

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: DOROTHY KABAGAJU OKELLO

eRA COMMONS USER NAME (credential, e.g., agency login):

PROPOSED POSITION: DIRECTOR INNOVATIONS

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
Makerere University, Kampala, Uganda	BSc	03/1992	Engineering
University of Kansas, Lawrence, Kansas, USA	MSc	08/1995	Electrical Engineering
McGill University, Montreal, Canada	PhD	06/2004	Electrical Engineering

A. Personal Statement

Eng. Dr. Dorothy Okello is a Senior Lecturer with the Department of Electrical and Computer Engineering at the College of Engineering, Design, Art and Technology (CEDAT) - Makerere University, Kampala, Uganda; and a Researcher with netLabs!UG, a research centre within the Department whose model is to strive for a balanced critical mass of basic research, applied research, innovation and commercialisation in the area of telecommunications and networking. netLabs!UG evolved from the Community Wireless Resource Centre (CWRC) that Dr. Okello established at the Department in June 2006 with support from International Development Research Centre (IDRC) and technical input from Swedish-based IT +46. In addition, Dr. Okello is Director of Innovation at ResilientAfrica Network (RAN) hosted by Makerere University School of Public Health. Supported by USAID, RAN is a partnership of Sub-Saharan African universities that seeks to identify, develop and scale innovative solutions that will strengthen the resilience of African communities afflicted by natural as well as man-made shocks and stresses by applying science, technology, innovation and partnerships, and using evidence-based approaches. Dr. Okello is a member of the Uganda Institution of Professional Engineers (UIPE) where she is the Immediate Past President 2016-2018, and is duly registered with the Uganda Engineers Registration Board (ERB). She is also a member of the Institute of Electrical and Electronics Engineers (IEEE), and serves on the 2018 IEEE Ad Hoc Committee on Activities in Africa (AHCAA). The AHCAA’s charter is to enhance IEEE’s engagement in Africa in support of advancing technology for humanity.

Dr. Okello's research interests include smart infrastructure, affordable and inclusive telecommunication solutions, and resilience innovation. In addition to the experience gained as Director of Innovation with ResilientAfrica Network (RAN), Dr. Okello has gained experience from the following programs:

- Co-Principal Investigator, “Radio Resource Management”, supported by the Presidential Initiative Grant to College of Engineering, Design, Art and Technology (CEDAT).
- Principal Investigator, “Adaptive Bandwidth Management in Cooperative Wireless Networks: Affordable and equitable access to the Internet”, supported by the Millennium Science Initiative (MSI) managed by the Uganda National Council Science and Technology (UNCST).
- Associate Researcher, “Examining the Impact of Public Access to ICTs”, supported by the Presidential Initiative Grant to College of Engineering, Design, Art and Technology (CEDAT), and conducted in collaboration with Kabale University, Uganda.
- Team Leader, “Setting up and studying community-owned information networks to benefit poor and rural African people”, supported by the Wireless Africa Initiative.
- Team Leader, “Affordable internet connectivity for rural communities through the use of community wireless networks”, supported by the International Development Research Centre (IDRC).

B. Positions and Honors

- Teaching Assistant, Department of Electrical Engineering, Faculty of Technology, Makerere University (1992 - 1993)
- Recipient, Fulbright Scholarship to embark on MSc. in Electrical Engineering at University of Kansas (1993 - 1995)
- Systems Engineer, AT&T, Holmdel, New Jersey, United States (1995 - 1997)
- Lecturer, Department of Electrical and Computer Engineering, School of Engineering, College of Engineering, Design, Art and Technology (CEDAT), Makerere University (1997 - 2013)
- Recipient, Canadian Commonwealth Scholarship to embark on PhD in Electrical Engineering at McGill University (1998 - 2004)
- Senior Lecturer, Department of Electrical and Computer Engineering, School of Engineering, College of Engineering, Design, Art and Technology (CEDAT), Makerere University (2013 - present)
- Director, Eastern Africa RILab, ResilientAfrica Network (RAN), Makerere University (2014 - 2015)
- Director of Innovation, ResilientAfrica Network (RAN), Makerere University (2015 - present)

C. Contributions to Science

Some of Dr. Okello's publications are listed below:

I. Publications focused on telecommunications and networking

- O'Briain, D., Denieffe, D., Kavanagh, Y., and **Okello, D.** (2017) *Elastic everything – What of the developing world?*, IST Africa 2017, May 2017.
- O'Briain, D., Denieffe, D., Kavanagh, Y., and **Okello, D.** (2016) *The move to a software defined future and the implication for Uganda*, National Conference on Communications (NCC), Mbarara, Uganda, September 2016.
- **Okello, D.**, Wasswa, W., Mukasa, P., Ssebaale, D., and Kagarura, M.G. (2015) *eInfrastructure: Next Generation Wireless Broadband Networks for Uganda 2020*, IST-Africa'15, May 2015.
- **Okello, D.K.**, Niyonshuti, M., Lukoye, M.N., Mugume, E. (2014) *Green Communications: Large vs Small Cell Deployment*, Proceedings of 6th international Conference on e-infrastructure and e-services for Developing Countries (AFRICOMM) 2014, Kampala, Uganda, 24th-25th November 2014.
- Kagarura, G.M., **Okello, D.K.**, and Akol, R.N. (2013) *Evaluation of Spectrum Occupancy: A Case for Cognitive Radio in Uganda*, Proceedings of the IEEE Ninth International Conference on Mobile Ad-hoc and Sensor Networks (MSN), pp. 167-174.
- Ndiritu, H., Kagimba, D., Akol, R., and **Okello, D.** *Design of an Early Warning System for Floods using GSM Technologies suitable for Uganda*. Accepted for publication at AFRICOMM '11, November 2011.
- Mwesiga, P., **Okello, D.**, and Butime, J. (2009) *Low Cost Broadband Access and Infrastructure: The CWRC Experience*. Accepted for publication at AFRICOMM '09, December 2009.

II. Publications involving multi-disciplinary research

- Opolot, H. N., Isubikalulu, P., Obaa, B., Ebanyat, P., **Okello, D.**, and Mirembe, D. (2017) *The benefits and challenges of using ICTs to strengthen university-farming community engagement in Uganda*, *African Journal of Rural Development*, [S.l.], v. 2, n. 1, p. 41-53, Mar. 2017. ISSN 2415-2838.
- Mayega, R. W., Bazeyo, W., Atuyambe, L., **Okello, D.**, Ssentongo, J., Tumuhamy, N., and Fishkin, J. (2014) *From Response to Resilience Building from Response to Resilience building through a human centred approach: A Case study from Elgon Region*, Proceedings of the 10th Joint Annual Health Conference (JASH) Conference of Makerere University College of Health Sciences – Innovations towards attaining Vision 2040 Health Goals: Where are we, how do we get there, September 2014
- Madanda A., **Okello D.**, and Bantebya-Kyomuhendo, G. (2009) *A Gender Critique of Uganda's Rural ICT Access Policy: Opportunities and Challenges*. *International Journal of Computing and ICT Research*, Special Issue, Vol. 3, No.1, October 2009, pp. 42-52.

D. Additional Information: Research Support and/or Scholastic Performance

Dr. Okello is currently the Director for Innovation at ResilientAfrica Network (RAN) where she is responsible for innovation projects development and management across the Sub-Saharan Africa network as well as for further development of MKITS (short videos, graphics, photos) as key strategy for information dissemination and capacity building.