Pirojpur Science and Technology University

Integrated Feasibility Study Project for the Development of
Pirojpur Science and Technology University, Pirojpur

TERMS OF REFERENCE (ToR)

Seclection of a consulting firm for Integrated Feasibility Study, Master Plan and other related tasks for the Development of Pirojpur Science and Technology University, Pirojpur

1.0 Introduction

1.1	Title of the Assignment	:	Seclection of a consulting firm for Integrated Feasibility Study, Master Plan and other related tasks for the Development of Pirojpur Science and Technology University, Pirojpur
1.2	Assignment Duration	:	As per Contract
1.3	Location of Services	:	The location of service will be in Pirojpur, Bangladesh.
1.4	Source of Fund	:	Own Fund of the Government of Bangladesh (GoB)
1.5	Implementing Organization	:	University Grants Commission of Bangladesh & Pirojpur Science and Technology University under the Secondary and Higher Education Division, Ministry of Education, Bangladesh.
1.6	Background	:	

দক্ষ মানব সম্পদ একটি দেশের সবচেয়ে মূল্যবান সম্পদ। উচ্চশিক্ষা প্রতিষ্ঠানগুলো দক্ষ মানবসম্পদ তৈরিতে গুরুত্বপূর্ণ ভূমিকা পালন করে থাকে। জাতীয় জনসংখ্যাগত লভ্যাংশের (**Demographic dividend**) সুবিধা পেতে হলে বাংলাদেশে বিজ্ঞান ও প্রযুক্তিসহ বিভিন্ন ক্ষেত্রে দক্ষ পেশাদার প্রয়োজন। বিষয়টি বিবেচনায় নিয়ে দেশের দক্ষিণাঞ্চলের জেলা পিরোজপুরে বিজ্ঞান ও প্রযুক্তি বিষয়ক শিক্ষা ও গবেষণার বিস্তার ঘটাতে ২০২২ সনে "পিরোজপুর বিজ্ঞান ও প্রযুক্তি বিশ্ববিদ্যালয়, পিরোজপুর প্রতিষ্ঠা করা হয়। ২০২৩-২৪ শিক্ষাবর্ষ হতে বিশ্ববিদ্যালয়ের অ্যাকাডেমিক কার্যক্রম পরিচালনার জন্য ২টি অনুষদের (বিজ্ঞান এবং প্রকৌশল ও প্রযুক্তি অনুষদ) অধীনে ৪টি বিভাগে (গণিত, পরিসংখ্যান, সাইকোলজি এবং কম্পিউটার সায়েন্স এন্ড ইঞ্জিনিয়ারিং) শিক্ষার্থী ভর্তি করা হয়েছে। বর্তমানে প্রতি বিভাগে মোট ৮০ জন করে সর্বমোট ৩২০ জন শিক্ষার্থী অধ্যয়নরত আছে।

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার শিক্ষার মান উন্নয়ন এবং টেকসই উন্নয়ন কর্মসূচিকে সামনে রেখে শিক্ষার সুযোগ বৃদ্ধি করার ওপর গুরুত্বারোপ করা হয়েছে। এছাড়া, শিক্ষা মন্ত্রণালয় দেশের অর্থনীতিকে নেতৃত্ব দেওয়ার জন্য বিজ্ঞান ও প্রযুক্তি খাতে উচ্চশিক্ষার ওপর জোর দিয়েছে। এ বিশ্ববিদ্যালয়ের লক্ষ্য হলো বিজ্ঞান ও প্রযুক্তির ক্ষেত্রে জ্ঞানের ব্যাপ্তি ঘটিয়ে দক্ষ মানব সম্পদ তৈরি এবং উচ্চশিক্ষার আন্তর্জাতিকীকরণের মাধ্যমে ভবিষ্যত বাংলাদেশের উন্নয়ন অগ্রযাত্রায় অংশগ্রহণ করে SDG বাস্তবায়নে গুরুত্বপূর্ণ অবদান রাখবে এবং উচ্চশিক্ষা, গবেষণা, উদ্ভাবন এবং অ্যাকাডেমি-শিল্প সংযোগের মাধ্যমে বহু-বিভাগীয় পদ্ধতিতে শিক্ষার্থীদের উচ্চ শিক্ষায় প্রবেশাধিকার বৃদ্ধির মাধ্যমে নতুন উদ্ভূত চ্যালেঞ্জ মোকাবেলা করতে সহায়তা করবে।

বিশ্ববিদ্যালয়ের স্থায়ী ক্যাম্পাস স্থাপনের জন্য পিরোজপুর সদর উপজেলায় পঁচাত্তর একর জমি অধিগ্রহণের জন্য মাধ্যমিক ও উচ্চশিক্ষা বিভাগ, শিক্ষা মন্ত্রণালয় কর্তৃক প্রশাসনিক অনুমোদন পাওয়া গেছে। ৪র্থ শিল্প বিপ্লবের চ্যালেঞ্জ মোকাবেলা, জ্ঞান-বিজ্ঞান চর্চা, প্রযুক্তিগত উন্নয়ন, গবেষণা ও উদ্ভাবনের কেন্দ্র হিসেবে গড়ে তোলার জন্য নির্ধারিত জমিতে বিশ্ববিদ্যালয় স্থাপনের সম্ভাব্যতা যাচাই, আগামী ৫০ (পঞ্চাশ) বছরের জন্য একটি অ্যাকাডেমিক মহাপরিকল্পনা প্রণয়ন, একটি ক্যাম্পাস মাস্টার প্ল্যান তৈরি, প্রাথমিকভাবে আবশ্যিক সুযোগ-সুবিধাগুলোকে সংযুক্ত

