

**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND
ENTREPRENEURIAL DEVELOPMENT
FACULTY OF AGRICULTURE EDUCATION, ASANTE MAMPONG CAMPUS**

**CALL FOR CONSULTANCY SERVICES TO DESIGN ZERO ENERGY COOLING
CHAMBER (ZECC) AND COOLTBOT STRUCTURE MODELS SUITABLE FOR
FRUIT AND VEGETABLE STORAGE**

20th July 2023

1.0 Introduction

The Faculty of Agriculture Education, AAMUSTED- Asante Mampong issues this **call for consultancy services** for the designs of a Zero Energy Cooling Chamber and a Coolbot structure for post-harvest handling on a project with funding from the Ghana Skills Development Funds (GSDF).

The general objective for this call is to receive modern designs of ZECC and Coolbot technology which can reduce post-harvest loss in fruits and vegetables by 50% at AAMUSTED-Mampong and its environs. More details on the call for the project context are provided in the Terms of Reference accompanying this call for consultancy services. Interested consultancy firms should download the call for consultancy services from the AAMUSTED website at www.aamusted.edu.gh or www.mampong.aamusted.edu.gh

- Deadline for submission of the Designs is on 21st July 2023.
- Review and selection of qualified consultancy firm will be on 24th July 2023
- Developing and signing of ToR will be on the 27th of July 2023 (Only for Selected firm)
- Commencement of work starts on 31st July 2023
- Submission of design of ZECC and Coolbot structure by consultancy firm will be on 4th August 2023

2.0 Technical and Financial Proposals

The proposals should include the submission of technical and financial content in accordance with the guidelines below.

- ❖ Technical proposal

Capability Statement:

A narrative not exceeding two (2) pages that justified the Consultant's understanding of the assignment as well as the capability to perform the scope of work. This shall include a list detailing similar assignments performed.

Approach and Methodology:

Please explain your understanding of the objectives of the assignment as outlined in the Terms of Reference (ToRs), the technical approach, and the methodology you would adopt for implementing the tasks. Please do not repeat/copy the TORs.

2.2 Financial Proposal

The financial proposal must be detailed as the key activity of the assignment. All fees shall be in **Ghana Cedis (GHS)**.

2.3 References:

References from clients who worked within the past five years on activities similar to this scope of work. Include the contact information: company or organization, name, phone number and email.

TERMS OF REFERENCE TO DESIGN ZERO ENERGY
COOLING CHAMBER (ZECC) AND COOLBOT
TECHNOLOGY MODELS SUITABLE FOR FRUIT AND
VEGETABLE STORAGE.

BACKGROUND INFORMATION:

The Department of Agricultural Economics and Extension Education, Faculty of Agriculture Education, AAMUSTED -Mampong seeks the services of a resource person with extensive experience to design Zero Energy Cooling Chambers (ZECC) and Coolbot structure Models Suitable for Fruit and Vegetable Storage.

The Ghana Skills Development Fund (GSDF) project is envisaged to focus on Strengthening the capacity of AAMUSTED- Mampong to reduce the occurrence of post-harvest losses in the fruit and vegetable value chain and equip as a training centre to impact the knowledge of cost-effective technology for post-harvest handling among smallholder farmers in and around its environs.

NATURE AND SCOPE:

Throughout the period between harvest and consumption, maintaining optimum temperature which often requires cooling is the most important factor in preserving fruit and vegetable qualities. Limitations in adhering to this occurrence have led to wares losses along the fruit and vegetable supply chain. To circumvent this challenge, a technology that involves the use of indigenous materials and a blend of modern technology with less cost to control the phenomenon is recommended. The ZECC and Coolbot structure will be used for fruit and vegetable storage and training purposes hence the need for this call for consultancy services.

Thus, the project coordination team is seeking an experienced consultancy firm to design/sketch Zero Energy Cooling Chamber (ZECC) and a structure to host a Coolbot device suitable for Fruit and Vegetable Storage and increasing the life shield of the wares. This consultancy will involve modern ZECC and Coolbot designs, with dimensions, required materials, durability statement and other useful information based on consultancy firms' experience in executing similar activity.

OBJECTIVES OF THE ASSIGNMENT

This call is aimed at submitting modern designs for ZECC and Coolbot structure for controlling post-harvest losses in fruit and vegetables. Specifically, the assignment seeks among other things to;

- ✚ Submit designs of ZECC and Coolbot technology for post-harvest handling of fruit and vegetables.
- ✚ Submit dimensions for designs of ZECC and Coolbot suitable for demonstration, training and storage purposes, specifying the required resources
- ✚ Submit a capacity statement and financial proposal on the assignment to be executed.

DELIVERABLES:

1. Submission of modern ZECC and Coolbot structure designs with dimensions and other vital information
2. Capacity statement on a similar assignment
3. Financial proposal on the ZECC and Coolbot designs submitted.

ETHICS AND RISKS

1. Conflict of interest or potential conflict of interest should be disclosed.

DURATION

The contract would be for;

Expected start date: 31st July 2023

Expected end date: 4th August 2023

Submission: Responses to this call should be sent to: principalm@aamusted.edu.gh and Cc to: agyengo80@gmail.com

QUALIFICATIONS AND EXPERIENCE REQUIRED

- A Legally registered Ghanaian firm, with valid commencement of work certificate in Ghana.
- Demonstrated knowledge of ZECC and Coolbot structure designs
- Demonstrated knowledge of post-harvest handling in fruit and vegetable technology