

# Dr. Daniel Orwa Ochieng

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## Profile

Experienced Computer Science Lecturer, Researcher and ICT consultant with 13 Years experience at University Level Teaching at both Undergraduate and Postgraduate level. Involved in several ICT consultancy activities within and outside the University.

## Education

- PhD in information systems  
Research Title: User-Centric ICT Adoption Model for Rural Farming Communities in Kenya
- Advanced Certificate in Project Management, United Nations University (2000)
- Msc (Computer Science and Applications, Shanghai University, China (1996)
- Bsc (Hons, Science), University of Nairobi, Faculty of Science (1990)

## Membership of Professional Bodies, Societies, firms

- Member, Association of Computing Machinery (ACM), [www.acm.org](http://www.acm.org)
- Member, Kenya Bureau of Standards (KEBS) Technical Committee on Health Informatics, [www.kebs.go.ke](http://www.kebs.go.ke)
- Professional Member, Computer Society of Kenya (CSK), [www.csk.co.ke](http://www.csk.co.ke)
- Member, University of Nairobi Alumni Association, [www.uonbi.ac.ke](http://www.uonbi.ac.ke)
- International Federation of Information Processing (IFIP), [www.ifip.org](http://www.ifip.org) , technical committee on HCI ( tc13) and country ( Kenya) representative
- Member, Mobile Phones for Development (M4D), a research network for mobile phone development projects in agriculture
- Member, Human Computer Interaction for Development (HCI4D)
- Member, Village eScience for Life, [www.veselproject.net](http://www.veselproject.net) and [www.veselkenya.org](http://www.veselkenya.org) -a research consortium [between university of Nairobi Kenya and seven universities in United Kingdom involved with leveraging technologies to rural farming communities in Kenya](#)
- Founder Member – Mobile Phone Research Africa -a network for mobile phone research in Africa
- Principal Partner Orb Technologies Limited

- Director Oakridge Business Systems Kenya- IT Solutions Company, part of OBS India
- Founding Member, Kenya Health Informatics Association ( newly formed) to champion health informatics issues in Kenya

## **Career History**

### **University of Nairobi, School of Computing and Informatics- 1996 to Date, Lecturer**

- Conducting Lectures, Labs, Examinations and tutorials to undergraduate and postgraduate students.
- Consistently got 90% and above student evaluation for the last three years
- Class tutor for third year class
- Curriculum development and review
- ICT consultancy for various organizations under UNES, the enterprise arm of the university of Nairobi
- Conducts seminars and workshops for students and staff
- Undertakes student project crafting and supervision, one of which one the IEEE Kenya chapter prize for best innovation in 2007
- Researcher in User experience and currently a final year PhD student
- Member , on-going University of Nairobi- Stanford University Liberation Technologies Project; deals with design for low income communities

### **Kenya College of Accountancy, CPA center, Nairobi – May 1996 to September 1996, Lecturer**

- Conducted lectures, Lab sessions and examinations in Computer Science
- Was instrumental in review of the ICT syllabus in line with Accountancy needs

### **Nairobi Technical Training Institute, Nairobi, 1991 – 1993, Lecturer**

- Conducted Mathematics and Science classes for KATC
- Administered National Examinations for KATC
- Was instrumental in the creation of Science Club

## **Workshops, Conferences and Seminars**

- IST Africa Conference 2013,Safari Park Hotel, Nairobi Kenya 27<sup>th</sup> -31<sup>st</sup> May 2013
- Catalyzing New Mobility in Cities Project Workshops- New York,MIT, Harvard – 28<sup>th</sup> April 2013-4<sup>th</sup> May 2013, USA Sponsored by Rockefeller Foundation, USA
- Catalysing New Mobility in Cities stakeholder Workshop – Kenya Institute of Public Policy Analysis ( KIPPRA) N17<sup>th</sup> February 2013, Nairobi Kenya
- Design Thinking Evaluation Workshop, Stanford University d.School, Stanford USA, 30<sup>th</sup> May 2011 – 2<sup>nd</sup> June

