

## CURRICULUM VITAE

### DICKSON OCHOLA OMING'O

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### BIODATA

- **Date of Birth:** 27<sup>th</sup> December 1953, Homa Bay, Kenya
- **Citizenship:** Kenyan
- **Marital Status:** Married with children
- **Religion:** Christian
- **Interests:** Soccer, Music and Reading
- **Aspiration:** to be a role model in my undertakings

### EDUCATION

- M.Sc. (Electronics), Philips International Institute of Technology (PII), Eindhoven, The Netherlands, 1983.
- B.Ed.Sc. (Hons; Physics and Mathematics), University of Nairobi, Kenya, 1979.
- East African Advanced Certificate of Education (EAACE), 1975.
- East African Certificate of Education (EACE), 1973.
- Certificate of Primary Education (CPE), 1969.

## PROFESSIONAL TRAINING

- (i) AT THE INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS (ICTP), TRIESTE, ITALY:
- Wireless Communications, 2005.
  - Radio use for computer networking, 2004
  - Ultra-fast Non-linear Optics, 2002.
  - Digital and Multimedia communications using Terrestrial and Satellite Radio links, 2001.
  - Optics and Photonics, 2000
  - Telecommunications: Science, Technology and Applications, 1997.
  - Radio Propagation and Communications Systems Planning, 1995
  - Theoretical and Experimental Radio propagation Physics, 1991
  - Physics of communications, 1988
  - Optical Fibre Communication, 1988
  - Semiconductor Laser and Integrated Optics, 1988.
- (ii) AT THE UNITED STATES TELECOMMUNICATIONS TRAINING INSTITUTE (USTTI), USA:
- Digital Transmission and Optical Fibre principles: Cable & Wireless College, Vienna Virginia, 1994.
  - Transmission and Cable Management Techniques on copper, coax and Fibre in the CO and outside plant: ADC Telecommunications College, St. Paul, Minnesota, 1994.
  - Outside plant: Architecture, Installation and Maintenance: Fuquay, North Carolina, 1994
- (iii) AT THE KENYA COLLEGE OF COMMUNICATIONS TECHNOLOGY (KCCT), NAIROBI, KENYA:
- Project Management, 2003.
  - Executive Development, 1996.
  - Digital Microwave Radio Engineering, 1989.
  - Advanced Supervisory Management, 1986.

## RESEARCH CONDUCTED

- Signal fading and effects on microwave Radio-links: studies undertaken in the North Western Kenya Region (Kitale- Marich pass- Kakuma-Lodwar – Lokitaung and Lokichoggio), 1984 -1985
- Optical fibre nonlinearities characteristics and effects on broadband- long haul optical fibre communication systems, ICTP, Trieste, Italy, 2001

## EMPLOYMENT, POSITION HELD AND DUTIES

- (i) **Lecturer**(2007 – to Date): Maseno University, School of Computing and Informatics, Dept. of Computer Science and Technology, Kisumu, Kenya.  
Teaching, Supervision and Assessment of students in various fields; Coordination of postgraduate Programmes in the Department (2016 - 218). Units taught: Analog and Digital Electronics; Electrical Principles and Circuits; Analog and Digital Communications (Principles and Systems); Optical Devices and Systems; Data Communications; Fibre Optics: Theory and Applications; Supervision of Individual and Group Projects; and Assessments of students on Industrial Attachment.
- (ii) Kenya College of Communications Technology (KCCT), Department of Engineering

Nairobi, Kenya (June, 1993 – June,2006):

(a) **Principal Lecturer** and Head of Electronic Engineering (2004-2006)

(b) **Senior Lecturer** May 1994 – April 2004) and Head of Access Networks (1994-1997)

(c) **Lecturer** (June 1993- April 1994)

Duties:

- Administrative duties in the Department / Section
- Organizing and Conducting seminars in the areas of new telecommunications technologies: SDH, ATM, etc
- Updating of existing courses and developing new ones, supervision of students' research Projects.

Courses Taught:

- Telecommunications Network Design; Route Planning and Design of
- Microwave Radio links; Analog, Digital and Integrated Electronics; Fibre Optics (Principles, devices, systems and Applications); Optical Fibre Communications

(iii) **Lecturer** (June 1990- May 1993): Lecturer:, Department of Electrical and Electronic Engineering, Jomo Kenyatta University of Agr. & Technology, Nairobi, Kenya

Duties: Teaching: Electronics (Analog and Digital); Communications Systems and supervising students' projects.

