

CURRICULUM VITAE

BACKGROUND

Name : Dr. Nabaasa Evarist (PhD)

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Date & Place of Birth : 10th October 1975 Ntungamo
UGANDA

Citizenship/Country of Residence : Ugandan/Uganda

National Identification Number (NIN) : CM75034100Z2AE

EDUCATION SUMMARY

I hold a Bachelor of Science in Computer Science from Makerere University where I graduated in the year 2000. Since Late 2000, I started Lecturing in the Faculty of Computing and Informatics (FCI) at Mbarara University of Science and Technology (MUST) as an Assistant Lecturer. In 2002 to 2003 I headed the department of computer Science at Mbarara University. I won a Chinese scholarship and went to China for a Masters of Engineering in Computer Science from 2003 to 2006 where I graduated with MEng. Computer Science offered at Hunan University in Changsha City. At my masters I focused my research on Computer Networks particularly researching on Security of Base Stations in Wireless Sensor Networks. On my return to Uganda in late 2006, I continued as a lecturer in the Faculty of Computing and Informatics at Mbarara University to-date. In January 2015, I graduated with a PhD in Computer Science from Mbarara University of Science and Technology. During my PhD I was mentored by Prof. Frits Vaandrager of Radboud University- Netherlands, Associate Prof. Idris Rai – of Makerere University, Dr. Tonny Bulega of Makerere University and Dr. John Businge of Mbarara University of Science and Technology. My research was about Algorithms for Scheduling and Optimization of Traffic Lights via Wireless Sensor Networks. I am the Dean Faculty of Computing and Informatics from 2017 to 2025.

ACADEMIC QUALIFICATION

YEAR	INSTITUTION	AWARD
Aug 2011 – Jan 2015	Mbarara University	PhD in Computer Science
Supervisors (PhD):		
1. Prof. Frits Vaandrager Radboud University- Netherlands		2. Associate. Prof. Idris Rai Makerere – University Uganda
3. Dr. Tonny E Bulega Makerere –University Uganda		4. Dr. John Businge Mbarara University
2003-2006	Hunan University, China	Master of Engineering Computer Science and Technology (MEng.CSc)
August 2002 6 th –22 nd	Southeast University of Nanjing, China	Advanced Computer Training Certificate
1997 - 2000	Makerere University	Bachelor of Science computing Majored in Computer Science and Statistics
1994 - 1997	St Joseph’s Vocational School Mbarara	Uganda Advanced Certificate of Education
1990 - 1993	Kitabi Seminary	Uganda Certificate of Education
1982 - 1989	Kishariro	Primary Leaving Education

PUBLICATIONS

1. Nabaasa Evarist, and Prof. Yaping Lin, *“Candidate Base Stations a Security Solution For Compromised Base Stations In Wireless Sensor Networks”*, Proceedings of the 4th International Multiconference on Computer Science and Information Technology, July 2005, Amman, Jordan, Vol 1, pg 431-438, www.uop.edu.jo/csit2006/TableofContents111.htm
2. Nabaasa Evarist, and Dr. Tonny E Bulega, *“Needed Capabilities for Wireless Sensor Networks and Road Traffic Simulators”*, Proceedings of the 8th International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2011, July 19th – July 22nd, 2011 – Orlando, Florida, USA
3. Nabaasa Evarist, and Dr. Tonny E Bulega, *“Scheduling and Optimization of Traffic Lights on a T-Junction Using a Wireless Sensor Network”*, International Journal of Scientific Knowledge-Computing and Information Technology, ISSN 2305-1493, July 2013
4. Kyomugisha Patricia, Nabaasa Evarist, *“E-Learning Tools: Gaps in Checking Objective and Multiple Choice Based Questions' Ageingness and Newness”*, International Journal of Scientific Knowledge-Computing and Information Technology, ISSN 2305-1493, April. 2016. Vol. 7, No.3
5. Natumanya Deborah, Nabaasa Evarist and Mugonza Robert, *“A survey on algorithms for limited resources optimization and utilization by games on smartphones”*, International Journal of Computer Applications 144 (2016), Volume 144 –No.5, 6-12. June 2016
6. Katushabe Calorine, Nabaasa Evarist and Nyanzi Abubaker, *“Towards University Semester and Examinations Regulations Model Verification”*, International Journal of Computer Applications 146 (2016), Volume 146 –No.2, 1-4. July 2016
7. John Businge, Simon Kawuma, Engineer Bainomugisha, Foutse Khomh, and Evarist Nabaasa. 2017. *“Code Authorship and Fault-proneness of Open-Source Android Applications: An Empirical Study”*. In Proceedings of the 13th International Conference on Predictive Models and Data Analytics in Software Engineering (PROMISE). ACM, New York, NY, USA, 33-42. DOI: <https://doi.org/10.1145/3127005.3127009>, November, 8th 2017