করে ডিপিপি তৈরি করা হবে। যাতে আগামী ৫০ বছরে বিভিন্ন বিভাগে ন্যূনতম ১৫,০০০ এর অধিক শিক্ষার্থী উচ্চশিক্ষা গ্রহণের সুযোগ পায়। প্রকল্পের বিভিন্ন ধাপে গ্রিন ক্যাম্পাস মডেল অনুসরণ করে ভবন ও অবকাঠামো নির্মাণ করা হবে। যেমন, অ্যাকাডেমিক ভবন, প্রশাসনিক ভবন, ছাত্র-ছাত্রী হল, ইনস্টিটিউট ভবন, গবেষণা ক্ষেত্র, শিক্ষক ছাত্র কেন্দ্র (টিএসসি), পরিবহন ডিপো, গ্রন্থাগার ভবন, মসজিদ, ক্লক টাওয়ার, মন্দির, কবরস্থান, অডিটোরিয়াম বিল্ডিং, ভিসি বাংলো, প্রো-ভিসি/কোষাধ্যক্ষ বাংলো, খেলার মাঠ, রিনিউএবল এনার্জি ব্যবস্থাপনা, বৈদ্যুতিক সাব-স্টেশন, ওভার হেড ওয়াটার ট্যাঙ্ক, ভূগর্ভস্থ জলাশয়, গভীর নলকূপ, থিয়েটার, টিএসসি, শহীদ মিনার, স্মৃতিস্তম্ভ, নিরাপত্তা ব্যারাক, ইউনিভার্সিটি স্কুল অ্যান্ড কলেজ, ব্রিজ, কালভার্ট, ড্রেন, ক্যাবল ডাক্ট, স্যুয়ারেজ ট্রিটমেন্ট প্ল্যান্ট, ওয়াটার ট্রিটমেন্ট প্ল্যান্ট, গার্ড রুমসহ গেট, আরসিসি এবং বিটুমিনাস রোড, ইনডোর গেম অ্যান্ড ফিটনেস সেন্টার, গেস্ট হাউস, শিক্ষক/কর্মকর্তাদের ডরমেটরি, শিক্ষক/কর্মকর্তা কোয়াটারস্, স্টল ইত্যাদি।

2.0 OBJECTIVES OF THE ASSIGNMENT:

(a) Overall Objectives:

Integrated feasibility study for the construction of the permanent campus of Pirojpur Science and Technology University on the land approved by the government. To prepare a sustainable, eco-friendly "Campus Master Plan" for the university. And to prepare development project proposal (DPP) for the Govt. approved land acquisition and construction of preliminary required infrastructure of the university.

(b) Specific Objectives:

1) To conduct an integrated feasibility study for the construction of the permanent campus of Pirojpur Science and Technology University on the land approved by the Government of Bangladesh;
2) To prepare Campus Master Plan (CMP), Transportation Master Plan, Waste Management Plan, Environmental Management Plan etc. for the university and identify premilitary structural development to be required for the University;
3) To prepare development project proposal (DPP) for selected land acquisition and construction of premilitary required infrastructure of the university.

3.0 BRIEF OUTLINE AND SCOPE OF SERVICES:

The project will be divided into 2 (Two) parts as follows:

A) Feasibility study for 75 acres of land acquisition project.
B) To prepare Master Plan for land development with infrastructures project.

The Services to be provided by the Consultant shall include but not limited to the general and specific objectives as mentioned in clause no. 2. The Consulting firm/Project team members shall prepare the Master-Plan for the Pirojpur Science and Technology University. The consultants are responsible for preparing all relevant study reports for preparing the plan. The main scope (but not limited to) of services are:

1) Conduct an overall feasibility study for the development and updating of a comprehensive analysis, strategy, and detailed plan for the Development of Pirojpur Science and Technology University;
2) Prepare a detailed master plan including animation, 2D and 3D design of works to be implemented under the project entitled "Land Acquisition & Development of Pirojpur Science and Technology University;
3) Prepare environmental, social assessment, and environmental management plans including all related reports such as TIE, EIA, etc.;
4) Digital survey including contour map of Pirojpur Science and Technology University and its nearby surroundings;

5) Conduct scope of science and technology-based education, growth of science and technology, their demand and future projection of the country;
6) Design and estimate of respective structures must be specified if needed to construct nearby the proposed investment project and must maintain similarity and harmony.

4.0 Output and Outcome of the Project:

The project will provide the following output:

1. Digital Topographic Survey Report.
2. Assessment of technical viability through sub-soil investigation.
3. Hydro-Geological Survey
4. Environmental Impact Assessment.
5. Social Impact/Environmental & Social Management Plan (ESMP)
6. Economic viability and benefit of the university.
7. Detailed Campus Master Plan including animation, 2D and 3D Model with animation.
8. TIA/Transportation Master Plan.
9. Waste and Environmental Management Plan.
10. Rain water harvesting process-designing and cost estimation
11. Prepare of sewerage management plan
12. Obtain clearance from different agencies
13. Fire-Fighting System Estimation and Design
14. Beautification Design
15. Climate smart construction option will be examined
16. Land acquisition and Resettlement Action Plan (LARAP)
17. Cost estimation/Bill of Quantity (BoQ)
18. Development project proposal (DPP) for selected of land acquisition and construction of premilitary required infrastructure of the university.

5.0 Methodology of Conducting the Study

The Consultant shall consider the following tasks but not limited to:

Task A: Background study, site assessment and survey

- Study historical background, previous studies, maps, reports and relevant rules, regulation regarding the project and its components.
- Conduct topographical survey, land use survey, physical feature survey, hydrological survey, archaeological study, survey of development activities, accommodation survey, geological survey, sub-soil investigation, traffic and transportation survey, drainage survey, survey of existing flora and fauna and other relevant surveys for the preparation of master plan.
- Conduct site suitability analysis considering the physical aspects, geography, environment and social context.

Task B: Data collection and demand projection

- Carry out market demand survey to ascertain the demand of the land for various usage (educational, residential, recreational, institutional etc.)
- Project the demand for the next 50 years (at least) for base case, optimistic case and pessimistic case.
- Prepare alternate options (type and height of buildings) for development and relevant marketing strategy.

