

Terms of Reference

Local Consultants for “Medical Devices Engineering labs and Experiments” Manual

Education to Work Transition Project Quality Improvement Fund (QIF)

INTRODUCTION

Local Consultants for preparing a manual of medical devices engineering labs and experiments will be hired under the project entitled “**Development of Medical Devices Engineering Curriculum and Laboratories at the Faculty of EIT – (Med-Cal)**”, which has been funded by the World Bank through Palestinian Ministry of Higher Education and Scientific Research under the project named “Education to Work Transition Project-additional financing Quality Improvement Fund (QIF)” which is administrated by Projects Coordination Unit “PCU”, branched out of the ministry.

BACKGROUND

“Education to Work Transition Project-Additional Financing- Quality Improvement Fund (QIF)” mainly aims at enhancing Palestinian youth’s transition from education to work through reducing the gap and strengthening the linkage between Tertiary Education Institutions “TEIs” and private sector employers.

The Faculty of Engineering and Information Technology at Al-Azhar University-Gaza won a QIF fund for a project entitled “**Development of Medical Devices Engineering Curriculum and Laboratories at the Faculty of EIT – (Med-Cal)**”, and is implemented within 36 months starting from 1st of October, 2018. The Faculty of EIT and its partners (Al-Quds Hospital-Palestine Red Crescent Society (PRCS), Al-Amal Hospital – KhanYounis-PRCS, El-Wafa Medical Rehabilitation and Specialized Surgery Hospital, InterMed-Pal Company, and Medical Supplies and Services (MSS) Company) collaborate to achieve the objectives of the project. The funded project is a technical oriented program that aims to develop the Medical Devices Engineering (MDE) academic curriculum at the faculty of Engineering and Information Technology EIT and provide a suitable educational environment consisting of advanced laboratory resources and high-skilled academic staff. The project concerns to build training models, develop some courses, hire experts and consultants; and offer hand-on learning experience for the students enrolled in the MDE. Besides, it aims to improve the skills and the technical knowledge of the professionals at the private sector to be able to provide better service.

OBJECTIVE AND SCOPE OF THE WORK

Assignment Objective

The faculty of EIT at Al-Azhar University Gaza, Palestine is considering the selection of a professional and qualified expert consultants to be part of the consultation team, who will be responsible to prepare a detailed manual of medical devices engineering labs and experiments.

The Local Consultants will be responsible for, but not limited to the following task:

- Design a basic methodology for the practical experiments and labs which are under the same courses categories.
- Contemplate, define, and categorize the scope and extent of the experiments and labs of the medical devices engineering including but not limited to the courses of” Electric Circuits, Digital Logic Design, Electronics, Engineering Workshops, Electric Machines, Power Electronic Systems, Signals and Systems, Control Systems, Robotics and Automation, Medical Instrumentation, Microcontroller Programming and Applications, Assistive Technology in Rehabilitation Engineering, Programmable Logic Controller, Modeling and Simulation, Engineering Drawing, Biomaterials, Analytical Instrumentation, Measurements and Instrumentation, and Biomedical Signal and Image Processing”
- Envisage the role of experiments and labs in supporting the theoretical materials and the required tasks in Medical devices field.
- Prepare a detailed manual for each experiment or lab including “Background, Introduction, Objectives, Procedures, Data, Analysis, Results, Figures, graphs, Outputs, conclusion,..etc.”.

Note: Scientific plagiarism from ready-made sources is strictly prohibited, and the proofreading is a must.

DELIVERABLES

- A detailed action plan including methodology, time frame, and the main activities of the process of developing the required manual.
- Accomplished manual of specified medical devices engineering labs and experiments.
- Final comprehensive report documenting the whole conducted activities including but not limited to: implemented activities, assessment, results, findings, recommendations, proposed actions, current needs and lessons learnt.

REQUIRED QUALIFICATIONS, EXPERIENCE, AND EDUCATIONAL BACKGROUND:

This call for consultancy is **only** open for individuals who have the following qualification and experiences:

1. At least bachelor degree in biomedical engineering, mechatronics engineering, or electrical engineering, or any related discipline from a recognized University. Master degree is preferable.
2. At least 3 years' experience in the field of medical devices engineering
3. Proven experience in the practical side which related to the field.
4. Currently in touch with labs updates, and aware of its needs,
5. High level of English proficiency: reading, writing and speaking.
6. Solid background in reports writing skills
7. Excellent report writing skills.

TIME FRAME: The expected level of effort will be considered individually for each chosen consultant per working days within the period 22 April 2021 till 15 July 2021.

THE SUGGESTED DAY OF STARTING: 22/04/2021

DUTY STATION: Al-Azhar University Gaza – Palestine.

CONTRACT TYPE: Lump Sum Contract.

NUMBER OF CONSULTANTS: 3-7 consultants are needed for this position.

To Apply: Interested and qualified candidates to fill the online application on Al-Azhar University – Gaza jobs portal through the link below:

<http://www.alazhar.edu.ps/arabic/EmpAffairs/Instr.asp>

All applicants must **SUBMIT BY HAND** the following document (English Only) to **Employee Affairs Unit at Al-Azhar University - Gaza** no later than **7th April, 2021**:

1. Latest CV.
2. A cover letter.
3. Certificates (Certificate accreditation from MOHE for International certificates).
4. A conception plan including the related experiments to mentioned courses that can be prepared by you.

Incomplete or missing information or documentation and evidence of experience as requested above, may exclude you from further consideration.

The selection process follows World Bank recruiting policies and procedures. Only shortlisted candidates will be contacted for an online interview.