

## **Margaret Wairimu CHEGE**

Physics Department

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### **Personal information**

Nationality: Kenyan

Languages: English, Kiswahili and Kikuyu

### **Research interest**

- ✓ Radioactivity and heavy metal analysis of water from traditional hand-dug wells
- ✓ Measurement and modelling radon and thoron activity in traditional mud dwellings
- ✓ Environmental monitoring of ionizing radiation

### **Educational background**

2011- date: PH.D (ongoing). Physics Department, Kenyatta University.

Research title: *Determination of radioactivity in mud dwellings, well water and crops in the high background radiation area of Mrima Hill, Kenya*. Supervisors: Dr. N.O. Hashim, Dr. A.S. Merenga and Dr. J. Tschiersch

2003-2007: M.Sc. (Environmental Physics), Kenyatta University.

Thesis title: *“Screening Measurement of Indoor Radon-222 Concentrations by Gamma-Ray Spectrometry in Kenyatta University”*. Supervisors: Prof. I.V.S Rathore, Prof. S.C. Chhabra and Dr. A.O. Mustapha

1992-1996: B.Ed. (Science) in Mathematics and Physics, Egerton University, Njoro.

1987-1990: Kenya Certificate of Secondary School (KCSE), Gatanga Girls' High School.

## **Work experience**

Feb. 2009 - Date: Tutorial Fellow, Kenyatta University (Mombasa Campus)

Sept. 2005- Dec. 2008: Lecturer, Kagumo Teachers' college

Jan. 1998 –Aug. 2003: Teacher, Gathirimu Girls' High School

Sept. 1996 – Dec. 1997: Teacher, Warazo Jet High School

## **Publications**

Chege, M. W., Rathore, I. V. S., Chhabra, S. C. and Mustapha, A. O. (2009). Influence of Meteorological Parameters on Indoor Radon in Selected Traditional Kenyan Dwellings. *Journal of Radiological Protection*, **29**: 95-103.

Chege, M. W., Rathore, I. V. S., Chhabra, S. C. and Mustapha, A. O. (2007). Screening Measurement of Indoor Radon-222 Concentrations by Gamma-Ray Spectrometry in Kenyatta University. Thesis for the Degree of Master of Science (Physics), Kenyatta University, Kenya.

## **Papers presented at conferences**

Chege, M. W., Hashim, N. O., Merenga and A. S. (2012). Heavy metal contamination in groundwater in the Gazi-Mrima Hill region of Kwale County, Kenya. UNESCO /DAAD-ALUMNI CONFERENCE "Water in Africa": *sustainable water management In African countries*. 1<sup>st</sup> to 3<sup>rd</sup> October 2012. Maseno University (Kisumu Campus), Kenya.

Chege, M. W., Rathore, I. V. S., Chhabra, S. C. and Mustapha, A. O. (2010). Comparative Study of <sup>222</sup>Rn Concentration in Modern and Model Traditional Houses at Kenyatta University, Kenya. AFRIRPA 2010: The Third African IRPA Regional Congress. 13<sup>th</sup> to 17<sup>th</sup> September 2010. Nairobi, Kenya.

## **Grants awarded**

The Science, Technology and Innovation (ST&I) Postgraduate (PhD) Research Grant 2012/2013.