



**SOUTH EASTERN UNIVERSITY OF SRI LANKA**  
**UNIVERSITY BUSINESS LINKAGE CELL**

**INVITATION FOR PROPOSALS**

**Hiring Full Stack Freelance Developer (FSFD) for the Research Project AI-Enabled Systems and Methods for the Local Retail Sector**

University Business Linkage (UBL) is a dedicated body operating to promote research, development, innovation, and commercialization of research outcomes from the university to industry and vice versa. The UBL of the South Eastern University of Sri Lanka seeks to obtain the services of a Full Stack Freelance Developer (FSFD) for the research project AI-Enabled System and Methods for the Retail Sector.

Interested FSFDs are invited to submit proposals. The proposals should be submitted according to the Terms of References (TOR) in the prescribed submission format provided. Duly prepared proposals should be addressed to **The Director, University Business Linkage, South Eastern University of Sri Lanka, University Park, Oluvil #32360** to be received at or before **2.00 PM on 17<sup>th</sup> May 2022**. The proposal along with the supporting documents must be attached and signed by the FSFD.

**TERMS OF REFERENCES**

**1. Required Qualifications & Experience**

- HND in IT or higher qualification from a recognized institution.
- Minimum 04 years experience in the IT industry in software or related roles which include native mobile application and java client and server development experience.
- Prior experience in the following technologies and tools
  - SQLite database, MySQL database. Jasper report, Database synchronization solutions
  - Android native UI, Java Swing, or other UI frameworks
  - Java Servlet, JPA, JPQL, Hibernate, Tomcat application server
  - Linux command line

- Rest architecture
- Business Process Management (BPM) systems
- HTML, CSS, JavaScript and JavaScript frameworks, JSON
- Netbeans, VS Code, Android Studio, My SQL workbench

## **2. Required Competencies**

- Ability to carry out the key tasks effectively and efficiently.
- Ability to work with Academics, Researchers, Senior Executives, and the UBL staff.
- Ability to function effectively in a team environment inspiring trust and cooperation of other stakeholders and project team members.
- Ability to meet deliverables within the stipulated time frame.
- Excellent command of computer literacy.

## **3. Method of Appointment**

- All submitted proposals will be evaluated by the TEC approved by the Vice-Chancellor to select a suitable FSFD to carry out the task.
- The assignment will be valid for a nine (09) month contract period. The contract may be renewed based on satisfactory performance and the requirement.
- The agreement may be modified with the written consent of both parties during the period.

## **4. Scope of the Activity**

The research project AI-Enabled Systems and Methods for Retail Sector is an attempt to address the problems faced by the local retailers through AI, software and hardware optimization, and usability research. As an initial prototype, the research team expects to implement a mobile phone application. The FSFD needs to work closely with the research team to implement a commercial-grade client-server mobile application. However, the FSFD should keep in mind that the research team expects to port the functionalities to smaller resource-constrained hardware than mobile phone devices. Therefore, the FSFD needs to assist the research team to explore various alternative techniques, methods, and technologies to implement the same functionality. The research team has already developed a basic code base for image accusation, compression, and uploading. The FSFD is expected to initiate the work using the code base as a starting point.

- Rest architecture
- Business Process Management (BPM) systems
- HTML, CSS, JavaScript and JavaScript frameworks, JSON
- Netbeans, VS Code, Android Studio, My SQL workbench

## **2. Required Competencies**

- Ability to carry out the key tasks effectively and efficiently.
- Ability to work with Academics, Researchers, Senior Executives, and the UBL staff.
- Ability to function effectively in a team environment inspiring trust and cooperation of other stakeholders and project team members.
- Ability to meet deliverables within the stipulated time frame.
- Excellent command of computer literacy.

## **3. Method of Appointment**

- All submitted proposals will be evaluated by the TEC approved by the Vice-Chancellor to select a suitable FSFD to carry out the task.
- The assignment will be valid for a nine (09) month contract period. The contract may be renewed based on satisfactory performance and the requirement.
- The agreement may be modified with the written consent of both parties during the period.

## **4. Scope of the Activity**

The research project AI-Enabled Systems and Methods for Retail Sector is an attempt to address the problems faced by the local retailers through AI, software and hardware optimization, and usability research. As an initial prototype, the research team expects to implement a mobile phone application. The FSFD needs to work closely with the research team to implement a commercial-grade client-server mobile application. However, the FSFD should keep in mind that the research team expects to port the functionalities to smaller resource-constrained hardware than mobile phone devices. Therefore, the FSFD needs to assist the research team to explore various alternative techniques, methods, and technologies to implement the same functionality. The research team has already developed a basic code base for image accusation, compression, and uploading. The FSFD is expected to initiate the work using the code base as a starting point.