TERMS OF REFERENCE (TOR)

LOCAL SYSTEM DEVELOPER

DEVELOPMENT OF A SMART MARKETING PLATFORM BASED ON E-AUCTIONING TO CATER TO AGRI-FOOD SECTOR VALUE CHAIN ACTORS

1. BACKGROUND

Department of Manufacturing and Industrial Engineering, Faculty of Engineering, University of Peradeniya is conducting a project titled "Design and Development of a Smart Marketing Platform based on e-Auctioning to cater to Agri-Food Sector Value Chain Actors" funded by the University of Peradeniya. The aim is to develop an E-marketing platform through e-Auctioning, as a farmer-customer-focused solution that improves integration between farmer and customer thereby resulting in less intermediary involvement and shorter supply chains with increased visibility. By developing an online platform, an opportunity is given to farmers to market products at their intended price and also to negotiate until it reaches an equilibrium value for both parties. As such, the platform helps to market and host auctioning and bidding in a way that enhances visibility and communication between farmers and consumers effectively for fair trading while enhancing food security. The E-marketing platform should be capable of providing an interaction platform for both farmers and buyers to upload daily production and bid for multiple harvests. Farmer can mention their preferred price which will not be seen by the buyers. The total bidding duration is split into multiple time periods. At the end of each time period, submitted bids are evaluated and check whether bids are higher than the farmer's preferred price. If so, depending on the consent of the farmer, bids are closed. If the bids are lower than the farmer's price, depending on the farmer's preference bidding cycles will be continued or terminated. The University of Peradeniya is looking for a local qualified System Developer (SD)/Software Engineer (SE) to consult the final phase of the project which is the development of the system according to the designed system framework and functional requirements.

2. OBJECTIVE OF THE ASSIGNMENT

1. Provide an interaction platform for both farmers and buyers
2. Perform bidding operations until the goods are sold
3. Communicate bidding outcomes with involved supply chain actors

3. SCOPE OF WORK

The selected applicant will be responsible for:

1. Development of the decision support system based on the provided system framework.
2. Purchase of the required facilities such as cloud web server, database server, Domain (.com), and email and SMS service subject to reimbursement.
3. Delivering all the functional requirements in the given timeline.
4. Setting up regular meetings to discuss about the progress.
5. Discussing and getting approval for any alterations of functional requirements before proceeding
6. Delivering the final product within the provided timeline.

4. REPORTING OBLIGATION

The selected system developer/software engineer will report directly to the Primary Investigator (PI) and Co-PI in the Department of Manufacturing & Industrial Engineering, University of Peradeniya.

5. DURATION OF THE ASSIGNMENT

The services of SD/SE are required for a period of 2 months with possible extensions (one month) based on the satisfactory performance and requirements of the project. The expected start date of the assignment would be during the November of 2024.

6. PERFORMANCE INDICATORS

The SD/SE's services shall be subjected to half-monthly evaluation based on performance indicators specified below. Performance evaluation shall be the basis for extension or termination of the services.

The following performance indicators shall be used for performance assessment:

- Positive progress and good performance of the system development, as per the TOR;
- Timely delivery of the functional requirements
- Well planned delivery approach
- Efficient team work and coordination with the team
- Efficient support in implementing feature extensions

7. PURCHASING ARRANGEMENTS

Purchases of the required facilities such as cloud web server, database server, Domain (.com), and email and SMS service subject to reimbursement

8. CONFIDENTIALITY AND CONFLICT OF INTEREST

The consultant undertakes to comply with UOP's and NSF's policies and rules with regard to corrupt and fraudulent practices, conflict of interest and confidentiality. The consultant shall maintain confidentiality on all sensitive information obtained during the assignment and shall not publish wholly or in part the findings or such information, without prior written consent by the PI at UOP. Any drafts and other code bases produced by the consultant will be discussed and cleared with UOP before their final issue. A non-disclosure agreement (NDA) will be signed between the UOP and the selected candidate to be attached to the contract.

9. QUALIFICATIONS AND EXPERIENCE REQUIREMENTS

- Bachelor's degree in Software Engineering, IT or a related field, from a local or foreign university, recognized by the University Grants Commission (UGC) of Sri Lanka;
- A minimum of 2 years of relevant work experience in system development/software engineering;
- A past similar assignment of same level and nature in a government or International customer project is highly desirable;
- Knowledge and experience of web-based (cloud supported) system development is a strong advantage;

10. METHOD OF PROCUREMENT

The procurement method is Individual Consultant selection method in line with the UOP Procurement procedures.