**VACANCY**

**Vacancy for the Post of Research Assistant -01 Post (Full Time on Contract)**

**OTS, AHEAD OPERATIONS**  
**EASTERN UNIVERSITY, SRI LANKA**

**VACANCY**

**POST OF RESEARCH ASSISTANT -01 POST**  
**(FULL TIME ON CONTRACT)**

**Title of the Research Project:**

**Optimizing Thermoelectric Performance of Rare-earth based Strongly Correlated Cage Materials by Electronic Substitution**

The Operational Technical Secretariat (OTS) of the AHEAD Operations of the Eastern University, Sri Lanka will entertain applications from suitably qualified persons for the post of **Research Assistant (1 post)** for a Research Project on “**Optimizing Thermoelectric Performance of Rare-earth based Strongly Correlated Cage Materials by Electronic Substitution**” up to **30.06.2020**. The Project is funded by the World Bank through AHEAD DOR Project and will be carried out at the Faculty of Science, Eastern University, Sri Lanka in collaboration with the Highly Correlated Matter Research Group in University of Johannesburg, South Africa.

**TERMS OF REFERENCE FOR THE 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 World 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 system 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.

1. **TITLE & THE DESCRIPTION OF THE DEVELOPMENT ORIENTED RESEARCH (DOR) PROJECT UNDER RESULTS AREA – 3**

**Optimizing Thermoelectric Performance of Rare-earth based Strongly Correlated Cage Materials by Electronic Substitution**

Thermoelectricity (also known as thermoelectric generators-TEG) has been proposed as one of the best alternatives to generate electricity by converting waste-heat directly into electrical energy. The primary objective of the study is to optimize the thermoelectric performance of rare-earth based strongly correlated cage compounds, as proven to have great potential to be used excellent candidates for TEG for electric power generation with unique advantages. The envisaged outcome of the study is to provide profound understanding of thermoelectricity driven from rare-earth based cage materials, and hence discover novel materials with enhanced thermoelectric properties for thermoelectric applications.

1. **KEY TASKS**

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

* 1. Assist the research team to achieve the assigned KPIs (Key Performance Indicators) within the timeline
  2. Prepare, synthesize, and characterize polycrystalline samples of the rare-earth based cage compounds under the supervision of the team members
  3. Design and perform laboratory experiments in accordance with standard protocols and procedures under the supervision of the team members
  4. Assist with preparation of manuscripts and presentations in conferences for dissemination of research findings.
  5. Able to work at the Faculty of Science, Eastern University, Sri Lanka as per the instructions given by the Project Co-ordinator / Deputy Project Co-ordinator and other team members in the project.
  6. Maintain a research logbook to update the daily research progress.
  7. Submit research progress reports for every 3-month period to Project Co-ordinator/Deputy Project Co-ordinator.
  8. Assist the OTS and the Project Co-ordinator in the procurement activities of the DOR Project.
  9. Assist the OTS, Project Coordinator and the Deputy Director/ Finance in the Management of Financial Activities of the DOR Project.
  10. 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 procurement.
  11. Any other relevant duties assigned by the Director/OTS, Project Co-ordinator and the Deputy Project Co-ordinator.

1. **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 for the remaining period based on the performance and need during the period of the operation. The candidate is encouraged to register for an MPhil/PhD programme with the Eastern University, Sri Lanka and the registration fee for the MPhil/PhD programme shall be covered by the project.

1. **RENUMERATION AND OTHER CONDITIONS**

A monthly payment of LKR 55,000.00 (which includes cost of living allowance) and applicable EPF & ETF will be paid. Payments will be made on the approval by the OTS/ Director on the recommendation of the Project Co-ordinator.  
CONDITIONS OF SERVICE: Selected candidates, if presently serving in a Government Department/Corporations/Statutory Boards, will have to obtain his/her release through their respective appointing authority.

1. **REQUIRED QUALIFICATIONS AND EXPERIENCE**

**7(a) Candidate Registering for MPhil/PhD Degree Programme**

* 1. Bachelor of Science (BSc) Special Degree in Physics (Priority will be given to those who have First Class or Second-Class Upper Division).
  2. Hands-on experience with sample synthesize and physical property measurement techniques.
  3. A track record of research as evidenced by publications / presentations at undergraduate or postgraduate level would be an added advantage.
  4. Age: Not more than 40 years

**7(b) Research Assistant**

* 1. Bachelor of Science (BSc) Special Degree in Physics with normal Pass or Bachelor of Science (BSc) General Degree with Class (Priority will be given to those who have First Class or Second-Class Upper Division) and followed Physics as a main subject.
  2. Hands-on experience with experimental techniques.
  3. A track record of research as evidenced by publications / presentations at undergraduate or postgraduate level would be an added advantage.
  4. Age: Not more than 40 years

1. **PROFESSIONAL COMPETENCIES REQUIRED**
   1. High level of proficiency in written and spoken English.
   2. Ability to function effectively in a team environment inspiring trust and cooperation of other team members.
   3. High level of IT literacy.
   4. Knowledge in magnetic materials and various analytical techniques.
   5. Proven analytical skills and ability to work independently in a research team.
   6. Ability to solve technical and methodological issues during project implementation.

**HOW TO APPLY:**

Interested candidates are requested to submit their application form ([downloaded here](http://www.esn.ac.lk/images/Vacancies/2019/09072019-RA_Application_form.doc)) by e-mail to [ots@esn.ac.lk](mailto:ots@esn.ac.lk) and copy to [peratheepanp@esn.ac.lk](mailto:peratheepanp@esn.ac.lk) on or before 30.06.2020.

**Note**: Applicants in the Service of Government, Corporations and Statutory Boards can submit their application directly. When the applicant presents for the interview, he/she should bring a hardcopy forwarded through the Head of Institution concerned.

**Director**  
**OTS AHEAD Operations**  
**Eastern University, Sri Lanka**  
**21.06.2020**