Prof. L. S. P. Busagala

Curriculum Vitae

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Personal Particulars

Full Name	Lazaro Simon Petro Busagala
Place of Birth	Magu, Mwanza, Tanzania
Nationality	Tanzanian
Language	Fluent in English and Swahili. I can speak Japanese too.

Overview

Education

Ph.D. in Information Systems Engineering of Mie University, Japan (2008); M.Eng. in Information Engineering of Mie University, Japan (2005); PGD in Scientific Computing of University of Dar Salaam, Tanzania (2001); B.Sc. of Sokoine University of Agriculture (1999); ACSEE (1995, Kibaha Secondary School); CSEE (1992, Nsumba Secondary School).

Employment and Positions Held

July 2014 –To date	**Director**, *Computer Centre (SUA)* , Sokoine University of Agriculture.
July 2014 – To date	**Associate Professor of Information Systems Engineering**, *Sokoine University of Agriculture*.
2011 – 2014	**Acting Director**, *Computer Centre*, Sokoine University of Agriculture.
2009 – 2011	**Deputy Director**, *Computer Centre*, Sokoine University of Agriculture.
2008 – 2014	**Head**, *Information and Communication Technology*, National Agricultural Library (SNAL).
1999 – To date	**Academic Staff**, *Sokoine University of Agriculture*.

Achievements as a Leader & a Team Player

(i) Successfully led a team in negotiating with USAID such that a grant agreement of USD 2.39 millions was signed in October 2014 and disbursement of funds begun in January 2015.

(ii) Successfully leads the project implementation team of Enhancement of SUA's Capacity to Utilize ICT (ESUA-CICT) such that implementation of the first two milestones have been accomplished, in March 2015. Meanwhile other milestones are progressing on well including installation of video conferencing facilities and replacing the aging LAN fiber optic cable at SUA.

(iii) Successfully leads the management team of the Computer Centre, SUA in reducing spending. For example he encourages paperless meetings (i.e. e-meetings) leading to savings at least TZS

5,000,000 (five millions Tanzania Shillings) per year for the Computer Centre, SUA.

(iv) Successfully led the team in improving SUA's Internet Speed. Within two years, from 2010 to 2012, SUA had improved the Internet speed from 2 mbps (shared by 8 institutions) to 40 mbps (dedicated for SUA) using internally generated funds.

(v) Successfully improved SUA teaching venues particularly 4 computer laboratories by planning, and supervising renovation as well as straightening their management using internally generated funds (2012/13). This has resulted into better practical training and maintenance of computers thus attracting more students.

(vi) Amazingly, planned and Supervised the Installation of Wireless Access Points at Sokoine University of Agriculture, in 2012

(vii) From 2012 to 2014, successfully planned, designed and managed the implementation of Sokoine University of Agriculture Students Information Systems (SUASIS) which have resulted into better tool for various issues including control of payments of students fees thus reducing losses for the university.

(viii) Successfully managed the planning and increase of training programs hosted by the Computer Centre, SUA. During my leadership we have successfully managed to increase training programs from 0 to 2 in 2011. Currently, we have designed 3 more programs that are going through the university machinery. This will ultimately increase university's income.

(ix) Successfully leads the team in positive changes of institutionalizing various best practices by putting in place ICT policy which was approved by the university council in March 2014. Furthermore, ICT regulations and guidelines have been approved by Computer Centre Board ready for discussions in higher organs.

(x) Successfully planned and managed extension of local area network (LAN) using fiber optic cable. Examples include connecting world bank funded building hosted at Department of Agricultural Engineering and Land Planning, SUA

(xi) Successfully led the team in planning, designing and establishing the SUA Information Technology Consultancy Bureau in 2011 leading into more income for the university.

(xii) Successfully manages Information Systems at SUA including servers for E-Mails, DNS, Proxy, Web and various databases

(xiii) Successfully participated in a planning team for SUA Corporate Strategic Plan (2010 - 2020). In addition, led various teams in strategic planning including action plan developments.

(xiv) Successfully leads, manages staff and financial resources resulting into all the achievements mentioned in this section

Experience

Lazaro S.P. Busagala is a result oriented leader with an experience of more than 14 years. He is currently the Director, Computer Centre, Sokoine University of Agriculture. Therefore he is a member of senior management team of Sokoine University of Agriculture. Furthermore he has held various leadership and management positions as outlined including managing projects such as that for enhancement of SUA's capacity in utilizing ICT (ESUA-CICT) for increased agricultural productivity. He has excellent interpersonal, leadership and management skills coupled with decision making skills.

