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 **HOST INSTITUTION**

 **ACTIVITY REPORTING FORM**

 **FOR CDC VLP GRANTS PROGRAM**

***Deadline for completion:***

*four (4) weeks after the VLP Volunteer returns home from his/ her visit)*

Name, City and Country of Host Institution: KAMPALA INTERNATIONAL UNIVERSITY

GGABA ROAD, KANSANGA, PO BOX 20000, KAMPALA, UGANDA

Name of Host: ASSOCIATE PROF. BENJAMIN AINA PETER

Name of Volunteer: PROFESSOR OLABODE MATTHIAS BAMIGBOLA

The Host Institution activity report must be provided using the format described below. The maximum length of the report should be **5-pages**.

**Please note that at least six (6) pictures of the various activities should be included/ attached to this report.**

After consideration by CDC, the intention is that this activity report and pictures will be made publicly available on the CDC web site www.mathunion.org/cdc

1. **Major outcome / achievements (1-2 pages)**
* Including a summary statement (1-2 sentences) of major outcome

State how your institution benefited from the Volunteer’s visit, and a summary of any follow-on activities that were seeded by this project.

Sequel to the approval of our Application and funding for the running of an IMU-CDC Volunteer Lectures Program (VLP) in "Partial Differential Equations" from January 3 - February 3, 2020 at the Kampala International University, a concrete plan was put in place to ensure a successful organization of the program. As a result of some logistics problem, the VLP was rescheduled for February 10 - March 12, 2020.

The volunteer lecturer arrived Kampala in the early hours of 11 February, 2020 to the warm embrace of one of the Deputy Vice Chancellors in the host university. After settling down with accommodation and making brief courtesy calls on top-management officers of the host university, lectures commenced on the assigned course - MAT 7208 (Partial differential equations). An itinerary earlier communicated to the university through the host professor, was followed during the running of the VLP.

Because academic activities in the Semester had commenced for some weeks, lectures in the program were restricted to a 3-hour period on two days of the week. The synopsis of the course was arranged into four chapters. Softcopies of the lecture materials were made available to the students ahead of time to enable them concentrate on active participation in class activities. An interactive lecture approach was adopted for teaching the course in order to ease mastery of the concepts and terminologies and in order to entertain students' questions. Where necessary the learners were exposed to relevant prerequisites and background information. Students were taken through worked examples in each section, given exercises to practise in addition to assignments to undertake and submit for assessment. A test and an end-of- course examination were scheduled to take place toward the end of the semester. This arrangement will afford students ample time for revising the course materials without detracting them from their commitments to other ongoing academic activities in their programme.

The university community, was treated to an application of Mathematics by means of a talk entitled: "Optimization in the Electric Power System." The information about the talk was given a wide publicity, including online advertisement on the website of the host university, courtesy of the Research Directorate in the university. It is to be noted that the host university operates its main campus in Kampala, a campus in Ishaka, in the eastern part of Uganda, and the other in Tanzania. Some representatives from the Ishaka campus were expected to be at the seminar.

The major outcomes of the VLP, include awareness of the existence and activities of the IMU and

CDC in Kampala International University, opening up of opportunities for educational, social and academic interactions between members of the host university and the University of Ilorin. In this way, the VLP has been popularized in some developing countries in the East African region. Another achievement of the program is that it has helped to reinforce the teaching capacity of advanced mathematics in our university.

It is worthy to note that the volunteer lecturer had ample opportunity to interact with both students

and staff in the host university who are Nigerians as well as people from other countries including Ugandans.

Through the instrumentality of the public lecture given by the volunteer lecturer, practicability of the knowledge of mathematics to resolve modern-day challenges was demonstrated.

Academics from related areas enquired on how to make use of the results obtained by the presenter in his research works.

Furthermore, the roles the IMU and CDC play in helping to foster research and international cooperation between mathematicians in developing countries and the international community was stressed in the interview granted by the volunteer to the Public Relations Department in the host university.

The Department of Mathematics will be considering how to tap into the opportunity afforded by the visit of the volunteer, as an experienced academic, in the area of linkages, encouraging junior lecturers to step-up their training for the doctoral degree, and boosting capacity for research output.

Through the volunteer lecturer the department was opportune to make contacts with academics to beef-up the rank of potential external examiners.

For now, the host university can count on the support of the volunteer lecturer for some other institutional benefits.

