CURRICULUM VITAE OF DR. DRAKE PATRICK MIREMBE

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Profession: Computer Scientist

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Membership in Professional Societies:

Member	- Internet Society (Global and Uganda Chapter)
Member	- Digital forensics Forum, Netherlands
Member	- Network Systems Research Group, Makerere University
Member	- I-network Uganda
Member	- ICT Association of Uganda
Member	- BPO Association Uganda
Member	- Information Security Uganda
Chair	- Engaged Scholarship Research, Uganda

Other Memberships:

Member   - Charter Member Rotary International, Rotary club of Kampala City, Makerere

OBJECTIVE

To develop ICT enable solution to society problems and develop frameworks for their application in support for sustainable development. Key areas of interest are development of ICT driven business models and solutions, Innovations and Business Incubation, assurance of digital security and privacy, development of decision support tools, ICT investment management, and development of ICT integration models.

My formal training, experience, and personality alongside informal training make me a competitive candidate in the field of ICT especially innovation management, digital security assurance and ICT integration models. I have formal training and experience in networked systems design and implementation, Innovations Management, ICT policy and strategy formulation, digital security and privacy enhancing strategies and technologies, requirement engineering, information systems integration, project management, ICT strategic alignment, web solutions development, software development in number of technologies and human resource management. I have also knowledge in theoretical computing and foundation mathematics. My training and experience make me a flexible candidate who can easily acquire new skills based on demand, an ideal attribute for an ICT consultant. The strategic issue of Secure ICT for development (ICT4D) particularly for business operating in low resource ICT environments like developing countries also interests me.

My current professional growth focuses on secure optimal integration of ICTs in service provisioning and acceleration of innovations into business. Among the key sub areas of interest include; information assurance, wireless and mobile technologies, Innovations Acceleration, Human Capital

Development, ICT strategic alignment, ICT policy formulation, IT business model re-engineering and mobile web.

KEY COMPETENCIES

1. I have over eight years' experience of managing innovations and business incubation center
2. I have over ten years hands-on experience in digital security audits including, threat modeling and analysis, social engineering, penetration testing, legal aspects of digital security especially service level agreements (SLA), software security among others.
3. I have participated in several ICT audits, both for conformity and digital security needs. These have equipped me with the skills and expertise to address ICT related threats to business continuity and disaster recovery. These issues emerge from the proliferation of business enabling technologies that have exposed enterprises to high risks of systems spoofing, information theft and denial of services.
4. I have over ten years' experience of lecturing at a university in the areas of digital security, foundation of computing, privacy enhancing technologies, software engineering, computer networks and legal and ethical aspects of systems.
5. I have over eight years hands-on in the fields of ICT strategic integration, business process re-engineering, ICT project management, design and deployment of secure networked systems, requirements engineering, software development to mention but a few.
6. Experience in human resource management, that involved recruitment, team building, career development among others.
7. I have experience in proposal writing
8. Experience in conducting basic and applied research.
9. I have the ability to supervise and manage IT professionals both in project-like and full time employment environments.
10. Experience in business process and ICT integration and developing web-enabled business applications. My main focus is on strategic use of ICT for competitive advantage in the financial, education and health care Sectors.
11. I have experience in ICT policy formulations focusing on strategic adaption and use of ICT systems, enterprise architecture, information security and controls procedures, and the development of secure optimal business models and solutions.
12. I have hand-on application development experience using Dot Net, Otcl, php, XML, Java, Visual Basic, C, C++, Access, mySQL among others. I believe my experience as a teacher, researcher and organizational manager will be a great asset to your organization.

