

CURRICULUM VITAE



PROF. ENG. BERNADETTE W. SABUNI

EDUCATION/ACADEMIC QUALIFICATIONS

- 2015** PhD in Disaster Preparedness and Engineering Management, MMUST.
Thesis: Structural Response of Black Cotton Soils Treated with Lime Activated Sugar Cane Bagasse Ash for Engineering Applications.
- 1992** Master of Philosophy (Mphil) in Civil Engineering at the University of Glamorgan, Wales, U.K, specializing in building materials and technologies.
Thesis: Lime stabilized murram as a building material in Kenya
- 1989** Bachelor of Science in Civil Engineering at the University of Nairobi, Kenya.
- 1984** A-level, Lugulu Girls High School
- 1982** O-Level, Lugulu Girls High School

OTHER TRAINING

East African Quality Assurance Officers Training
Part I – 28th August – 12th September, 2007, Oldenburg, Germany
Part II- 27th January -2nd February, 2008, Dar es Salaam, Tanzania
Part III – 6th -12th July, 2008, Entebbe, Uganda.

Internal Quality auditor Training, MMUST, 2011
Lead Quality Auditor Training, MMUST, 2011

WORK EXPERIENCE

- 2021 - Associate Professor of Civil and Structural Engineering,** Department of Civil and Structural Engineering, , Masinde Muliro University of Science and Technology
- 2013 – 2021 Senior Lecturer,** Civil and Structural Engineering Department, Masinde Muliro University of Science and Technology. Teaching theory of structures, Strength of Materials, Structural Timber Design. Structural Concrete Design, Structural Steel Design.
- 2016 to 2019** Sessional senior lecturer at the University of Eldoret, Department of Civil and Structural Engineering.
- 2018 to date** External examiner at Moi University, Civil and Structural Engineering
- 2005 to 2013** Lecturer, Civil and Structural Engineering Department, Masinde Muliro University of Science and Technology.
- 2003-2005** Research Fellow/Materials Engineer at Housing and Building Research Institute, University of Nairobi
- 1994-2003** Chief Technologist / Materials Engineer at Housing and Building Research Institute.
- 1989-1990** Assistant Engineer II – Nairobi City Council

RESPONSIBILITIES AT MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

- 2005 -2008 Chairman, department of Civil and Structural Engineering
Designed and supervised construction of Laboratory and Tuition Block B (LBB) Phase II, Student Hostel (Hall 3)
- 2007 – 2010 Team leader, MMUST Library construction. Co-ordinated of the construction team and the consultants. Supervised construction works
- 2008 –2013 Coordinator, Quality Assurance, MMUST. Coordinated establishment of Quality Management System in MMUST. Spearheaded ISO 9001:2008 certification process.
Liaison officer with East African Quality Assurance Network.
- 2011-2012 Team leader, tender evaluation committees, for the following projects:-
1. Construction of 1000 women’s hostel (Jan 2011)
2. Construction of Multi-purpose hall (March 2011)
3. Supply, Installation and commissioning of Mechanical and Electrical works for Multi-purpose hall. (April 2012)
- 2013 - 2016 Director, Quality Assurance, MMUST
- 2016 to 2018 Acting Dean, School of Engineering and Built Environment, MMUST
- 2016 to date Trustee - MMUST Staff Retirement Benefits Scheme
- 2018 to 2020 Acting Deputy Vice Chancellor, Academic and Student Affairs, MMUST

2019 to date	MMUST Contact person on Higher Education Partnership for Sub-Saharan Africa programme in collaboration with Technical University of Kenya, funded by the Royal Academy of Engineering. Currently mentoring four (4) lecturers towards professional accreditation.
2020 -	Dean elect, School of Engineering and Built Environment. Chairperson of internal team for Implementation of Engineering and TVET Complex.

PAPERS/PUBLICATIONS/CONFERENCE PRESENTATIONS

R. Onchiri and **B.W. Sabuni**, (2014) “Use Of Sugarcane Bagasse Ash As A Partial Replacement For Cement to Stabilize Self-Interlocking Earth Blocks” International Journal of Civil Engineering and Technology, Volume 5, Issue 10 , pp 124-130.