1. **Value of the lecture and benefits to the students that participated in the lecture, the department of mathematics/ host institution, local and regional scientific community and other stakeholders (1/3 page)**

How did the department of mathematics and the community benefit from the visit?

The course taught by the volunteer is a core course in the M.Sc. Mathematics degree program here at the host university. Students appreciated the opportunity to have an experienced lecturer from a public university outside the shores of Uganda to teach such a course. The lecture materials are valued so much for their quality, where the relevant prerequisite details are provided in order to aid proper understanding of the topics. Students benefited from having the course materials in advance of the lecture periods, since they can to go through the materials, and easily identify areas needing further clarification.

The Department of Mathematics had an opportunity to interact with an experienced academic who inspired them by his commitment to teaching, research and community service. A number of our staff members and students have expressed willingness to partner with the volunteer on research collaboration.

The host university is thinking on the possibility of offering the volunteer lecturer some form of visiting appointment to forge some linkages for staff training and student mentoring. The seminar presented by the lecturer showcased the relevance of mathematical research to resolving challenges in the modern societies.

An awareness of the existence and activities of the IMU and the CDC were created during the visit of the volunteer, especially during the lecture, seminar and interview by the volunteer. This is the first time such a program, under the aegis of IMU-CDC, will be held in Uganda.

1. **Planned Follow up activities and future plans and implications (1/2 page)**

It is no exaggeration to state that the Volunteer Lecturer Program implemented during the visit of Professor Olabode Matthias Bamigbola to our university, was a huge success. University administrators, faculty staff, students and community members of the host university, were aware

of his presence and activities in terms of the course he taught, the research talk he gave, and the interview he granted.

As part of the planned follow up activities, the university would be interested in maintaining close contact with the volunteer lecturer and may be willing to offer him some form of visiting appointment to forge some linkages for staff training and student mentoring.

As for future plans, the university is interested in continuing to participate in the IMU-CDC Volunteer Lecturer Program, not only as recipient but as sponsor of visiting lecturer. It is our desire also to encourage research collaboration and mentoring between our faculty and students and the IMU-CDC volunteers.

1. **What should/ could be done to sustain the results of the Volunteer’s visit and his/ her activities and the CDC Volunteer Lecturer Program?**

The improvement of standard of mathematics education in developing countries by leveraging on the cooperation of the international mathematical community has been a cardinal goal of the Volunteer Lecturer Program. Thankfully, this goal has been achieved through the activities embarked upon by volunteer lecturer during his visit at our university.

To sustain the results of the volunteer's visit, the university is considering maintaining close contact for mutual benefits.

To maintain the CDC Volunteer Lecturer Program, the host university published some activities of the VLP on her website, and with these the Department of Mathematics intends to continue to sensitize, broadcast and spread the good tidings of our experience among our contacts in the East African region.

It is our humble suggestions that an advert be packaged for presentation at every IMU-backed mathematical gathering (such as conferences, workshops, symposium, etc) in developing countries to showcase VLP activities in the recent past to participants at such meeting.

1. **Please rate to which extend were the following objectives of the VLP achieved:**
2. Strengthen appreciation and understanding of mathematics, particularly at the postgraduate level, by utilising the expertise of the Volunteer.

(✓) Very much ( ) A little bit ( ) Not very much ( ) Not at all

1. Encourage collaboration in research.

(✓) Very much ( ) A little bit ( ) Not very much ( ) Not at all

1. **Please let us know the following:**
2. Was the course taught by the volunteer?

|  |  |  |
| --- | --- | --- |
| …an intensive 3-4-week course in mathematics for students of a mathematics degree?  | Yes**Yes** | NO |
| …an integral component of a **regular mathematics degree program** at the host university? Yes  |  **Yes** |  |
| … include examinations? | **Yes** |  |

1. How many students participated in the course? \_\_15\_\_\_\_\_\_
2. Did the**local mathematics professor:**

|  |  |  |
| --- | --- | --- |
| …Schedule the course and help the volunteer lecturer in preparing the course syllabus and assists when necessary during the course? | Yes**Yes** | NO |
| …Coordinate living arrangements and local transportation for the volunteer lecturer? | **Yes** |  |
| …Prepare the students for the course beforehand? | **Yes** |  |
| …. Help with student mentoring and assessment and take care of any necessary follow up? | **Yes** |  |

1. **Do you have any other comment?**

Our university wishes to thank the IMU-CDC for approval of our application and proposed budget.

**Thank you very much for your help and cooperation!**

Date: 08/10/2020 Signature

Position in Host Institution: Head of Department