



REPUBLIC OF KENYA
MINISTRY OF HEALTH
EAST AFRICA'S CENTRE OF EXCELLENCE FOR SKILLS AND TERTIARY
EDUCATION IN BIOMEDICAL SCIENCES – THE EAKI PROJECT

LOAN No: **2100150031997**
PROJECT ID No: **P – Z1 – IBO – 23**
TENDER No: **MOH/ EAKIP/ EOI/ 001/ 2018 – 2019**

PROCUREMENT OF AN INDIVIDUAL CONSULTANT FOR BIO MEDICAL
ENGINEERING SERVICES

TERMS OF REFERENCE

SEPTEMBER 2018

TERMS OF REFERENCE FOR BIO-MEDICAL ENGINEERING SERVICES

1.0 BACKGROUND

The Government of the Republic of Kenya received a loan from the African Development Fund (ADF) for a Project establishing the East Africa's Centre of Excellence in Nephrology and Urology Sciences called East African Kidney Institute (EAKI) within Kenyatta National Hospital grounds in Nairobi, Kenya.

The overall objective of the project is addressing the crucial labour market shortages for skilled professionals in the biomedical specialties of nephrology and urology in Kenya and the EAC region in general. Component one of the project aims at establishing the Infrastructure, equipment and systems of Centres of Excellence in Kenya.

The centre of excellence will be part of EAC network of centres of excellence for skills and tertiary education and will provide i)Higher education programs and clinical trainings ii)Scientific and operational research, and iii)Specialized GoK preventive curative and service delivery. The infrastructure will include a newly constructed education, research and service delivery complex that has an auditorium for conferences, cafeteria, professorial and student lounges, various sized classrooms, eLibrary, Video conferencing facility, research lab, faculty student desk spaces, administration offices, dialysis points, critical care section, surgical theatres and 160 beds teaching and referral hospital.

The Government now requires services of a Bio-Medical Engineer to offer Technical Assistance in planning, procurement and use of medical equipment and furniture for the project. The Biomedical Engineer will be a member of the Project Management Team for a designated period and will liaise with the Ministry of Health, Kenyatta National Hospital and University of Nairobi (**the stakeholders**) to guide and oversee the procurement and installation of medical and hospital equipment, medical furniture, instruments and other goods required under the project. These Terms of Reference (TOR) are for an Individual Consultant who will be engaged to provide the Bio-Medical Engineering Technical Assistance for the Project.

2.0 OBJECTIVE OF THE ASSIGNMENT

The objective of the assignment of the Bio-Medical Engineer is to offer Technical Support to the Project in all areas of bio-medical engineering including medical equipment and furniture. The assignment shall entail, but not limited to, preparation of the list of equipment and relevant specifications, preparation of bidding documents, and supervision and monitoring of installed facilities.

3.0 SCOPE OF WORK

In accordance with the project objectives, the Bio-Medical Engineer shall undertake the following tasks:

Task 1: Identification of the medical Equipment and medical Furniture requirements

1. Examine the building plans of the proposed building and the standard medical equipment lists of Ministry of Health, and determine their medical equipment and medical furniture requirements. The lists to include a room by room distribution of medical equipment and medical furniture.
2. Lead and provide guidance to the specifications development committee to be established by the MoH, in collaboration with the relevant heads of departments and users
3. Convene at least two stakeholder conferences to present on the proposed medical equipment and furniture.
4. Study and refine the existing preliminary medical equipment and medical furniture in the Project Appraisal Report (PAR) proposed for East African Kidney Institute, in liaison with the project technical sub-committee on medical equipment.
5. Define the installation requirements of the equipment related to works.

Task 2: Technical Support in the Tender Process and Installation for Medical Equipment

1. Study the Ministry of Health Standard Specifications of Medical Equipment and Medical Furniture and develop updated specifications for the proposed medical equipment and medical furniture for the project, including all relevant accessories for the equipment.
2. Establish cost estimates for all consumables and reagents required to operate relevant medical equipment per month to facilitate planning and budgeting for operating costs.
3. Identify the basic equipment pre-installation works to be incorporated in the works.
4. Support the project management unit in examination of the architectural and technical studies/documents concerning the installation requirement of the equipment.
5. Support the project management unit in evaluation of equipment bids.
6. Supervise and certify installation, testing, training and commissioning of medical equipment and medical furniture in liaison with the client and the users.
7. Monitor performance of medical equipment and furniture within the warranty period and advice on remedial action required.

4.0 DELIVERABLES / OUTPUTS OF THE BIO-MEDICAL ENGINEER

The Biomedical Engineer will deliver the following:

1. The complete lists of medical equipment and medical furniture to be procured under the project for the complex based on the need and the budget available.
2. Technical specifications for all pieces of medical equipment and medical furniture.
3. Schedule of particular equipment pre-installation works for specialised equipment.
4. Equipment Installation completion reports and certification.
5. Project completion report for medical equipment and medical furniture component.
6. Developing Equipment maintenance management policy and Equipment Disposal policy.

5.0 QUALIFICATIONS AND COMPETENCES

The successful candidate should have the following minimum qualifications:

- a. At least a University degree in Bio-Medical Engineering or a Higher National Diploma in Bio-Medical Engineering or equivalent from a recognized University / Institution.
- b. At least eight (8) years professional experience in preparation of medical equipment condition assessment and specifications for hospitals including installation and commissioning of large scale maintenance networks of biomedical and hospital equipment.
- c. Demonstrated knowledge in preparation of supply tender documents and Specifications for medical equipment and medical furniture is desirable.
- d. A high level of interpersonal, management skills, integrity and ability to work with complex teams.
- e. Proven ability to work under pressure and meet tight deadlines with minimum supervision.
- f. Strong written and oral communication skills in English, demonstrated ability of making effective presentations to diverse audiences.
- g. Computer literate and competent in the use of Microsoft Word and Excel.

6.0 TIMEFRAME

The assignment shall be for an expert input period of 305 days spread over a period thirty eight (38) months. The schedule shall depend on the building construction and delivery schedules by the equipment suppliers. The indicative projected expert input is as shown in Appendix 1.

7.0 REPORTING

The Bio-Medical Engineer will report directly and administratively to the Project Manager of the East Africa's Centres of Excellence project. All reports prepared by the bio-medical Engineer shall therefore be submitted to the Project Coordinator. He / She will work in liaison with the Client, and with Project Technical Sub-Committees for Medical Equipment and the users.

8.0 PAYMENT

The successful candidate shall be remunerated in a manner commensurate with qualification in accordance with the project financing provisions.

APPENDIX 1 – TIME INPUT

S/No	Task	Duration of the activity	Proportion of time input	Expert input (Days)
1.	Development of list, specifications and bid documents	3 months	Full time	90
2.	Procurement of the equipment suppliers	5 months	7 days per month	35
3.	Supervision and coordination of installation during construction of the complex	24 months	5 days per month	120
4.	Post installation supervision and certification	6 months	10 days per month	60
TOTAL TIME INPUT FOR THE SERVICES		38 months		305