B. W. Sabuni, T.N. Mauti and R. Onchiri. (2014) “Use Of Ground Nut Shell Ash as a Partial Replacement For Lime To Stabilize Black Cotton Soil”. International Journal of Civil Engineering Research, ISSN 2278-3652 , Vol. 5, No. 1, pp. 65-76.

K. Aburili, **B.W. Sabuni** and R.O. Onchiri, (2016) “Compressive Strength Prediction Model for Bagasse Ash Concrete”, (2016) International Journal of Novel Research in Civil Structural and Earth Sciences, Volume 3, Issue 3, pp 6-14, Sept. 2016, ISSN 2394-7357.

R.O. Onchiri, **B.W. Sabuni** and D.K. Mwangi, (2016) “Use of Molten Plastics in Developing Alternative Building Materials”, Journal of Science, Technology, Education and Management (J-STEM) Vol.7 Nos. 1 & 2 Sept. 2016. ISSN 1991-2889.

B. W. Sabuni, (2016) “Stabilization of Black Cotton Soils using lime Activated Sugar Cane Bagasse Ash for Engineering Applications”, Paper presented at 2nd DeKUT International Conference on Science, Technology, Innovation and Entrepreneurship, 2nd - 4th Nov. 2016.

B.W. Sabuni, (2018), “Prediction Models for Engineering Properties of Black Cotton Soils”, Journal of Science Technology Education and Management (J-Stem). VOL 9, No 1, June 2019, ISSN 1991-2889.

S. Shitabuleh , **B. Sabuni** and S. Kandie, (2020) “Structural Behaviour of Concrete Filled Bamboo Columns Under Axial Loads”, Civil and Environmental Research, ISSN 2224-5790 (paper), ISSN 2225- 0514 (online), Vol. 12, No.8.

C. Mungai, **B.W.Sabuni** and E. Neyole (2020), ‘Influence of Rice Husk Ash on Subgrade Bearing Strength in Stabilization of Expansive Soils for Low Volume Roads in Kenya” Civil and Environmental Research, ISSN 2224-5790 (paper), ISSN 2225- 0514 (online), Vol. 12, No.11.

B.W. Sabuni, N. Mburu, M.M. Mukolwe, P. Cherop and J. Owuor, (2021) “Strengthening Engineering Training Curriculum Through Industry-Academia Driven Approach”, Paper presented at the 28th IEK International Conference, 8th -12th November 2021, Pride Inn, Mombasa.

PROFESSIONAL AFFILIATIONS

Engineering Board of Kenya (Reg. No. A3010)

Institution of Engineers of Kenya (Membership No. M4630)

Member, Association of Disaster Management and Conflict Resolution of Kenya.

Member of African Women in Science and Engineering (AWSE)

Member of the National Implementation Committee on Structural Euro-codes (NICE).

RECENT WORKSHOPS/ SEMINARS/CONFERENCES ATTENDED

The National Cohesion and Values Sensitization Workshop, 3rd May 2016, MMUST

HEPSSA workshop, 11th – 12th May 2017, Sirikwa Hotel, Eldoret.

IEEE Meeting, 18th May 2017, Nairobi

Engineers Board of Kenya (EBK) Stakeholders Workshop, 5th June 2017, Kisumu Hotel.

Continuous Professional Development Providers workshop organized by EBK, 12th October 2017, Kenya School of Monetary Studies.

National Engineers’ Forum on Continuous Professional Development, 22nd November 2017, Kenya School of Monetary Studies.

Presentation at Career week organized by Technology Students Association of Moi University, 15th March 2018.

Training Workshop on Strategic Leadership and Management of Higher Education Institutions, 25th – 28th March 2018, at Masinde Muliro University of Science and Technology.

Appointed Judge at the 2nd Kenya Association of Technical Training Institutions (KATTI) National Technical and Vocational Education Training (TVET) Fair, 5th April 2018 at Jomo Kenya Sports ground – Kisumu.

