F A C I L I T I E S

M A N A G E M E N T

SUSTAINABILITY & UTILITY PROJECTS

RFP UJ 63/2024 JBS PARK PROOF OF CONCEPT (POC) SUPPLY AND INSTALLATION OF PRESENCE DETECTION/OCCUPANCY SENSORS AND PEOPLE COUNTER SYSTEM.

PROJECT SPECIFICATION / SCOPE OF WORK

1. **BACKGROUND**

   The University of Johannesburg JBS Park is one of the buildings recently purchased by the University. JBS Park currently does not have a system that enables monitoring of occupancy patterns in various zones in the building allowing for historical analysis of occupancy for improved decision making. This has led to the following problems:

   1.1. Poor visibility of occupancy in various lecture rooms,

   1.2. Suboptimal planning for space for effective usage and people flow,

   1.3. Lack of data availability for trending and analysis of occupancy patterns,

   1.4. Ineffective planning for disaster management,

   1.5. Inability to automate, manage and control the building's lighting, energy, and HVAC systems.

   There are approximately 320 staff and 450 Students occupying the JBS park building, at least 43% usage needs to be demonstrated by the University to receive future funding from the Department of Higher Education and Training.

   The service providers are invited to conduct a proof of concept for the occupancy monitoring solution over a period of three (3) months, to prove the level of occupancy and effective use of JBS park space real-time, as well as investigate requirements for a BMS in conjunction with UJs ambitions for a smart campus. The data from monitored endpoints must be stored and reports drawn and made available when required. This will assist in decision making for cost efficiencies, space planning and resource usage in unoccupied spaces. The POC outcomes

will provide input to smart requirement in relation to BMS, HVAC, Energy Management, Lighting Control, Fire Systems Control, Metering and Demand Control etc.

2.   SCOPE OF WORK

The project scope requires a turnkey solution by the contractor and should include all of the following:

2.1.   Supply and installation of 19 x floor human presence detection/occupancy sensors to monitor occupancy at various zones at ground, first and second floors.

2.2.   Supply and installation of 3 x people counter system at the three (3) building entrances used continually.

2.3.   Integration of installed presence detectors/sensors to make the occupancy and people counting data available to create dashboards for reporting purposes.

2.4.   The solution should provide for:

2.4.1   Real time visualisation through dashboards and these should provide a view of the zones occupied across the three floors and during peak times

2.4.2   Reporting of occupancy trends, comparisons between zones, on weekly and monthly basis

2.4.3   The system should be responsive allowing for access to data as and when required

2.4.4   Backup data, where data is available for access as required up to a maximum of twelve months

2.4.5   Alerts when data is not received from the various zones

2.5.   Provide an allowance to determine the further requirements for smart use and management of campus utilities such as HVAC, power production and control (specifically demand management, area lighting control and geyser or heating control.

2.6.   Indication of the useful life of the equipment must be indicated for maintenance purposes.

3. TENDER EVALUATION CRITERIA

The submitted tenders will be evaluated against the listed criteria defined below and in a specific sequence. A tenderer who fails to meet any criteria will not be considered in the subsequent evaluations.

The tender evaluation criteria are listed in the sequence below:
- Compliance with prescribed tender returnable documents.
- Compliance with the scope of work specifications.
- Technical competence to execute the work (Functionality Criteria).
- Price affordability or infeasibility (this is a reasonability test for the likelihood that the supplier can complete the specified work within the tendered price)
- Price and B-BBEE in the following scoring matrix:

CATEGORY	SCORING CRITERIA	ALLOCATED POINTS
BROAD-BASED BLACK ECONOMIC EMPOWERMENT		20
B-BBEE Contribution Level Level 1 Contributor Level 2 Contributor Level 3 Contributor Level 4 Contributor Level 5 Contributor Level 6 Contributor Level 7 Contributor Level 8 Contributor	12 10.5 9 7.5 6 4.5 3 1.5	12
Bonus Points: EME's / QSE's 50% Black-owned 30% Black-owned	3 3 2	8
PRICE		**80**
B-BBEE		**20**
TOTAL		**100**

Descriptions:
EME – Turnover between R0.00 to R5, 000,000.00 annually
QSE – Turnover between R5, 000,000.00 to R35, 000,000.00 per annum

7.1 <u>Functionality</u>

A minimum of 70 points is required by any tenderer before further evaluation.

	Evaluation Criteria	Maximum points attainable
1	**Technical Expertise and Experience**	**55**
	COMPANY EXPERIENCE Demonstrated experience minimum 5 years with respect to relevant projects. The bidder must provide reference letters on client's letterhead not older than 3 years, confirming a successful completion of similar projects to the proposed one. **OCCUPANCY MONITORING & PEOPLE COUNTING PROJECTS** The following must be captured in reference letters: a. Employer, contact person and telephone number. b. Description of work (service) c. Value of work (i.e., the service provided) inclusive of VAT). d. Date completed. *Experience in aspects or focus areas of the occupancy monitoring and people counting, smart building using IoT Technologies will be acceptable. • Only 1 similar project (5 points) + 1 verifiable references (5 points) • 2 similar projects (10 points) + 2 verifiable references (10 points) • 3 similar projects (15 points) + 3 verifiable references (15 points) • 4 + similar projects (20 points) + 4 or more verifiable references (20 points)	40
	KEY RESOURCES Please propose the structure and composition of the team indicating i.e., the disciplines involved, (a staff organogram would be useful) •Computer specialists/Engineer/Technologist with CV, Qualifications and PR ECSA (or equivalent professional registration) up to 3 or more (3 points for one personnel, 9 points max) •Computer specialists/Electrical/Mechanical/Technicians, with CV and Qualifications up to 3 or more (3 points for one personnel, 9 points max) • Installation team members for equipment mounting and sensor package installations etc. (1 point per personnel, 6 points max for more than 6 personnel). **(max of 15 points can be scored)**	15
2	**Project Design**	**25**

Evaluation Criteria		Maximum points attainable
	Clear indication of system design, sensor packages to be used, aggregation design, network and/or data routing design, and storage.	10
	Explanation of integration of data into an agnostic building management system, possible use of a Microsoft based BI product for reporting and dashboards.	10
	Explanation of system extension mechanisms for hardware and software using open source (if possible) tools.	5
3	**Project Details**	**20**
	Clear project schedule, including milestones, deliverables, and timelines.	10
	Approach and Methodology fully describing the solution.	10
Total Points awarded		**100**