

CURRICULUM VITAE

Michaelina Almaz Yohannis

(BSc. Elec. Eng. & Computer Science. (EECS), UC Berkeley; MBA, Strategic Management, UoN; PhD. Information Systems, UoN)

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1. PERSONAL DETAILS

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Nationality : Dual Citizenship (USA and Kenyan)
Profession : Electrical Engineer and Computer Scientist

2. SUMMARY

I have over 20 years of diverse experience as an electrical engineer and computer scientist. In the different places that I have worked, I have played critical roles in strategic innovation, operations management and project management in various businesses across the USA, China and in Kenya. The experience included new product introduction in the semiconductor industry and currently in the maintenance and support services of the University of Nairobi; an advisory role for the Ministry of Information and Communication in the Government of Kenya, and in transitioning the former Kenya College of Communications Technology to the Multimedia University of Kenya.

Currently I am an ICT Maintenance Manager (Grade 13) at the ICT Centre at the University of Nairobi's Chiromo Campus. I have worked in this capacity since 2004, during which time I have accumulated immense relevant experience in management and leadership of my team, technical skills in Information Systems, and corporate as well as collegial communication. I have also contributed to the expansion and stabilization of ICT infrastructural services within the university, thus ensuring the flawless delivery of internet and related services to the growing university community of students and staff. Specific contributions include my participation in developing and writing a technical grant proposal to VLIR where ICT was granted funds to expand the ICT Data Centre; I enabled management-level decision making in preparation of ICT strategy documents, policies, and routine managerial requirements. I have also been involved in capacity building through mentorship of younger colleagues and students, while ensuring that we all remain abreast of emerging trends in the ICT service provision sectors.

On a related note, I have been actively involved in research, innovation, and publications in my professional area; currently a postgraduate fellow at African Centre for Technology Studies, where on the Governance of Sociotechnical Transformations (GoST) I have had the opportunity to give feedback on influencing policy on transformations to sustainability in Energy, Agriculture and Cities. I have also attended and presented well-received academic papers in local and international conferences in Kenya, Namibia, South Africa, and the USA.

In pursuit of further academic credentials, I have recently achieved my PhD degree in Information Systems at the School of Computing and Informatics. The thesis is situated at the intersection between ICT and climate information sharing among women-headed households in Kitui County, and draws on a range of gender and ICT theories in a view to enhancing our knowledge of the praxis of mixed-method, interdisciplinary approaches to knowledge creation and problem-solving in disadvantaged communities. My other qualifications include an MBA in Strategic Management from the University of Nairobi and a BSc in Electrical Engineering and Computer Science from University of California Berkeley and a Radio, Television and Electronics Technician Certificates Part I, II, and III from Jomo Kenyatta College of Agriculture and Technology.

3. SUMMARY OF QUALIFICATIONS

Skill Set	Narrative
Research, Innovation, and Development	<ul style="list-style-type: none"> • Postdoctoral fellow at African Centre for Technology Studies (ACTs) • Researcher Associate in collaboration with Bristol University • Expert Reviewer for the First Order Draft (FOD) of the Working Group II (WGII) contribution to the IPCC Sixth Assessment Report (AR6). • Four articles published in reputable journals • Attended and presented academic papers in local, regional, and international conferences in Kenya, South Africa, Namibia, and the USA • Doctoral research combined ICTs with Gender, Climate Change providing the potential in transforming lives in Kitui County an ASAL region.
Corporate Managerial Skills	<ul style="list-style-type: none"> • I have occasionally served as Acting Director of the Department of ICT • I have also occasionally served as an Acting Deputy Director of User Support Services and Maintenance in ICT • I have also provided critical corporate leadership to my team members in my docket
Technical Skills in Information Systems	<ul style="list-style-type: none"> • I am involved in the formulation of technical specifications for ICT related equipment that supports the data centre • Consulted for Kenya Meteorological Department on ICT4D Projects • Involved in ICT4D projects at the Wangari Maathai Institute, University of Nairobi
Communication Skills	<ul style="list-style-type: none"> • I have excellent spoken and written English and Kiswahili, which I have continuously used in interacting with colleagues within the university in general • I have played a key role in ensuring the flow of information between the Department and external clients
Leadership in Information Systems and Research & Development	<ul style="list-style-type: none"> • I was involved in streamlining the maintenance section of the ICT Department through purchase, replacement, and launching of critical and modern ICT related equipment
Research and Development	<ul style="list-style-type: none"> • I was a Senior Project Manager and also Senior Product Engineer in new product introduction in the semiconductor industry of Silicon Valley, USA
Technical Experience	<ul style="list-style-type: none"> • Over 20 years' experience as an electrical engineer • 10 years' experience in the same field in the USA's Silicon Valley

