#### **CURRICULUM VITAE**

### PERSONAL DETAILS

Name Dr. Paulos Barton Timothy <u>NYIRENDA</u>

Sex Male Nationality Malawian

Date of Birth 7 February 1958

Marital Status Widower; three children

### **EDUCATIONAL QUALIFICATIONS**

1986 - 1990	Ph.D. in Electrical Engineering (1991), University of New South Wales, Kensington,
	Sydney, Australia. Thesis: "Study of Complex Phase Modulation for Narrowband
	Communication", Supervisor: Prof. I. Korn.

1980 - 1982 Master of Science in Computer, Information and Control Engineering (1982), University of Michigan, Ann Arbor, U.S.A

1975 - 1979 Bachelor of Science with Distinction in Physics and Mathematics (1979), University of Malawi, Chancellor College, Zomba, Malawi

1972 - 1975 Malawi Certificate of Education (MCE), (1975), 8 points, Mzimba Secondary School, Mzimba, Malawi

1964 - 1972 Primary School Leaving Certificate (1972), Mphongo F.P. School, Mzimba, Malawi

### **WORK EXPERIENCE**

1997 - present National Coordinator, Malawi Sustainable Development Network

Programme (SDNP), a fully licensed Internet service Provider.

SDNP was initiated under UNDP support and executed by the National Research Council of Malawi to establish and enhance computer mediated communications in Malawi using the Internet with emphasis on sustainable development. SDNP was licensed in December 1998, became a fully operational Internet Service Provider (ISP) in July 1999 and fully sustainable from 2000. We designed and operationalised the SDNP Network entirely within Malawi SDNP. SDNP has now moved out of UNDP support and is run under the Malawi Government executed by the National Commission for Science and Technology (NCST) as a self sustaining entity.

2001 – present Manager, Malawi Country Code Top Level Domain, .mw ccTLD. Initiated and

negotiated the return home to Malawi of the .mw ccTLD from an operator in the US. Management of the regulatory and policy framework for the Malawi Country Code Top Level domain and management of the daily operation of the Malawi national Internet country code, registry and domain name services serving national and global community.

1994 - 1997 Head, Department of Physics, Chancellor College, University of Malawi.

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1993 - 1997	Developed and operationalised the first public e-mail system in Malawi called UNIMA under the University of Malawi. The system developed to be a fully self sustaining system.		
1992 - present	Senior Lecturer in Physics, Chancellor College, University of Malawi, Zomba, Malawi. Teaching Physics and Electronics Courses, Research in Electrical Communications. (on leave of absence 1997-2000)		
1982 - 1992	Lecturer in Physics, Physics Department, Chancellor College, University of Malawi, Zomba, Malawi.		
1987 - 1990	Part Time Tutor in Electrical Engineering, University of New South Wales, Kensington, Sydney, Australia. (On Study Leave From University of Malawi). Tutoring Electrical Engineering Courses.		
1979 - 1980	Staff Associate, Physics Department, Chancellor College, University of Malawi, Zomba, Malawi.		

# EXPERIENCE WITH COMPUTERS, NETWORKS, SYSTEMS AND SERVICES

Very wide, detailed knowledge, research and experience with computers, computer networks, information systems, hardware, software, programming, systems management and administration. Starting with basic undergraduate programming in the 1970's, then continuing with microprocessor machine and assembly languages, microcomputer, PC, main frame systems and higher level languages through the 1980's to theoretical, simulation and practical studies and applications of digital computer and communications systems through 1990's to present. Detailed theoretical, research and practical experience with modern dial-up, leased line, wireless, satellite and related computer and communication networks, systems and packages over a wide range of operating systems including windows, unix, linux, vms, mac-os, cisco-router-ios, mikrotik-router-ios on converging or integrated computer and communications systems including Internet systems with their governance aspects.

Moved into managerial position in 1997 as National Coordinator of Malawi SDNP which is a government programme as well as an Internet service provider in Malawi. Developed the regulatory and policy framework for the Malawi country code top level domain (.mw ccTLD) which we started managing in 2001. Through my involvement in ICANN and ccNSO, I was in the launching group of the ccNSO which developed the ICANN bylaw sections for the ccNSO. This, together with being on the Malawi delegation to the WSIS, accorded me additional international experience in Internet regulatory frameworks at a global level. I have been an ICANN ccNSO council member since then, representing the Africa Region.

