

# CARIBBEAN INSTITUTE FOR METEOROLOGY AND HYDROLOGY

## VACANCY NOTICE

### TECHNICAL OFFICER I - COMPUTER SCIENCE AND MATHEMATICS

Applicants are invited from suitably qualified nationals of CARICOM Member States for the post of Technical Officer I – Computer Science and Mathematics at the Caribbean Institute for Meteorology and Hydrology (CIMH), Husbands, St. James, Barbados.

### TERMS OF REFERENCE

#### Introduction

The Caribbean Institute for Meteorology and Hydrology (CIMH) is an Institution of the Caribbean Community (CARICOM) and the technical Organ of the Caribbean Meteorological Organization (CMO). The mandate of the CIMH is *“to assist in improving and developing the Meteorological and Hydrological Services as well as providing the awareness of the benefits of Meteorology and Hydrology for the economic well-being of the CIMH member states. This is achieved through training, research, investigations, and the provision of related specialized services and advice”*.

To achieve its mandate, the CIMH in 1973 established an affiliation with the University of the West Indies (UWI) Cave Hill, in which its primary responsibility is the delivery of the B.Sc. programme in Meteorology in the Faculty of Science and Technology. The CIMH is recognized regionally and globally as:

- The World Meteorological Organization (WMO) Regional Training Centre for the Caribbean;
- A centre for applied research and development in meteorology, hydrology/water resources, climatology and related areas including disaster risk reduction and impacts forecasting;
- The WMO Regional Instrument Centre for the Caribbean;
- A WMO Centre of Excellence for Training in Satellite Meteorology;
- The WMO Regional Climate Centre (RCC) for the Caribbean;
- The Caribbean Centre for Climate and Environmental Simulations;
- The Climate Data Archive for CMO Member States;
- The Pan American Centre for the WMO Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS).

The CIMH has strong collaborations with other Regional Institutions, national organizations in CMO Member States and the international community.

## **Training**

In addition to the BSc programme in Meteorology which the CIMH delivers to students at the UWI, the CIMH conducts vocational training programmes annually on its campus geared at developing technical specialists for National Meteorological and Hydrological Services (NMHS) in CMO Member States. These courses which are defined in WMO No. 1083 “Manual on the Implementation of Education and Training Standards in Meteorology and Hydrology” include: (i) the Entry-, Mid- and Senior-Level Meteorological Technician courses and (ii) the Hydrological Technician and Diploma in Hydrology courses. The mathematical competencies required by students to successfully complete these courses are delivered by staff at the CIMH.

NMHS are increasingly being required to generate new products and services by their stakeholders. Many of these new products and services require NMHS to modify existing software or develop new software for operational and research purposes. As a result, the development of core programming competencies in NMHS staff is important. To support this increasing requirement, the CIMH delivers training in computer programming to all students.

## **Computer Science and Information Technology**

The CIMH operates a complex system of servers, computational clusters and related infrastructure that are critical to its delivery of services to regional and international stakeholders. In addition, the CIMH develops software applications required by its staff and stakeholders to generate products and services for both near real-time applications and research and development purposes. As a result, having knowledgeable and competent programmers and Information Technology (IT) technicians is critical to the success of the CIMH.

## **Requirements**

The (CIMH) is seeking an individual to join its staff to deliver training in the areas of Mathematics and Computer Science. The candidate will also support the development, delivery and management of IT services at the CIMH. The candidate will be expected to join an enthusiastic group of professionals delivering training to Meteorological and Hydrological Technicians drawn primarily from both CMO Member States and the global community.

The successful candidate must:

- Deliver training to adults in classrooms as well as through online course delivery platforms;
- Design course syllabi and course content for training courses;
- Work with persons from a range of backgrounds including race and culture;
- Support research and development activities and external projects and programmes;
- Support a range of IT activities including (i) software development, (ii) hardware/software management, procurement and deployment and (iii) platform management.

Participate in meetings and outreach programmes including summer schools, job fairs and Institute tours.

## Scope of Work

- Delivery of training in Mathematics to students in the Senior-, Mid- and Entry-Level Meteorological Technicians courses as well as the Diploma in Hydrology course and the Hydrological Technicians course - see WMO No. 1083<sup>11</sup> for specific requirements;
- Delivery of training in computer programming, basic software development and the use of software to students in the afore-mentioned courses - in-depth knowledge of Python, C and bash/csh shells.
- Expansion of existing course content including modification of content for online learning and course delivery platforms including Moodle;
- Support research and development activities including assisting technical and academic staff with data analysis and scripting, as well as, software development and installation;
- Support the management of CIMH's IT infrastructure including Linux and Microsoft based servers, firewalls, DNSs, SANS, web and email servers as well as other specialized service delivery platforms.

## Qualifications

The successful candidate should have a minimum of BSc (Hon. or equivalent) Degrees in Mathematics and Computer Science. Candidates with only a BSc Degree in Mathematics should be able to demonstrate considerable competence in areas of IT/Computer Science including software development, IT platform management and training. Similarly, persons with a BSc Degree in Computer Science with the requisite competence should be able to demonstrate proficiency in Mathematics at the tertiary level. Persons with degrees in the Physical Sciences (e.g., Physics and Meteorology) and Engineering with the demonstrated requisite competencies in Mathematics and Computer Science will be considered for the position.

The ideal candidate should have (i) at least 7 years demonstrated teaching experience preferably at the tertiary level with a proven track record of success and (ii) at least 5 years of demonstrated professional IT/programming experience.

Training and research experience in either the Earth Sciences and/or Atmospheric Sciences would be an asset.

## Required Skills

- Excellent written and verbal communication skills;
- High degree of literacy;
- Aptitude for developing and implementing innovative and creative solutions to problem solving;
- Above average levels of cultural and social IQ.

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<sup>11</sup> Manual on the Implementation of Education and Training Standards in Meteorology and Hydrology. Volume I. Meteorology. WMO-No. 1083. 2012 edition

The successful candidate must have good legal standing and will be required to travel regionally and internationally. The successful candidate must be the holder of a valid passport and VISA for the USA as well as for Canada and European countries.

The successful candidate will be required to commence work on April 1, 2018 or soon thereafter. The closing date for applications is March 1, 2018. Letters from three referees should be sent directly to the Principal and received on or before the closing date for applications.

An attractive compensation benefit package including a non-contributory medical plan and pension will be offered. The salary scale for the position is BBD 5,199 x 166 – BBD 5,863 x 178 – BBD 6397. Applications accompanied with curriculum vitae should be addressed to:

The Principal  
Caribbean Institute for Meteorology and Hydrology  
Husbands  
St. James BB 23006  
Barbados

Tel: 246 425 1362/63

E-mail: [hrdept@cimh.edu.bb](mailto:hrdept@cimh.edu.bb)