

TERMS OF REFERENCE FOR THE PROJECT ASSISTANT cum RESEARCH ASSISTANT FOR DEVELOPMENT ORIENTED RESEARCH (DOR) PROGRAMMES

1. BACKGROUND

The Development of the Higher Education Sector is of central importance to enable Sri Lanka to make the transition from a Lower – Middle Income Country (LMIC) to an Upper Middle – Income Country (UMIC) . Recognizing this, the Government of Sri Lanka (GoSL) and the World Bank have agreed to support the higher education sector through a Bank funded Accelerating Higher Education Expansion and Development (AHEAD) Operation.

2. THE OPERATION

The AHEAD Operation is organized in two components. The first is a Program Component that supports the national Higher Education Development Program. The second is a systems strengthening, capacity building and technical assistance component that will assist GoSL to strengthen the higher education sector and achieve the objectives of the AHEAD program component. This second will also cover monitoring and evaluation, policy analyses, program coordination and communication.

The implementing agency is the Ministry of City planning, Water Supply and Higher Education. The University Grants Commission (UGC) will coordinate the activities of the universities. There will be an Operations Monitoring and Support Team (OMST) which will coordinate and support all AHEAD activities between the Ministry of City planning, Water Supply and Higher Education, UGC , and the universities.

AHEAD has three Results Areas:

Results Area 1: Increasing Enrollment in Priority Disciplines for Economic Development

Results Area 2: Improving the Quality of Higher Education

Results Area 3: Promoting Research, Development, Innovation and Commercialization (RDIC)

3. TITLE & THE DESCRIPTION OF THE DEVELOPMENT ORIENTED RESEARCH (DOR) PROJECT UNDER RESULTS AREA – 3: “Cultivation of microalgae for bio lipid production: Optimization of net energy and mathematical modeling of bioprocesses”

The aim of this research is to develop a novel, energy-positive algal cultivation system coupled with wastewater treatment while minimizing the energy associated with wastewater treatment, algal cultivation, nutrient removal and algal harvesting. This involves the development of bioreactor, indoor and outdoor testing of algal cultivation, bio lipid production and mathematical modeling of bioprocesses.

4. KEY TASKS

Subject to any specific directives given by the Director/OTS and Project Coordinator, the main duties responsibilities of the candidate as a Project Assistant will be to:

- Facilitate the work of the Development Oriented Research (DOR) Programme by assisting to the OTS, Project Coordinator and Deputy Coordinator of the DOR.
- Assist the OTS, Project Coordinator in the Procurement activities of the DOR Project in the following areas.
 - a. In carrying out Procurement of Goods, Works , Services & Consultancy Services particularly preparation and updating of procurement plans, implementation of procurement process in terms of Government and World Bank Guidelines with the approval of the Deputy Director / Procurement.
 - b. Maintaining records, assisting the conduction of procurement reviews & furnishing reports as required.
 - c. Assist the OTS/ Director and Senior Administrative Officer in the Management of Financial Activities in Financial Areas.
 - Proper utilization of fund released to the OTS for the DOR Project with the approval of the Deputy Director /Finance.
 - Maintaining the proper financial records for all DOR expenses.
 - Submission of accurate, analytical and timely financial reports and other reports as stipulated by the OMST in respect of DOR, in strict compliance with all financial regulations with the approval of the Deputy Director /Finance.
 - d. Maintaining good rapport with Project Coordinator, Deputy Coordinator, Research Assistants of the DOR and OTS.
 - e. Maintaining an efficient filing system & records.
 - f. Maintaining and updating administrative files with necessary confidentiality where required.
 - g. Monthly update the Project Achievement Template (PAT) on the progress of DOR with the consultation of Project Coordinator.
 - h. Liaise regularly and closely with the OTS, Deputy Director /Finance, Deputy Director/ Procurement, Deputy Director/Engineering and other OTS Staff to ensure the smooth implementation of DOR.
 - i. Ensure timely reporting of physical, procurement and financial progress as well as KPIs of the DOR to the Project Coordinator and Director / OTS.
 - j. Any other relevant duties assigned by the Director / OTS, Project Coordinator and Deputy Coordinator.

- Roles of a candidate as a Research assistant shall be, but not limited to the following:
 - a) Assists the Project Coordinator and the research team to achieve the assigned KPIs (key performance indicator) within the timeline
 - b) Design, fabricate and operate bioreactors as per the proposed research under the supervision of project coordinator and research team members
 - c) Plan and conduct laboratory scale and outdoor experiments in accordance with standard protocol and procedures
 - d) Travels to various sites for sample collection as appropriate to the objectives of the study
 - e) Assists with preparation of manuscripts and conducting seminars for dissemination of research findings
 - f) Able to work at University of Jaffna main campus as well as Kilinochchi premises as per the instructions given by the project coordinator
 - g) Maintain a research log book to update the daily research progress
 - h) Submit weekly/monthly research progress reports to project coordinator/deputy coordinator

5. METHOD OF RECRUITMENT

This is a full – time position. Initially the contract appointment shall be for a period of 12 months. The position may be renewed based on performance and need during the period of the Operation. The candidate is encouraged to register for MPhil with University of Jaffna and the registration fee for the MPhil program shall be covered by the project depending on the candidate’s eligibility.

6. REMUNERATION

A monthly payment of LKR 70,000/= (it includes CLA) and applicable EPF & ETF will be paid. Payments will be made on the approval by the OTS/ Director on the recommendation of the Project Coordinator.

7. REQUIRED QUALIFICATIONS & EXPERIENCES

- Bachelor's degree in Science, Engineering, Agriculture OR related fields which is recognized by the UGC. Priority will be given to special degree or first class honors
- A track record of research as evidenced by publications/ presentations as an undergraduate or post graduate would be an added advantage.
- Prior research experience pertinent to bioreactors is desirable

8. PROFESSIONAL COMPETENCIES REQUIRED

- High level of proficiency in written and spoken English.
- Proven ability to handle Operation activities related to Finance and Procurement activities in the University in accordance with the World Bank Guidelines.
- Ability to function effectively in a team environment inspiring trust and cooperation of other team members.
- High level of IT literacy, especially in the areas of Word, Excel, email and internet.
- Ability to communicate effectively orally in Sinhala or Tamil.
- Ability to communicate in English with the World Bank, Ministry of City planning, Water Supply and Higher Education, UGC, OMST and others.
- Knowledge in statistics and computational methods
- Proven analytical skills
- Ability to work independently in a research team
- Ability to solve technical and methodological issues that arise during the course of the research