# **MEMBERSHIPS AND ELECTED POSITIONS**

#### International

2009 – present Malawi Communications Regulatory Authority (MACRA) member of the Legal

	Committee on Digital Migration, Broadcasting				
2009 – present	Chair of Malawi Internet Service Providers Association				
2008 – present	Trustee: Malawi National Banking Switch Centre – MALSWITCH				
2006 – present	Company Director of the Africa Top Level Domain (AfTLD) Organisation				
2006 - 2009	Vice-chair of Malawi Internet Service Providers Association - MISPA				
2005 – present	Malawi National ICT Working Group Member - NICTWG				
2003 - 2005	National IDESA Scientific Awards Selection Committee Member				
2003 – present	ICANN ccNSO Council Elected Member representing the ICANN Africa Region				
2002 - 2003	Pioneering Launching Group of the ICANN Country Code Top Level Domains				
	Names Supporting Organisation (ccNSO)				
1981 - 2000	Member, IEEE				
1994 - present	Member, Internet Society – ISOC				
1983	National Committee (Malawi) for the World Communications Year				

### University of Malawi and Colleges

1991 - 1997	Member of University of Malawi Senate
1994 - 1997	Member, Board of Malawi Journal of Science
1991 - 1992	Member of University of Malawi Library Committee
1985 - 1986	Member of Chancellor College Audio Visual Committee
1983 - 1985	Member of Chancellor College Housing Committee

# University of New South Wales, Kensington, Sydney

1988 - 1989 Committee Member of the African Students Association; Students Union

Liaison (1989), Treasurer (1988)

# **RESEARCH INTERESTS**

- 1. Digital Modulation and Communications; design and analysis,
- 2. Internet Governance and Regulatory Frameworks
- 3. Mobile Digital Communications,
- 4. Coded Modulation,
- 5. Communication Electronics,
- 6. Computer Communication Networks,
- 7. Loudspeaker design, analysis and manufacture.

#### **PUBLICATIONS**

- 1. P.B.T. Nyirenda, "Electronic mail and the UNIMA Fidonet Network", *American Association for the Advancement of Science Notes*, Vol. 4 No.1, Washington DC, 1994.
- 2. P.B.T. Nyirenda, "Performance of no spectral hole tone calibrated PSK in satellite mobile channel", *IEEE Singapore International Conference on Networks/International Conference on Information Engineering '93*, Hyatt Regency Hotel, Singapore, 6-11 September, 1993.
- 3. P.B.T. Nyirenda, "Feedback coherent detection with narrowband receiver filters in the satellite mobile channel", Submitted to *IEEE Transactions on Vehicular Technology* (USA).
- 4. P.B.T. Nyirenda "Differential frequency detection of narrowband Manchester coded FSK" *Electronics Letters* (U.K.), vol 27, No 16, 1st August 1991, pp 1470-1471

- 5. P.B. Nyirenda and I. Korn, "Autocorrelation function and power spectral density of complex phase modulated signals derived from full response CPM", *IEEE Transactions on Communications* (U.S.A.), vol 30, No 10, October 1990, pp 1649-1652
- 6. P. Nyirenda and I. Korn, "Probability of error performance of binary suppressed sideband angle modulation", *Electronics Letters* (U.K.), vol 25, No 19, September 1989, pp 1312-1314
- 7. P.B.T. Nyirenda, "Effects of offset differential encoding on the power spectral density of angle modulated signals", *Proceedings of IREE (Australia) International Conference*, Melbourne, Australia, vol II, September 11-15 1989, pp 770-773
- 8. P. Nyirenda and I. Korn, "Multipath effects on some non-return-to-zero signals with coherent detection", *Proceedings of IREE (Australia) International Conference*, Sydney, Australia, vol I, September 14-18 1987, pp 38-41.