Outline of Leadership & Management Experience

July 2014 – Present **Director**, Computer Centre, Sokoine University of Agriculture (SUA).

Main Duties and Responsibilities include:

○ Leading and managing various ICT projects
○ Coordinating the acquisition, installation of computer hardware, software and other ICT related matters
○ Leading and managing income generating activities of the SUA Computer Centre
○ Managing the SUA networking infrastructure and Other ICT related Matters
○ Managing Various Information Systems and Electronic Databases
○ Planning, budgeting and reporting activities
○ Representing the Computer Centre to University Organs and Meeting
○ Staff and finance management responsibilities

July 2011 – June 2014 **Acting Director**, Computer Centre, Sokoine University of Agriculture (SUA).

Main Duties and Responsibilities include:

○ Leading and managing various ICT projects
○ Coordinating the acquisition, installation of computer hardware, software and other ICT related matters
○ Leading and managing income generating activities of the SUA Computer Centre
○ Managing the SUA networking infrastructure and Other ICT related Matters
○ Managing Various Information Systems and Electronic Databases
○ Planning, budgeting and reporting activities
○ Representing the Computer Centre to University Organs and Meeting
○ Staff and finance management responsibilities

July 2011 – Present **Chairman**, Computer Centre Board, Sokoine University of Agriculture (SUA).

Main Duties and Responsibilities include team leadership in

○ Organization and Managing Computer Board Membership
○ Organization and Managing preparations for the meetings
○ Monitoring and evaluation of board decisions
○ Chairing all the meetings in absence of the chairman

2009 – June 2011 **Deputy Director**, Computer Centre, Sokoine University of Agriculture (SUA).

Main Duties and Responsibilities include:

○ Leading and managing various ICT projects
○ Coordinating the acquisition, installation of computer hardware, software and other ICT related matters
○ Leading and managing income generating activities of the SUA Computer Centre
○ Managing the SUA networking infrastructure and Other ICT related Matters
○ Managing Various Information Systems and Electronic Databases
○ Assisting in planning, budgeting and reporting activities
○ Assisting in Policy formulation
○ Representing the Computer Centre to University Organs and Meeting

	○ Staff and finance management responsibilities ○ Being the Acting Director in the absence of the Director
2009 – June 2011	**Vice Chairman**, Computer Centre Board, Sokoine University of Agriculture (SUA). Main Duties and Responsibilities include team leadership in ○ Organization and Managing Computer Board Membership ○ Organization and Managing preparations for the meetings ○ Monitoring and evaluation of board decisions ○ Chairing all the meetings in absence of the chairman
2009 – 2011	**Chairman**, University-wide Web Site Committee, Sokoine University of Agriculture (SUA). This committee has 13 members whom are all Deputy Deans/Directors of Faculties, Institutes, Directorates and Centers. Main Duties and Responsibilities include team leadership in ○ Organization and Managing the SUA Web Site ○ Developing guidelines and formats for web content ○ Ensuring that all information on all web-pages are updated regularly ○ Monitoring and evaluation ○ Chairing all the meetings
2010 – 2011	**Chairman**, University-wide Inspection Committee, Sokoine University of Agriculture (SUA). This is according to the Procurement Act No. 21 (2004) Main Duties and Responsibilities include team leadership in ○ Organization and Managing the Procurement Process ○ Ensuring that effective management of any procurement of goods and non consultancy services ○ Preparation and reporting any deficiencies found in the course of inspection ○ Chairing all the meetings
2008 – Present	**Head**, Information Technology Section, Sokoine National Agricultural Library (SNAL). Responsibilities include team leadership in ○ Managing the library networking infrastructure ○ Managing library electronic databases ○ Assisting in planning, budgeting and reporting activities ○ Training library staff and other users in information technology ○ Representing the IT Section to the University and Library Organs ○ Chairing all departmental meetings

Highlights of Teaching Experience

1999 – Present	**Taught**, *Various Subjects at undergraduate and postgraduate levels as indicated below.* **Subjects and Level** ○ Software Engineering, Undergraduates and postgraduates ○ Pattern Recognition and Machine Learning, Masters students ○ Artificial Intelligent, Undergraduates

- ○ Information Retrieval, Undergraduates
- ○ Information Literacy, Undergraduate and postgraduates i.e. Masters and PhD students
- ○ Network Design and Administration, Undergraduates
- ○ Operating Systems, Undergraduates
- ○ Socio-Cultural Implications of ICT, Undergraduates
- ○ Technical English, Undergraduates, Mie University, Japan

Experience on Thesis/Dissertation Supervision

2011 **A. Malero**, *Transformed Features in Automated Spam Filtering*, Masters Dissertation, Examined and Graduated from Dodoma University.