3rd HEPSSA Workshop 3rd – 5th May 2018 at KICD, Nairobi

Pan Africa Conference, Kisumu June 2018

African Engineering Conference, in Mombasa, Kenya, 17 – 21st September 2018

Practical Oriented University Education workshop, Brandenburg, Germany – 24th -28th September 2018.

Corporate Governance Training Workshop, Eldoret, Kenya, 2nd – 3rd May 2019

Higher Education Partnership for Sub-Saharan Africa Workshop, Nairobi, Kenya 6th – 7th May. 2019.

2nd women Engineers Summit and International Engineering Conference, 3rd – 6th September 2019, Diani, Mombasa.

Training of Trainers on Structural Euro codes, 23rd – 27th September 2019, Machakos.

27th IEK Conference, 2020

28th IEK Conference, 2021

SUPERVISION OF POSTGRADUATE STUDENTS

	Name	Title	Level	Status
1	Kennedy Aburili	Compressive Strength Prediction Models for Sugar Cane Bagasse Ash Concrete	PhD	Completed
2	Catherine Mungai	Effect of Rice Husk Ash on Stabilization of Expansive Soils for Low Volume Subgrade Material.	Masters	completed
3	Stephen Were Shitebule	Structural Performance of Bamboo filled with Concrete under uniaxial loading.	Masters	Completed
4	Morris Marango	Gis Based Road Network Modelling For Traffic Control in Urban Areas: A Case Study of Eldoret Municipality, Kenya	Masters	Ongoing
4	Gerald Malele	Structural Response of Western Kenya Alluvial Sands from Kakamega and Bungoma Counties for use as Fine Aggregate	Masters	Ongoing
5	Joseph Kuta	Engineering properties of recycled concrete reinforced with coconut fibre	PhD	Ongoing
6	Christine Mutai	Structural Characterization of timber species in Kakamega County for Engineering Applications	Masters	Ongoing
7	Tabitha Soo	Development of Concrete Mix	Masters	Ongoing

		Design for Portland Pozzolana Cement		
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EXAMINATION OF THESIS

Candidate name	Institution	Title of Thesis	Level	Year
Betty Nasambu Opilo	MMUST	Role of dykes in flood mitigation in lower Nzoia river basin Western Kenya'	Masters	2018
Benjamin Asin Mugada	MMUST	Bending Stress Response of Strap Beam	Masters	2018
Monicah Nyambura Kingori	MMUST	'Factors Leading to Collapse of Storey Buildings in Kiambu County, Kenya	Masters	2020

ATTRACTION OF FUNDS

Royal Academy of Engineering for HEPSSA project – KShs. 4.5M

Kenya Government for construction of Engineering and TVET Complex at MMUST – KShs. 800M.

OTHER CORPORATE SOCIAL RESPONSIBILITIES

2007 to 2013 Board of Management member

- Sangalo Institute of Science and Technology
- Sigalagala Technical Training Institute
- St. Cecilia Girls High School- Misikhu

2010 to 2013 Board of management member - Kibabii Diploma Teachers Training College

2016 to 2019 Board of management member - Kibabii Diploma Teachers Training College

2016 to 2019 Board of management member - St. Teresa –Kabula Boys Secondary School

2016 to date Board of management member - St. Elizabeth- Bitobo Secondary School

2020 to date Board of management member - Navakholo Technical and Vocational Training College

AWARDS

“Distinguished woman in Engineering Education Award” - awarded at the 28th Institution of Engineers of Kenya international Conference, Pride Inn Hotel, Mombasa, 8th – 12 November 2021.

REFEREES

1. Prof. Sibilike Makhanu
Masinde Muliro University of Science and Technology
P.O Box 190 – 50100
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2. Prof. Richard Onchiri
Technical University of Mombasa
P.O. Box 90420-80100
Mombasa
Email: roocharo@gmail.com
Phone: 0724 372 704

3. Prof. Patrick Kafu
University of Eldoret
P.O. Box 1125 - 30100
Eldoret
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