# SUM PSUSMA TECLA JEROTICH CURRICULUM VITAE

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## PERSONAL DATA

Name:	Sum Psusma Tecla Jerotich
Nationality:	Kenyan
Spoken Languages	OGIEK, SWAHILI, ENGLISH And FRENCH
<b>Current Academic Position:</b>	Senior Lecturer
Current Administrative Position:	Director, Science Park Innovation and Incubation Centre (SPIIC). Masinde Muliro University of Science and Technology.
Previous Administrative Position:	Chairperson Of Department, Paramedical Sciences & Emergency Medicine, Masinde Muliro University of Science and Technology.
Address:	P. O. Box 190-50100, Kakamega, Kenya
Telephone:	
Email Address:	tsum@mmust.ac.ke Or psusmatsum@gmail.com

### **PROFESSIONAL PROFILE**

### **Profession: Emergency Medicine and Education**

International mentor in Digital Transfer Technology in Emergency Medicine and Certified Chief International Innovation Expert (CCIIE) by the Russian Federation following the Inter-Continental Innovation Championship at St. Petersburg Russia in 2024.

Passionate and committed in incubating ideas through research, innovation, education and Technology and translating them into actions that stimulate and enhance the economy of our Nation and Beyond as evidenced by *the multimillion Project of Kenyan Shillings 650 Million from German Government (Malteser International) in 2023 to establish and complete an Ultra-Modern High Fidelity Simulation Laboratory at MMUST* that is currently utilized by Medical students from various medical colleges in Kenya.

Won a European Commission 5-year Exchange Project for several students and staff at MMUST which has since internationalization and job opportunities for our Kenyan Citizens.

Member of United Nations Economic Commission for Africa following outstanding expertise support during Covid 19 pandemic.

I have laid a solid foundation as Director, Science Park, Innovation and Incubation Centre of Masinde Muliro University of Science and Technology that has catapulted a cutting edge and outstanding outcome; one which is innovative and transformative ecosystem that aims at meeting important and often unmet dynamic societal needs through implementation of rigorous research and innovation, underpinned by excellence, relevance and impact.

Established MMUST Innovation Academy (Mi-A) for young and upcoming innovators across all ages.

I remain committed to maximizing the benefits of Innovations and Research Incubated within Kenyan boundaries for the benefit of the Kenyan citizens, its economy and the global population at large.

Nominated for the International Emergency Train System program at the Center for Teaching and Research in Disaster Medicine and Traumatology following immense contribution made in addressing the burden of trauma and medical emergencies both in Kenya and internationally.

Nominated for a 1-year High-Level training by AMREF Health Africa on Predictors of Successful Implementation of Digital Learning for Health Professionals in Sub Sahara Africa

Mobilized training resources and infrastructure with American Heart Association, Malteser International and MMUST to Roll out Emergency Trainings (BLS, ACLS, PALS and PHTLS of over 600 health care providers and 150 TOTs in 5 red coded counties (Machakos, Vihiga, Kakamega, Kisumu, Nairobi) to enhance patient outcomes. Mega Medical camps in communities with high Maternal and neonatal mortalities.

Mental Health and Career mentorship in over 50 Secondary and Primary Schools. As a medical emergency expert, I am excellent in planning and executing priority research and implementing evidence-based practices that **preserve**, **promote and prevent disability for the lives of the critically patients** as evidenced by the passion and the establishment of Bachelor of Science in Paramedic program which is a pioneer Pre-Hospital BSc program in the African continent.

I hold strong leadership and mentoring capabilities in research and have supervised a number of undergraduate and post graduate students. A role model in health care provision both in the community and hospital environments through education, advocacy, innovation, change management and as an Advanced Practice Emergency Medical Practitioner, I am committed and passionate in performing critical role in Academia, Innovation, Research, Digital Technology Transfer and Community Engagement.

## **Educational Background**

2022 to 2025: Oulu University of Applied Science (OAMK), Finland. Post Doctoral studies in Emergency Medicine & Trauma Systems Management:

Title of the project: "Cloud-Based Emergency Tracking Application System (eKonnect): An Initiative to Strengthen Comprehensive Emergency Medical Services in Resource Constrained Settings in Kenya."

2019 -2021: Rutgers University USA. Post Doctoral Degree, Trauma and Emergency Medicine.