2011 **G. Kawono**, *Adoption and Utilization of Information and Communication Technology in Health Service Delivery in Iringa, Tanzania*, Masters Dissertation, Examined and Graduated from Dodoma University.

2011 **L. Ringo**, *The Use of Information and Communication Technology (ICT) in Community Policing in Tanzania: A Case of Dodoma Regional Police*, Masters Dissertation, Examined and Graduated from Dodoma University.

2012 **E. P. Minja**, *Adoption and Use of Free and Open Source Software for Teaching and Learning in Higher Learning Institutions of Dodoma Municipality, Tanzania*, Masters Dissertation, Examined and Graduated from Dodoma University.

2012 **S. Edward**, *A Study on Automatic Survey Coding Using Machine Learning Techniques*, Masters Dissertation, Examined and Graduated from Dodoma University.

2012 **T. Tesha**, *Automating the Classification of Swahili Documents*, Masters Dissertation, Examined and Graduated from Dodoma University.

Research Experience

2002 – Present **Research in Pattern Recognition and Machine Learning**.
The main focus has been to research and develop various methods with the focus to improve information systems related to pattern recognition, machine learning and data mining. The work includes feature extraction and transformation, dimensionality reduction, discriminant analysis, nearest neighbor and kernel methods. The application area mainly has been automatic text classification. Other applications include spam filtering and automatic entry of data from handwritten documents. The proposed techniques can also be applied in various fields such as Bio-informatics such as livestock Biometrics.

2000 – 2001 **Research in Information Retrieval**.
The main focus was to technically evaluate search and retrieval of scientific literature. The objectives included to find out the awareness and the skills of users.

1998 – 1999 **Research in Marketing**.
The goal was to find out the main factors that influence consumer choice of soft drinks.

Computer Skills & Experience

Operating Systems

Linux/Unix, MacO S™ and All Microsoft™ operating systems. Familiar with Solaris™

Computer Programming

Proficient	C, C++ mainly used in developing packages for Research in Pattern Recognition and Machine Learning
Familiar	Java, Python, Visual Basic, Pascal
Scripts	C, Bash, VBScript, JavaScript
Web	HTML, CSS, XML, PHP, ASP

Tools

Databases	CDS/ISIS^{TM}, and MySQL^{TM}. In 2000, Prof. LSP. Busagala got involved with WEB-LIS in the first installation process at Sokoine National Agricultural Library (SNAL) which we are using since then. Currently, I am project manager for Sokoine University of Agriculture Student Information System (SUASIS) which includes modules such as admission, registration, accommodation, billing, examination processing, timetabling, e-learning. SUASIS uses MySQL databases. Furthermore, I am IT team leader in the installation, customization and development process of ABCD software and other databases at the Sokoine University Agriculture. Also IT team leader in installation, configuration and customization DSpace software for Digital Repository **(e-library)** of Climate Change Impacts, Adaption and Mitigation programme in four institutions namely Sokoine University of Agriculture, University of Dar es Salaam, Ardhi University and Tanzania Meteorological Agency. Also I am familiar with Microsoft^{TM} Access and MySQL.
Scientific	GNUPlot, Octave, R, SPSS, PSPP

Typesetting and Office Suites

TEX, LATEX, OpenOffice, Microsoft Office^{TM}, Lyx

Highlights of Professional Experience in Information Technology

1999 – Present	**Academic Staff (currently Associate Library Professor)**.