# **CONFERENCE PAPERS**

- 9. P. Nyirenda, "Status of Internet Governance in Africa with special cases on Internet Resources", *Internet Governance Workshop*, NEPAD / Diplo Foundation, Pretoria, South Africa, 11-14 April, 2011
- 10. P. Nyirenda, "Role of Access in Country Code Top Level Domains Growth and Development", *UN Internet Governance Forum*, Hyderabad, India, 1-3 December, 2008
- 11. P. Nyirenda, "Country Code Top Level Domains in Africa, A Status Analysis", *Africa Top Level Domains Annual Conference*, Johannesburg, South Africa, 7-11 April, 2008
- 12. P. Nyirenda, "Cooperative Information Network (COPINE) Initiative for Malawi", *UN COPINE Conference*, Pretoria, South Africa, 25-27 September, 1996
- 13. P.B.T. Nyirenda, "Electronic mail and the UNIMA Fidonet Network", *INFORMANET Information Technology Senimar*, Bunda, Malawi, 15 July, 1994.
- 14. P.B.T. Nyirenda, "Establishment and performance of the Malawi fidonet network: The first half year", *Southern Africa Development Community (SADC) Management Information Systems Conference*, Lilongwe, Malawi, 22-28 May, 1994
- 15. P.B.T. Nyirenda, "Electronic communications for university research and development "University of Malawi Research and Publications Committee (RPC) Conference on University Research and Development, Mangochi, Malawi, 5-8 April, 1994.
- 16. P.B.T. Nyirenda, "Computer based communications in Malawi", *East and Southern Africa Network (ESANET) Evaluation Workshop*, Kampala, Uganda, 25-30 September, 1993.
- 17. P.B.T. Nyirenda, "Power spectral properties of digital suppressed sideband frequency modulation signals", *University of Malawi Research and Publications Committee (RPC) Conference on University Research and Development*, Chancellor College, Zomba, Malawi, 5-8 April, 1993.
- 18. P.B.T. Nyirenda, "A method for carrier tone insertion and recovery without a spectral hole for digital communication with coherent phase detection", *Association for Advancement of Science and Technology of Malawi (AASTOM) XIV Conference*, Kudya Discovery Lodge, Liwonde, Malawi, 13-16 January, 1993.
- 19. P.B.T. Nyirenda, "Efficient digital source coding for some written Malawian language sources for digital communication", *Association for Advancement of Science of Malawi (AASOM) Conference*, Chancellor College, Zomba, Malawi, December 19-20 1985.

#### CONSULTANCIES

Monitoring and Evaluation of Regional Communications Infrastructure Project in Malawi (RCIPMW), a World Bank Project executed by Privatization Commission, August 2011 to 2014.

Worldbank Telecommunications Research Project on: Privatisation of Telecommunications in Africa, Team Contracted by World Bank, 1 October 1999 to 30 June 2000 for a total of 16 working days.

Networking of UN Agencies in Lilongwe Malawi, Contracted by UNDP, Lilongwe, August, 1997

Sustainable Development Networking Programme (SDNP) in Malawi: feasibility study, Contracted by UNDP and Ministry of Research and Environmental Affairs (Malawi), 28 September - 12 August, 1995

### **INVITED LECTURES**

"Electronic Networking for Low Cost Electronic Mail: Fidonet on UNIMA Case", Malawi Institute of Management Course on Computers and Telecommunications, Kwacha Conference Centre, Blantyre, Malawi, 6-7 October, 1994

### OTHER NOTABLE RECENT WORKSHOPS, MEETINGS AND CONFERENCES ATTENDED

October 2012	ICANN Conference, Toronto, Canada		
June 2012	ICANN Conference, Prague, Czech Republic		
October 2011	ICANN Conference, Dakar, Senegal		
August 2011	Africa Peering and Interconnection Forum (AfPIF), Accra, Ghana		
June 2011	ICANN Conference, Singapore		
April 2011	AFTLD Conference, Accra, Ghana		
April 2011	NEPAD / Diplo Foundation Internet Governance Workshop, Pretoria, RSA		
December 2010	ICANN Conference, Cartagena, Colombia		
December 2010	AFRINIC Conference, Johannesburg, South Africa		
June 2010	ICANN Conference, Brussels, Belgium		
May 2010	AFRINIC Public Policy Conference, Kigali, Rwanda		
March 2010	ICANN Conference, Nairobi, Kenya		
March 2010	AFTLD Conference, Nairobi, Kenya		
October 2009	ICANN Conference, Seoul, South Korea		
June 2009	ICANN Conference, Sydney, Australia		
April 2009	AFTLD Conference, Arusha, Tanzania		
December 2008	UN Internet Governance Forum, Hyderabad, India		
November 2008	ICANN Conference, Cairo, Egypt		
September 2008	ISOC Advanced ccTLD Workshop, RIPE, Amsterdam, Netherlands		