Task C: Mouza map collection, digitization & demarcation of boundary of the project area

- Mouza Maps Collection;
- Mouza Maps Scanning and Digitizing;
- Collection of Ground Control Point (GCP) Through RTK GPS Survey;
- Geo-Referencing of Mouza Maps;
- Superimposed in Orthophoto Image;

Task D: Digital Topographical Survey

- Carry out UAV Survey in the study area. Unmanned Aerial Vehicles (UAVs) supplies new opportunities in remote sensing and photogrammetry applications.
- Collect highly precise Ground Control Points (GCP) for image Geo-rectification.
- Generate Ortho-photos, DSM, DTM, Contour and Land Levels.
- Capture 4K Video of Selected Area.
- Collection of aerial images of the project site and make a bird's eye view of the area.
- Preparation of DEM (Digital Elevation Model) from photo image data (Drone Survey)
- Physical features and land use pattern identified.
- Land use and Physical Feature Survey Report with Maps (Both hard and soft format in Auto CAD and GIS Format).
- TBM establishment.

Task E: Geo-technical investigation /Sub soil investigation

The Geo-technical investigation should include, but not limited to:

- Develop a sampling and testing plan for the project in coordination with the Engineer concerned;
- Carry out the exploratory drilling in the area to gather information on the soil properties;
- Prepare boring logs containing a record of the subsurface conditions and ground water levels encountered;
- Collection, protection and preservation of disturbed and undisturbed soil sample; and
- Perform laboratory tests, as required to complete the geotechnical analyses and interpretations required.

Task F: Hydro-Geological Survey

The one of the main objectives of the research is to carry out a Hydro-Geological Survey of the project area. The main objective will be achieved through accomplishment of the following sub-objectives:

- Develop a sampling and testing plan for the project in coordination with the Engineer concerned;
- To identify the surface water body and their management for sustainable Water management.
- To identify the aquifer level of the region including its seasonal variation.
- To identify the areas potential for drawing fresh ground water.
- To develop a seasonal fluctuation model of regional ground water table.
- To prepare a 3D model of individual aquifer with lateral extension
- To develop a water quality map.
- Analysis of effects of Flood over the project area and identify the zone of possible affected area. A guideline to mitigate these flood effects using provided design of drainage system
- Analysis of Salt Water Intrusion in the ground water aquifer system and influence of Tidal Effects on ground water table
- Finally, develop a hydro-geological model for the study area to know the ground water quality and aquifer extension.

Task G: Census survey of project affected persons

- Prepare questionnaire for Census survey to understand the present demographic information, socio-economic condition of the area, socioeconomic data & Inventory of Loss (loss of structure & loss of trees) of the Project Affected Households (PAH's).
- Prepare a detail socio-economic condition of affected households.
- Consultant will also provide still pictures & video of existing structures within the project area.

Task H: Preparation of land acquisition and Resettlement Action Plan (LARAP)

- Consultant will prepare the land acquisition and resettlement action plan for the land area to be affected by the University construction project.
- Consultant will have to identify landowners of the areas of interest and they have to include facilitate initial.
- Consultant will also prepare video filming of the proposed site and will collect still photography (including editing & DVD writing) for the affected people.
- The LARAP will be prepared based on the information collected through census and IOL survey. Consultant will prepare and submit the LARAP

Task I: Conceptual engineering design (structural, electro-mechanical & fire) and cost estimation

- Preparing the conceptual structural design of all infrastructure requirement for all features like buildings, boundary walls, water tank, etc.
- Conceptual Electro-mechanical design of different structures.
- Integrated Master plan of whole area for drainage system, sewerage system, gas line, water line, plumbing, etc. Consultant will also consider water purification system, chemical/effluent treatment plant, etc.
- Consultant will also prepare the Bill of Quantities and preliminary Cost estimates incorporating all comments and recommendations from the client.

Task J: Master Plan preparation, Architectural & Engineering design of different facilities

- Preparation of Master Plans for alternate options. Propose necessary institutional setup and manpower for implementation of the Plan.
- Propose Circulation Plan (Transport Plan) considering the growth of traffic for next 50 years (at least), i.e., Traffic Impact Assessment (TIA).
- Prepare a Phasing Plan and provide work plan for different phases.
- Prepare animation and 3D View
- Preparation of conceptual & detailed engineering design (structural, architectural, electro-mechanical and fire)

Task K: Waste and Environment management plan:

* Prepare a waste management plan for the university.
* Prepare an Environmental management plan for the university as well as the respective region.

Task L: Environmental and social study for the feasibility study

- Prepare a preliminary environmental & social screening to assess direct and induced impacts due to the project;
- Assess the baseline condition;
- Assess potential positive and negative significant impacts and identify cost effective mitigation measures;
- Analyze alternatives incorporation environmental concerns and the associated costs in the economic analysis;
- Give special attention to environmental measures in the project for the cultural properties, landscape & water bodies et cetera;
- Environmental impact analysis (impact of chemical waste)
- Develop Environmental & Social Management Plan (ESMP).
- Ensure that the mitigation measures identified are incorporated in the project design so that they are carried out during construction, operation and maintenance;
- Suggest a suitable monitoring Plan with regard to air, water and noise pollution.
- Prepare a waste management plan for the main campus of the University.
- Prepare an Environmental management plan for main campus of the University as well as for respective region.
- A detailed disaster impact assessment work will be undertaken.

Task M: Economic and financial viability assessment

- Prepare suitable alternative financial and economic model for the project.
- Each alternative of the proposal shall be supported by all the relevant vital details like cost of the project, time period, cash flow, cost of fund etc.
- Internal Rate of Return (IRR), Benefit Cost Ratio (BCR), Net Present Value (NPV) are to be determined.
- Conduct financial and economic viability analysis for the proposed alternatives. Rank the alternative proposals according to the suitability of development.

Task N: Propose Circulation Plan (Transport Plan)

- Prepare a Circulation Plan (Transport Plan) considering the growth of traffic for next 50 years (at least), i.e., Traffic Impact Assessment (TIA).

Task O: Development Project Proposal (DPP)

- Cost estimation (Road, Drain, Building), (Civil, E/M, Plumbing, Fire etc.) of proposed infrastructures
- To prepare development project proposal (DPP) for selected land acquisition project.
- To prepare development project proposal (DPP) for construction of required infrastructure of the university and requirement of Project Director.