 Selected accomplishments:

- Successfully Teaches Courses Related to Computer Science/Engineering or Technology as detailed in teaching part
- Successfully does research and publishing in referred articles
- Involved in Automating Sokoine National Agricultural Library (SNAL) since 2000
- Participated in Installation and Configuration of CD/ISIS Library Information System later upgraded to WEBLIS which is online accessible databases in 2000 to 2002 at SNAL
- Currently, IT Team Leader and fully involved in establishing e-library/digital repository for Climate Change Impact, Adaptation and Mitigation programme in four Institutions namely Sokoine University of Agriculture, University of Dar es Salaam, Ardhi University and Tanzania Meteorological Agency. The software used here is DSpace.
- IT Team Leader in Migrating from WEBLIS to ABCD Software– an e-library software that allows full text. Activities include leading the team in setting up, configuration, customization and development
- Developer leader of Student Information Systems for Sokoine University of Agriculture. Currently an Examination Release System module has been accomplished
- Since 2004 has been solely developing software packages for Pattern Recognition and Machine Learning which are being used in various research experiments of automated document classification i.e. Information Retrieval Component. This has resulted into a number of publications as indicated in this CV.

Posts Held

1999 – Present   **Employed as an Academic Librarian cum Lecturer and Currently at the rank of Associate Library Professor**, *Sokoine National Agricultural Library cum Sokoine University of Agriculture Library*, Morogoro, Tanzania.

Responsibilities:

- Teaching various subjects in information technology
- Conducting research
- Academic adviser to students on research works
- Participation in curriculum development
- Managing Library e-databases, Digital Institution Repository, Networks, Software Development and Management
- Provision of library services including information access
- Provision of consultancy services in information technology

2014 – Present   **Activity Manager, Enhancement of Sokoine University of Agriculture Capacity in Utilizing ICT (ESUA-CICT) for increased agricultural productivity**, *Sokoine University of Agriculture*, Morogoro, Tanzania.

Responsibilities:

- Technical and administrative management
- Liaison with developmental partners i.e. USAID in day-to-day implementation
- Managing project that include all the work to make the product a reality including liaising with various stakeholders

2012 – Present   **Manager, Software Development Project for Sokoine University of Agriculture Student Information Systems (SUASIS)**, *Sokoine University of Agriculture*, Morogoro, Tanzania.

Responsibilities:

- Managing the people involved in developing
- Managing the software development processes
- Managing project that include all the work to make the product a reality including liaising with various stakeholders

2003 – 2008   **Teaching Assistant**, *Mie University*, Tsu, Japan.
Taught mainly English for Engineering Students used in information Engineering/Technology. In order to facilitate this, a number of topics could be covered include information retrieval, Linux programming

Membership

- Senate Member of Sokoine University of Agriculture (SUA)
- Board Member of SUA Computer Center
- Chairman and Member: SUA University-wide Web Site Committee
- Chairman and member of Curriculum Development Committee, (SUA
- Member of a Taskforce on Review of SUA's Corporate Strategic Plan 2005 - 2010
- Member of Senior Staff Committee of the Sokoine National Agricultural Library (SNAL)
- Member of Sokoine University of Agriculture Academic Staff (SUASA)

Awards and Prizes

○ Awarded MEXT scholarship by Japanese government, 2002 - 2008
○ Awarded a prize for being best foreign student in speech delivery, International Student Center, Mie University, Tsu, Japan, 2002
○ Awarded a prize for being best student in Agricultural Economics, Sokoine University of Agriculture, Morogoro, Tanzania, 1997

Education

2005 – 2008 **Ph.D. (Information Systems Engineering)**, *Division of Systems Engineering*, Graduate School of Engineering, Mie University.
Tsu, Japan

Thesis Title: *Improving Automatic Text Classification by Discriminant Analysis Techniques*

2003 – 2005 **M.Eng. in Information Engineering**, *Department of Information Engineering*, Graduate School of Engineering, Mie University.
Tsu, Japan

Thesis Title: *Applying Machine Learning Techniques to Automatic Text Classification*

2000 – 2001 **Postgraduate Diploma in Scientific Computing**, *Department of Mathematics*, University of Dar es Salaam, Dar es Salaam.
Tanzania

Thesis Title: *A Technical Evaluation of Ten Internet Search Engines for Indexing and Retrieving Scientific Literature*

1996 – 1999 **B.Sc. in Home Economics and Human Nutrition**, *Department of Food Science and Technology*, Sokoine University of Agriculture, Morogoro.
Tanzania

Thesis Title: *Factors Affecting Consumer Choice and Preference of Carbonated Beverages in Morogoro Municipality*

Selected Short Courses Attended

June 6 – 10, 2010 Attended a Leadership and Management Workshop, Mombasa, Kenya.

