RFP

on

Web Portal Design, Development, and Maintenance

for

Knowledge and Learning Repository/Platform on CWIS-FSM

ITN-BUET

Centre for Water Supply and Waste Management

Table of Contents

Section A: Information to Organizations

1. Introduction

- Interested CONSULTANTS/FIRMs are invited to submit their technical and financial proposals.

- Costs for preparing the proposal and negotiating the contract are not reimbursable.

- The competing parties should follow the highest ethical standard and obtain from influencing the ITN-BUET independent evaluation and selection process. Any such attempt will automatically lead to the removal of the proposal from consideration. Misrepresentation of facts will also lead to the removal of the proposal.

- ITN-BUET reserves the right to amend and modify this RFP document and can reject any or all proposals.

2. Clarification and Amendment of RFP Documents

- At any time before the receipt of proposals, ITN-BUET may for any reason, whether at its own initiative or in response to a clarification requested by an interested party, amend the RFP. Any amendment shall be issued in writing and shall be posted and will be binding. ITN-BUET may, at its discretion, extend the deadline for the submission of proposals.

3. Preparation of Proposal

- Consultants/firms are invited to attend the online pre-bid meeting on **November 19, 2022**. It will be an excellent opportunity to ask questions and learn more about the task. To attend the pre-bid session, please send an email to **itnoffice@itn.buet.ac.bd** by **November 15, 2022**. The pre-bid meeting date and time will be confirmed via email.

- Interested parties/consultants are requested to submit their proposal written in English (font-Arial, minimum size 12). Proposals must remain valid for a minimum of 91 days after the submission date.

- In preparing the Financial Proposal, consultants are expected to take into account the requirements and conditions outlined in the RFP documents.

- The Financial Proposal should clearly identify item wise summary of cost for the assignment with a detailed breakdown of the taxes, VAT, duties, fees, levies, and other charges to be included under the applicable law. ITN-BUET will deduct VAT and Tax at source according to the GoB rules and deposit the said amount to the government treasury. An E-TIN/BIN should be attached with the financial proposal from applying individuals/organization's end.

4. Submission, Receipt, and Opening of Proposals

- The original proposal (Profile of the individual/Organization and Financial) should be submitted electronically to the email address diritn@itn.buet.ac.bd with CC to the following: itnoffice@itn.buet.ac.bd with 'Website Design, Development, and Maintenance for the Knowledge Management Platform of CB Hub' as to the subject.

- Proposals submitted to any other email account except the above will be treated as disqualified. Submissions after the deadline of **November 24, 2022**, will be treated as disqualified.

- Attach the proposal along with all required documents (pointed out below) with the email and put all attachments in one zip folder in the name of an individual/organization.

    - Forwarding letter

    - Profile of consultant

    - Relevant working experience

    - Expertise and competence

    - Methodology and work plan for the assignment

    - Relevant sample work

    - The proposal should not exceed 20 pages, and both technical and financial proposals must be submitted separately in PDF format.

    - The proposal will be reviewed by the evaluation committee and will be evaluated in line with the guidelines of ITN-BUET.

5. Proposal Evaluation

The evaluation committee will evaluate the proposals based on their responsiveness to the Terms of Reference, applying the evaluation criteria and point system specified herein. Each responsive proposal will be given a score. Proposal(s) will be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score indicated below.

5.1 Evaluation of Technical Proposals

Evaluation Criteria, Evaluation, and Ranking for Selection: The final selection will be done following the Quality and Cost Based (QCBS) method. This will be done by applying a weight of 0.80 (or 80 percent) and 0.20 (or 20 percent) respectively to the Profile of the individual/Organization and the Financial score of each evaluated proposal and then computing the relevant combined total score for each individual/organization.

Technical: 80

- Personal profile: 10
- Professional experience and accomplishments: 20
- Understanding the Assignment: 10

- Study Methodology (technical specification): 30
- Work plan for the assignment: 10

5.2 Evaluation of Financial Proposals

- The evaluation committee will determine whether the Financial Proposals are complete (i.e., whether they have cost all items of the corresponding Technical Proposals). The Evaluation Committee may invalidate any proposal if it is determined that significant budgetary mistakes or omissions undermine the integrity of the proposal.

