



CALL FOR APPLICATIONS

CDC-IMU Project on, **“Enhancing Quality and Internationalization of Mathematics Doctoral Supervision”**

Background

Moi University and University of Nairobi in collaboration with experts from Technical University of Munich, Germany are jointly organizing a training course on **“Enhancing Quality and Internationalization of Mathematics Doctoral Supervision”**. This intensive training course is part of the CDC-IMU programmes for promoting research in mathematics and mathematics education. The aim of the CDC-IMU programmes is to strengthen mathematics research and mathematics education in developing countries.

There has been a great need for capacity building in most of Sub-Sahara African universities due to low numbers of faculty with PhD qualifications. As a result, most of the universities and a number of governments have embarked on initiatives to increase the number of doctoral graduates in their universities. Of greatest concern is the high number of faculty across many universities without PhD qualification in Mathematics. By embarking on massification of doctoral training of mathematics students without paying attention to the quality of doctoral supervision is akin to factory churning out defective products and expecting the consumers to be satisfied with utilization. In most of the countries world over, once a faculty attains PhD qualification, they are expected to be supervisors of postgraduate students enrolled in their department. The faculty undergoes no any other training to enable them become effective and efficient supervisors. It implies, therefore, that the only skills most of the faculty are using to supervise doctoral students are either those techniques they learnt from their doctoral supervisors when they were doctoral students or their experience in engaging with their former doctoral students. With the advent of other forms of doctoral trainings like professional doctorates, which are very applicable in so many fields of mathematics, the mathematics faculty need to be trained on how to supervise doctoral students for such qualifications. In addition, doctoral supervisors in mathematics departments also require skills in designing of doctoral supervision contracts, evaluation of different doctoral supervision models and styles.

There are a number of doctoral supervision models that a mathematics doctoral supervisor can apply depending on university policies, funding models in the university, number of doctoral students to be supervised and the faculty available to offer supervisory services in the department. These are: dyadic, Team/Co-supervision and Cohort Supervision/Community Supervision.

Due to challenges experienced by many Kenyan and also African universities, especially with limited human resource in terms of expertise in various mathematical fields in addition to university policies governing doctoral supervision, the co-supervision model has been favoured over the others. However, research has shown that other models might prove effective, efficient and cost-effective in the current situation of COVID-19 pandemic. Intertwined with doctoral supervision models are the supervisor’s management styles. These are namely; Laissez-Faire, Pastoral, Contractual and Directional. Depending on



the knowledge entry level of the candidate and the personality of the supervisor and supervisee, the supervisor may decide on which management style to apply. The training workshop is therefore designed to analyze the supervision models viz-a-viz the supervisor’s management styles in addition to internationalization of the doctoral supervision process.

Aim and objectives

This workshop aims to train Kenyan universities mathematics’ faculty on best methods of supervising doctoral students and the need to internationalize the supervision process.

The objectives of this training are to train participants on:

- Doctoral supervision models and management styles,
- Strategies of internationalizing doctoral supervision process in Kenyan Universities.
- Mentor participants on projects, which positively transform doctoral supervision of mathematics students in their universities.

Expected Outcome

By the end of the training, the participants should be able to:

- Apply different doctoral supervision models and styles that suits their situation for effective and efficient training of mathematics doctoral students
- Develop a network of international mathematicians who shall assist in co-supervision of his/her mathematics doctoral students
- Design and implement a transformative doctoral supervision project in their departments

Programme Contents and Methodology

The Table below provides an overview of the training.

DATE	PHASE	VENUE	TRAINING THEMES
2 nd – 4 th November 2022	I (Face-to-Face)	Moi University, Eldoret	<ul style="list-style-type: none"> • Demand for Mathematics Doctoral Qualifications • Innovative Doctoral Training • Doctoral Supervision Models, • Supervision Management Styles, • Internationalizing Doctoral Supervision Process, • Transforming Doctoral Supervision in Mathematics Departments
7 th , 14 th , 21 st 28 th April 2023	II Virtual Training	online	<ul style="list-style-type: none"> • Projects’ progress presentations by participants.



Participants' Responsibilities

- Participants must commit to attending all phases of training and participating actively in what is a collegial sharing of experiences.
- Participants shall be required to design, plan and implement projects in their institutions, which shall bring the desired transformative changed.
- Participants shall also be required to periodically submit implementation progress reports and consult with their mentors on any arising issues from time to time.

Requirements

- Applicants must be mathematics faculty with a doctorate qualification in Mathematics related field and affiliated to Higher Learning institution in Kenya.
- The selected participants shall be required to take part in all the two workshops and report regularly on their individual transformative projects as the workshops are interconnected.
- Commitment to attend the two workshops, develop and implement transformative project in one of the modules offered during Phase I of the training shall be a requirement.
- Female applicants who meet the above requirements are strongly encouraged to apply.

The application documents should include:

- Filling-in the online Application form (*See the **Application Procedure** below*)
- Curriculum Vitae (Not more than one (1) page) clearly stating your academic biography.
- One-page letter of motivation indicating why you would like to attend the training, your academic and professional goals for participation in the training.
- A two-page concept paper for the transformative project you plan to implement in your department. The topic of your project must be linked to one of the thematic areas of the training (Doctoral supervision model, Supervisor management styles, Doctoral thesis writing styles, Internationalizing doctoral supervision process).
- Copy of your PhD certificate.
- Support letter from your Chair of Department.

Application Procedure

Interested applicants shall be expected to apply online via the following link <https://forms.gle/U2wrYRLR3Y2dWuLd6> and fill in the application form, upload all the requirements and submit before 30th August 2022 by 5.00 PM EAT.

Selection Procedure

The selection shall be based on merit. The selection process shall be considered by applicant's motivation letter, viability and significance of the proposed transformative project, regional and gender balance.



Funding

Successful applicants shall be provided with meals, accommodation, training materials during face-to-face training and reimbursement of transport costs determined by the distance from participants' workstation to the training venue. The funding is courtesy of the CDC-IMU grant.

Important Dates:

Opening of the Call:	3 rd August 2022
Close of the Call:	30 th August 2022 by 5.00 PM EAT.
Feedback on Selection Outcome:	15 th September 2022
Phase I Workshop (Face-to-Face):	2 nd – 4 th November 2022
Phase II (Virtual Workshop):	7 th , 14 th , 21 st & 28 th April 2023

Contacts

Should you need any clarification, do not hesitate to send an email to Workshop Secretariat through cdcimukeny@mu.ac.ke. The email should be copied to foluoch2000@yahoo.com