

Workshop Training on New Tools for Scientific Data Collection, Data Analytics and Quality Report Writing



DAAD

Deutscher Akademischer Austauschdienst
German Academic Exchange Service



Preliminary Information



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More than 40 years supporting excellence

In September 1973 the German Academic Exchange Service (DAAD) opened a small adjunct office in Nairobi, where it began steering the new In-Country scholarship program for Sub-Saharan Africa. By 1979 the small office had grown into the fully fledged DAAD Regional Office for Africa, providing information about the DAAD's full range of academic programs. Having navigated its way through the politically difficult 1980s, the office saw the onset of democracy in Kenya in the 1990s, with universities and DAAD alumni playing decisive roles. The founding of new universities in many Eastern African countries marked the past decade. The DAAD, the Inter-University Council of East Africa (IUCEA) and the German Rectors' Conference (HRK) developed a region-wide quality assurance system in a collaborative effort. Since 1973 more than 5,753 individual scholarship holders have been funded. In 2017, DAAD support in Kenya amounted to 1.076 scholarships either as individual support or through funded study programs. Next to scholarships, the promotion of collaborative projects of German Universities with their partner institutions abroad is a major mission of the DAAD. Curriculum development, staff training, addressing the sustainable development goals in teaching and research, linking universities and industry – these are just some of the issues addressed by University co-operation between Germany and East –Africa. Three DAAD-Supported Centers of Excellence have been founded in East Africa, covering International Law (University of Dar es Salaam), Education (Moi University Kenya) and Mining (Taita Taveta University Kenya). The DAAD has been funding German Studies in Eastern Africa for more than four decades. It all started with the German program at the Makerere University in Uganda, which was introduced in the 1970s. This was followed by the establishment of a German program at the University of Nairobi in 1981. Of late, several Eastern African universities have started offering German as an elective. German as a foreign language (DAF) is offered by seven universities in Kenya: University of Nairobi, Kenyatta University, Moi University in Eldoret, Strathmore University, Pwani University in Kilifi and Karatina University.



Kenya DAAD Scholars Association (KDSA), is an association of the Kenyan DAAD alumni or Kenyan's who have studied in Germany for three or more months sponsored by other German organisations not necessarily DAAD. The association was formed in early seventies with few members but has seen its membership grow significantly. Most of the founder members occupy top positions either in the

public or private sectors. Some are even Vice Chancellors of public universities. The association is run by a National Executive Committee (NEC) and has various chapters country wide especially in the Universities. As the common practice in every association worldwide, membership is through registration and annual subscription.

The main mandate of KDSA is to foster academic networking through organisation of various academic activities such as training workshops, international conferences (annual) and dissemination of key academic activities in other areas.

Association Events

- **Annual International conference:** KDSA organises annual international conferences. These conferences have particular themes and subthemes. Local chapters in collaboration with the NEC office usually host the conferences. Local chapters usually write proposals, identify sponsors, select and invite keynote speakers.
- **Academic Workshops:** Workshops are organised by various chapters on various topical issues. Members of the chapters design proposals and apply for funding through DAAD Alumni activities programme. Sometimes, university management provide financial assistance though not 100%.
- **Mentoring of young scholars:** Established DAAD alumni scholars mentor the young scholars through academic supervision and guidance. Networking is also another method used in mentoring young scholars.
- **Offering Career talks:** Members of KDSA are normally engaged in community service among them offering career talks to high school students.



Moi University is a public University established in 1984 by an act of Kenyan Parliament after recommendation by McKay Commission. The University is located in the Uasin Gishu County in the North Rift region of Kenya about 320 km in the North West of Nairobi. The university was established to address emerging issues in Science, Technology, Engineering and Mathematics (STEM). Other programmes were later introduced into the academic programmes of the University. Currently, the university has fifteen (15) Academic Schools. All these schools offer both undergraduate and postgraduate programmes that are accredited by Kenyan Commission of University Education. Moi University alumni have continued to shine in academia as well as in the job market since many innovations in technology have been associated with the University's graduates. Besides, the university runs a number of funded projects like Africa Centre of Excellence (ACEII-PTRE), CER-MESA, Laptop project, among others. In the academic year 2019/2020, the University won five (5) In-Country/ In-Region DAAD Scholarships for PhD in Pure Mathematics tenable at Moi University. This scholarship will run for three (3) years.