- The evaluation will be based upon a Quality and Cost Based Selection (QCBS) process. A total of 20 points will be allocated for this cost part. The lowest Financial Proposal will be given the highest score.

- **Technical - 80 and Financial Proposal – 20**
- Total points from both – 100

6. Negotiations

- Once the proposals are evaluated, ITN-BUET may enter into a negotiation with one or more than one individual/organization for final selection.
- Negotiations will include a discussion on the proposed technical specification, features, layout, staffing, costing, any suggestions made by the consultant to improve the Terms of Reference. ITN-BUET and the consultant will then work out final terms of reference, performers, staffing, and work plan indicating activities, logistics, and reporting. The agreed work plan, cost, and final terms of reference will then be incorporated in the contract document.
- If negotiations fail, ITN-BUET will then invite those individual(s)/organization(s) whose proposals received the next highest score. If none of the invited proposals led to an agreement, fresh Requests for Proposals (RFP) will be called upon.
- ITN-BUET reserves the right to cancel the RFP at any point in time without serving any notice. Furthermore, ITN-BUET has its absolute discretion to suspend and disqualify any proposal or all proposals received without tendering any reason whatsoever.

7. Award of Contract

The consultant is expected to commence the assignment immediately after signing the agreement and deliver the final work within the stipulated Timeline as mentioned in the ToR.

8. Confidentiality

Information relating to the evaluation of proposals and recommendations concerning awards will not be disclosed to the individuals/organizations who submitted the proposals or to other persons not officially concerned with the process until the winning individuals/organization has been notified that it has been awarded the contract.

Section 2: Website Design, Development, and Maintenance for Knowledge and Learning Repository/Platform on CWIS-FSM

1. Background

ITN-BUET, a centre for water supply and waste management of the Bangladesh University of Engineering and Technology, was established in 1996 with a vision to achieve a strong, capable human resource base for sustainable development of water supply and environmental sanitation. ITN-BUET believes that knowledge development through applied research and professional development program constitutes the foundation for human capacity building. ITN-BUET with the support of the Bill and Melinda Gates Foundation aims to be established as Capacity Building Hub (CB-Hub) for selected countries in South and Southeast Asia, such as Bangladesh, Nepal, Pakistan, and Indonesia, on CWIS and FSM to ensure safe, inclusive, and sustainable sanitation. The CB-Hub targets building the capacities of strategically identified and relevant stakeholders to promote the CWIS concept across South Asia and beyond, focusing on FSM in association with regional partners (technical universities, I/NGOs, and training institutes). The functional areas include but are not limited to capacity building, policy advocacy, action research, technology evaluation, IEC/BCC preparation, gender mainstreaming, verifying models, evidence generation, and dissemination for scale-up. In Nepal, ITN-BUET is collaborating with Environment & Public Health Organization (ENPHO) to address capacity building initiatives. ENPHO is being established as a resource agency to build and strengthen the capacity of government officials and decision-makers to implement FSM/CWIS at municipal level and supporting ITN-BUET to achieve the targets of the CB-Hub in the regional and international aspects.

To complement capacity building initiatives, the CB-Hub requires to document evidence and disseminate knowledge on best practices. For this purpose, the CB-Hub focuses to develop a digital knowledge and learning platform/repository in coordination with national and regional partners. The learning platform will focus on CWIS, FSM based on field experiences that cover governance, guidelines for technical design, operations and monitoring for containment structures, desludging & transport and treatment processes including innovative technologies like RT and OP, ISO standards for safe and efficient infrastructure, gender and social inclusion in sanitation planning and services, disaster and climate-resilient sanitation, occupational health and safety protocols, environmental surveillance protocols, business plan and models, service models, taxation, tariff structure, for capacity building of government and city officials. Local, regional, and international CB-Hub partners are expected to regularly share knowledge products through the platform. Furthermore, the platform will attract and deepen the engagement with a wide variety of audiences and stakeholders, including national stakeholders, development partners, professionals, media, and businesses and entrepreneurs.