**Focus Area:** Strategies to strengthen Emergency Medical Services and Training in Resource Constraint Environment: Kenyan Scenario

**2015 to 2018- PhD Medical Education:** Moi University, School of Medicine in Consortium with Lingopin University, Center for Teaching and Research in Disaster Medicine and Traumatology.

**Focus Area: Emergency Train System**. Title of the project: - "Evaluating the Outcomes of Emergency Obstetrics and Neonatal Care (EmONC) Training Program in Low Resource Settings in Kenya."

2016: Rutgers & Robert Wood Johnson University Hospital, USA: Emergency Train System Phase 3

Pursued my final phase of Emergency Train System having completed my phase 2 in 2015. This was a comprehensive phase as I underwent training on Inter-professional Models in Global Injury Care and Research & Education Programs. The key objectives of the training included:

- Demonstrating understanding of trauma Programming and develop own program for individual country/state where I developed a curriculum on Bachelor of Science in Paramedicine which was successfully supported and mounted at Masinde Muliro University of Science and Technology in 2016.
- 2. Understand my role in trauma and Emergency programs
- 3. Utilize performance improvement tools to promote a culture of improvement in trauma systems.

2015: Toyama University, Japan; Center for Teaching and Research in Disaster Medicine and Traumatology: Emergency Train System Phase 2
Attended my second phase of Emergency Train System having successfully completed the first phase at Linkoping University Sweden in 2014.

# 2014-2015 Linkoping University, Sweden; Center for Teaching and Research in Disaster Medicine and Traumatology: Emergency Train System Phase 1

Pursued phase one of International Senior training programme in Emergo Train System (ETS) level 8 upon completion of the three phases which was an equivalent of an MSc program with core areas in Trauma and Emergencies with simulation exercises on Trauma and Emergency Medicine.

## 2008 to 2011 - Moi University, School of Medicine

Master of Science in Nursing: Maternal and Neonatal Emergencies (MSc.N.MNHem) **2001-2005: University of Eastern Africa Baraton**.

Bachelor of Science Degree in Nursing.

1997-2000 Kapsabet Girls High School
Kenya Certificate of Secondary Education

1989-1996 Sochoi Primary School
Kenya Certificate of Primary Education.

# **Professional Work Experience**

Over 12 years of work experience comprising 6 years of clinical practice and 12 years as a lecturer within the institutions of Higher Learning & Education and Hospital Teaching Environment.

2024-Present: Director, Science Park Innovation and Incubation Centre at Masinde Muliro University of Science and Technology. Key Responsibilities

- 1. Enhance Intellectual Property Protection: Ensure that innovative ideas and inventions are adequately protected through patents, trademarks, and copyrights.
- 2. Increase Commercialization Success: Equip staff, students and communities with the skills needed to bring their innovations to market, generating revenue and enhancing the university's reputation.

- 3. Promote a Culture of Innovation: Demonstrate the tangible benefits of protecting and commercializing IP, encouraging continuous innovation.
- 4. Educate staff, students and the Counties on Intellectual Property (IP) Fundamentals: Provide a comprehensive understanding of the different types of IP, the processes involved in obtaining Intellectual Property protection, and the importance of IP in the innovation ecosystem.
- 5. Develop Drafting Skills: Teach staff how to draft high-quality patent applications, trademarks, and copyrights to ensure robust protection of their innovations.
- 6. Commercialization Strategies: Introduce various strategies for commercializing IP, including licensing, joint ventures, and startup creation.
- 7. Nurture Case Studies and Best Practices: Present real-world case studies and best practices to illustrate successful IP commercialization efforts and pitfalls to avoid.
- 8. Enhance Legal and Regulatory Compliance: Ensure staff are aware of the legal and regulatory frameworks governing IP and commercialization, both locally and internationally.
- 9. Foster a culture of innovation and entrepreneurship among staff and students.
- 10. Cascade the innovative solutions to Impact positively to the community and the nation at large.

# 2019-2024: Chairperson of Department, Trauma and Emergency Medicine/Paramedical Sciences at Masinde Muliro University of Science and Technology.

Attended a School of Governance training in May, 2019 to enrich my management capacity.