2011

- Design Thinking Workshop, Stanford University d.School, Stanford USA; September 12<sup>th</sup> -20<sup>th</sup> 2010
- Nokia Academic Days – Emperor Plaza Johannesburg South Africa, November 30<sup>th</sup> 2009 – December 4<sup>th</sup>

2009

- Nokia Workshops on Subcontract Management – Nokia Research Center Helsinki Finland, Saska Technologies Tampere, Finland, Tampere University, Tampere Finland, Tampere University of Technology Tampere Finland, Helsinki University of Technology, Espoo Finland: October 27<sup>th</sup> – October 30<sup>th</sup> 2009
- Pan African symposium on Universities as leaders for the development of free software in Africa, September 28<sup>th</sup> to October 1<sup>st</sup> 2009, Agadir Morocco, Sponsored by IDRC
- Association of Computing Machinery Computer Human Interaction (CHI2009) international workshop and conference, April 6<sup>th</sup> to 9<sup>th</sup> 2009, Boston MA, USA, sponsored by IDRC
- Mobile Phones In Agriculture, Mobile for Development (M4D) conference, Protea Hotel Uganda, November 4<sup>th</sup> to 7<sup>th</sup> 2008
- BioVision-Infonet 2012 Planning Platform ICIP Kenya, 25<sup>th</sup> to 27<sup>th</sup> August 2008
- Pan Commonwealth Forum 5, UCL, London, July 7<sup>th</sup> to 11<sup>th</sup> 2008; Sponsored by Commonwealth of Learning (COL)
- Sun Micro Systems World Developer Conference 2008 (JavaOne), San Francisco , USA, 5<sup>th</sup> to 9<sup>th</sup> May 2008, sponsored by NOKIA
- IDRC sponsored Good to Great FOSS 2007 Open Source Projects Workshop, Nairobi Oct 24<sup>th</sup>-26<sup>th</sup> 2007
- Open Source Project Management Seminar, Turku Finland, April 16<sup>th</sup> – 21<sup>st</sup> 2007, sponsored by the Government of Finland
- VLIR –UoN 1<sup>st</sup> International Conference in Computer Science and Informatics, School of Computing and Informatics, Nairobi University, Kenya, February 5<sup>th</sup> – 7<sup>th</sup> 2007
- Microsoft Academic Days, Doha, Qatar, December 12<sup>th</sup> – 15<sup>th</sup> 2005
- United Nations University Advanced Project Management Course, Harare Zimbabwe, June 18<sup>th</sup> – 22<sup>nd</sup> 2001
- SONA Professional Skills for Scientists workshop, Nairobi Kenya, April 16<sup>th</sup> -21<sup>st</sup> 2001
- UNESCO sponsored Distributed Computation Seminar, Jerusalem, Israel, June 12<sup>th</sup> – 26<sup>th</sup> 2000
- University of Nairobi Career Improvement Workshop for Scientists and Mathematicians, Nairobi, February 21<sup>th</sup> -23<sup>rd</sup> 2000

## **Selected Professional Reports and Publications**

- User-Centric ICT Adoption Model for Rural Farming Communities in Kenya, proceedings of IST Africa Conference 2013, Safari Park Hotel, Nairobi Kenya 27<sup>th</sup> -31<sup>st</sup> May 2013
- Mobile Interfaced Crop Diagnostic Expert System for Rural Farming Communities in Kenya, IJSEM , January 2012.
- Innovative Design Approach for User interfaces for Rural Farming Communities: The Kenyan Experience, Association for Computing Machinery CHI2009 International Conference April 4<sup>th</sup> -9<sup>th</sup> 2009 Hynes International Convention Center, Boston MA, USA
- Innovative design approach for technology adoption for illiterate and Semi-illiterate users in Rural Kenya”, HCI for Community and International Development Conference, Florence, Italy, April 2008 (Co author Lucy Macharia, University of Nairobi
- “Regional and Cultural Accessibility for the Java Micro Edition Africa”, Sun Micro Systems World Developer Conference 2008 (JavaOne), San Francisco , USA, May 2008 (Co-author, JDMoore, NOKIA, UK)
- “Remote 3D Reconstruction System”, Submitted in Modeling and Simulation (Africa MS 2008): Co-authors, Nelson Chek and Sarah Kabira, University of Nairobi
- “Reform in Kenya’s Education Sector, the Case for use of ICT”, NEPAD workshop, Nairobi Kenya, December 2005.
- “SIDA ICT Survey for Governance, Justice, Law and Order Sector (GJLOS), government of Kenya”, October 2004
- “ICT in Kenya’s Economic Recovery”, paper presented at Kenya Private Sector Alliance, UNDP ICT sector workshop , Nairobi, October 2003