	<ul style="list-style-type: none"> • 14 years of service as an ICT Maintenance Engineer at the University of Nairobi
Managerial Experience	<ul style="list-style-type: none"> • Been a team leader within the University of Nairobi, mentoring newer employees, and spearheading strategic change in approach and service delivery within the scope of the department's mandate at the University of Nairobi
Awareness of University Strategic Direction	<ul style="list-style-type: none"> • I was a key member of the ICT Committee that formulated the department's Strategic Plan, which we aligned with the general University of Nairobi's value systems on prompt service delivery, efficient customer care, and contribution to society
National Service	<ul style="list-style-type: none"> • In 2007, the Minister for Information and Communication, Hon. Samuel Poghishio, appointed me as a Board Member of the Kenya College of Communications Technology (KCCT) for 3 years • I offered my technical expertise to KCCT in transitioning it from a tertiary college to a University of communication • I was a member of the government delegations to the Multimedia University of Malaysia, the Malaysian Communications and Multimedia Commission, and the Multimedia Super Corridor, which formed the inspirational basis for the establishment of Konza Techno-City in Kenya, an equivalent of the Silicon Valley in the United States
Social Skills and Personal Integrity	<ul style="list-style-type: none"> • I am a reliable team worker, who nonetheless retains her voice while in a group • I believe in the family as the foundation of our society • I am a spiritual person

4. ACADEMIC QUALIFICATIONS

Date attended	Institution	Qualification and Key Areas of Study
2013-2019	University of Nairobi, Kenya.	PhD in Information Systems
2008-2011	University of Nairobi, Kenya	Master of Business Administration in Strategic Management
1990-1993	University of California Berkeley, USA	Bachelor of Science in Electrical Engineering and Computer Science
1984- 1987	Jomo Kenyatta University of Agriculture & Technology	Certification in Frequency Modulation, Radio, T.V & Electronics Technician Part I, Part II, and Part III

5. CORPORATE TRAINING

Date	Institution	Training
June 2014	Kenya Meteorological Service, and the World Meteorological Organization	MetAgri Roving Seminar on Weather, Climate and Farmers
July 2014	Kenya Meteorological Service, And World Meteorological Organization	Training of Trainers Course(ToT) for Primary Climate Information Services Intermediaries
March 2013	International Development Research Centre and University of Nairobi	Climate Change & Scientific Data Management
March 2013	International Development Research Centre, University of Nairobi and Training Centre in Communication	Scientific Writing, Graphical Methods for Data Presentation and Oral Communication Networking
September 2011	The University of Nairobi Enterprises and Services Limited	Research and Grant Proposal Writing
August 2011	Nairobi, Kenya	Performance Contract Management Information System
March 2010	Vector International	Training on Emerson-Liebert UPS
November 2009	University of Nairobi	Q-pulse system for Management of ISO and University QMS
June 2007	Nairobi, Kenya	Team Building Course
February 2007	Nairobi, Kenya	Quality Management Systems-Implementation of ISO 9001:2000
Nov-Dec 2005	Kenya College of Communications Technology	N+ Course
November 2005	Steadman Trains Ltd	Customer Care
February 2001	National Semiconductor, USA	8D Problem Solving, eight disciplines
March 2001	National Semiconductor, USA	Business at National Semiconductor
December 1999	CADENCE Management Corporation	Project Management
Nov-Dec 1999	Teradyne, USA	Catalyst Product Engineering
April 1999	National Semiconductor, USA	National Characterization and Analysis tools (NCAT)
November 1996	Motorola University, USA	Seven Habits of Highly Effective People
December 1995	Motorola University, USA	Time Management