Task P: **Reporting and Deliverables**

- Tentative reporting timeframe and deliverable list is given below:

PART-A (Campus Master Plan with related works)

Sl. No.	Reports and deliverables (**Survey and Campus Master Plan**)	No. of Copies	Time Frame
1	Inception Report (hard copy) (After site visit, consultation with stakeholder and Review of Existing Database and Literature)	3	End of 2 weeks (after work order)
2	Conceptual Master Plan (2D)	3	End of 4 weeks
3	Topographic, Land use and physical Feature Survey Report with Maps (Both hard and soft format in Auto CAD and GIS Format)	3	End of 6 weeks
4	Draft Campus Master Plan (2D)	3	End of 8 weeks
5	TIA, IEA and EIA Report	3	End of 12 weeks
6	Sub-soil Investigation and Geological Report	3	End of 12 weeks
7	Feasibility Study Report with Conceptual Architectural 3D View (for each building four images) of Proposed buildings for development of PrSTU Campus.	5	End of 12 weeks
8	Draft Campus Master Plan with Report	10	End of 16 weeks
9	Final Master Plan with Report (Both hard and soft copy)	5	End of 18 weeks
10	3D view of Master Plan (Both hard and soft copy)	2	End of 20 weeks
11	Proposed 3D Model with 3D animation (Hard & Soft copy)	1	End of 20 weeks
12	Arch & Str. Drawing of Proposed Structures (Hard & Soft copy)	1	End of 20 weeks
13	Cost estimation (Road, Drain, Building (Civil, E/M, Plumbing, Fire etc.) of proposed infrastructures	4	End of 21 weeks
14	Final feasibility study report.	4	End of 24 weeks
15	DPP for "Land Acquisition, Land Development and Boundary wall with Gates of PrSTU"	6	End of 24 weeks
16	DPP for Campus Development.	6	End of 24 weeks

6.0 List of Deliverables/Schedule of deliveries

1. Inception Report (hard copy)
2. Conceptual Master Plan (2D)
3. Draft Campus Master Plan (2D)
4. TIA, IEA and EIA Report
5. Sub-soil Investigation and Geological Report
6. Feasibility Study Report with Conceptual Architectural 3D View (for each building four images) of Proposed buildings for development of PrSTU Campus.
7. Draft Campus Master Plan with Report
8. Final Master Plan with Report (Both hard and soft copy)
9. 3D view of Master Plan (Both hard and soft copy)
10. Proposed 3D Model with 3D animation (Both Hard & Soft copy)
11. Rain water harvesting process-designing and cost estimation
12. Prepare of sewerage management plan
13. Obtain clearance from different agencies
14. Fire-Fighting System Estimation and Design
15. Beautification Design
16. Climate smart construction option will be examined
17. Arch & Str. Drawing of Proposed Structures (Both Hard & Soft copy)
18. Cost estimation (Road, Drain, Building (Civil, E/M, Plumbing, Fire etc.)) of proposed infrastructures
19. Final feasibility study report (Both Hard & Soft copy).
20. DPP for "Land Acquisition, Land Development and Boundary wall with Gates of PrSTU"
21. DPP for Campus Development and **requirement of Project Director**.

7.0 Total Consultancy duration and responsibilities of the Consulting Firm:

- **Total duration:** 6 Months or as per contract
- **Responsibilities of the Consulting Firm**:

- Make necessary arrangements for 'Consultancy Services for "Integrated Feasibility Study Project for the Development of Pirojpur and Technology University." as well as preparation and submission of deliverables based on the task completed through Part A as per Scope of Services and List of Deliverables specified in Clause No.5 of these documents within the stipulated time.
- Consultant shall include in their proposal, the requirement of amenities, transportation, security, IT and networking facilities and any other office requirement as deemed required for the smooth completion of the consultancy services.
- Consultant shall plan and arrange by themselves regarding accommodation, office, Transportation, catering services, medical services for the work.

8.0 EXPECTED TIME SCHEDULE OF RFP

S/L	Activities Name	Date
1	Submission of EoI	October 2025
2	Issuing of RFP	November 2025
3	Evaluation & Approval	December 2025
4	Award of Contract	December 2025
5	Commencement of Services (Kick off meeting)	January 2025
6	Completion of Services	30 June 2026

9.0 DATA, PERSONNEL, FACILITIES AND LOCAL SERVICES TO BE PROVIDED BY THE CLIENT

Client will make the office facilities and office services in between Client & Consultant during discussion or meetings at PrSTU for this consultancy services. Client will assist to collect the following data: Available data, maps, survey reports etc. relevant to the project. PrSTU shall render all possible assistance and co-operation as far as practical and when required by the Consultant.

10.0 CONSULTING TEAM

Considering the above Scope of Work and quality of services to be provided, it is expected that the Consulting Firm will make necessary arrangements having following Key Experts, Non-Key Experts and Supporting staff to form a 'Consulting Team'. The minimum manpower requirements for successful completion of the mentioned objectives as per scope of works of the assignment are as follows:

Indicative Composition of 'Consulting Team'

SL	Position (Key Staff)	Person No.	Man-Months (Indicative)	Total Man-Months (Indicative)
1	Team Leader	1	9	1× 9=9
2	Urban Planner	1	4	1 × 4=4
3	GIS/RS Expert	1	3	1 × 3=3
4	Senior Architect	1	6	1 × 6=6
5	Architect (Mid-Level)	1	6	1 × 6=6
6	Structural Engineer	1	6	1× 6=6
7	Geo-Technical Engineer	1	4	1 × 4=4
8	Environmental Specialist	1	3	1 × 3=3
9	Geologist/ Hydro-Geologist	1	3	1 × 3=3
10	Sociologist (LAP & LAP Specialist)	1	3	1 × 3=3
11	MEP Expert	1	6	1 × 6=6
12	Electric Engineer	1	4	1 × 4=4
13	Economist	1	3	1 × 3=3
14	Civil Engineer Cum Utility Expert	1	4	1 × 4=4
15	Transport Planner/Traffic Expert	1	3	1 × 3=3
16	Quantity/Cost Engineer Cum DPP Exp.	3	4	3 ×4 =12
17	AutoCAD Expert	2	6	**2**×6=**12**
18	Surveyor	1	4	1 × 4=4
19	Junior Civil Engineer (Technical Manger)	1	8	1× 8=8
20	Work Assistant	1	8	1 × 8=8
Total				**111**