PROGRAMME

DAY ONE: THURSDAY 9TH MAY 2019

0830-0900 Hrs

Registration

(Secretariat)

Chair: Prof. C. J. Odhiambo, Rapporteur: Dr. Simon Nganga

0900-0920 Hrs

Opening Ceremony

Chair Organising Committee (Dr. Fredrick Nyamwala)

Representative of DAAD (Ms. Miriam Pahl)

Vice Chancellor, Moi University (Prof. Isaac Kosgey)

0920-1000 Hrs

How formulated Research Problem Affects Selection of New Tools for Data Collection and Analytics

Prof. Florence Indede

(Maseno University & KDSA Chair)

1000-1020 Hrs

Discussions

Discussants: Dr. Okello Benard, Dr. Judith Makwali, Dr. Evans Mecha

1020-1050 Hrs

What are the Research Ethics to be Observed while Collecting Data?

Dr. Huxley Makonde

(Technical University of Mombasa, TUM)

1050-1120 Hrs

Tea Break and Photo Session

(Secretariat)

Chair: Dr. Benson Ojwang, Rapporteur: Dr. Pascaline Jeruto

1120-1150 Hrs

Quality of Data Analysis I: A University Examiner's Perspective

Dr. Sarah Akello

(Makerere University, Uganda)

1150-1210 Hrs

Discussion

Discussants: Prof. C.J. Odhiambo, Dr. Pamela Oloo, Dr. Nickson Ajwang

1210-1240 Hrs

Quality of Data Analysis II: A Manuscript Reviewer's Perspective

Dr. Nelson Onyango

(University of Nairobi)

1240-1310 Hrs

How to Write Quality Statistical Reports for University Thesis or Manuscript for Publication

Dr. James Musyoka

(Maseno University)

1310-1330 Hrs

Discussion

Discussants: Prof. Moses Ngeiywa, Dr. Louise Ngugi & Ms. Florence Ajiambo

1330-1420 Hrs

Lunch Break

1420-1600 Hrs

Group Sessions

Designing Quality Data Collection Tools and Collecting Data Based on New Data Collection Methods

Group A (Arts, Social Sciences and Humanities)

Prof. Omar Egesa

(Moi University)

Group B (Natural Sciences, Mathematics, Engineering & Technology)

Prof. Godfrey Netondo

(Maseno University)

1600-1620 Hrs

Health Break

1620-1720 Hrs

Group Sessions Continue

1720-1730 Hrs

Briefs from the Groups & Announcement

1830-2030 Hrs

Cocktail

DAY TWO: FRIDAY 10TH MAY 2019

0830-0900 Hrs

Registration

(Secretariat)

Group Sessions

Electronic Data Collection Methods, New Methods of Data Analysis using R-Software and Other New statistical Software

Day Two groups are three based on three different research fields: Natural Sciences, Social Sciences & Humanities and Mathematics, Physics, IT & Engineering. They are facilitated by three different statisticians and different from Day One groups.

0900- 1030 Hrs

Group 1 (Natural Sciences)

Dr. James Musyoka

(Maseno University)

Group 2 (Arts, Social Sciences and Humanities)

Dr. Mathew Kosgei

(Moi University)

Group 3 (Mathematics, Physics, IT & Engineering)

Dr. Nelson Onyango
(University of Nairobi)

1030-1100 Hrs

Tea Break

Group Sessions Continue

1100-1245 Hrs

Group 1, Group 2 & Group 3

1245-1345 Hrs

Lunch Break

1345-1545 Hrs

Group Sessions Continue

Group 1, Group 2 & Group 3

Closing Ceremony

1545-1600 Hrs

Brief from the training Sessions

Closing Prof. C. J. Odhiambo (Dean, SGS)

FACILITATORS PROFILES

Prof. Florence Ngesa Indede

(Maseno University)



**Chairperson, Kenya (German Academic Exchange) DAAD
Scholars Association (KDSA)**

H.O.D Kiswahili Department and Other African Languages. Maseno University -Kenya

Academic Achievements: Associate Professor- Kiswahili Studies - Maseno University. Holds a PhD degree in Kiswahili Studies from Maseno University, which benefited from a DAAD scholarship studies at Bayreuth University – Germany; a Masters Degree in Kiswahili Studies and a Bachelor of Education degree from The University of Nairobi- Kenya. An active participant in Dialogue for Innovative Higher Education Strategies (DIES) programs since 2003 when she underwent University Staff Development (UNISTAFF) training in Germany, and the International Deans Course (IDC) (2013/2014) in Germany and Africa. Together in a team of four, won the DIES National Multiplication Training (NMT) grant 2017-2018 to train deans and directors on quality leadership and management in higher education in Kenya. Together in a team of Four, initiated the Building Stronger University (BSU) Project that later draw partners from Maseno University-Kenya, Gulu University (Uganda), Tribuhuvan University- Nepal and Denmark Universities. Prof Indede has successfully organised and participated in both local and international seminars, workshops and conferences. Successfully supervised and graduated several Masters and Five PhD candidates.