November 1995	Motorola University, USA	Effective Communications
September 1995	ExucuTrain, USA	Macintosh Project
	Computer Training leader	
May 1995	LTX Corporation, USA	Synchro Linear Applications Course

6. TECHNICAL EXPERTISE

Fluent in the following software tools for management and training

- i. Management: Microsoft Project, MS Visual Source Safe
- ii. Documentation: MS Word, MS Excel, Sun Star Office, Adobe Frame maker
- iii. Presentations: Adobe Illustrator, MS Visio, MS PowerPoint
- iv. Basic programming skills in Visual Basic, Pascal, Fortran, Lisp, Assembly and C,C++,
- v. Hands-on knowledge of the following applications, Microsoft (Word, Project, Excel, PowerPoint) Lotus Note, Adobe Acrobat
- vi. Skills in the following operating systems: : UNIX, MS-DOS, Windows, Linux

7. PROFESSIONAL EXPERIENCE

2004 – Present: ICT Maintenance Manager, University of Nairobi, Chiromo Campus, ICT Center

Duties at the current position include:

- Preparing ICT-related documents – ICT Policy, ICT Standards, ICT service charter, ICT ISO quality management, ICT strategy and performance contract
- Preparing Procurement Plans and Budgets for the ICT Centre
- Developing the strategic plan for our ICT Centre in line with the university vision, mission, strategies and Corporate Planning
- Developing the University Maintenance Policy, ICT Automation Policy, ICT Customer Survey Satisfaction, and ICT Staff Competency Survey.
- Overseeing implementation of the Service Charter requirements
- Overseeing the analysis, design, development, implementation, maintenance and support of information systems
- Budgeting, allocating and organizing resources and project teams for ICT Data Centre Infrastructure development projects
- Identification of ICT related tools and services requirements and advising on their procurement.
- Identification of skill requirements for users and ICT centre staff and implement appropriate training
- Monitoring and evaluating ICT procedures, identifying performance gaps and recommending corrective measures
- Developing, implementing and enforcing information systems and communication services policies and standards
- Monitoring and evaluating development projects against established standards and best practices

- Managing the personnel in the Maintenance Section, including the recommendations for recruitment and overseeing human resource development
- Involvement in various technical evaluations for ICT related projects such as Wi-Fi, LAN networks, University Security Systems, Uninterruptible Power Supply, Generators, Air Conditioners and Line Printers that support the ICT Data Centre.
- Providing ICT leadership in the planning, development, implementation, operation and maintenance of the Network and Communication Technologies

2001 – 2003: Senior Project Manager, Flat Panel Display Group, National Semiconductor Corp., Santa Clara, California

Managed and led cross-functional teams that defined and executed new product development projects.

- Responsible for leading the engineering strategy/vision, delivery teams and execution from architecture to customer engagement. Effective skills in managing teams, customers, partners and programs. Consistent track record in delivering customer solutions and product releases
- Delivered comprehensive new product execution plans including business case analysis, design review, testing, bench evaluation, characterization, reliability qualification, and manufacturing
- Generated detailed development schedules. Achieved 100% on-time target
- Reduced cycle time by 25% by seeking continuous improvement of the development process
- Provided project risk assessment with actions for risk reduction
- Facilitated problem solving and implementing a corrective action plan
- Interfaced with international manufacturing plants and subcontractors regarding fast turn around and yield problems
- Reduced the number of reworks by half and improved schedule time from 20% to 75% by implementing quality assurance at each development stage
- Streamlined the project reporting system and maximized the resource utilization
- Headed the outsourcing programs to develop special cells such as PLL, AGP, and USB buffer.
- Negotiated price and contract, reviewed design specifications, and tracked project schedule.
- Supported quality system QS-9001 and continuous improvement.