11.0 MINIMUM QUALIFICATIONS AND EXPERIENCE OF KEY EXPERTS SHOULD BE AVAILABLE IN THE FIRM/INSTITUTION/UNIVERSITY

Following Manpower (key experts) with required minimum qualifications and experience should be essential:

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
1	Team Leader	Person-1 Month-9	The team leader should have a Master or Higher degree in civil engineering or Urban Planning and 25 years of experience including planning, structural design (provision for utilities and logistic facilities), management, and improvements of urban infrastructure. 2. Having 5 years of experience in a relevant position (as team leader for infrastructure projects). 3.The team leader shall also have good knowledge of project management systems, and experience of managing an infrastructure development project. 4. He/she is preferred to have good communication skills, be familiar with participatory approaches to project design and implementation.	• The team leader will have the overall responsibility to deliver (i) All required reports (as per ToR) reports; (ii) detailed climate-resilient, green and intelligent building architectural and engineering plans; (iii) economic and financial analysis; (iv) financial management assessment, cost estimates and financing plan; and also assist the Project Director in gender action plan; environmental and social safeguard assessment (environment),implementation arrangements and project implementation document. • The team leader will also be responsible for preparing inception, midterm/ interim, and draft final and final reports. • The team leader will be responsible for reporting to the university for managing the other consultants and their tasks.
2	Urban Planner	Person-1 Month-4	Master or higher degree in (i) Urban Planning and (ii)	• He/ She will responsible for

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
			Local and Regional Developing Planning or Relative field, Min. exp. 15 yrs.	design, promote and assess the feasibility of proposals and identify necessary changes • Create, prepare, or requisition graphic and narrative reports on land use data, including land area maps as well as Master plan overlaid with geographic variables such as population density. • Conduct field investigations, surveys, impact studies or other research in order to compile and analyze data on economic, social, regulatory and physical factors affecting land use. • Keep informed about economic and legal issues involved in zoning codes, building codes, and environmental • Mediate community disputes and assist in developing alternative plans and recommendations for programs or projects. • Coordinate work with economic consultants and architects during the formulation of plans and the design of large pieces of infrastructure.
3	GIS/RS Specialist	Person-1 Month-3	Master's or Higher Degree in Geography or Relevant Subject. Minimum 10 years' experience in related task.	• Support and manage GIS applications based on growing demands. • Plan and coordinate GIS activities to meet outlined goals. • Develop quality control standards for system application. • Analyze and resolve system issues in a timely manner • Perform data capture and analysis for GIS product. • Oversee data flow, management and distribution activities to support GIS. • Support in designing and creating geospatial database.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				• Manage geospatial database and develop maps and aerial photography. • Maintain geospatial documentations for reference purposes. • Provide technical guidance to GIS user when needed. • Assist technical team in system design and development. • Stay up-to-date with latest developments in GIS field. • Support in developing works plan for complex projects.
4	Senior Architect	Person-1 Month-6	The Architect shall have at least the Master or higher degree in architecture with a minimum of 12 years of experience in Architectural Planning and Designing buildings, including 8 years of experiences in planning and designing state-of-the-art building facilities.	• The expert will work with the team leader, and other relevant experts and prepare the architectural plans and design of the facilities. Major tasks include preparation of the layout plan of the facilities, architectural plans, and design of all building works and structures to be constructed. • Create architectural designs i.e., Land use plan, Master plan. Landscape, etc. based on the demand of PrSTU. • Adjust contracts and designs to meet the changing needs of the PrSTU. • Prepare draft designs that reflect green building values and cater to University's desires for smaller carbon footprints. • Communicate with contracToRs and construction workers to implement designs. • Oversee and manage architectural production staff
5	Architect (Mid-level)	Person-1 Month-6	The Architect shall have at least the Master or higher degree in architecture with a minimum of 10 years of experience in Architectural	• The expert will work with the team leader, and other relevant experts and prepare the architectural plans and design of the facilities. Major tasks include preparation of the layout plan of the facilities, architectural plans, and design

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
			Planning and Designing buildings, including 7 years of experiences in planning and designing state-of-the-art building facilities.	of all building works and structures to be constructed. • Create architectural designs i.e., Land use plan, Master plan. Landscape, etc. based on the demand of PrSTU. • Adjust contracts and designs to meet the changing needs of the PrSTU. • Prepare draft designs that reflect green building values and cater to University's desires for smaller carbon footprints. • Communicate with contracToRs and construction workers to implement designs. • Oversee and manage architectural production staff
6	Structural Engineer	Person-1 Month-6	Minimum Bachelor's degree in Civil Engineering from any recognized University. The Structural Engineer should have 10 years of experience including planning, structural design (provision for utilities and logistic facilities), management, supervision and improvements of infrastructure related to state-of building facilities. Having 5 years of experience in a relevant field.	• Design of structures including calculating the loads and stresses the construction will have to safely withstand. Structural engineers should be able to facToR in the different qualities and strengths delivered by a range of building materials, and understand how to incorporate support beams, columns and foundations. • Involve in the investigation and survey of build sites to determine the suitability of the earth for the requirements of the upcoming project. • Co-ordinate and consult with other members of their projects, including engineers, environmental scientists, architects and landscape architects. They may also be required to assist government bodies in their own inspections relating to the project. • Organize and delivery of materials and equipment for the needs of the construction project. The supervision and