As the chairperson of the department my main objective is to provide leadership through promotion of the mission, vision, values, and strategic goals of the University. Key responsibilities included:

- 1. Supervising and providing leadership in teaching, learning and examination in the department.
- 2. Providing leadership in development, implementation and review of departmental academic programmes.
- 3. Overseeing adherence to holistic and academic discipline for students and staff
- 4. Supporting internal and external assessments.
- 5. Establishing academic and research collaborations between the departments, schools and other partners.
- 6. Developing linkages with stakeholders on clinical sites to ensure quality learning and training.
- 7. Providing leadership in strategic planning, budgeting and procurement of teaching and learning equipment.
- 8. Student counselling and mentorship.
- 9. Participating in scholarly and academic activities.

- 10. Participating in staff recruitment.
- 11. student recruitment and admission.

# 2020-Present- Senior Lecturer Department of Trauma and Emergency Medicine/ Paramedical of Masinde Muliro University of Science and Technology.

### **Key Responsibilities include:**

- 1. Lead the development of the Department's teaching, research and service activities, as approved by the Department board, and ensure that the Department's activities support the University in achieving its strategic goals;
- 2. In line with the Medical Profession Act, ensure the existence of the regulatory, licensing and accrediting body for the Paramedic program and its practice.
- 3. Lead in the development and delivery of Emergency Medical service systems and other EMS projects at the university and in the community.
- 4. Planning, controlling and coordinating all human resource management activities in the department such areas as recruitment, appointment, employee relations, discipline and staff welfare within the framework of existing human resource management objectives, policies and regulations;
- 5. Plan, develop and administer the department's budget, in consultation with other faculty members and in accordance with University's policies and procedures, including the annual list of departmental needs & requirements for submission to the Dean as part of the university's budget process;
- 6. Identify and process collaborations with significant stakeholders both at national and international levels.
- 7. Supporting the school in training, coaching and development of its faculty and ensure compliance with applicable laws and EMS obligations.
- 8. Organize the Department's activities, assign duties and responsibilities, and establish committees, task forces and working parties as necessary;
- 9. Propose the allocation of faculty teaching loads and timetable of classes for each academic semester, for discussion by the Department Council and approval by the Dean;
- 10. Convene and chair Department Council meetings, and follow up on the implementation of Council's decisions;
- 11. Ensure the recruitment and retention of highly qualified faculty and staff by providing recommendations on appointments, promotions and contract renewals, according to university policies and guidelines also make recommendations to the Dean in cases of disciplinary actions or termination of services;
- 12. Mentor new faculty members in teaching and research;

- 13. Develop a framework that identifies and support staff and students with special needs.
- 14. Review faculty and staff work plans, provide feedback on the plans, and contribute to annual performance appraisal as per policy;
- 15. Coordinate with the Enrolment Deanship and Dean of Graduate Studies to maximize the recruitment of the best possible students into the Department's undergraduate and graduate programs;
- 16. In collaboration with degree Program Coordinators, oversee the continuous improvement of academic program(s) in the Department, with a focus on the requirements of periodic program review, learning outcomes assessment, and accreditation requirements of external bodies;
- 17. Ensure that the Department's course syllabi and course files are accurate, comprehensive and up-to-date, are used in regular reviews of courses and programs, and satisfy the requirements of accreditation processes;
- 18. Ensure that the Department provides a good learning environment for students, including running effective new-student orientation programs, assignment of faculty as academic advisors, coordination with relevant administrative units with regard to student progress, and providing career and employment advice to students;
- 19. Supervise the selection of text books and references books pertaining to courses offered by the department;
- 20. Ensure that records for the various departmental academic activities and university assets are kept current, and ensure appropriate usage in accordance with university policies and regulations;
- 21. Participate in the College Board meetings and provide input and feedback that supports the College strategic plan;
- 22. Ensure that all University and College policies, procedures and guidelines are followed within the department.

# 2015-2020- Lecturer at School of Nursing, Midwifery and Paramedical Sciences of Masinde Muliro University of Science and Technology. Key responsibilities include:

- 1. Teaching undergraduate, masters and PhD nursing courses. Some other courses taught across the three levels are; Nursing Education and Research, Trauma and Emergency Nursing, Paramedic courses (Trauma and Emergency courses), Teaching Methodology and Curriculum Development, Mass Casualty and Incident Management, Emergency Obstetrics, Ambulance Operations/Emergency Operations, Pediatric and High-Risk Neonate, Nursing Management and Leadership.
- 2. Development of teaching and learning materials.
- 3. Participating in the development, administration and managing of examinations.