8. Kawuma S, Nabaasa E. "Identification of promoted eclipse unstable interfaces using clone detection technique". International Journal of Software Engineering & Applications (IJSEA). 2018 Sep 23;9(5).
9. Simon Kawuma, Evarist Nabaasa, David Bamutura Sabiiti, Vicent Mbirizi , (2021), "An Empirical Study of Bugs in Eclipse Stable Internal Interfaces", Indian Journal of Software Engineering and Project Management (IJSEPM), paper_id/2021©LSP, www.ijsepm.latticescipub.com
10. E. A. Melese, E. Nabaasa, M. T. Wondemagegn, S. Yonasi and G. M. Negasa, "Deep Learning Based Algorithms for Detecting Chronic Obstructive Pulmonary Disease," 2022 IST-Africa Conference (IST-Africa), 2022, pp. 1-12, doi: 10.23919/IST-Africa56635.2022.9845630, IEEE
11. Obbo, A., Nabaasa, E. and Ariho, P., 2022. Human Sensing Meets People Crowd Detection—A Case of Developing Countries. European Journal of Technology, 6(1), pp.42-68.
Link: <https://ajpojournals.org/journals/index.php/EJT/article/view/984/1106>
12. Obbo, A., Ariho, P. and Nabaasa, E., 2022. Towards People Crowd Detection Using Wireless Sensor Networks. European Journal of Technology, 6(2), pp.32-48.
Link: <https://ajpojournals.org/journals/index.php/EJT/article/view/1071/1180>
13. Natumanya, D., Nabaasa, E. and Ariho, P., 2021. Usage and Security of Examination Modes of Assessment: A Survey of Two Universities in South Western Uganda. American Journal of Online and Distance Learning, 3(1), pp.25-36.
14. Natumanya, D. and Nabaasa, E. (2022) "An Electronic Examinations Framework with Electronic Free Handwriting", Indonesian Journal of Innovation and Applied Sciences (IJIAS), 2(2), pp. 88-92. doi: 10.47540/ijias.v2i2.512.
15. Natumanya, D. and Nabaasa, E. (2022) Lecturers Perceptions on Usage and Security of Examination modes of Assessment used in Universities. A case study of Mbarara and Bishop Stuart Universities in Uganda. International Journal of Information Technology, Communications and Convergence.
- 16.

WORK EXPERIENCE

YEAR	EMPLOYER	DESIGNATION
19th May 2017 – May 2025	Mbarara University of Science and Technology	Dean/Senior Lecturer Faculty of Computing and Informatics

Duties:

- **Oversee All Academic and Administrative Activities of the Faculty i.e**
 - Planning (short, medium and long term plans)
 - Budgeting
 - Procurement
 - Designing of Academic Programs
 - Learning process (teaching and assessment) for both students and staff
 - Research and Publication
 - Collaborations, outreach and Community Engagement
 - Publicity
 - Discipline for both students and staff
 - Welfare

July-2006 – May 2017	Mbarara University of Science and Technology	Deputy Dean/Senior Lecturer Faculty of Computing and Informatics Sciences
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Duties:

- Deputy Dean, Faculty of Computing and Informatics (FCI)
- Lecturing in both Computer Science and Information Technology bachelor degree programs
- Chairman Faculty's Academic Committee
- Chairperson of Distributed Systems Research group
- Member of the Faculty's ICT, Finance and Disciplinary Committees