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				management of on-site labor may also be a necessity.
7	Geo-technical Engineer	Person-1 Month-4	Masters or Higher Degree in engineering, preferably in geotechnical Engineering or Relevant Subject. Min. exp. 15 years	• Collect of soil samples from the intended site, using bores and test pits. Amongst other facToRs, the analysis will determine the ground's stress bearing capability and stability. • Determine whether issues like erosion, settlement and slope will pose a safety risk to the proposed project. • T-Analyze the results of subsurface investigations and field tests with dedicated software and to assist in the development of earthworks and foundations suitable to the conditions of the site. • Meet with the authority for evaluations of project progress. • Spend most of their time in the field and in analysis laboratories.
8	Environmental & Waste Management Specialist	Person-1 Month-3	Master or higher degree in Environmental Engineering. Min. exp. 8 years	• Stay updated with local, state and federal environmental regulations. • Develop and enforce environmental guidelines and practices. • Determine Initial Environmental Examination (IEE). Environmental Impact Assessment (ELA) and Environmental Management Plan (EMP). • Review and recommend improvements to existing environmental programs for compliance assurance. • Generate environmental reports as requested by regulatory agencies Provide guidance and direction to management for ensuring environmental compliance.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				• Prepare permit applications and agreements as needed by regulatory agencies. • Obtain, maintain, modify and renew environmental permits and licenses. • Work with emergency response team to address environmental incidents such as chemical leaks and spills. • Identify and solve environmental violations. - Conduct regular environmental inspections to determine pollution level. • Investigate environmental accidents and propose corrective actions. • Write environmental related articles, newsletters, and press releases. • Assist in developing project proposals and statement of work and determine overall budget and schedules. Maintain inventory control and oversee shipping and transportation arrangements. • Oversee waste disposal and pollution control programs. Educate workers on environmental health and safety procedures. • Design evaluates and plans the implementation of the PrSTU waste management plant. • Evaluate the various types of waste collection and management factors that go into an arca's of the University. • Creates suitable waste collection procedure and waste management plant through the interpretation of campus condition and reconnaissance surveys and forming solutions to any problems and producing

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				suggestions in clear reports for the authority. • Use computers and mathematical models to forecast about collection of waste and their management procedure and assess any infrastructure requirements. • Act as a witness in public enquiries and design waste management plan and initial ideas for any improved management procedure as and when required.
9	Hydro-Geologist/ Geologist	Person-1 Month-3	Master's Degree in geology/ environmental science/ earth science or a closely related field provides the foundational knowledge needed to understand groundwater systems and related processes. Minimum exp. 15 years	• Hydrogeologists are responsible for studying, assessing, and managing groundwater resources. They investigate the distribution, availability, and quality of underground water, and they also play a crucial role in designing, analyzing, and evaluating water-related projects, including water extraction and management. Their responsibilities also include assessing the impact of human activities on groundwater, developing groundwater models, and proposing remediation plans for contaminated groundwater
10	Sociologist (LAP & RAP Specialist)	Person-1 Month-3	Master's Degree in Demography/ Sociology/ Social Science or any other similar subject Minimum 20 years' general experience in the similar position	• Should have high education in social science or other relevant discipline with experience in land acquisition.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
			Minimum 10 years' specific experience in the similar field	
11	MEP Expert	Person-1 Month-6	A bachelor's degree in mechanical or electrical engineering is essential. Software Skills: Expertise in tools like AutoCAD, Revit, MATLAB, and Simulink enhances design and modeling efficiency and 8 years' experience in the design, selection and installation.	• He/she will be responsible to prepare the layout plan and MEP design of the facilities. He/she will closely work with the team leader and others specialist
12	Electric Engineer	Person-1 Month-4	A bachelor's degree in Electrical Engineering (B.Eng./B.Sc.) and 8 years' experience in the design, selection and installation.	Electrical engineers design, develop, and oversee the implementation of electrical systems, focusing on safety, efficiency, and innovation.
13	Economics Specialist	Person-1 Month-3	Master's/Higher Degree in Economics/Finance Min. exp. 15 years	• Evaluate all financial and transaction data for accuracy and implement corrective action. • Prepare financial reports for program officials for planning and informational purposes. • Perform all finance related studies to determine updated financial requirement and anticipate required changes in administration. • Determine Internal Rate of Return (IPR), Benefit Cost Ratio (BCR). Net Present Value (NPV).

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				• Analyze appropriations and financial management legislations to assess effects. advise officials on financial issues and interpret all reports and data. • Ensure adherence to relevant regulations and laws in case of incurred obligations and resulting expenditure. • Prepare analysis reports make necessary recommendations and coordinate with various departments to prepare presentation materials. • Analyze systems operations and resolve all financial issues for different financial management problems. • Monitor all processes and report anomalies in system. • Develop long term financial objectives, instructions and procedures to ensure proper coordination.
14	Civil Engineer cum Utility Engineer Expert	Person-1 Month-4	Masters in Civil Engineering or Relevant Subject Min. Exp. 10 years	• designs, maintains, and optimizes utility systems like drainage, water, gas, and HVAC, ensuring their efficient and safe operation. They are responsible for designing new infrastructure, managing existing systems, and resolving issues. This includes ensuring compliance with regulations and performing inspections and maintenance • Focus on equipment used for producing and maintaining electricity, hydraulic power, nuclear power and natural resources. Most choose to specialize in a particular utility field, although many have a general knowledge of how energy producing equipment functions for all utility types.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				• Act as consultants concerning the power needs of a growing area. • Maintain power in all buildings and installing backup generators for emergencies. • Supervise the construction of turbines and other power producing equipment.
15	Transport Planner/Traffic Expert	Person-1 Month-3	Master or higher degree in Transportation Engineering. Minimum 15 years' Experience in Traffic planning.	• To design evaluate and plan the implementation of a state, city or town's transportation mediums, such as highways, roads, subways and streetcars • To evaluate the various social, economic, environmental, fiscal and land-use factors that go into an area's transportation • To creates suitable Transportation routes through the interpretation of travel surveys and accident reports, forming solutions to any problems and producing suggestions in clear reports for clients • To use computers and mathematical models to forecast travel patterns and assess any infrastructure requirements • To liaise with residents, government officials and authorities regarding any problems or improvements for transport infrastructure and their funding, simultaneously evaluating cost and benefits • To act as a witness in public enquiries and design surveys and initial ideas for providing