Jan. 14 – March 8, 2002 Attended a course in Information Systems Engineering as a Third Country Training Programme. Conducted at the Institute of Computer Technology of Colombo, Sri Lanka.

2002 - 2004 Japanese Language Course. Conducted at the International Student Center, Mie University, Tsu, Japan

Selected Publications

Journal Papers

[1] Lazaro S. P. Busagala and Tumsifu Elly. Performance of ten internet search engines in retrieving scientific literature in Tanzanian public university libraries. *University of Dar es*

Salaam Library Journal, 6(1):1–17, 2004.

[2] Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. Improving automatic text classification by integrated feature analysis. *IEICE Transactions on Information and Systems*, E91-D(4):1101 − 1109, 2008.

[3] Lazaro S. P. Busagala. Involving postgraduate students in enhancing university research performance and timely information dissemination. *University of Dar es Salaam Library Journal*, 10(2), 2010.

[4] Camilius Sanga, Juma Kilima, and Lazaro S. P. Busagala. Optimizing internet bandwidth in higher learning institutions: A case of sokoine university of agriculture. *International Journal of Computing and ICT Research*, 4(2):27 − 35, 2010.

[5] Augustine Malero and Lazaro S. P. Busagala. The impact of transformed features in automatic spam filtering. *Journal of Informatics and Virtual Education*, 1(1):55 − 58, 2011.

[6] Lilian J. Ringo and Lazaro S. P. Busagala. The role of mobile phones and public perceptions for community policing in tanzania. *International Journal of Computing and ICT Research*, 6(2):64 − 74, 2012.

[7] Lazaro S. P. Busagala and Lilian J. Ringo. Constraints of e-policing adoption: A case of dodoma, tanzania. *International Journal of Information and Communication Technology Research*, 3(1):42 − 48, 2013.

[8] Lazaro S. P. Busagala and Geofrey Kawono. Underlying challenges of e-health adoption in tanzania. *International Journal of Information and Communication Technology Research*, 3(1):34 − 41, 2013.

[9] Lazaro S. P. Busagala and Geofrey Kawono. Perceptions and adoption of information and communication technology for healthcare services in tanzania. *International Journal of Computing and ICT Research*, 7(1):12 − 21, 2013.

Conference Proceedings

[10] Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. Machine learning with transformed features in automatic text classification. In *Proceedings of ECML/PKDD-05 workshop on Sub-symbolic Paradigms for Learning in Structured Domains (Relational Machine Learning)*, pages 11– 20, 2005.

[11] Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. Integrated feature analysis for automatic text classification. In Petra Perner, editor, *Machine Learning and Data Mining in Pattern Recognition*, pages 16 − 26. IBaI Publishing, 2007.

[12] Gudila P. Moshi, Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. An impact of parts of speech analysis on automated classification of ocr texts. In *Conference on Pattern Recognition and Media Understanding, IEICE Technical Report Vol. 418*, pages 75 − 80, 2010.

Books

[13] Lazaro S. P. Busagala. *Automated Document Classification: Methods and Algorithms*. VDM Verlag, Germany, ISBN: 978-363-927-0501, 2010.

Book Chapters

[14] Edda T. Lwoga, Alfred Sife, Lazaro S. P. Busagala, and Wanyenda Chilimo. The role of universities in creating ict awareness, literacy and expertise: experiences from tanzanian public

universities. In F. F. Tusubiri and Nora K. Mulira, editors, *Universities: taking a leading role in ICT enabled human development*, pages 35 − 44. Panthon Solution, Kampala, 2005.

[15] Mayo Murata, Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. The impact of OCR accuracy and feature transformation on automatic text classification. In H. Bunke and A. spdz, editors, *Document Analysis Systems VII*, pages 506 − 517. Springer, 2006.

[16] Gudila P. Moshi, Lazaro S.P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. An impact of linguistic features on automated classification of ocr texts. In *Document Analysis Systems*, pages 287 − 292. 2010.

[17] Akihiro Kokawa, Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. An impact of ocr errors on automated classification of ocr japanese texts with parts-of-speech analysis. In *ICDAR*, pages 543–547, 2011.

[18] Lazaro S. P. Busagala, Wataru Ohyama, Tetsushi Wakabayashi, and Fumitaka Kimura. Multiple feature-classifier combination in automated text classification. In *Document Analysis Systems*, page forth Coming, 2012.

Referees

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Updated & Signed

o Date: July 13, 2015

o Signature: