borrower, the Project Executing Agency and the implementing Agencies shall not award any Works or Non-consulting Services contract, which involves environmental impacts until:	Before Works and No-Consulting Services advertisement	To be complied
(a)the relevant environment authority of the Borrower has granted the approval of the IEE, and the Borrower has obtained ADBs clearance of the IEE based on the final design; and		
(b)the Project Executing Agency or the Implementing Agencies have incorporated the relevant provisions from the EMP Into the respective Works or Non-consulting Services contract.	During Works or Non-Consulting Services Contract	To be complied
<b><u>Safeguards Environment</u></b>		
5.The Borrower shall ensure, or cause the Project Executing Agency and the Implementing Agencies to ensure, that the preparation, design, construction, Implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment, health and safety; (b) the Environmental Safeguards; and(c)all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	During Design, pre-construction, Construction and post construction	To be complied EMP is incorporated in the bidding documents for Construction of the Learning,

<u>Tribes, Minor Races, Ethnic Sects and Community Peoples, Land and Acquisition Involuntary Resettlement</u>		Research and Startup facility at DU. IEE conducted before bidding/
6.The Borrower shall ensure or cause the Project Executive Agency and the Implementing Agencies to ensure, that the Project does not involve risks or impacts to tribes minor races, ethnic sects and community or involuntary resettlement impacts, all within the meaning of the SPS, in the event that the Project does have any such risk or impact, the Borrower shall take, or cause the Project Executing Agency and the implementing Agencies to take all steps required to ensure that the Project complies With the applicable laws and regulations of the Borrower and with the SPS.  <u>Human and Financial Resources to Implement Safeguards Requirements</u>	For Works contract	To be complied
7.The Borrower shall make available, or cause the Project Executing Agency and implementing Agencies to make available, necessary budgetary and human resources to fully implement the EMP.  <u>Safeguards-Related Provisions in Bidding Documents and Works Contracts</u>	Implementation of the Works Contract	To be complied
8. The Borrower shall ensure, or cause the Project Executing Agency and Implementing Agencies to ensure that all bidding documents and contracts for Works contain provisions that require contractors to;  (a)comply with the measures relevant to the contractor set forth in the IEE the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report;	For Works contract	To be complied
(b)make available a budget for all such environmental and social measures;	During Building process	To be complied
(c)provide the Borrower with a written notice of any unanticipated environmental resettlement or tribes, minor races, ethnic sects and community people’s risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP.	During construction and post construction	To be complied
(d)adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and	During pre-construction and construction period	To be complied

(e)reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	At the post construction stage	To be complied
<b><u>Safeguard and Monitoring and Report</u></b>		
9. The Borrower shall do the following, or cause the Project Executing Agency and Implementing Agencies to do the mowing:  (a)submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affect persons promptly upon submission;	During pre-construction and construction period	To be complied
(b)if any unanticipated environment and /or social risks and impacts arise during construction, implementation or operation of Project that were not considered in the IEE and the EMP, promptly Inform ADB of the of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and	During pre-construction, construction period and post construction period	To be complied
(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach,	During construction period	To be complied
<b><u>Prohibited List of Investments</u></b>		
10. The Borrower shall ensure, or cause, the Project Executing Agency and Implementing Agencies to ensure, that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	During Project Period	To be complied
<b><u>Labor Standards, Health and Safety</u></b>		
11.The Borrower shall ensure or cause the Project Executing Agency and Implementing Agencies to ensure, that the core tabor standards and the Borrower’s applicable laws and regulations are complied with during Project Implementation. The Borrower shall include specific provisions in the bidding documents and contracts financed by ADB under the Project requiring that the contractors, among other things: (a) comply with the Borrower’s applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate against workers in respect of employment	For Works	To be complied. The Labor Standards, Health and Safety issues are incorporated in the bidding

and occupation; (d) do not use forced labor; (e) allow freedom of association and effectively recognize the right to collective bargaining; and(f) disseminate or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the Project and to members of the local communities surrounding the Project area particularly women.		documents for Construction of the Learning, Research and Startup facility at DU.
12.The Borrower shall strictly monitor compliance with the requirements set forth in paragraph 11 above and provide ADB with regular reports.	During pre-construction, construction period	To be complied
<b><u>Gender and Development</u></b>		
13.The Borrower shall ensure or cause the Project Executing Agency and Implementing Agencies to ensure, that (a) the GAP is implemented in accordance with its terms; (b) the bidding documents and contracts include relevant provisions for contractors to comply with the measures set forth in the GAP. (c) adequate resources are allocated to implementation of the GAP; and (d) progress on implementation of the GAP, including progress toward achieving key gender outcome and output targets, are regularly monitored and reported to ADB.	During Project Period	To be complied
<b><u>Counterpart Support</u></b>		
14.The Borrower shall make available through budgetary allocations or other means, all counterpart funds required for the timely and effective implementation of the Project including funds required to(a) mitigate unforeseen environmental or social impacts; (b) meet additional costs arising from design changes, price escalation in construction or installation costs or other unforeseen circumstances; (c) ensure effective operation and maintenance of the Project facilities, both during and after completion of the Project; and (d) ensure the Project Executing Agency and the Implementing Agencies have sufficient funds to satisfy their liabilities arising from any Works. Goods and/or Services contract.	During project Implementation	To be complied
15.In addition to the foregoing, the Borrower shall provide, or cause the Project Executing Agency to provide, all counterpart funds required to meet capital expenditure and operational expenditure of each implementing Agency.	During project Implementation	To be complied
<b><u>Financial Covenants</u></b>		