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				modern Transportation systems as and when required
16	Cost Engineer cum DPP Expert	Person-3 Month-4	Masters in Civil Engineering or Relevant Subject Min. Exp. 10 years	• Review of master Plan and DPP • Log frame preparation • Total and Annual procurement plan preparation • Annual financial and physical plan preparation • Resettlement plan preparation • Recasting of DPP after UGC, Ministry and Planning Commission requirements. • Work Plan for the proposed Project • Review materials, equipment's and labour cost as per FCD and prepare Budget on Site and compare it to the approved bill of Quantities. • Cost Estimation for DPP coordinate with the Engineering team and recommend ways to make the project more cost effective and profitable. • Identifies the material for approval and remind the operation to submit as per schedule to avoid delays. • Estimate, checked and process sub-contractor request as per FCD and as per schedule. • Identify, track and estimate all changes to the project scope, process all the necessary documents to the client and management for further claim. • Reporting, monitoring and processing milestone progress for the preparation of contractor billing, sub-contractor billing, weekly and monthly accomplishments. • Periodically performs actual cost gathering and reconciliation of accounts with the

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				construction management and owner's quantity surveyor. • Attend meetings and discuss project details with clients, contractors, asset owners and stakeholders • Mailers and controls materials issuance and order, equipment usage, rental and maintaining cost per month, man-hour cost, and sub-contractors' billings.
17	AutoCAD Expert	Person-2 Month-6	Diploma or Higher Degree in Auto CAD or Relevant Subject. Min. exp. 10 years	• Handle complex designing and drafting assignments under minimal supervision. • Create drawings and models from written and verbal specifications obtained from Project Engineer. • Work with Engineers regarding model accuracy, design, drafting standards and design documentation. • Work closely with Designers, Drafters, and Engineers to ensure coordination design effort is maintained. • Review drawings for completeness and accuracy. • Maintain all revisions of project drawings. • Update and maintain drafting log. • Develop 3D models by analyzing prototypes and 2D drawings. • Examine and check engineering drawings for compliance with cited specifications. • Provide timely technical assistance and solutions to the team.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
18	Surveyor	Person-1 Month-4	Diploma in Civil Engineering or Relevant Subject. Minimum exp. 10 years.	• Prepare and maintain sketches, maps, reports, and legal descriptions of surveys in order to describe, certify, and assume liability for work performed. • Verify the accuracy of survey data, including measurements and calculations conducted at survey sites. • Direct or conduct surveys in order to establish legal boundaries for properties, based on legal deeds and titles. • Record the results of surveys, including the shape, contour, location, elevation, and dimensions of land or land features. • Calculate heights, depths, relative positions, property lines, and other characteristics of terrain. • Prepare or supervise preparation of all data, charts, plots, maps, records, and documents related to surveys. • Plan and conduct ground surveys designed to establish baselines, elevations, and other geodetic measurements. • Search legal records, survey records, and land titles in order to obtain information about property boundaries in areas to be surveyed. • Adjust surveying instruments in order to maintain their accuracy. • Establish fixed points for use in making maps, using

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
				geodetic and engineering instruments. • Determine longitudes and latitudes of important features and boundaries in survey areas, using theodolites, transits, levels, and satellite-based global positioning systems (GPS). • Train assistants and helpers, and direct their work in such activities as performing surveys or drafting maps. • Analyze survey objectives and specifications in order to prepare survey proposals or to direct others in survey proposal preparation. • Compute geodetic measurements and interpret survey data in order to determine positions, shapes, and elevations of geomorphic and topographic features. • Develop criteria for survey methods and procedures. • Develop criteria for the design and modification of survey instruments. • Conduct research in surveying and mapping methods, using knowledge of techniques of photogrammetric map compilation and electronic data processing. • Survey bodies of water in order to determine navigable channels and to secure data for construction of breakwaters, piers, and other marine structures.

Sl.	Position	Person & Month	Minimum Qualification & Experience	ToR/Responsibilities of Individual Personnel
19	Junior Engineer (Technical Manager)	Person-1 Month-8	Diploma in Relevant Subject. Min. exp. 5 years	• Handling incoming calls and other communications. • Managing filing system. • Recording information as needed. • Updating paperwork, maintaining documents and word processing. • Performing general office clerk duties and errands. • Organizing travel by booking accommodations and reservations needs as required. • Coordinating events as necessary. • Maintaining supply inventory. • Maintaining office equipment as needed. • Experience as a virtual assistant. • Creating, Maintaining, and entering information into databases.
20	Work Assistant	Person-1 Month-8	SSC Pass	• Assist as per direction of key person.

12.0 IMPLEMENTATION & REPORTING REQUIREMENTS

The Consultant will directly report to the designated officer as mentioned in the Proposal Data Sheet. However, frequent interactions with the key persons/consultants of the project and relevant stakeholders will be an essential part of the task. The firm will also make close liaison with the PrSTU under the Ministry of Education. All reports will be submitted to the designated official along with a concurrent copy to the Vice-Chancellor, PrSTU.

13.0 Procurement Method for Selecting a Consulting Firm.

The Consulting Firm will be procured by the QCBS Method. For the procurement of a consultant, Expression of Interest (EoI), Request For Proposal (RFP) and other necessary steps should be followed as per PPA-2006 and PPR 2025.

14.0 SELECTION CRITERIA FOR EVALUATION OF EoI

Consultancy firm must have adequate technical ability, human resources and financial solvency etc. The minimum eligibility criteria are as follows:

1. Submission Letter for Expression of Interest;
2. Business Registration Certificate from Competent Authority;
3. Profile of the firm with detailed information and Brochure;
4. (a) Updated Trade License, (b) TIN certificate, (c) VAT Registration (d) Latest Income Tax Payment Receipt/Certificate;
5. Minimum 10 years' experience in the business as a registered company/entity in Bangladesh;
6. Experience in feasibility study at least one contract value of taka not less than 3.00 (three) crore within last five years;
7. Specific experience in preparation of a complete and full-fledged master plan with feasibility study (Campus Master Plan with Feasibility Study) for a whole complex showing proposed structure on land (not less than 75 acres) under any Institute/Public University;
8. A list of Consultants with CV (Company/Firms must have IAB registered Architect, IEB Registered Engineer and BIP Registered Planner) need to be submitted;
9. A list of accomplished works/Services during last 5 years with Project Data Sheet (PDS), Completion Certificate (Government, Semi-Government, Autonomous and Public University) as evidence of project;
10. Physical resources available (Logistic Support) of the firm;
11. List of machinery/equipment related to the works;
12. Organogram and staff deployment of the firm;
13. The Firm must have a minimum average annual turnover of BDT 12 (Twelve) Crore for the last 03 (Three) years;
14. The consultant must demonstrate a minimum liquid asset or working capital or credit facility of BDT 1.00 (One) Crore only;
15. Minimum last three Years Audit report with Audited Balance sheet of the Firm/Company;

Note: For Public university or govt. institutions (BUET, BIM, IIFC etc.) papers are not mandatory those are quoted above.