2. Overview

We all know the old axiom "knowledge is power." And though it's true, there's a caveat: In order to unlock the power of any knowledge, people first need access to it. Access to knowledge is an issue many sectors face. They have information to share with others, but they don't always have an effective means by which to share it. Considering this, ITN-BUET will develop a knowledge repository that helps to create, organize, and manage self-service content for the audience.

Knowledge repository will act as a centralized hub for sharing information, guidelines, policies, instructions, process documentation, and more. Information stored in a knowledge repository is designed to be easy to find, understand, and engage with. The proposed Knowledge Repository will assist with the identification, creation, distribution of CWIS/FSM knowledge pool. Knowledge Repository, at its best, gives a single, unified pool of information that is easily accessible and discoverable.

3. Objectives

The objectives of establishing the Repository are to making the knowledge products and learnings-

- **Quick to Access:** Knowledge products must be accessed in real-time, and it must be accessible from any device, anywhere in the world, and even in multiple languages.

- **Easy to Discover:** One should find anything needed spending minimum amount of time. All that data is useless if people cannot find what they're looking for quickly and efficiently.

- **Easy to Update:** Ensure that data is uploaded and updated on a regular basis and in any preferred time.
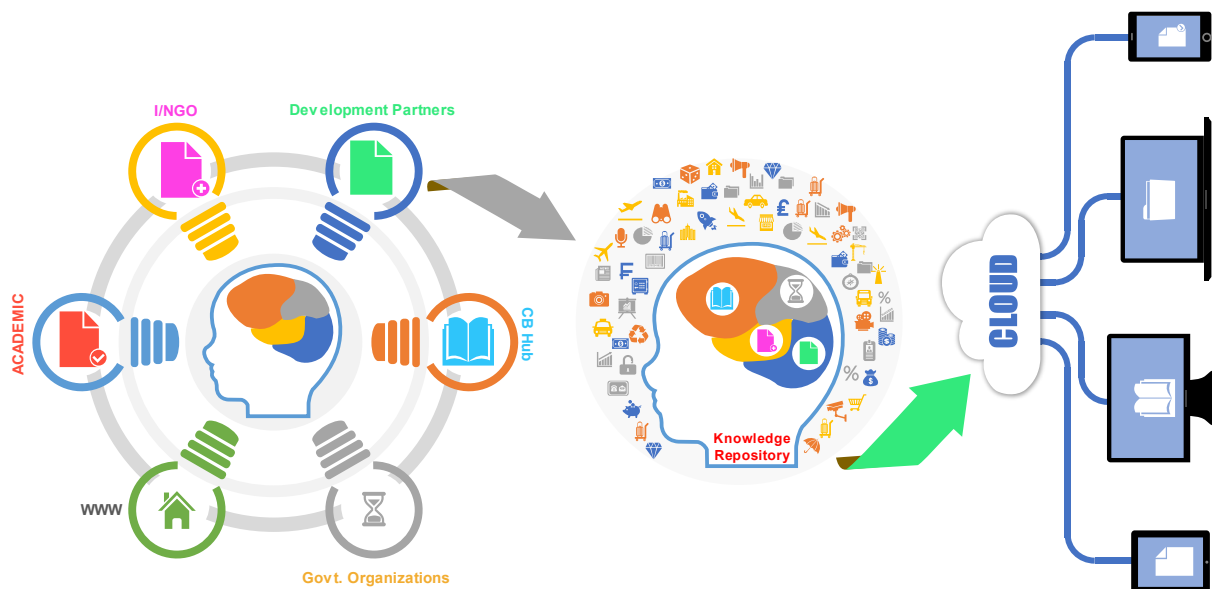

CWIS/ FSM Knowledge Repository

4. Source of Knowledge Products

Sources of the Knowledge products for the Repository will be the following but not limited to

(i) CB-Hub's own resource

(ii) Academic Partners' products

(iii) Development Partners' products

(iv) I/NGO's materials

(v) Government Organizations' materials

(vi) Other relevant online resources

5. Accessing Knowledge Repository

(i) Anyone will be able to visit and access the knowledge repository site through worldwide web.