16.The Borrower shall ensure or cause the Project Executing Agency and the Implementing Agencies to ensure that the PMU and the PIUs implement the financial management action plan provided in the PAM.	During implementation of period	To be complied
17.The Borrower shall further ensure or cause the Project Executing Agency and the Implementing Agencies to ensure that the PMU and the PIUs comply with the detailed arrangements set forth in the PAM with respect to financial management.	During project Implementation	To be complied
<b><u>Reporting</u></b>		
18.The Borrower shall ensure or cause the Project Executing Agency to ensure That UGC provide to ADB periodic reports on the execution of the Project, the operation and management of Project facilities and compliance with this Loan Agreement, in accordance with the requirements set out in the PAM, with each such report describing the activities of each Implementing Agency during the period to which the report relates, based on reports provided to UGC by each Implementing Agency.	During Project Implementation	To be complied
<b><u>Governance and Anticorruption</u></b>		
19.The Borrower, the Project Executing Agency and the implementing Agencies shall (a) comply with ADB's Anticorruption Policy (1998 as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents any alleged corrupt, fraudulent collusive or coercive practice relating to the Project: and (b) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation.	During Project Implementation	To be complied
20.The Borrower, the Project Executing Agency and the Implementing Agencies shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the Project Executing Agency and the Implementing Agencies and all contractors suppliers, consultants, and other service providers as they relate to the Project.	During Project Period	To be complied

## GESI ACTION PLAN MONITORING TOOL

Activities	Targets and Indicators	Responsible Agency	Time Frame	Progress (as of DD/MM/YYYY)
<b>Outcome. Industry responsiveness of tertiary level CSE/IT education improved</b>				
a. Employability of CSE/IT graduates improved	At least 40% of graduates (both men and women) with bachelor's degrees from the three universities are employed within 6 months of graduation <sup>a</sup> (2018 baseline: 28.1%, male 28.2% and female 27.8%)	Universities (PIU)	From 2023 to 2029	Process for appointment of Women IT Leadership Specialist completed. She will be on-board by January-2025. Procurement process on going for appointment of Higher Education Specialist. He/She will be on-board by April 2025.  Both the consultants will take steps to get target.
<b>Output 1. Modern learning, research and startup facilities established</b>				
1. Establish GESI-responsive facilities in the expansion and modernization of learning and research infrastructures (DMF 1a)	1. GESI responsive infrastructure for the expanded CSE/IT programs, in three universities <sup>b</sup> (2022 baseline: 0)	Universities (PIU) and gender specialist	Q4 2026	It will establish from contraction period

Activities	Targets and Indicators	Responsible Agency	Time Frame	Progress (as of DD/MM/YYYY)
2. Facilities for startup companies established in three universities (DMF output 1b)	2. GESI-responsive facilities for startup companies established at least for 2 universities (2022 baseline: 0)	Universities (PIU) and gender specialist	Q4 2026	Initiatives taken to appoint a Stipend Program Specialist by April 2025
3. Increased access for women in modern learning, research or startup facilities	3. At least 170 women students admitted per year benefitted from modern learning, research or startup facilities (2022 baseline: 82 new women student intake)	Universities (PIU)	By 2028	To achieve the task, a Women IT Leadership Specialist will be available on January 2025.
<b>Output 2. Quality and industry relevance of CSE/IT programs enhanced</b>				
4. Undergraduate and graduate students completed CSE/IT programs (DMF output 2a)	4. At least 550 (25% of 2,200) women undergraduate and graduate students completed CSE/IT programs in three universities (2022 baseline: 480 students, 17.1% women)  5. At least 370 women received undergraduate scholarship (2022 baseline: no women receive undergraduate scholarship to study CSE/IT education)	Universities (PIU)	From 2023 to 2028	Do
5. Faculty members increased and trained in modern pedagogical approaches (DMF output 2d)	6. Women faculty members increased to at least 20% (40 out of 200) (2022 baseline: 13.1% [14 out of 107])  7. At least 75% women faculty members reported enhanced knowledge and skills in modern pedagogic approaches (2022 baseline: no	Universities (PIU)	From 2023 to 2028	To achieve the task a Women IT Leadership Specialist will be available on January 2025.

Activities	Targets and Indicators	Responsible Agency	Time Frame	Progress (as of DD/MM/YYYY)
	women faculty members are trained in modern pedagogic approaches)			Moreover, a Higher Education Specialist will be on-board by April 2025
6. Graduates from the three universities and other universities completed internships or industry-collaboration capstone projects (DMF output 2e)	<p>8. At least 80% of men and women graduates from the three universities completed internships or industry-collaboration capstone projects (2022 baseline: 8.3% of graduates [2.8% among women])</p> <p>9. At least 300 students (at least 50% women) from other universities completed internships or industry-collaboration capstone projects (2022 baseline: 8.3% of graduates [2.8% among women])</p>	Universities (PIU)	From 2023 to 2028	<p>An Industry Relations Expert have been appointed to carry out this issue.</p> <p>To achieve the task a Women IT Leadership Specialist will be available on January 2025.</p> <p>Moreover, a Higher Education Specialist will be on-board by April 2025</p>
<b>Output 3. R&amp;D and technology entrepreneurship strengthened</b>				
7. Conduct research and development for people with disability (DMF output 3a)	10. At least 4 research projects implemented for disability solutions.	Universities with consultant support	By Q2 2028 <sup>c</sup>	Initiative has been taken to appoint Stipend Program Specialist to achieve this objective. The specialist will be on-board by April 2025.

Activities	Targets and Indicators	Responsible Agency	Time Frame	Progress (as of DD/MM/YYYY)
8. Enhanced knowledge and skills of faculty members and IT professionals in technology entrepreneurship (DMF output 3b)	11. At least 2,000 students, faculty members, and IT professionals (30% women) reported enhanced knowledge and skills related to technology entrepreneurship (2022 baseline: 0)  12. At least three GESI-related cases of technology enterprise focusing women specific issues or services, or enterprises established by women to be included in the training modules (2022 baseline: 0)	Universities (PIU)	By Q2 2028	The Women IT Leadership Specialist, Gender Specialist and Higher Education Specialist will also be facilitated.
9. Provide scholarships and stipends to postgraduate students in three universities (DMF output 3d)	13. At least 540 postgraduate students (40% women) from three universities supported under the stipend program for the duration of the study (2022 baseline: no stipend program for postgraduate CSE/IT education)	Universities (PIU)	By Q2 2028	Do
<b>Output 4. Project management capacity strengthened</b>				
10. By 2024, manuals for stipend, research grant, internship program implementation and monitoring system developed (DMF output 4a)	14. Manuals and monitoring system developed with sex and social group <sup>d</sup> disaggregated data (2022 baseline: manuals not available)  15. At least 200 women faculties and students reported enhanced knowledge on gender equity and socially inclusive learning environment and project implementation through forums (2022 baseline: no forum)	Universities (PIU) supported by gender consultant	Q2 2024	Initiative taken to prepare the manual by April 2025. Process initiated to appoint Gender Specialist.

Activities	Targets and Indicators	Responsible Agency	Time Frame	Progress (as of DD/MM/YYYY)
11. Student services and career guidance centers established and operational with at least 5 annual job fair events open to all CSE/IT students (DMF output 4b)	16. By 2028, student services and career guidance centers established and operational in three universities with at least 5 annual job fair events open to all CSE/IT students from all higher education institutions and universities (at least 30% women students) (2022 baseline: no centers)	Universities (PIU)	From 2023 to 2028	Industry Relations Expert have appointment and he will be facilitated.

CSE/IT = computer science and engineering, software engineering and information technology, GESI = gender equity and social inclusion, NA = not applicable, PIU = project implementation unit, UGC = University Grants Commission, R&D = research and development, PhD = Doctor of Philosophy, PMU = project management unit.

<sup>a</sup> The universities selected for this project are Bangladesh University of Engineering and Technology, University of Dhaka, and Jashore University of Science and Technology. The target refers to 40% men and 40% women separately.

<sup>b</sup> GESI responsive facilities include an adequate number and quality of sanitation facilities for women and people with disability, inclusive and friendly study areas for students and staff lounges for school administrator, teachers and staff; and day care services; and security and safety features such as access control systems, increased lighting at night, and video surveillance systems.

<sup>c</sup> Q4 2023 – program designed; Q2 2024 – program launched

<sup>d</sup> The social group refers to but not limited to transgender, small ethnic minorities, person with disability and people from hard to reach areas