Oct-2000 – Augt 2003	Mbarara University of Science and Technology	Assistant Lecturer Department of Computer Science
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Duties:

- Ag. Head Computer Science Department(September 2002–2003)
- Lecturing computer Science course units
- Lecturing statistical course units

- Member of Steering Committee for Needy Students (AfDB) HEST Project - 2015
- Member of the Deans Committee – todate
- Member of Senate – todate
- Member of the Board of Research and Graduate Training - todate
- Member of University Quality Assurance Committee - 2020
- Member of Nuffic Coordinators Committee - 2015
- Member of Academic Committee for the FCI - todate
- Chair Person Organizing Committee for the 5th Annual Research and Dissemination Conference for Mbarara University - 2009

I lecture the following courses among others

- C Programming
- Object Oriented Programming
- Advanced Object Oriented Programming
- Networking(Wired, Wireless, IoT)
- Operating Systems
- Embedded Computing
- Distributed Computing
- Data structures and Algorithms
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Projects Supervised – Postgraduate students

- “A Model for Measuring Lung Cancer Occurrences from Particulate Matter (PM_{2.5}) Air Pollutant Exposure in Kampala, Uganda” – by Tumuramyé Juliana (**Masters in Information Systems 2022**).
- “A Model for Measuring the Readiness of Universities in Supporting Electronic Learning for Students with Visual or Hearing Impairments in South Western Uganda” – by Kyomuhangi Rosette (**Masters in Information Systems 2022**).
- “A Model for Determining How the Usage of Search Engines by University Students Affects their Critical Thinking in Learning and Problem Solving” – by Aguti Suzan (**Masters in Information Systems 2022**).
- “Algorithms for Analyzing Cough Sounds for Detecting Chronic Obstructive Pulmonary Disease” - Endashaw Amsalu (**Masters of Health Information Technology 2020**)
- “A Framework and Algorithms for Optimizing Constraints in Locating Pharmacies for Finding Prescribed Drugs” - Matiwos Tekalign Wondmagegn (**Masters of Health Information Technology 2020**)

- “A Framework for Measuring the Level of Data Integrity on Existing Medical Records: A Case study of Holy Innocents Children’s Hospital” – Niyomukiza Pascal (**Masters of Health Information Technology** 2021)
- “Analysis of traffic flow using the boundary element method” ”- by Mwesigwa Ronald (on going **PhD** till Dec 2022)
- “A Framework and its Algorithm to Minimize the Perils of Data in Motion by a Network Embedded System on Data Integrity ”- by Ahanya William (on going **PhD** till Dec 2023)
- “A Framework for Effective Usage and Efficient Access of E-Resources in the Consortium of Ugandan University Libraries”- by Kansiime Hope (on going **PhD** till Dec 2024)
- “The Complexity and the Fairness of the Dynamic Resource Allocation Algorithms for Heterogeneous Servers” – Karemera Charles (on going **PhD** till Dec 2024)
- “ Using Clone-Detection to Identify stable Internal Application Programming Interfaces in Eclipse Frameworks for Application Developers” – by Simon Kawuma (**PhD** April 2019)
- “Algorithms for Identification and Management of People crowds using Wireless Sensor Networks” – by Aggrey Obbo (on going **PhD** till Dec 2022)
- “Optimization of the Control System and Pulse Sequences for Low Field Magnetic Resonance Imaging” – by Vicent Rutagangibwa (on going **PhD** till Dec 2024)
- “Algorithms for Addressing Usage and Security Issues in Electronic Examination Process for a Framework Towards Zero Pulp Paper Based University Students Assessment Process” – by Deborah Natumanya (**PhD** May 2022)
- “Incremental Model Checking of the Uptake of STEM by the Girl Child in Uganda” – by Kyakuhaire Doreen (on going **MSc Information Systems** till Dec 2023)
- “A model for cervical cancer screening and treatment among women in developing countries” – by Amanyia Patience (**Masters in Health Information Technology** 2018)