- 4. Participation in research and producing publications and other research outputs.
- 5. Writing of research grant proposals both as principal investigator (PI) OR as co-investigator
- 6. Supervising undergraduate and postgraduate research.
- 7. Contributing to the development, planning, implementation and review of quality curricula.
- 8. Participating in departmental, school and university seminars aimed at sharing research outcomes and building multi-disciplinary collaborations within and outside the department.
- 9. Participating and providing technical expertise in departmental, school and University committees.
- 10. Providing mentorship and counselling to students.
- 11. Involvement in community outreach activities.
- 12. Assessment of students on clinical placements.
- 13. Research incubation and supervision (Both at Doctoral, Masters and undergraduate levels).

# 2012- 2015 Lecturer at the Medical Training Center of Moi Teaching and Referral Hospital.

Causes taught included:

- 1. Emergency and Trauma Nursing
- 2. Critical Care Nursing
- 3. Teaching Methodology and Curriculum development.
- 4. Obstetrics and Gynecology
- 5. High Risk Neonate and pediatric Nursing
- 6. Nursing Education and Research.
- 7. Advanced Trauma Life Support and Basic Life Support.

## 2011- 2014-Manager: Accident and Emergency Department, Moi Teaching and Referral Hospital

Management of the Emergency Department at Moi Teaching and Referral Hospital and manning Referrals of hospitals from 22 counties.

# 2009 to 2011: Clinical Auditor and Research Lead at Moi Teaching and Referral Hospital.

My key responsibility at the clinical audit was to monitor and evaluate quality of care delivered to all in-patients and out-patients at the hospital.

Other responsibilities included:

- 1. Working with the Divisions and Units in the hospital to develop clinical indicators for measuring clinical performance and improving patients' outcome.
- 2. Liaising with members of the Quality Assurance Team in order to provide a cohesive approach to quality management at the hospital.

- 3. Provide guidance and support to healthcare staff in the promotion, implementation, and reporting of effective clinical audit findings.
- 4. Providing advice and practical support in the collection and analysis of outcome data useful to identify and assess identified research problems.
- 5. Supporting the implementation of recommendations resulting from clinical audits.
- 6. Conducting and supporting Research activities in and out of Hospital.

# 2007-2011: Registered Nurse, Moi Teaching and Referral Hospital, Eldoret, Kenya.

### **Duties and Responsibilities**

- 1. Nurse in Charge; Accident and Emergency, Intensive Care Unit and Operating Theatre.
- 2. Assessing, planning, implementing, and evaluating patient care in consultation with other healthcare professionals.
- 3. Provide patient and family education.
- 4. Shift leader responsible for patient care teams per shift.
- 5. Provision of quality care guided by respective policies and procedures.
- 6. Enhanced patient safety through infection prevention and control practices.
- 7. Admission and discharge planning for patients.
- 8. Provided clinical teaching to medical students on clinical placement.

# 2007-2009: Clinical Instructor-School of Medicine, Moi University, Eldoret, Kenya

### **Duties and Responsibilities**

- 1. Orientation of Nursing and Medical students on Problem Based learning (PBL) and Self-Directed Learning (SDL).
- 2. Simulation Laboratory instruction of Medical and Nursing students.
- 3. Collaborating with nursing course faculty to develop, implement, and assess students in the clinical areas.
- 4. Reinforces concepts taught in the curriculum (support integration of theory to practice in the clinical area).
- 5. Leading, instruction, and assessing nursing student skills, knowledge, and clinical judgement.
- 6. Supervising undergraduate and research projects.
- 7. Contributing to the development, planning and implementation of quality curriculums.
- 8. Involvement in community outreach activities.

- 9. Preparation of annual continuing educational plan for the clinical areas of responsibility.
- 10. Clinical teaching and mentorship of Medical and Nursing students.
- 11. Enhance quality of care through clinical teaching.
- 12. Identify learning needs in consultation with the chairperson of department and implement educational activities.
- 13. Ensuring implementation of Monitoring quality assurance activities in school including development of policy and procedures related to clinical areas.
- 14. Member of the hospital's Preceptor and CME.