(ii) Registration is needed to access/download special kind of knowledge product.

(iii) Subscription to get news on latest releases or updates published on the knowledge repository.

(iv) One can narrow and customize the search results to find exactly what they want.
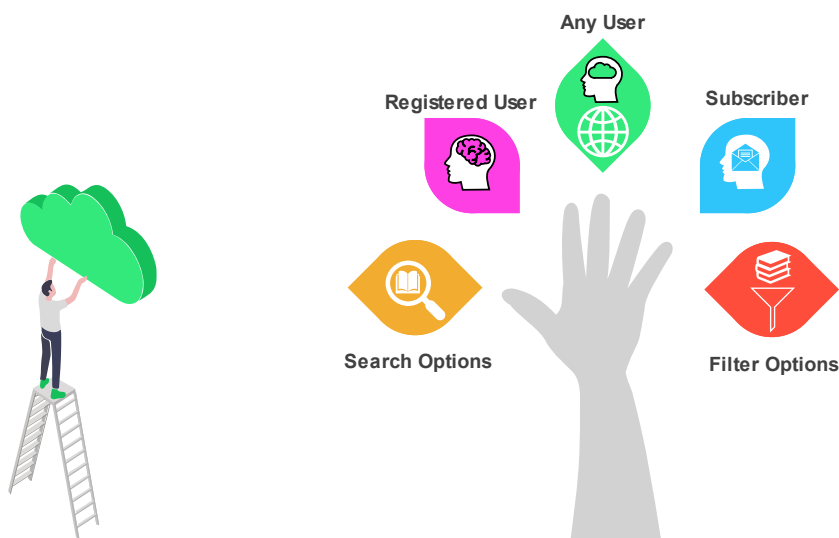

How Anyone will Find Knowledge Product

6. Uploading Knowledge Product

(i) Each partner organization will have their account to upload their publication

(ii) CB-Hub with upload any documents shared by the partners

(iii) CB-Hub will upload their own resources

(iv) Relevant online Knowledge products and information will be linked

Each organization will have individual account | Documents shared by partners | CB Hub own resources | Online Resources
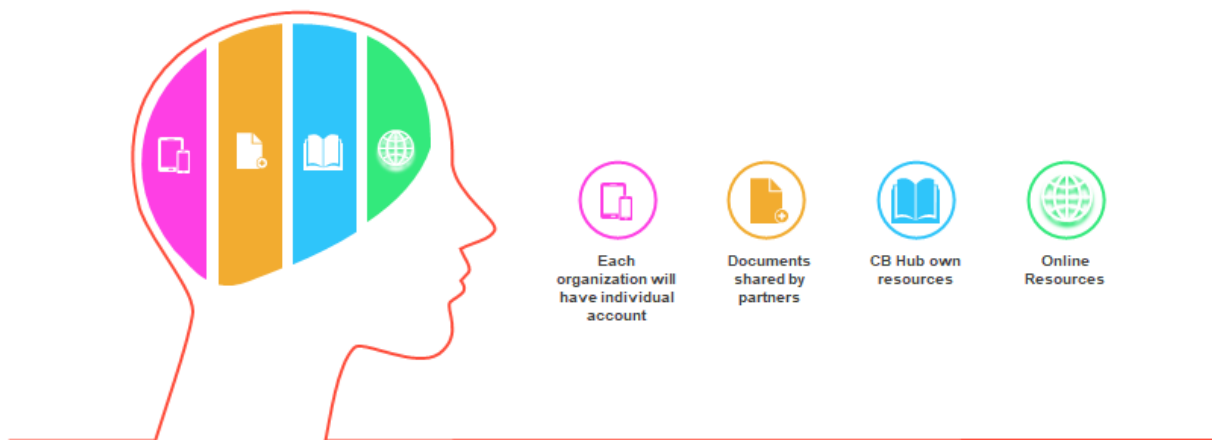
How Knowledge Product will be uploaded