Management and Team Leadership: Built, led and managed the entire engineering team through a challenging market environment. Directed Customer Support, IT, Documentation and Technical Client Services. Successfully developed and implemented processes including customer support and program management. Known for straight talk, clear processes and efficient, consistent management.

Project Management: Focused on disciplined, effective project management, process and execution. Managed product delivery within target across a mostly off-shore, multi-site development team. Clear communication with the team, partners and customers. Able to function effectively across cross-functional technical and customer teams. Technical background and insight enable effective engagement with technical teams and accurate scoping, time management and issue resolution.

Customer Engagement: Provided pre-sales support and created product demos. Technical lead on requirements gathering phase for customer solutions. Established customer reputation for high satisfaction, effective customer support and responsiveness. Developed and maintained customer training materials. Responsible for customer training, Consistent strong customer feedback and high customer satisfaction. Established customer reputation for high satisfaction, effective customer support and responsiveness.

1999-2001: Senior Product Engineer, National Semiconductor, Corporation Santa Clara, California

- Responsible for Characterization, Qualification, Manufacturing Plans and schedules
- Targeted Japanese market, gaining experience with new offshore market, achieving targeted Quota in less than six months.
- Reviewed and approved reliability and Qualification boards.
- Coordinated wafer starts, package selection, and assembly of pre-production silicon.
- Coordinated ESD, Latch-up, and Qualification testing and conducted failure analysis.
- Generated correlation units with data from bench to be used by test engineering.
- Analyzed characterization data and proposed limits for Datasheets

1997-1999: Senior Product Engineer, Quality Semiconductor, Santa Clara, California

Responsible for product release, qualification, sustaining production, low-yield improvement and functional testing on bench and Ando Tester. Provided customer support on failed devices. Interacted with offshore sites to resolve yield issues. Performed product release of Quickswitch products, 70% of company revenue.

1994-1997: Product Engineer, Motorola, Analog/IC Division, Advanced Power Group, Tempe, AZ.

Introduced new integrated circuits (I/C) devices to production for use in Hewlett Packard printers. Performed device characterizations and qualification decreasing test time from 3min to 2.5sec and Monitored improved yield to Company's goal of 97%. Analyzed and took corrective actions for customer returns. Monitored NPI activities including first silicon evaluation, test specification and development using LTX-Synchro and LTX-77.

1993-1994: Engineering Rotational Program, Motorola, Inc. Tempe, AZ. (One Year's Program)

Product Engineer: Advanced Power Group

Created a characterization spreadsheet in excel to analyze Cp & Cpk data and Gage study of new products. Introduced new devices into production. Released 48A, performed 500hr, qualification, ESD and latch-up tests. Debugged production hardware for testing and probing.

Design Engineer: Advanced Family Logic Group

Re-designed the AC573 FACT part, increased speed performance by 20%.

Applications Engineer: Logic Division

Promoted high-frequency low power prescalers, obtained high margin sales and profits, product implemented in MOS6 fabrication Lab. Defined and published product specifications and application notes. Gave product presentations at trade shows.

Device Engineer: Cs1 Group

Responsible for an innovative process of converting GaAs wafers from baseline to 45 degrees alignment. Ran wafer lot matrices, extracted and analyzed data to reduce layout, chip size, and sensitivity to stress, leading to better threshold voltage control.

8. ACADEMIC/ SCIENTIFIC PUBLICATIONS

Refereed Journal Articles

- i. **Yohannis, M. A.**, Wausi A., Waema T. and Hutchinson M., 2019. The Role of ICT Tools in the Access of Climate Information by Rural Communities. *Journal of Sustainability, Environment and Peace* 1(2) pp.32-38.
- ii. **Michaelina A. Y.**, Agnes N. W., Margaret J. H. and Timothy M. W., 2019. Enhancing Access and Use of Climate Information through ICTs. *J. Clim. Chang. Sustain.* Vol 3, issue 1, pp.1- 12. <https://doi.org/10.20987/jccs.1.03.2019>