# **2006:** BSc Nurse Intern, Moi Teaching and Referral Hospital, Eldoret, Kenya.

- 1. Posted by the Nursing Council of Kenya (NCK) to undertake my 1-year internship program at Moi Teaching and Referral Hospital where underwent intensive clinical experience at various departments guided by the clinical log from NCK with the main aim of applying theory to practice and acquisition of different competencies in nursing care provision.
- 2. Following successful completion of my internship, I got two employment letters from two hospitals: Kenyatta National Hospital, Nairobi and Moi Teaching and Referral Hospital as a Registered Nurse. I chose the latter.

# **Publications Summary**

S/No	INNOVATION	Points					
1.	Eco Friendly Biodegradable Sanitary Pads (Eco-She Pad)	16					
	Patent Number KE/P/2025/5198						
2	Cloud-Based Emergency Tracking Application System (eKonnect):	16					
	An Initiative to Strengthen Comprehensive Emergency Medical						
	Services in Resource Constrained Settings.						
	Patent Number KE/P/2020/3647.						
	Utility Model Number KE/U/2020/1479						
S/N	E-LEARNING MODULES						
1.	MIA 001: Foundation of Innovation	6					
2.	MIA 002: Innovation Academy Fellowship	6					
3.	MIA 003: Business Models of Intellectual Property	6					
4	HSC 100: Basic Life Support and Pre Hospital Care	6					
S/N							
	PUBLICATIONS						
	REFEREED JOURNALS						
	Lucy K. Kavinguha. <b>Tecla P. Sum</b> , John O. Okoth, Morris S.						
1.	1. Senghor. EFFECTIVENESS OF PEER SUPPORT ON FOOT SELF-						
	CARE PRACTICES AMONG DIABETIC PATIENTS IN WESTERN						
	KENYA. Evidence-Based Nursing Research Journal; Vol. 7 No. 2						
	(2025). eISSN: 2636-400X						
	print ISSN: 2636-3992 Chelal, Daniel K, <b>Sum Tecla J.</b> Morema, Everlyne N.						
	Chelal, Daniel K, <b>Sum Tecla J.</b> Morema, Everlyne N.						
2.	RELATIONSHIP BETWEEN TRIAGE PATIENTS RELATED						
	FACTORS AND 48 HOURS OUTCOMES AT THE ACCIDENT AND						
	EMERGENCY DEPARTMENT, KENYATTA NATIONAL						
	HOSPITAL, KENYA. Bayero Journal of Nursing and Health Care;						
	DOI:10.4314/bjnhc.v5i1.16; Issue Vol. 5 No. 1 (2023). eISSN: 2756-						
	6501. print ISSN: 2659-1464						
6	Sum J. Tecla, Mosol Prisca, Roselyne A. Abwalaba, Masan J.						
3.	3. Everlyne CHALLENGES AND OPPORTUNITIES IN SERVICE						
	DELIVERY OF BASIC EMERGENCY OBSTETRICS AND						
	NEONATAL CARE (BEMONC) SERVICES IN WEST POKOT						
	COUNTY, KENYA. Journal of Regional Emergency and Disaster						
	Medicine Research. Online ISSN: 2433-5118						