- “A Framework for Accessing Real Time Surveyed Land Information via Smart Phones: A Case Study of Gulu Lands Office” - Apio Sarah Gladys (**Masters in Information Systems** 2019)
- “Algorithms for Supporting the Production of a customized Electronic University Answer Booklet” – Nduhukire Doreck (**Masters in Information Systems** 2019)
- “A model for Determining the rate of ICT Usage in Delivering Health care services in South western Uganda” – Mukiza Christine (**Masters in Information Systems** 2019)
- “A model for Predicting the Rate of Growth of Cesarean Section Mode of Delivery Among Mothers in Developing Countries” – by Munguci Gloria (**Masters in Health Information Technology** 2018)
- “Design and analysis of algorithms for curriculum development and review for public universities in Uganda” – by Amanyay Raymond (**Masters in Information Systems** 2018)
- “Algorithms for Interpretation and Computation of Marks in Answer Booklets Through Image Processing” – by Amongi Mary (**Masters in Information Systems** 2018)
- “A Model for Determining the Water Quality and Quantity in Rural Water Reservoirs Using Wireless Sensor Networks” – Mutangizi Simon Peter (graduated with a **Masters of Information Systems** in Oct 2017)
- “A model of Predicting Ageingness and Newness of Objectives and Multiple Choice Questions in E-Learning tools Databases” – by Kyomugisha Patricia (graduated with a **Masters of Information Systems** in Jan 2017)
- “Algorithms for Accessing Resource Hungry Games on a Cloud via Mobile Smart Phones” – by Natumanya Deborah (graduated with a **Masters of Information Systems** in Jan 2017)
- “Model-based Analysis of Semester and Examination Regulations of MUST” – by Katushabe Calorine (graduated with a **Masters of Information Systems** in Jan 2017)
- “Enhanced Protocols for non Visual Navigation of Smart Phone Applications” – by Mugenyi Raymond (graduated with a **Masters of Information Systems** in Jan 2017)

REPRESENTATIONS

IUCEA – MUST Representative for Quality Assurance Peer Reviewers Committee for East African Universities

Nov. 2009, I participated in Peer Reviewing Computer Science Programs of: -

- Kyambogo University – Uganda
- Uganda Martyrs University Nkozi – Uganda
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Feb. 2010, I participated in Peer Reviewing Computer Science Programs of: -

- University of Nairobi - Kenya
- State University of Zanzibar - Tanzania
- University of Dodoma - Tanzania

PROJECTS HEADED

Applied Curriculum in Technology for East Africa – ACTEA Project Erasmus+ and European Union Funded. It was worth **93,894** Euros. The project is for 3 years from 2019 - 2021. It intended to establish an applied curriculum for technological university programs at MUST and other East African Countries partner universities. I am the project coordinator at MUST.

UNESCO FUNDED – Brain Gain E-Learning Platform for Mbarara University. It was worth \$40,000. The project was for 2 years. It was intended to establish an e-learning platform at MUST and implement both e-learning and distance education via the platform. I was the project Manager. It started in March 2010 and ended in 2012.

RESEARCH INTERESTS

Over the years, I have developed research interests in the following areas among others

- Wireless Sensor Networks and more particularly Application Areas, Security, Coverage and Expansion, IoT.
- Model Checking especially using UPPAAL
- Programming Simulation Tools more especially Intelligent Transport Systems.

PROGRAMMING SKILLS AND EXPERIENCE:

Programming languages: Java (proficient), C (proficient) Visual Studio .NET C#, C++, JavaScript, JSP, PERL, PHP, TCL, Matlab (proficient), Visual Basic.

Web development experience: Experienced with Java, JSP, CSS, CGI programming, PHP, JavaScript, HTML, Apache, Tomcat XLM, XSLT, XHTML, DOM and various other languages.
Statistical packages: SPSS (very proficient), Epiinfo, Epidata.

SPOKEN LANGUAGES:

English	-	Excellent
Chinese	-	Good
Kiswahili	-	Fair
Runyankore	-	Excellent (vernacular)
Luganda	-	Good (vernacular)

INTERESTS:

-Working especially in Programming, Networking,
Database Management section and Managerial Posts.
-Reading, Internet and
Computer related Courses.

REFEREES:

1. Dr. BARIYO ROGERS (PhD)
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