EDUCATION (FORMAL)

1. PhD, University of Groningen, The Netherlands, EGD: October, 2015

2. M.Sc – Radboud University, The Netherlands (August, 2006)

3. B. Sc. (CS & Math), **Upper Second Class** -**Honours** – Makerere University, Kampala, Uganda (Nov,2003)

OTHER PROFESSIONAL TRAININGS

1. Leadership and mentorship

2. Research management

3. Innovation Management

4. Human Resource management

5. ICT forensics and CISA ------[ongoing Self-study to certify by March, 2016]

6. Organization and Innovations Management – Radboud University, 2006

7. Wireless networking, Institute of Theoretical Physics, Italy 2012

8. Satellite Communication, ITSO, 2011

9. Cyber Security , ITU 2012

10. ELearning integration with Moodle & K2, CFL , Sourth Africa, May, 2011

11. Cisco Certified Academy Instructor, Cisco Systems Inc. (March, 2004)

12. International Computer Driving Licence (CIT, MUK, 2005)

13. Product and Service development and Marketing under ITU CoE frameworks (ITU, by Dr. David)

14. Satellite communication systems (ITSO & ITU, facilitator, Mr. Eric Niog, 2010)

15. Information assurance audits (Resue B.V, Netherlands, facilitator Dr. Martijn Oostijdk)

16. Mobile applications development (by Dr. Nathan Eagers, from MIT, USA)

17. Situation application development--- (IBM 2009)

18. Network security planing and implementation

19. Use of Common Criteria (TNO, Netherlands, facilitator Prof. Yap-Henk)

20. Instructor class management (Cisco Academy Program)

21. Scientific writing and reporting (MUK, facilitator Prof. M. Kiiza, of Tennessee State University, USA)

WORKING EXPERIENCES

1. **Uganda Technology and Management University**

   a) *Dean, School of Profession and Vocational Education (Dec 2014- to date)*

   Key Responsibilities:
   - Develop and implement strategies of promoting courses in the Centres
   - Manage and coordinate training processes on all programmes in the Centre
   - Develop and implement sound internal controls in order to optimize revenue.
   - Carry out community outreach programs on behalf of the university
   - Implementation university council polices
   - Innovations and Business Incubation acceleration
   - Curriculum review and development
   - Spear head staff development
   - Act as the accounting officer for the Centres
   - Perform any other activities as assigned by the Director or DVC.
   - Initiate and manage collaborations

   b) *Lecturer, School of Computing and Engineering (Marc 2013- todate)*

   Key Responsibilities:
   - Teaching
   - Research
   - Curriculum development
   - Community engagement
   - Implementation university policies
   - Perform any other activities as assigned by the Dean

2. **Microsoft**

a) *Manager, Microsoft Innovation Center-Uganda (Sept 2009- March 2014)*

Key Responsibilities:

- Develop and implement strategies of promoting innovations and start-ups
- Manage and coordinate training processes on all programmes in the Centre
- Develop and implement sound internal controls in order to optimize revenue.
- Carry out community outreach programs on behalf of Microsoft
- Plan, Coordinate and execute MIC activities that include; mentorship of students and start-ups
- Conduction innovations management training
- Supervise product development and deployment
- Source for sponsors to support MIC activities
- Interact with Clients to assess the performance of solutions deployed
- Innovations and Business Incubation acceleration
- Spear head staff development
- Act as the accounting officer for the Centres
- Perform any other activities as assigned by the Director, Microsoft Innovation Centres
- Initiate and manage collaborations

3. **College of Computing and information Sciences, Makerere University –**

a) *Lecturer , Networks Department (2006 -up-to-date)*

Key Responsibilities:

- Carry out both basic and applied research
- Organize the annual PhD colloquium
- Organize the annual mobile computing workshop
- Deliver lectures in digital security including cryptography, web security, data encryption technologies, organization security, network security among others.
- Carry out community outreach programs
- Asses students
- Supervise student research projects (both graduate and undergraduate)
- Do my PhD as part of staff development programme

b) *Head, Centre for Innovations & Professional Skills Development (Nov2009- to April 2013)*

Key Responsibilities:

- Develop and implement strategies of promoting courses in the Centre
- Manage and coordinate training process on all programmes in the Centre
- Develop and implement sound internal controls in order to optimize revenue.
- Carry out community outreach programs on behalf of the department
- Implementation university council polices
- Curriculum review and development
- Spear head staff development
- Act as the accounting officer for the Centre
- Perform any other activities as assigned by the principal.
- Manage the Cisco Academy Support Centre
- Manage the ITU CoE
- Provide leadership in products development

c) *Assistant Head of Department , Networks Department (November 2008- October 2009)*