7. Benefits of Knowledge Repository

Democratize Information

Reduce Time Spent Searching

Find Content at the Right Time

Increase Content Confidence

Prevent Knowledge Loss
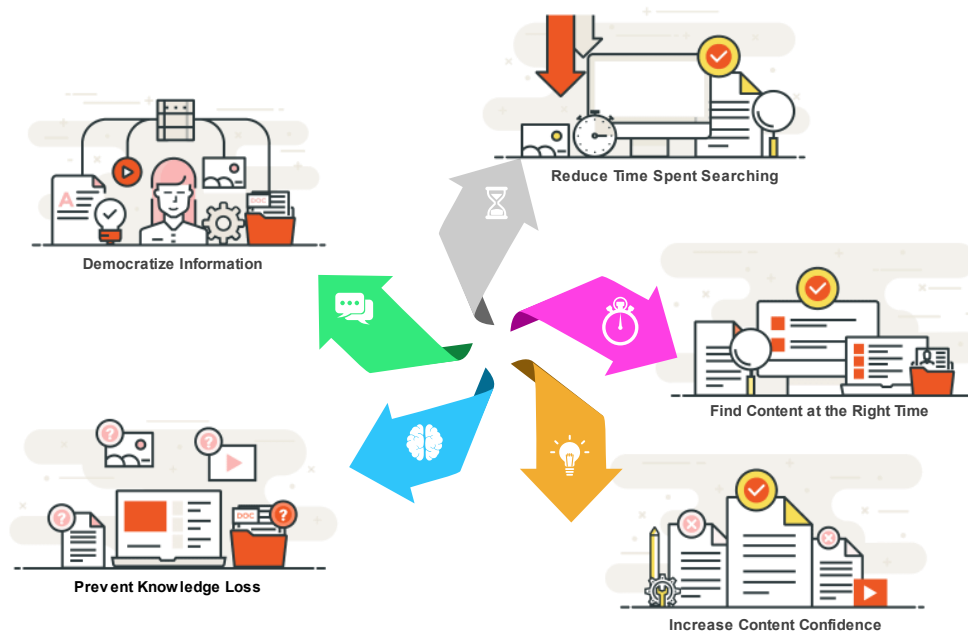
Benefits of Knowledge Repository

(i) **Democratized Knowledge:** Democratized knowledge refers to knowledge that is accessible to everyone regardless of their organization or role. Everyone can access the information/ knowledge product, ask questions, make comments, share their ideas and experiences, and find the information they need to do their best work.

(ii) **Reduce Time Spent Searching:** Find the information you need faster so you can spend more time doing meaningful work.

(iii) **Prevent Knowledge Loss:** Preserve tacit knowledge and expertise when any person leaves the organization or moves to a new role. Important information is never limited to one person's head or organization's hard drive.

(iv) **Find Content at the Right Time:** Find the content that's most relevant to you through a personalized feed. Follow posts, authors, tags, search terms, and more to ensure you're always up to date.

(v) **Increase Content Confidence:** Avoid the confusion caused by outdated or competing versions of documents. Use curation tools to identify duplicate content, schedule content reviews, and flag posts for review.

8. Terms of Reference

8.1 Overview

The website development and design firm/agency will be expected to undertake the following tasks:

- Develop a user-friendly (both on the front and back end) device responsive and accessible design, layout, structure, all including strong visual language and a responsive design for the website by following an iterative development process with the involvement and support of the working committee members.

- Features to consider, but not limited to described in sections 8.3 and 8.4

- Integrate effective search and aggregate functions that interact with social media platforms, a discussion board, and linkages to an easily managed email newsletter as well as to manage visitors and those interested in receiving updates about the KMP.

- Provide technical support for web hosting and security setups and administration privileges and controls.

- Develop a clear and accessible user guide and troubleshooting manual for the website and the CMS.

- Train representative on how to manage the new website and CMS and easy to read user guide/training guide

- Implement technical SEO for search engine rankings of the site materials.

- Provide maintenance support for 12 months after the hosting of final version of the web portal. All cosmetic changes should be covered within the scope of the development.

Vendors are asked to review the following websites and provide a solution that is context specific.