15.0 OTHER DETAILS

a. The firm(s) may form JVAC. In case of JVAC, related rules of the PPR-2025 will be applicable.
b. Consultant will be selected in accordance with the Public Procurement Act (PPA)-2006 and Public Procurement Rules (PPR)-2025 and latest amendment.
c. If any Company/Firm produce false/fabricated papers along with the related documents will be treated as cancelled.
d. EoI shall be submitted in sealed envelope, all supporting papers and bio-data authenticated and signed by appropriate person, delivered to the address of the undersigned. Any EoI after the closing time will not be accepted.
e. Interested consultant firm may obtain further information at the address below during normal office hours.
f. The Request for Proposal (RFP) is to be issued to the short-listed consulting firms.
g. Terms of References (ToR) will be available at PrSTU website (www.prstu.ac.bd).

h. The Proposal in two set (Original & Duplicate) shall be submitted in sealed envelope.
i. The EoI may be submitted by hand, registered post or courier service.
j. The consultant must complete and submit the following standard Expression of Interest (EoI) forms: (a) Form-1: Submission Letter for Expression of Interest; (b) Form-2: Company Profile and Registration Certificate; (c) Form-3: Financial Situation and Capabilities; (d) Form-4: Letter of Commitment for Bank's Undertaking for Line of Credit; and (e) Form-5a & 5b: Company's Relevant Experience.

16.0 CLIENTS/CONSULTANT'S INPUTS/FACILITIES

Client Part

The Client will assist the Consultant to collect the available information, materials and documents (i.e. organization list including information on present university management setup). The consultant shall not disclose such information, materials and documents to any person or group without written permission of the client as deemed confidential. It shall return all such information, materials and documents to the client within the contract period.

Consultant Part

The Consultant shall entirely be responsible for all such facilities as arranging office, accommodation of staff, vehicles, equipment, computers, support/secretarial services and other logistics required for providing the services specified in the ToR.

17.0 FORMAT FOR SUBMISSION OF SOFT COPY

Type	Details
Maps	Shape file, coverage file with accurate attribute information & PDF format
Reports	DOC & PDF (Maps in report in separately PDF format)
Images Shape, DWG Analysis	IMG/JPEG/TIFF/GIF
Presentation	PPT/PPTX
Primary & Secondary Data	Excel, DOC
Drawings	Standard Format
Analysis	Access, Excel, DOC and Others (with graph/chart)
[N.B: Data to be submitted on CD/DVD/Flash drive with marking contents and date]	

18.0 PAYMENT TERMS AND CONDITIONS

The activity/study under this consultancy services covering all expenses including remuneration of all manpower and reimbursable expenses. According to final Contract Payment will be made through cross cheque according to deliverable/s outputs and schedule. All applicable government VAT & Taxes will be deducted from the payment amount as per ToR. All the payments will be made as follows or as per contract;

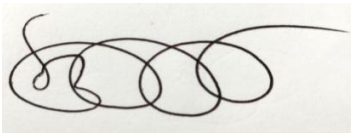
Step	Milestone/ Task achievement	Payment (%)
1	Submission of the inception report and approval by the authority.	

2	Digital Topographical Survey Report (including Contour Map), Land use and Physical Feature Survey Report with Maps (Both hard and soft format) in AutoCAD and GIS Format and approval by the client.	As per contract
3	Submission of the Conceptual Master Plan (Space programming & Identification of zoning), Draft Infrastructural Master Plan with Report, Sub-soil Investigation and Geological Report, Feasibility Study Report with Conceptual Architectural 3D View (Advance copy), Advance copy of Land Acquisition and Resettlement Action Plan (LARAP), Clearance/NOC from Department of Environment, Development Project Proposal (DPP) for "Land Acquisition, Land Development and Construction of Boundary wall with Gates of PrSTU" and approval by the client.	
4	Submission of the Interim Report, Feasibility Study with Conceptual Architectural 3D View of proposed buildings/structures, Report of socio-economic condition of the country, job scope and total need of Science and Technology graduates; present status and future planning in Science and Technology research, TIA, IEE and EIA Study Report, Final Infrastructural Master Plan and Report (Both hard and soft copy), Waste and Environmental Management Plan, Development Project Proposal (DPP) for "Development of PrSTU" project of all phases and approval by the client.	
5	Submission of the 3D View of Master Plan (Both hard and soft copy), 3-Dimensional Model with Animation of PrSTU, Final Land Acquisition and Resettlement Action Plan (LARAP), Final Detailed design drawing (Architectural, structural, electro-mechanical, Firefighting etc.) of all Infrastructures and Presentations and approval by the client.	

[N.B.-Potential Consultant to propose schedule for interim and final reports submission based on Consultant's experience and execution strategy with formal presentation in presence of in client and company representatives. The interim reports shall be submitted keeping sufficient time in hand so as to incorporate any vital change which may need to fulfil the ToR requirements. The final reports must be submitted at least one month before the project completion. Bidder will propose the above interim and final report submission deadline and strategy very precisely in their RFP document.]

19.0 PROJECT AREA

PROJECT AREA: Taking into consideration of study programme, research and other training programme, the university is required to be collocated suitable place for establishment of the permanent campus. A land of 75 acres in Pirojpur was already selected and got administrative approval from The Ministry of Education.



Project Director
Integrated Feasibility Study Project for the Development of
Pirojpur Science and Technology University, Pirojpur