CTO Rural Communications Conference, Lilongwe, Malawi

June 2008 ICANN Conference, Paris, France AFTLD Conference, Johannesburg, South Africa April 2008

ICANN Conference, Los Angeles, USA November 2007 March 2007 ICANN Conference, Lisbon, Portugal June 2007 ICANN Conference, San Juan, Puerto Rico December 2006 ICANN Conference, Sao Paulo, Brazil

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August 2008

June 2006 ICANN Conference, Marrakech, Morocco March 2006 ICANN Conference, Wellington, New Zealand September 2005

African ICT Ministers Conference on Developing Africa's Common Position

on Internet Governance, Dakar, Senegal

WSIS Preparatory Committee – PREPCOM – Meeting, ITU, Geneva, September 2005

Switzerland

ICANN Conference, Luxembourg City, Luxembourg July 2005

April 2005 ICANN Conference Mar del Plata, Argentina ICANN Conference, Cape Town, South Africa December 2004

March 2004 ICANN Conference, Rome Italy

ICANN Conference, Carthage, Tunisia October 2003 March 2003 ICANN Conference, Rio de Janeiro, Brazil

October 2002 ICANN Meeting, Shanghai, China

June 2002 ICANN Conference, Bucharest, Romania

March 2002 ICANN Meeting, Accra, Ghana

ICANN Annual Conference, Marina del Rey, California, USA November 2001

May, 2000 African Network Operators Group (AFNOG) Conference, Cape Town, RSA April, 2000 ECA Intergovernmental Committee of Experts (ICE) Workshop for SADC,

Windhoek, Namibia

Conference on Global connectivity for Africa, ECA, Addis Ababa, Ethiopia June, 1998 February, 1998 Southern Africa Regional Internet Seminar, UNDP, Victoria Falls, Zimbabwe Joint Sustainable Development Networking Programme (SDNP) & Internet December, 1997

Initiative for Africa (IIA) Regional Workshop, Maputo, Mozambique

June, 1997 Internet Society Workshop, National Network Management Track, Kuala

Lumpar, Malyasia

Internet Society International Conference, Kuala Lumpar, Malaysia June, 1997

October 1996 Microprocessor-Based Real-Time Systems in Physics, International Centre

for Theoretical Physics (ICTP) Trieste, Italy

Cooperative Information Network (COPINE), UN Office for Outer Space September 1996

Affairs, Pretoria, South Africa

Workshop on Informatics, Africa Economic Research Consortium, Nairobi, September 1996

Kenya

June, 1996 Internet Society Workshop on Services on TCP/IP Computer Networks,

Montreal, Canada

June, 1996 Internet Society International Conference, Montreal, Canada

February, 1996 Expert Conference on Electronic Publishing in Science, UNESCO Headquarters,

Paris. France

October, 1995 Workshop on Telematics, International Centre for Theoretical Physics (ICTP)

Trieste, Italy

September, 1995 United Nations (UN) Symposium on Space Technology for Improving Life

on Earth, Graz, Austria

June, 1995 Internet Society Workshop on TCP/IP Computer Networks, Honolulu,

Hawaii USA

June, 1995 Internet Society International Conference, Honolulu, Hawaii

May, 1995 Southern Africa Coordination Community (SADC) Workshop on Computers in

Secondary Schools, Blantyre, Malawi

Africa Regional Symposium on Telematics for Development, Addis Ababa, April, 1995

	Ethiopia		
June, 1994	Internet Society Workshop on Dial-Up Computer Networks, Prague, Czech		
	Republic		
June, 1994	Internet Society International Conference (INET'94), Prague, Czech Republic		
May, 1994	Southern Africa Development Community (SADC) Management Information		
	Systems Conference, Lilongwe, Malawi		
September, 1993	East and Southern Africa Network (ESANET) Evaluation Workshop,		
_	Kampala, Uganda		
November, 1992	East and Southern Africa Network (ESANET) Workshop, Lusaka, Zambia		
August, 1992	Workshop on Space Science and Applications for Developing Countries,		
<b>.</b>	Washington DC, USA		
August, 1992	World Space Physics Congress, Washington DC, USA		
etc.			

# **REFEREES**

1. Principal Research Officer (Mr. A. Manda), National Research Council of Malawi NCST,, Private Bag B 303, Lilongwe, MALAWI.

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3. Dr. P.V.C. Luhanga, Physics Department, University of Botswana, P/B 002, Gaberone, **BOTSWANA** 

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