- www.susana.org
- https://sanitationworkers.susana.org
- https://sanitationlearninghub.org
- https://www.sei.org
- https://www.cwiscities.com

Bidders are encouraged to submit additional ideas to make the website more interactive; such ideas will be rewarded with bonus points. Bidders must submit a wireframe design of their proposed solution as well as an overall System Architecture mock-up.

8.2 Milestone and Timeline:

Sl#	Activity	Time	Primary Responsibility	Secondary Responsibility
1	Consultation meeting for Website architecture Design	1 week	The firm will arrange a workshop including logistics	
2	Website Interface Design	1 week	Firm	
3	Coding front-end and back-end	3 weeks	Firm	
4	Review workshop on the initial development of the website	1 week	The firm will arrange the workshop including logistics	ITN-BUET will provide input to finalize the plan
5	Content upload	1 week	Firm	Sector Partners will provide content
6	Beta testing and review (Draft version)	1 week	Firm	ITN-BUET focal person will provide input
7	Training on CMS for data upload	1 week	the firm will arrange the training including logistics	ITN-BUET will provide input to finalize the training plan
8	Web site hosting		Firm	ITN-BUET will provide input to finalize the plan

9	Site launch - Provide final version		The firm will arrange the launching event including logistics	ITN-BUET will provide input to finalize the plan
10	Website Maintenance	12 Month	Firm	

8.3 Types of Users in Knowledge Repository and Learning Platform:

Types of users in knowledge Repository and learning platform will be as follows:

a) **Super Admin**

➢ Users have all DB and all website administrative privileges

b) **Admin**

➢ Multiple users will have the administrative privilege and user creation/deletion features

c) **Moderator**

➢ Moderator reviews all posts and publishes them. They will also have post-edit and delete capabilities.

d) **Contributor**

- Selected users from sector partners will have content uploading capacity

e) **Registered User**

➢ Users who can post questions to the forum, can post to the blog and make comments

f) **Regular user**

➢ Users who can surf the page without login

8.4 Features of Knowledge and Learning Repository Platform:

The Knowledge and learning repository platform will include the following essential features:

a. **The Knowledge Repository:** As mentioned earlier, as a capacity building hub ITN-BUET seeks to serve as a knowledge hub for CWIS-FSM related information by identifying, documenting, and disseminating best practices and effective technologies. ITN-BUET recognizes the Knowledge Repository as one of the key platforms that should be implemented to enable users find, access, use/ re-use and share knowledge on CWIS-FSM. The Knowledge Repository will be a 'smart store' for the full text and metadata of the knowledge that will then be used by all the partners thereby allowing a 'deposit once and use everywhere' approach to managing the information assets. The online repository will hold wide range of materials and knowledge products in different forms and formats. It will provide quick and easy access to various resources. The digital repository should be an online archive in which authors and organizations can deposit their work, with the intention that it will be openly available in digital form, but also offers the long-term maintenance of digital resources and for making these resources available to the public or specified communities of users. In addition, the repository further seeks to provide the services of the ITN-BUET knowledge hub and resource centre, where users will access knowledge repositories and find relevant information related to CWIS-FSM, which will include, but not limited to aggregation of evidence, gathering knowledge, and disseminating information to support establishment of CWIS-FSM country plan preparation and execution, as well as capture knowledge and information about best practices and research to support broader continental efforts.

b. **Centralized Repository for CWIS/FSM:** Centralized repository of all CWIS/FSM related Knowledge product, where the contributor will be able to upload and update contents. This solution enables web administrator to easily update the content of the website without the need of programming. This CMS (Content Management System (CMS) will be able to update content, add pages, update the home page navigation menu, manage users, upload media content and any other operations needed to control and update the website without the need to contact the solution provider.

c. **Use Registration and Administration:** The solution should allow users to complete a secure and appropriate user registration process. Able to create user groups to determine who can do what. Users should be able to view and update user-generated information on themselves, for example, personal details, password and account details, posts, preferences, and interests. User registration data and credentials are to be persisted by the solution in an appropriate form. The user registration process should adhere to best practices including the use of CAPTCHA and email verification and should be able to scale as needed i.e. No limit on the number of users that can register. User data cannot be breached and thus needs protective measures while storing and accessing. Administrators should be able to review user registration/profile details, change user roles/access rights, terminate / close user accounts.