	Print ISSN: 2189-1710. ISSN-L: 2189-1710. 2017 Volume 16 Pages 1-	
	10	
	DOI https://doi.org/10.57441/jredmr.16.0 1	
	Peter G. Delaney, Simon Ochieng Ogana, <b>Tecla Sum</b> , Zachary J.	1.43
4.	Eisner, Dinnah Okwiri, Sreehari Panicker, John Arudo.	-170
	CONDUCTING A NATIONAL PROSPECTIVE SURVEY OF	
	EMERGENCY MEDICAL SERVICES IN KENYA USING PETCAT	
	AND ASSESSING HOSPITAL TRAUMA CARE CAPACITY AND	
	ASSOCIATED PATIENT OUTCOMES. November 2022	
	DOI:10.13140/RG.2.2.14769.66403	
	Conference: African Conference on Emergency Medicine	
	Dinnah Okwiri, Lucy Kageha Kavinguha, Simon Ochieng Ogana,	1.11
5.	<b>Tecla Sum</b> , Lydia Nyachiro, Doris Jeptalam, John Okoth and John	
	Arudo. ASSESSMENT OF BYSTANDERS PREPAREDNESS AND	
	KNOWLEDGE IN TRAUMA PATIENT MANAGEMENT: A STUDY	
	IN KAKAMEGA COUNTY, WESTERN KENYA. International	
	Journal of Advanced Research (IJAR) ISSN 2320-540.	
	Dinnah Akosa Okwiri, John Martin Okoth, <b>Tecla Psusma Sum</b> ;	1.33
6.	HEALTHCARE PROVIDERS' FACTORS INFLUENCING TRAUMA	
	CARE PREPAREDNESS IN ACCIDENT AND EMERGENCY	
	DEPARTMENT OF SELECTED HOSPITALS IN KAKAMEGA	
	COUNTY, KENYA. Journal of Health, Medicine and Nursing.	
	ISSN 2520-4025(Online), Vol. 6, Issue 3, No. 2, pp 22-33, 2021	
7	Ruth M. Shitabule1, Everlyne N. Morema2, <b>Tecla P. Sum3</b> , Morris	1.33
7.	S. Shisanya4, Eric K. Kibai5. TARGETED POSTNATAL CARE	
	IMPLEMENTATION FOR MOTHERS IN SELECTED HEALTH	
	FACILITIES IN WESTERN KENYA. Evidence-Based Nursing	
	Research Journal Vol. 7 No. 2; eISSN: 2636-400X, print ISSN:	
	2636-3992	1.00
8.	Gellause Kololi, Emmanuel E Okenwa-Vincent, <b>Tecla Jerotich</b>	1.33
	<b>Sum.</b> FACTORS INFLUENCING CONTACT LENSES UPTAKE AMONG SCHOOL-GOING CHILDREN AND TEENAGERS WITH	
	MYOPIA ATTENDING SELECTED EYE CLINICS IN KENYA.	
	Elsevier, AJO International. Volume 1; Issue 2. 6th July 2024,	
	100033	
	Kololi, Gellause BSc1; Okenwa-Vincent, Emmanuel E. OD, MPH,	1.33
9.	PhD2,*; Sum, Tecla Jerotich PhD3. PARENTAL INFLUENCES	1.00
	ON CONTACT LENS UPTAKE AMONG SCHOOL-AGED	
	INDIVIDUALS WITH MYOPIA IN KENYA. Optometry and Vision	
	Science (OVS):10.1097/OPX.00000000002243, March 21, 2025.	
	DOI: 10.1097/OPX.00000000002243	
	Daniel Chelal, Sum T. Jerotich, Morema Everlyne;	2.67
10.	Relationship between Triage Patients Related Factors and 48	