Key Responsibilities:

- Coordinate academic programmes in the department

- Allocate lecturers courses and monitor the quality of their delivery
- Carry out community outreach programs on behalf of the department
- implementation MAK council polices
- Curriculum review and development
- Manage and co-ordinate learning and research activities in the department
- Supervise student research projects (both graduate and undergraduate)
- Spear head staff development in the department
- Spear head sourcing for funding to support research
- Perform any other activities as assigned by the Head, or the deanship.

d) *Teaching Assistant, Networks Department (Sept 2004-to- Aug 2006)*

   Key Responsibilities:
- Deliver lectures in foundations of computing among others.
- Carry out community outreach programs
- Asses students
- Participate in curriculum review and development
- Supervise undergraduate research projects
- Do my masters as part of staff development programme

e) CCNA Instructor , ICS (Jan-to-Aug 2004)

   Key responsibilities:

- Train students of CCNA in networked systems design, deployment and management key subjects include; network design, LAN deployment and configuration, switch management, router management, WAN protocols configurations among others.
- Asses students
- Participate in community outreach

f) CCA Instructor, *Institute of Computer Science (Jan-to-Dec 2003)*
   Key Responsibilities:
- Train students of Certification in Computer Application in basic computer skills
- Carry out community outreach programs
- Asses students
- Curriculum review and development
- Perform basic computer maintenance

Major Achievements:
- Established a Microsoft Innovation Centre in sub-Sahara Africa
- Bachelors of software engineering curriculum accredited by NCHE and is running at the CIT
- Organized successfully two annual the PhD colloquium (2008, 2009)
- Organized successfully two mobile computing workshops
- Developed the curriculum for computer systems engineering
- Revised M.Sc. Data Communication and Software Engineering approved and running
- Trained over 600 Cisco academy students
- Trained over 1000 students in the introduction to computing course
- Part of a grant winning team in 2007 -PHEA project ($50,000)
- Taught over 400 graduate students in digital security courses
- Supervised successfully over 60 undergraduate research projects
- Supervised successfully 10 graduate student projects

- Published 9 article in international fora
- Managed the development of 60 makerere university websites
- Participated in the development of the University web positioning policy
- Designed an m-commerce application under the PHEA project
- Participated in the design and development of a customer support tool.
- Modelled requirements for a mobile-medical logistic support tool using UML.

A ward and Grants

1. Winner of the UCC $50,000 Incubation grant (2013-2014)
2. Team Member of the SUFACE $300,000 ICT in agric grant
3. Winner of the $20,000 ICT in education EPRC project
4. Mentor, to winsenga team that won $50,000 Microsoft Grant (2012)
5. Mentor, code8 team that won $12,000 Microsoft-UN women empowerment award (2013)
6. Awarded a NUFFIC masters scholarship (May 2004)
7. Awarded a faculty research grant $10,000(March 2011)
8. Co-PI on the HP project (2009)
9. Co-PI in the PHEA project (2008)
10. And many more Microsoft

4. Eight Tech Consults Ltd – (2009- to date)

a) Senior Consultant
Key Responsibilities:
- Provide consultancy services in ICT and Management
- Develop new technologies for the firm which can later be transformed into products
- Supervise product development and deployment
- Perform digital security audits
- Interact with Clients to assess the performance of solutions deployed
- Advise the board on investment opportunities based on technology adaption trends
- Manage active projects

5. Bankshire Technologies Ltd – (2006- 2009)

b) Senior ICT consultant
Key Responsibilities:
- Performance ICT audits especially, IT security
- Manage project teams

6. ICT Consultancies Undertaken (2004 - update)

In recent years I have undertaken a sizable number of assignments either as a team member or a project leader in ICT related areas and they include:

1. ICT strategy for Ministry of Agriculture, Animal Industry and Fisheries, 2015
2. UNESCO Teacher Educator ELearning Project, 2015
3. Enterprise integration of ICT at Mpanga Tea growers www.mpangatea.com, PM 2012
4. IT security audit, Mpanga Tea growers factory, 2012, PM
5. Shalam Shield Foundation, ICT integration (2012)- Project leader
6. Transparency International/National Democratic Institute(NDI)- Mobile-Web base elections monitoring system development (2011), Project leader

7. Inter-University Council for East Africa, Web Enabled services consultancy (2010-2011), project leader
8. Ministry of Foreign affairs, ICT audit and strategy development (2010)- Consultant
9. Ministry of ICT, Security ICT security audit for Chogm2007 Secretariat- Project leader (2007)
10. Lake Victoria Commission Basin, Kenya web positioning strategies (2009) -Project leader
11. Lisieux Hospitality Center, ICT integration project (2009)-Project leader
12. The Courts of Judicature (CoJ) – IT security audit and ICT Policy Formulation (2008) project leader
13. Mpanga Grower Tea Factory LTD -website development and web positioning policy development(2008), Project leader
14. Civil Aviation Authority Uganda (CAA) - ICT Security Policy Formulation and Security Audit December (2006), team member
15. Bishop Stuart University, ICT policy and strategic Plan (2008) -Project Leader
16. Bishop Stuart University , Campus Wide Network Design and Installation (2008) - Project leader
17. Uganda Revenue Authority' (URA) – ICT skill staff development training (2004)
18. Slum Aid Project - Domestic Violence Case Management System (2003)- developer
19. Camel High School, Student Information systems development – lead developer

7. SyncSoft International Ltd (SIL) – part-time assignment (2002-2008)

While at SIL I participated in the following activities

1. Training of diploma students in software engineering particularly, Internet programming, databases management systems and application development on visual basic (VB)
2. Network administration windows 2000 and Unix/Linux OS
3. Development of a loan tracking system – leader developer
4. Development of a forest conservation tool
5. Development of a refugee management information systems – programmer
6. Development of a clinic management information system – project leader
7. Development of Camel High School, school management system – project leader

OTHER RELEVANT EXPERIENCE
1. Development of a prototype mobile money transfer system for rural Areas using heitml, postgres and kennel SMS-C. *Project duration – 1Year, MUK May 2007 -May 2008 (head Prof. H.N. Muyingi)*
2. Participated in the design and development of a customer support tool.
3. Modeled requirements for a mobile medical logistic support tool using UML.
4. I have participated in ICT Policy formulation for both private and government semi-autonomous Institutions.
5. I have crafted several Service Level Agreements with external Service providers

TECHNICAL COMPETENCIES
Networking
1. Network design, deployment and troubleshooting
2. Network security audits
3. Cisco switch management, VLANs, port security, subinterfaces, link encryptions
4. Cisco Router management
5. Firewall set-up monowall, ipcop, shareware etc

Programming Languages
1. **Cross-platform:** Java, C, Heitml
2. **Microsoft:** VB, DOT Net.
3. **Presentation Tier:** VBScript, HTML, CSS

4. ***Data Access Tier:*** Transact SQL, MySQL
5. ***Scripting: Shell*** *(Bash) , PHP, TCL/TK Scripting*

Technologies
1. Data Access via JDBC, ODBC,ADO.NET
2. **Apache** Tomcat HTTP Server, Apache web Server

Software Development Tools /Platforms
1. Visual Studio
2. Net-beans+,Quanta plus, and Ms Visio
3. SVN, CVS, Eclipse

Database Management Systems as Back-end
1. Ms Access
2. mySQL
3. postgres

Operating Systems
1. Windows 98/NT/2000/XP, DOS
2. Unix/Linux like Ubuntu and Suse

INTERESTS
1. ICT for Development (ICT4D)
2. Health informatics
3. Digital security and privacy enhancing technologies
4. Project management
5. Mobile and wireless technologies development, deployment and adaption
6. Integrating web applications with data repositories
7. Convergence networks
8. Playing soccer, badminton, volleyball, country music,
9. Faith based services

PUBLICATIONS

1. Drake Patrick Mirembe, "The Threat Nets Approach to Information Systems Security Risk Analysis". PhD Thesis, University of Groningen.