Research Project Leadership: The Coordinator of a collaborative project between School of Arts and Social Sciences (SASS) Maseno University and The School of Humanities Linnaeus University –Sweden from 2011-2018. Currently the Coordinator of Collaboration and Partnership between Maseno University – Kenya and Linnaeus University – Sweden. The Chief Editor *Globe Journal* special issue a product of a collaborative project on Building Stronger Universities (BSU) Maseno University and Denmark Universities. Coordinator Bayreuth International Alumni Network Eastern Africa since 2012.

Prof. Omar Egesa



Prof. Omar Egesah is an Associate Professor of Anthropology and Head of the Department of Anthropology and Human Ecology at Moi University, Kenya. He has coordinated the DIES HRK DAAD sponsored UNITRACE and UNITRACE 2.0 Project focusing

on Graduate Tracer Studies and co-trained more than twenty university academics and managers in GTS from East African Universities. Presently, he coordinates the EU funded AMAS Project for Intra-Africa Academic Mobility targeting postgraduates and staff from diverse and more partnership Universities in Africa. Prof. Omar Egesah has a PhD in (Medical) Anthropology from Moi University, MA and BA Anthropology from the University of Nairobi (Kenya). He is well published with over 30 scientific publications and over 30 research and consultancy engagements in Kenya and Africa. His research interest is culture and reproductive health. He has supervised PhD, MA, MSc and MPH work extensively for Moi University, University of Nairobi, Kenyatta University, Maseno and Kisii Universities. Prof. Omar Egesah is the President of the East Africa Graduate Tracer Study Network (EAGTSN).

Dr. Sarah Akello



On receiving her PhD in Agricultural and Rural Innovations from Makerere University Kampala, **Sarah Akello** is now Lecturer at the Department of Extension and Innovation studies, the College of Environmental Sciences, Makerere. She is a Post Doc fellow supervising 4 MSc. and 3 PhD students on climate science.

Her focus is on building ecosystem resilience in the face of effects of climate variability. She has examined over 25 Post graduate Thesis in Uganda Martyrs University, Nkozi only, as well as from MAK. She has published 4 Papers in peer reviewed journals as first author.

Prof. Godfrey Wafula Netondo



Prof. Godfrey W. Netondo graduated from the University of Nairobi with a BSc in Botany and Zoology(1988) and a Masters in Botany (1992). He graduated with PhD in Botany at Maseno University in 2001, in first graduation when Maseno became a full fledged university. The masters degree was supported by the German Academic Exchange Service (DAAD)/University of Nairobi staff development scholarship while PhD was funded by DAAD scholarship. In 2002 he received a six months DAAD post-doc research scholarship tenured at the department of Plant Cell Physiology, University of Giessen, Germany where he worked in the lab of Prof. Aart van Bel. His first employment was as a Fisheries Officer in the then Ministry of Regional Development, a stint that lasted six months (June-December, 1991). Thereafter he joined the department of Botany of the then Maseno University College at the level of Tutorial Fellow and rose through the ranks of Lecturer, Senior Lecturer, Associate Professor and Professor in 2013. He has held various administrative positions including examination and timetable coordinator, Departmental Postgraduate committee Chairman, Chairman of Department and dean. He also served as Deputy Vice Chancellor, Academic and student Affairs in acting capacity. Prof. Netondo is a member of Kenya DAAD Scholars Association (KDSA) and has held the position of Secretary, KDSA, Maseno Chapter. His research interests are in the broad theme of environmental plant stress physiology. He also has a special interest in agro-biodiversity conservation and ecosystem services nexus. To date, he has published more than 30-refereed scientific papers. Prof. Netondo has supervised 13 masters and 5 PhD students to completion. He has also served as examiner of more than twenty theses. He has also served as external examiner for various universities in Kenya, for both undergraduate and postgraduate coursework.

Dr. Huxley Makonde



Dr. Huxley Mae Makonde is a Senior Lecturer and the chairman of the Department of Pure and Applied Sciences, Faculty of Applied and Health Sciences at the Technical University of Mombasa. He is a member of the TUM Ethical Review Committee (ERC) and an IFBA Global Mentor. Dr. Makonde studied at the Jomo Kenyatta University of Agriculture and Technology (JKUAT) for his bachelor degree in Biochemistry, Institute for Biotechnology Research (JKUAT) for his Master degree in Biotechnology through the RUFORUM Scholarship program. He benefitted from DAAD PhD scholarship for his PhD Level (from JKUAT) in collaboration with the Leibniz—Institute DSMZ (German Collection of Microorganisms and Cell Cultures) and the Technische Universität Braunschweig, Germany. Dr. Makonde ambition is to be an eminent scientist, aiming at exploiting the African huge biodiversity and consequently contributing positively and immensely in the scientific field, thereby, improving the quality of life in Africa and Worldwide. Currently, he is active in collaborative research projects funded by the Bundesanstalt für Landwirtschaft

und Ernährung' (**BLE**) Germany, National Research Fund (**NRF**) and the International Foundation for Science (**IFS**).