## **Selected Professional Consultancies and assignments**

- Principal Investigator, Catalyzing the New Mobility in Cites, August 1<sup>st</sup> 2012 – 31<sup>st</sup> August 2013; Looking at opportunities and challenges within the Nairobi Transport Sector;
- Project Manager, Nokia Research Center Game On Project- February 2013- December 2013; - Using games to promote sports
- Project Manager, Afyainfo DHIS2 Project; 1<sup>st</sup> November 2012 – May 31<sup>st</sup> 2016; Supporting and implementing

the DHIS2 System project in Kenya for Routine Health Data Collection and Transmission; Sponsored by USAID

- INTERACT 2011 Short Papers, Demonstrations, Industrial Programme, Doctoral Consortium, SIG Discussions, Panels, Organizational Overviews, and Interactive Posters Committee Member
- Partner, Stanford University – University of Nairobi Liberation Technologies Project 2010 - 2011
- Project Manager, Nokia Research Africa Proof of Research Concepts – April 2010 to August 2012 successfully undertaken Four (4) proof of concepts Research Ideas and turned them into working prototypes
- Project Manager, Health Management Information Systems: Review of existing data management and reporting software in use in the health sector, Jan –July, 2009
- ICT Consultant, ICT Manager Recruitment, SONY Sugar Company, Kenya, February 8<sup>th</sup> – 11<sup>th</sup> 2008
- Vice Chair, Tender Evaluation Committee on ICT integration in the Road Transport Sector for Ministry of Transport, Kenya, April 25<sup>th</sup> – 27<sup>th</sup> 2007
- Project Manager, Review and Certification of Staff Retrenchment Software for Kenya Railways, August – December 2006
- ICT consultant, Ministry of Health Kenya, Strategic Plan; March 2005
- ICT Consultant, NEPAD workshop on ICT in Education Reforms, December 18<sup>th</sup> -20<sup>th</sup> 2005
- ICT consultant, SIDA ICT survey within the GJLOS sector, government of Kenya, May 2004- October 2005
- Facilitator, NASCOP program workshop on ICT skills for Health Workers, Nairobi, March 22<sup>nd</sup> – April 2<sup>nd</sup> 2004
- Key Facilitator, KEPISA/UNDP ICT Sector Workshop on ICT in Kenya's Economic Recovery, Nairobi, October 13<sup>th</sup> – 30<sup>th</sup> 2003

## **Current Research Areas and Projects**

- User Experience – currently working on mobile phone based human-centered interactive system for farm inputs
- Interface Design – currently experimenting with indigenous farmers on a crop diagnostic system which enables them to self-diagnose their crops using local languages
- ICT4D (ICT for Development)- member of the University of Nairobi School of Computing CC4D Lab

- M4D (Mobile phones in development) – currently working on a project to empower farmers to harness indigenous knowledge and enable them make informed decisions on farm management
- Virtual reality – using computers to model and simulate real life situations
- Design Thinking - Stanford University – University of Nairobi Liberation Technologies Project – access to health care and sanitation services for low income communities in Kibera and Mathare slums through use of Mobile Phones
- ICT Adoption Models for rural communities in developing countries

## **Languages (Written and Spoken)**

- English
- Swahili
- Luo
- Mandarin (Spoken only little)