



EXPRESSION OF INTEREST (EOI) FOR THE CONSULTATION FOR DEVELOPMENT OF THE SUPPLY CHAIN RECONFIGURING DECISION SUPPORT SYSTEM AT UNIVERSITY OF PERADENIYA

Introduction:

Department of Manufacturing and Industrial Engineering, Faculty of Engineering, University of Peradeniya is conducting this research project funded by The National Science Foundation (Ministry of Higher Education, Technology & Innovation) NSF. This research project is titled as “Design and Development of a Decision Support System to Reconfigure Vegetable Supply Chain to Enhance Sustainability” aiming to develop a data driven decision support system by integrating all the supply chain actors to meet the supply and demand aligning to sustainability dimensions. Specifically, this system will be developed on an analytical framework which contains mathematical and simulation models.

This decision support system is based on the existing main stream vegetable supply chain context where production AI regions were considered as the smallest production entity, and consumption divisional secretariat divisions were considered as the smallest consumption unit. When delivering the produced vegetable amounts to the consumption units through the main stream vegetable supply chain, different supply chain entities get involved, such as collection centers, wholesalers at economic centers and transport agents. The mathematical models were developed to generate new configurations, simulation models were developed to evaluate the solutions real time behavior of the suggested solution. A system framework has been developed combining these mathematical models and the simulation models, with input output data and the data base. The decision support system will be developed on top of this system framework.

The university invites Expression of Interest (EOI) from qualified and experienced applicants to design and develop a decision support system to reconfigure vegetable supply chain according to the requirement of a research project funded by The National Science Foundation (Ministry of Higher Education, Technology & Innovation) NSF.

Objectives

1. Accommodate distinct decisions of F & V supply network entities at supply network level decisions.
2. Reconfigure F & V supply network managing supply and demand and planning logistics operations
3. Achieve performance measures in terms of efficiency, responsiveness, greenery and quality
4. Facilitate individual entities’ decision making supported by computational intelligence technique

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 AWS EC2, AWS S3, Domain (.com), frontend template, Cloud Flare (DNS) and Google Direction API subjected 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 requirement before proceeding
6. Delivering the final product within the provided time line.

Requirement for Submission

Interested applicants are required to submit an Expression of Interest (EOI) that includes the following details;



1. **Curriculum Vitae** - One page CV indicating your educational background, related experience in the field and contact details
2. **Quotation** – Price quotation for the required system with attached functional requirements.
3. **Proof of past projects** – Git-Hub links/URLs for past projects.
4. **Proposed operational plan** - An outline of the suggested development approach with estimated times of arrivals (ETA).

Evaluation Criteria

The EOIs will be evaluated based on following Technical and Financial criteria.

Technical Criteria

1. Experience and capacity of the applicant. Priority will be given to candidates with more than 2 years industry experience.
2. Quality and feasibility of the suggested solution approach
3. Past projects, coding disciplines
4. Competitive Quotation strategy
5. Alignment with the main objectives of the system

Financial Criteria

1. The quotation should be within the allocated amount.
- Both technical and financial criteria will be evaluated for selection.

General Information

1. The contract period will be not more than four months, until the delivery date of the system.
2. Interested applicants are requested to submit their Expression of Interest, along with all the required documents, no later than November 12th, 2024.
3. The EOI should submit by proposal in a sealed envelope with the top left-hand corner marked as 'EOI for consultation for development of the supply chain reconfiguring decision support system at university of Peradeniya' addressed to the Registrar, University of Peradeniya on or before the deadline.
4. The EOI is valid for 120 days from the date of submission deadline.
5. Detailed quotation documents will be issued to the short-listed applicants in accordance with the procurement guidelines.

The University of Peradeniya reserves the right to reject any or all submissions without assigning any reasons.

We look forward to receiving your submissions and working together to create a high-quality decision support system to reconfigure our existing vegetable supply chain to enhance sustainability.