



COMPUTER SCIENCE/INFORMATION TECHNOLOGY
Volunteers to teach graduate courses
University of Cape Coast, Cape Coast, Ghana
Summer 2015 and Long term

Academics Without Borders-Universitaires sans frontières ([AWB-USF](#)) is looking for volunteers to teach courses in the Department of Computer Science and Information Technology ([DCSIT](#)) at the University of Cape Coast ([UCC](#)) in Cape Coast, Ghana for the summer of 2015 and/ or as longer term visiting faculty (for a semester or more).

Background: Ghana is one of the most secure and relatively prosperous African countries. It is developing rapidly and needs people with advanced degrees in CS/IT, both to work in many key positions in both the public and private sectors, and to educate others. As there was no graduate programme in CS/IT in Ghana, those who wished to get an advanced (M.Sc. or Ph.D.) degree had to leave the country to study. Most, however, cannot leave for personal reasons or have teaching obligations, and if they do leave, they often do not return.

The Project: The DCSIT would like to upgrade the qualifications of its instructors from M.Sc. (mostly from British universities) to Ph.D., which would enable the Department to create a graduate programme. The plan is to have a transitional doctoral programme that will allow the upgrade. The programme consists of course work (four courses) spread out over summers, and a supervised thesis. To fill the gaps the current instructors may have in fundamental areas, some intensive basic courses are also being offered usually in January of each year. The graduate courses are also open to recent graduates of the undergraduate program in DCSIT, who will be able to use the course credit towards an advanced degree once a DCSIT graduate programme is approved. Potential doctoral candidates from other Ghanaian universities may also take the courses and then work on Ph.D.'s in the DCSIT graduate program, once it has been established.

In order to realize this plan, volunteers, who are either CS or IT professors with research activity are needed for the following periods and areas:

1 - **Two volunteers in the summer 2015 for 7 weeks each**, during the period June 1st - July 31st, to teach graduate courses in English. One of the courses should be on *Algorithms and data structures*. The other course could be on either *Optimisation* or *Software engineering* depending on the specializations of qualified applicants.

Each course can be either CS or IT oriented but must have a practical component. *If you can't teach a course on one of the above requested topics, but are available to teach for 7 weeks in the summer of 2015, please let us know the areas in which you could teach; your application could still be considered.* In addition, the volunteers should help the students to do research. Ideally, they should have an interest in supervising the theses of some of the doctoral students in the programme. – see below.

The deadline for applications is December 15th 2014 but we would appreciate getting them as soon as possible.

2 - In the context of the project, the DCSIT would like to host **long term** (for a semester or more) **visitors** with research records (fresh Ph.D.'s or professors on sabbatical are welcome). The visitors could teach undergraduate or graduate courses (to be negotiated with the Head of the department). These volunteers would be expected to help create a research environment at DCSIT: organize a regular research seminar, encourage those working on their Ph.D. theses to report on their progress and encourage discussion and interaction. No deadline applies for these temporary positions, but the applications should be made early enough before the start of a new semester (semesters start in January and in August) to make the recruitment possible.

Benefits and requirements:

For the summer volunteers, UCC will provide housing and a stipend to cover local expenses; for long term visitors, UCC will provide a local salary and living facilities appropriate for a long stay. AWB-USF will cover the other

expenses, including the costs of visas, vaccinations, travel and health insurance, travel medications, ground transportation, and airfare.

The goal is that some of the students attending the courses will be able to find thesis topics at the end of the courses; AWB-USF will assist the Ph.D. candidates in finding supervisors (10 candidates are currently working with supervisors). If it can be arranged, the candidates will spend at least one semester at the supervisors' institutions. The doctorate will be granted by UCC, unless an arrangement can be made with a supervisor's institution that would allow a joint degree to be awarded.

Note also that the DCSIT has permanent positions. Requirements: Ph.D. with research activity. Please contact the department directly.

More information: Geña Hahn (Département d'informatique et de recherche opérationnelle – DIRO - University of Montréal) and Dominique Sotteau (formerly directeur de recherche, Centre national de la recherche scientifique (CNRS) in France and head of international relations, Institut national de recherche en informatique et automatique, INRIA) were AWB volunteers and spent almost three weeks at UCC in August 2010 working with DCSIT on the project outlined above. Since then, courses have been given each year by the following volunteers:

Xavier Goac and Yannick Toussaint, then both researchers at INRIA Nancy (summer 2011)

Laure Berti, researcher at IRD - Institut de recherche pour le développement (January 2012).

Jorg Liebeherr, Professor at the University of Toronto and Andrew Frank, Professor at the Technical University in Vienna (summer 2012)

Laurent Lemarchand, Maître de conférences at the Université de Bretagne occidentale (January 2013)

Simone Santini, Professor at the University of Madrid and Jean-Charles Lamirel, Maître de conférences at the Université de Strasbourg (summer 2013)

Elizabeth Quaglia, Post doc at INRIA (January 2014, plus the first term of 2014)

Eric Tanter, Professor at the University of Chile and Artur Lugmayr, Professor at Tampere University of Technology, Finland (summer 2014)

All of these former volunteers will be available to answer any of the questions that you might have. We will be pleased to put you in touch with them if you wish.

For more information about UCC and DCSIT, you can also contact directly Jojo Moses Eghan, the Head of the DCSIT: eghan_jm@yahoo.com / meghan@ucc.edu.gh

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Academics and other Ph.D.'s interested in positions in the summer 2015 positions should contact Corrie Young, the Institutional Manager for UCC, at AWB-USF, as soon as possible: cyoung@awb-usf.org. Please send your CV and a letter of motivation with the names of two referees, the periods when you are available, and a description of the courses which you are interested in teaching.

Academics or post-docs interested in a long term or permanent position should contact directly Jojo Moses Eghan, the Head of the DCSIT: eghan_jm@yahoo.com / meghan@ucc.edu.gh with a copy to dominique.sotteau@okofoto.com