d. **Document Management System (DMS):** Document upload (any file format) with description - who uploaded - date of upload - file format etc., creation of new relevant

page, mouse over the description on file name (compatible to major OS and browser) image uploaded should be uploaded with the appropriate meta-data including mandatory keywords/tags/fields– for internal Search Indexing.

e. **Post/Pages:** The design of the developed website/dashboard will be responsive and accessible design, which allows web pages to alter their layout and appearance to suit different screen widths, resolutions, etc. The text editor will offer multiple formatting options in both WYSIWYG and HTML. The site will contain the following posts/pages but not limited to:

- Home

- About us

- Contact

- Publications/ Knowledge Products: This post will contain the following features:

    - *Comment:* One can post a comment/ write a book/document review and share their experiences. Other readers will always be interested in that opinion of the books and people will find new books/documents that are right for them.

    - *Bookmark:* One can mark the book/document that they like or plan to download later and can add tag.

    - *Knowledge Product rating:* How much does anyone like this document

    - *Collection:* Add the book/document to personal themed book/document collection

f. **Search Function:** Provide capabilities ajax query lives searchable using keywords or phrasing to identify content from throughout the site. Users will be allowed to search for, view and/or download articles and documents.

g. **Filter Function:** Filter options to find out the posts/ documents based on selected topics/categories/author/ publisher/ date/year.

h. **Subscription Option:** Allow visitors to subscribe to newsletters, blogs, etc.

i. **Mass Email/Messaging:** Provide a feature to allow authorized content administrators (or other authorized administrators) to contact all or group/community members. This feature may be used to facilitate the dissemination of newsletters.

j. **Media Gallery**: the website should have ready-made tools to create a photo gallery or video gallery.

k. **Blog:** Implement a basic "blog" function with integrated Twitter and Facebook, Instagram, email posting. The website should be capable of hosting a quick and basic level of discussion with and w/o moderation of comments. Members should be able to view and create posts, edit their own posts, etc.

l. **Forum:** Forum to engage members and answer questions. Members can speak candidly and interact with other members who share their same interests, questions, and criticisms.

m. **Content Moderation Mechanism:** Users/Members who have been granted relevant access rights should be allowed to flag, and moderate other members' comments/posts.

n. **Site News/ Events:** The web solution will provide content/screen areas containing:

  ➢ Calendar: Integrate a calendar into the website that lists all the events.

  ➢ Upcoming events

  ➢ Latest news/Site news

  ➢ Trending topics

o. **Social Media Integration:** Share website content on social media/ built-in share option to push new content to the preferred social media profiles

p. **CDN:** Use CDN for the quick transfer of assets and to protect the site against some common malicious attacks, such as DDOS attacks.

q. The website will be responsive and mobile-friendly by design to accommodate the most recent versions of iOS and Android for smartphones, Tablets, and all types of operating systems and browsers.

r. The design of the solution will adhere to security best practices; for example, passwords should not be stored in plain text, all form data should be validated, all user input should be sanitized, user interactions and activities should be logged, etc.

s. Secured & Authenticated Web Access: Web solution should be secured in accordance with current best practices, for example through the use of an SSL Certificate and appropriate access control methods. Access to web solution to be authenticated or consultant may put CDN like Cloudflare or Google CDN for decentralized caching and automatic SSL.

t. Develop a user manual and deliver orientation training for the support staff and system administrators to perform the content upload, system maintenance, and administration.

u. The website will have bilingual options (English and Bengali) in both data entry field as well as front end.

v. **View/ Download Monitor System:** The website will be integrated with View/ Download Monitor System to monitor the number of downloads of files and documents for managing and tracking digital file download counts. It will allow to configure downloadable files from admin dashboard via an elegant user interface. Allow visitors to download the files and monitor which files get downloaded how many times. View/ Download Monitor system will log the IP addresses of the users who download the digital files and documents. It will also log the date and time of each download. There will be a very user-friendly interface for uploading, managing, monitoring, and tracking file downloads.

w. **SEO-friendly Website:** Knowledge and Learning Repository portal should be SEO-friendly.