2. Drake Patrick Mirembe, Fisseha Mekuria and Maybin Muyeba, "Ambulatory Sensor Networks: Data Source Authentication Concerns: In Proceedings of ICCIR'11 conference proceedings, August 6-9th Kampala, Uganda.

3. Drake Patrick Mirembe, Fisseha Mekuria and Maybin Muyeba, "Reliability of Ariadne in Ambulatory Wireless Sensor Deployments". In the proceedings of the 18th Annual Soft-Com 2010, September 23-26th, pp.... 2010   Split Croatia. Published by **IEEE**

4. Drake Patrick Mirembe, "Security framework for Telemedicine, E health and Wellness Services", LAP publishers ISBN 978-3-8383-4330-3, April, 2010

5. Drake Patrick Mirembe and Maybin Muyeba, "Security Issues in Ambulatory Wireless Sensor Networks (AWSN): Security Vs Mobility ". In the proceedings of the 5th Annual Conference on Computing and ICT Research, August 2-6th, pp.... 2009 Makerere University,.

6. Drake Patrick Mirembe, H.N. Muyingi, John Kizito and Doreen Tuheirwe. "A Model for Electronic Money Transfer for Low Resourced Environments: M-Cash". In the proceedings of the 3rd International Conference on Broadband Communications, Information Technology &

Biomedical Applications (BroadCom' 08) Nov. 23-26, 2008, Pretoria, South Africa. (Published by IEEE)

7. Drake Patrick Mirembe and Maybin Muyeba, "Threat Modeling Revisited: Improving Expressiveness of Attack Nets" In the Proceedings of the 2rd UK European Modelling Symposium Sept 8-10, 2008, Liverpool, UK. Pp 93-98. (Published by IEEE and ACM)

8. Francis Otto, Drake Patrick Mirembe and Maybin Mayeba. "A data management model for Peer-to-Peer systems". In the *International Journal of Computing and ICT Research,1(2):67-73*

9. Francis Otto, Drake Patrick Mirembe and Maybin Mayeba. "A data management model for Peer-to-Peer systems". In the Proceedings of SREC'07, Kampala, Uganda. August 5th -8th 2007 pp 372- 379

10. Drake Patrick Mirembe, Francis Otto and Doreen Tuheirwe. "Analysis of Free Haven anonymous storage and publication system" In the Proceedings of SREC'07, Kampala, Uganda. August 5th -8th 2007, pp. 380-389

11. Richard Ssekibuule and Drake Patrick Mirembe. "*Security Analysis of Remote E-Voting"*. In the Proceedings of SREC'07, Kampala, Uganda. August 5th -8th 2007 pp. 526-538

12. Drake Patrick Mirembe, Francis Otto, Elizabeth Olule, and Sung Oyang. "Enhanced Master-Slave Time Synchronization Architecture for Wireless Sensor Networks". In Proc. of ATNAC2006, Melbourne Australia, Dec 3rd-6th 2006. pp 142-147.

13. Drake Patrick Mirembe. "A design of a secure framework for the implementation of Telemedicine, E-health and Wellness (TEW) service". July 2006, Master thesis, Radboud University Nijmegen, the Netherlands.

REFERENCES

1. Prof. Henk G. Sol, Professor of ICT and Business, Groningen University , Netherlands
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   - www.rug.nl
2. Prof. Venansius Baryamureeba, Chairman Board, Uganda Technology and Management University,
   - e-mail: barya@utamu.ac.ug
   - website: www.utamu.ac.ug
3. Prof. Jude Lubega, CEO Eight Tech Consults Ltd, www.8technologies.net
   - E-mail: md@8technologies.net or judlub@gmail.com

Signature: _____   **Date:** _____