In Refereed Conference Proceedings

- i. **Yohannis, M. A** and Wausi, A.N., Waema, T.M. and Hutchinson, M. 2019, May. The Role of ICT Tools in the Access of Climate Information in Rural Communities. In *IST-Africa Week Conference, 2019* (pp. 1-10). IEEE.
- ii. **Yohannis, M.A.**, Waema, T.M. Hutchinson, M and Wausi, A.N. 2018. February. Enhancing Access and Use of Climate Information through ICTs. In The 13th Kenya Meteorological Society (KMS) International Conference; Uasin Gishu County, Eldoret
- iii. **Yohannis, M.A.**, Waema, T.M. and Hutchinson, M., 2017, May. Linking climate information to livelihood strategies through ICTs: The role of integrated sustainable livelihoods framework. In *IST-Africa Week Conference (IST-Africa), 2017* (pp. 1-8). IEEE.
- iv. **Yohannis, M.A.**, Waema, T.M. and Wausi, A.N., 2016, May. Provisional findings on linking climate information to livelihood strategies through ICTs among rural women in Kitui County, Kenya. In *IST-Africa Week Conference, 2016* (pp. 1-7). IEEE.

Dissertation

- v. **Yohannis, M. A.**, 2019. ICTs as a Bridge between Climate information and Livelihood Strategies Among Rural Women in Kitui County. Kenya, Published PhD. Thesis.
- vi. **Yohannis, M.A.**, 2011. The Effectiveness of Strategic Approaches Adopted By University Of Nairobi ICT Units in Maintenance of Information Communication Technology Equipment. Unpublished MBA UoN Thesis.

9. CONFERENCES AND SEMINARS

- vii. **Yohannis, M.A.**, Waema, T.M. Hutchinson, M and Wausi, A.N. 2017. April. Role of Women in the Achievement of SDGs: Linking ICTs and Climate Information. The International Triple Helix Summit
- viii. **Yohannis, M.A.**, Waema, T.M. Hutchinson, M and Wausi, A.N. 2016. July. The Role of Mobile Telephones in Enhancing Sustainable Development: The Case of Kitui County. AIBUMA Conference University of Nairobi, School of Business.

10. MEMBERSHIP OF LEARNED PROFESSIONAL BODIES

- i. Member of the Kenya Education Network (KENET)
- ii. Member of the Institute of Electrical and Electronics Engineers, Inc.
- iii. Member of Kenya Meteorological Association
- iv. Member of the University of Nairobi Alumni.

11. EXTRA-MURAL ACTIVITIES AND MEMBERSHIPS OF NON-PROFESSIONAL ASSOCIATIONS

Period	Position	Details
2014 - Present	Academic Mentor	MasterCard Foundation Scholars Program
2010 - Present	Secretary/ Treasurer	UON Loresho Estate Association
2011 – Present	Assistant Leader	Women Ministry, Mamlaka Baptist Church
2009 – 2010	Chairperson	ICT Welfare Society
2000 – 2003	Chairperson	UC Society of Electrical of Electrical Engineers

12. MEMBERSHIP OF MANAGEMENT BOARDS AND COMMITTEES

Period	Appointment	Responsibilities
Nov-2018	Champion	Customer Care Experience Centre
2013 -2015	Director	S3C Kenya Foundation-
2010-2014	Member	University of Nairobi International Trade Fair
2010-2013	Member	Disposal Committee
2010	Member	UON Maintenance Policy
2008-2010	Director	Provided Strategic and Administrative leadership in the transition of Kenya College of Communications Technology (KCCT) to Multimedia University
2005-Present	Member	UON Technical Review of ICT projects

13. SCHOLARSHIPS / FELLOWSHIPS AWARDS

- i. Postdoctoral fellowships at the African Centre for Technology Studies (2019)
- ii. Scholarship University of California At Berkeley (1994)
- iii. Special Fee Grant. University of California at Berkeley (1993)
- iv. Pacific Telesis Scholarship (1993)

14. REFEREES

1. Prof. Timothy Mwololo Waema
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4. Dr. Agnes N. Wausi
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