9. Website Hosting

Webhosting for a period of 3 years, vendors are also requested to quote additional yearly hosting fees as a separate line item.

10. Website Maintenance

- Web site content updates: the contracted web development firm will assist with content update when the changes that have to be made are not possible from the CMS user interface.
- It should be endeavoured that as much changes as possible be made from the CMS user interface.
- The contracted web development firm will maintain full backup of the web site through the duration of the contract.
- The backup, code and source files will be delivered in full to client on closing of the contract.
- The contracted web development firm will have an automated testing system that checks for broken hyperlinks on the site.
- The contracted web development firm will follow the terms of the standard SLA provided in the proposal.
- The contracted web development firm will verify regularly that the site is up and running and will revert to the back up whenever necessary.
- The contracted web development firm will give guidance on using the admin interface of the CMS.
- Monitor the server logs to see most popular pages and downloads and generate regular reports.

11. Search Engine Optimization and Site Analysis

The contracted web development company will ensure search engine optimization. The SEO work will include:

- Keyword research & analysis
- Site analysis
- Competitive analysis
- Site content optimization
- HTML code optimization
- Search Engine submission (free search engines)
- Link exchange
- Web ranking report
- Image Compression

The contracted firm will provide annual and detailed reports analysing progress, trends, and areas to be improved. The reports should also include comprehensive and cumulative figures for downloads.

12. Website Maintenance Policy

- This contract offers a service level agreement (SLA) with guaranteed server uptime and response time to queries.
- The SLA will include financial penalty clauses should the company break the terms of the agreement.

13. The Firm should Provide the Following Manual(s)

- **Updating Guide:** The framework and design might be needed to be changed / updated time to time. The detail procedure of updating/change mechanism of the framework and design should be elaborately explained in this manual. The language should be English.

- All rights, copyright and patent of the site will belong to the ITN-BUET.

14. Consultancy Workshop and Training

The agency will develop electronic and hard copy documentation as a user manual for the web portal and provide appropriate 2 (two) 1-day physical training.

15. Service Level Agreement

The Firm will provide one-year maintenance including content upload as part of the project deliverables.

16. Technical Specification

Consultant will suggest appropriate technical specification to meet requirement/ expectation as stated above.

17. Methodology

The first step in this assignment will be to create a UI/UX/Web template. During this development phase, the UI/UX expert will keep in touch with the ITN-BUET's assigned representatives on a regular basis. To finalize the design layout, a UI/UX expert will meet with the representatives in person or online. Other functionalities will be developed following the completion of this development and final approval from ITN-BUET. Agile software engineering method should be followed for developing this website.

The development will be carried out in the phases outlined below.

A. Phase 1: Design Phase:
The successful consultant will be expected to undertake intensive discussions with the ITN-BUET/CB Hub Team and partners. The successful candidate will be required

to define the Content Management System required for the portal based on the functionality required.

B. Phase 2: Demonstration and Testing Phase:
A first prototype of the web portal will be created, presented and shared with ITN-BUET/ CB Hub and all the partners to review, test and provide feedback for further improvements to the portal.

C. Phase 3: Finalization and Roll-out Phase
Based on the feedback received, the portal will undergo further improvements. The final portal will be presented for approval to the Director, ITN-BUET.

18. Required Skills and Experience

- The Firm/individual should demonstrate and provide examples of previous experience in the performance of similar services as follows:

- Be a reputable firm or an individual with at least three years of prior experience designing visually appealing and navigation friendly web sites

- Have a broad knowledge of current web development technologies and design tools and web programming languages

- Have excellent knowledge in modern web design trends and able to implement as per clients' need

- Demonstrate the ability to create an innovative and visually appealing design

- Have prior experience in designing websites with a solid portfolio

- Have expertise in Search Engine Optimization

19. Terms of Payment

The consultant will send invoices in accordance with the terms of the agreement.

20. Contact Point

Please send an email to itnoffice@itn.buet.ac.bd or phone at 01648633826, if you have any questions about the Terms of Reference or the pre-bid meeting.