His research focus areas include Metagenomics, Metatranscriptomics, microbial/insects/animals/plants mutualisms, Risk assessment of transgenic crops, Bio-prospecting of bioactive compounds from diverse habitats for industrial applications and bioremediation, Isolation and characterization of natural products from rare macrofungi, Studies on Marine biodiversity and Mangrove forest ecosystem. Dr. Makonde has supervised a number of postgraduate students and published widely in his research areas. He is the current Committee member of the Kenya DAAD Scholars Association (KDSA).

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Dr. Mathew Kosgei



Dr. Mathew Kosgei is a Senior Lecturer at the Department of Statistics & Computer Science, School of Biological & Physical Sciences, Moi University Kenya. Dr. Kosgei has Doctor of Philosophy, (DPhil.) in Mathematics (Biostatistics), MSc in Biostatistics in addition to Bachelor's degree, BSc from Moi University (Kenya). He also has a Postgraduate Certificate in Academic Practice (PCAP) from St. John, York University (UK-DL) where he got a recognition as a Fellow of Higher Education. Previously, he served as Examinations Coordinator, Lecturer and Tutorial Fellow in the Department of Mathematics & Computer Science at the University of Eldoret. His research interests are in Response Surface Methodology, Optimal Designs, Epidemiological Modelling and Structural Equation Modelling. He has supervised a number of postgraduate students. Dr. Kosgei is currently the Associate Dean, School of Biological & Physical Sciences and he is a member of various Committees of the University.

Dr. Nelson Onyango



Dr. Nelson has a PhD in Biostatistics from the Technical University of Munich, Germany, a Master of Science degree (Biostatistics) and Bachelor's degree in Education from the University of Nairobi. He has over 14 years teaching experience in biostatistics at the University of Nairobi, Kenya. Besides, he conducts research and manages grant projects. His research interests are in

Mathematical Epidemiology, where he has published most of his articles, and medical statistics (particularly survival data analysis). He has supervised close to 20 Masters Students and currently supervising about 3 PhD students in Biostatistics. He is an external examiner for Biostatistics courses and Thesis at both the Jomo Kenyatta University of Agriculture and Technology – Nairobi, and the University of Dar Es Salaam, Tanzania.

His research projects experience includes the following:

[1.] He is part of a Consortium of African Universities that is promoting Training in Biostatistics through a Wellcome Trust Funded Project named DELTAS SSACAB. Besides, he is also part of the Belgium VLIR funded grant project for promoting Biostatistics in Kenya.

[2.] He has been participating as a UNITED NATIONS consultant in a number of projects including the Global Strategy for Improving Agricultural and Rural Statistics, a project of the United Nations Economic Commission for Africa (UNECA). In this project, he participated in training country statisticians in three main areas of agricultural statistics including Master Sampling Frames for Agricultural Research, Computer Assisted Personal Interviewing and Remote Sensing for Agricultural Data Collection and Estimation of Nomadic Livestock Population.

[3.] Dr. Onyango also participated as a statistician in a Pilot Project on the Use of Mobile Technologies for Data Collection in Kenya for the United Nations Economic Commission for Africa (UNECA) in partnership with the Kenya National Bureau of Statistics and School of Mathematics (SOM), University of Nairobi. Besides, he also participated as the Statistician in the Pilot Project on Global Fuel Economy Initiative (GFEI) for the Energy Regulation Commission of Kenya (ERC) and United Nations Environmental Program (UNEP).

He is currently serving in the Technical Committee of the National AIDS Control Council as a Statistician and Evaluation expert on the UNAIDS Global AIDS Monitoring project. He has interests in other statistics application areas such as Monitoring and Evaluation, Mixed Methods research, Systematic Review and Meta-Analysis. He has been involved in trainings, Baseline/End-line surveys jointly with Prof. Hesborn Wao of the University of Florida - USA and other colleagues from Measure Evaluation and Africa Capacity Alliance.

Dr. James Kaleli Musyoka



James is a statistician currently working as a lecturer in the department of Statistics and Actuarial Science at Maseno University. He is passionate about data, effective statistics training and the possibilities of generating information for evidence-based decision making for society. He has over 8-years' experience in both statistics teaching/training and statistics practice. He possesses strong skills in designing studies, data collection especially using mobile applications, data entry and manipulation and data analysis using R and Python among other statistical software. He also has strong communication skills for data interpretation and presentation. James has keen eye for detail and always ensures that work is completed on time and to a high standard.