(iv) **Tutorial Fellow/ lecturer** (June 1987- May 1990): Department of Physics, Kenyatta University, Nairobi, Kenya.

Duties: teaching electronics, conducting lab work, and supervising students on Teaching Practice/Industrial attachments.

(v) **Sectional engineer & electronics instructor** (June 1985- May 1987): Kenya Posts & Telecommunications Corporation{ ( KPTC)/ Central Training School (CTS)}

Duties: Teaching electronics to telecommunication technicians and updating of courses in the same discipline.

(vi) **Sectional engineer:** transmission and radio planning (Jan 1984- Dec 1984) KPTC

Duties: Radio links design: This included Route Planning, Field propagation tests, Equipment specification, Installation and Commissioning.

(vii) Assistant telecommunications controller(April 1981- Dec 1982): Growth estimate and design(GED), KPTC

Duties: Telecommunications traffic measurement, Analysis and Network Design.

(viii) **Graduate Teacher** (Sept 1979- Mar 1981): Strathmore school / College, Nairobi, Kenya

Duties: Teaching physics at A- level, Mathematics at O-level, and statistics at the College of Accountancy.

## VISITING LECTRESHIPS / PART-TIME TEAHING

- Dept. of Mathematics and Computer Studies, Kenya Polytechnic, (Now Technical University of Kenya), Nairobi, Kenya (1984 – 1987). Unit: Computer Technology.
- Department of Physics, University of Zimbabwe, Harare  
Lecturer: M.Sc. course on Fibre optics: Principles and Applications, Sept – Dec. 1995
- Dept. of Physics, Kenyatta University, (1986 – 1987, 1997 – 1999 and 2002 -2003);  
Units: Electronics, Signal processing, transmission lines and communications systems
- Dept. of Physics, University of Nairobi: Unit: Data Communications.
- Dept. of EEE, University of Nairobi, 2006. Units: Digital Electronics and Transmission lines.
- Dept of EEE Masinde Muliro University of Technology, Kakamega, Kenya,  
Units: Electronics and Transmission lines
- Department of Applied Physics & Astronomical Research, University of Tabriz, Islamic republic of Iran, August 2001:  
Lectures Delivered:
  1. Fibre nonlinearities and effects in optical communications systems.
  2. Dynamics of a fibre optic Raman amplifier for long haul transmission systems.

### **HONORS AND AWARDS**

- 1995: South- South fellowship Award by the Third World Academy of Sciences (TWAS), Trieste, Italy, for Visiting Lectureship in the Department of Physics, University of Zimbabwe, Harare, Zimbabwe.
- 1990: Young Scientist Fellowship Award by the International Union of Radio Science (URSI), to attend and present a research paper at the 23<sup>rd</sup> General Assembly of URSI in Prague, Czech Republic.
- 1983: The Netherlands government fellowship to pursue postgraduate studies (Master's Programme) in Electronics at the Philips International Institute of Technology (PII), Eindhoven, The Netherlands

### **CONFERENCES AND WORKSHOPS ATTENDED WITH PAPER PRESENTATIONS**

1. Africa Laser, Atomic and Molecular Physics (LAMP) Workshop Series:
  - 1<sup>st</sup>. International Workshop on Physics and Modern Applications of Laser, Dakar, Senegal, 22 – 28 May 1991
  - 2<sup>nd</sup>. International Workshop on Physics and Modern Applications of Laser, Harare, Zimbabwe, 6 – 14 Sept. 1993
  - 3<sup>rd</sup>. International Workshop on Physics and Modern Applications of Laser, Cape Coast, Ghana, 8 – 20 August 1994
  - 4<sup>th</sup>. International Workshop on Physics and Modern Applications of Laser, Khartoum, Sudan, 1996
  - 5<sup>th</sup>. International Workshop on Physics and Modern Applications of Laser, Gaborone, Botswana, 3 – 7 August 1998
2. International Union of Radio Science (URSI) Conferences/ General Assemblies:
  - 23<sup>rd</sup>. General Assembly of URSI, Prague, Czechoslovakia, 28 August – 5 September 1990
  - 27<sup>th</sup>. General Assembly of URSI, New Delhi, India, 23 – 29 October 2005
3. Radio-communications in Africa (Radio Africa) Workshop Series

- 1<sup>st</sup>. Regional Workshop on Radio-communications in Africa, Ile – Ife, Nigeria, 28 Nov. – 2 Dec 1995
  - 2<sup>nd</sup>. Regional Workshop on Radio-communications in Africa, Nairobi, Kenya, 4 – 8 August 1997
  - 3<sup>rd</sup>. Regional Workshop on Radio-communications in Africa, Gaborone, Botswana, 25 – 29 October 1999
  - 4<sup>th</sup>. Regional Workshop on Radio-communications in Africa, Cape Coast, Ghana, 15 – 19 October 2001
  - 5<sup>th</sup>. Regional Workshop on Radio-communications in Africa, Nairobi, Kenya, 2004
  - 6<sup>th</sup>. Regional Workshop on Radio-communications in Africa, Khartoum, Sudan, 2007
4. International Workshop on Optics and Photonics, Tabriz, Iran, 2002
  5. 1<sup>st</sup>. Kenya – Japan International Conference on Innovative Technology for Sustainable Development, Nairobi, Kenya, 24 – 25 August 1995

#### **PROFESSIONAL MEMBERSHIP**

- Member, Kenya National Association of Physicists (1987 -1989)
- Founder Member, Africa Laser, Atomic and Molecular Physics (LAMP) Network, 1991
- Founder Member and Secretary General, Radiocommunications Studies Network in Africa, (1995 – 2007)
- Member, International Union of Radio Science (Young Scientist, 1990-1993)
- Junior Associate (1989 – 1994), Associate (1996-2001), Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy.

#### **LEADERSHIP POSITIONS HELD AND EXPERIENCE**

- Chairman, Board of Management, Wikondiek Community Dispensary Homa Bay county, Kenya, 2015 – 2018,
- Chairman, Board of Postgraduate Studies, Dept. of Computer Science and Technology, Maseno University, Kenya, 2015 -2018.
- Project Leader, Wikondiek Community Dispensary Homa Bay County, Kenya, 2009 – 2015.
- Secretary General and International Coordinator, Radio Communications Workshop series in Africa (Radio Africa), 1995 – 2007
- Head of Department(HOD), EEE, Kenya College of Communications Technology (KCCT), 2004 – 2006
- Head of Section (HOS), Access Network, KCCT, Nairobi, Kenya
- Football Captain and Player Coach: Kenyatta University, Nairobi (1977-1979); Cardinal Otunga High School (COHS) Kisii, Kenya, (1994 – 1995)
- School Captain (Head Prefect), COHS, Kisii, Kenya, 1994 - 1995

#### **PUBLICATIONS**

- D.O.Oming'o, "Fibre nonlinearity characteristics in the anomalous dispersion regime" , Proc 3<sup>rd</sup> International Workshop on Radio Communications in Africa, PP 158-162, Cape Coast, Ghana, Nov 2001.
- D.O.Oming'o & D. Odhiambo, "Optical Fibre Transmission- A Revolution in the Telecommunications Industry", Proc 3<sup>rd</sup>.International Workshop on the Physics and Modern Applications of Laser, Cape Coast, Ghana, 1994.
- D.O. Oming'o, "Effects of Feedback Noise in Semiconductor Laser Cavity", Proc. 1<sup>st</sup>. International Workshop on the Physics and Modern Applications of Laser, PP 271-275, Dakar, Senegal, 1991.
- D.O. Oming'o , "Fading characteristics and effects in microwave radio communication systems", Proc. 23<sup>rd</sup> General assembly of URSI, PP 537-542, Prague, Czech Republic, 1990.
- D.O. Oming'o,"Optical fibre Characteristics and Applications in Telecommunications", proc. 1<sup>st</sup>. Kenya –Japan International conference on Innovative Technology for Sustainable Development, pp 253 -272, Nairobi, Kenya.
- D.O.Oming'o " Optical fibre Communications", Proc. 3<sup>rd</sup>. International Workshop on Radiocommunications in Africa, pp 51 -58, Gaborone Botswana, 1999.
- V.K. Sharma & D.O. Oming'o, "Small Scale Off-Grid Photovoltaic System for Telecommunication Services in Rural Areas of the Developing Countries", Proc. 3<sup>rd</sup>. International Workshop on Radiocommunications in Africa, pp 59 -63, Gaborone Botswana, 1999
- F.W. Shikuku & D.O. Oming'o, "Satellite Communications in the 1<sup>st</sup>. Century", Proc. 4<sup>th</sup> International Workshop on Radiocommunications in Africa, Cape Coast, Ghana, 2001
- D.O.Oming'o, "Optical Fibre Communications Networks in Kenya", Proc.1<sup>st</sup>. International Workshop on Radiocommunications in Africa, pp 67 - 71, Ile - Iffe. Nigeria, 1995