		I
	Hours Outcomes at the Accident and Emergency Department,	
	Kenyatta National Hospital	
	Evidence Based Nursing Research Volume 5. No 3. ISSNp 2636-	
	3992, ISSNe 2692-400x	
	Rukia Achieng Nyatogo <sup>1</sup> , John M. Okoth <sup>1</sup> , <b>Tecla Sum<sup>1</sup></b> ,	4.00
11.	"Competence of Health Care Providers on Clinical Management of	
	Myocardial Infarction in Selected Hospitals with Intensive Care	
	Unit Western Kenya" Bayero Journal of Nursing Care (BJNHC)	
	ISSN: 2659-1464 e-ISSN:2756-6501	
	Lucian Talu Mayabi, Joyce Kagendo Nthiiri, Frankline Tireito <b>and</b>	0.80
12.	Tecla Sum; SIR Model for COVID-19 Dynamics Incorporating	0.00
	Clinical Management. Journal of Advances in Mathematics and	
	Computer Science 37(5): 44-57, 2022; Article no.JAMCS.88388	
	ISSN: 2456-9968	
10	Faith Angose Sabwa, <b>Dr.Tecla Psuma Sum</b> , Prof Ltd Col (Rtd).	2.67
13.	John Martin Okoth, TRIAGE COMPETENCY AND ITS	
	ASSOCIATED FACTORS AMONG HEALTHCARE PROVIDERS IN	
	EMERGENCY DEPARTMENT IN KENYA. Nurse and Health:	
	Jurnal Keperawatan. 12 (1): 75-83	
	http://ejournal-kertacendekia.id/index.php/nhjk/index	
	Thomas Ong'ondo Ng'ambwa1, Prof. Lt Col (Rtd) John Martin	1.33
14.	Okoth2, <b>Dr. Tecla Psusma Sum3</b> FACTORS INFLUENCING	
	CONTROL OF BLOOD PRESSURE LEVELS AMONG	
	HYPERTENSIVE ADULT PATIENTS IN SELECTED HOSPITALS,	
	KAKAMEGA COUNTY, KENYA; Journal of Health, Medicine and	
	Nursing, ISSN 2520-4025 (Online), Vol.6, Issue 2, No.4, pp 42-71,	
	2021	
	Peter G. Delaney, Simon Ogana, Zachary J. Eisner, Dinnah Okwiri,	0.67
15.	Sreehari Panicker, <b>Tecla Sum</b> , Krishnan Raghavendran, John	
	Arudo: Assessing Emergency Care Capacity and Associated	
	Trauma Patient Outcomes with Prehospital Care and Surgery at a	
	Tertiary-Level Referral and Teaching Hospital in Western Kenya:	
	a Retrospective Cohort Study	
	Tito Tabu Kwena, <b>Tecla Sum Psusma</b> and Vincent Kiprono	2.67
16.	Mukhtar: ASSESSMENT OF COVID-19 MANAGEMENT BY	,
	HEALTHCARE PROVIDERS IN BUSIA COUNTY REFERRAL	
	HOSPITAL, BUSIA COUNTY, KENYA. Journal of Health, Medicine	
	and Nursing, ISSN 2520-4025 (Online) Vol.8, Issue 3. No.1, pp 1 -	
	21, 2022	
	Enos Walela*, Dr. <b>Tecla Sum**</b> , Dr. Sharon Kosgey***	2.67
17.	TREATMENT OUTCOMES AND ASSOCIATED FACTORS FOR	,
<u> </u>	HOSPITALIZED STROKE PATIENTS IN SELECTED HEALTH	
	CARE FACILITIES OF KAKAMEGA COUNTY, KENYA.	
	CARE PACILITIES OF RARAMEGA COUNTY, KENYA.	

	International Journal of Scientific Research and Engineering	
	Development (IJSRED)—ISSN 2581-7175 Volume 6 Issue 6, Nov-	
	Dec 2023	
	Aisha Zainab Harun, Angela Maiyo, <b>Sum Tecla Jerotich.</b>	1.00
18.	INFLUENCE OF SOCIO-ECONOMIC FACTORS ON THE MENTAL	1.33
	HEALTH OF VULNERABLE POPULATIONS AT RISK IN KAKUMA	
	REFUGEE CAMP, KENYA. Nairobi Journal of Humanities and	
	Social Sciences. Vol. 7 No. 2 (2023)	
	DOI: https://doi.org/10.58256/0me9e408	1.00
19.	Aisha Zainab Harun, Angela Maiyo and <b>Sum Tecla Jerotich</b> EXPLORATION OF THE PSYCHOSOCIAL WELLBEING ASPECT	1.33
19.		
	OF VULNERABLE POPULATIONS AT RISK IN KAKUMA	
	REFUGEE CAMP, KENYA. Research Journal in Advanced Social	
	Sciences Volume 3 No. 2 (2022).	
	DOI: https://doi.org/10.58256/rjass.v3i2.923	0
20.	Phyllis Oduor, Luqman Mushila, Doris Cheta, Lucy Kageha, Bruce	0.18
20.	Daniel, Lydiah Nyachiro, Dinah Okwiri, Simon Ogana, Thomas	
	Ng'abwa, Jarrett Rosenberg, John Arudo, <b>Tecla Sum</b> ; Christoph	
	Leuze. AUGMENTED REALITY FOR MEDICAL TRAINING IN	
	EASTERN AFRICA. 2023 IEEE Conference on Virtual Reality and	
	3D User Interfaces Abstracts and Workshops (VRW). Institute of	
	Electrical and Electronic Engineers (IEEE Explore)	
	DOI: 10.1109/VRW58643.2023.00288	
21.	Simon Ogana, PhD Peter G Delaney, MD Dinnah Okwiri, MS	0.44
21,	Zachary J. Eisner, BS Sreehari Panicker, BS Nathanael Smith, MD	
	Jared Sun MD, PhD <b>Tecla Sum PhD</b> , MSN Krishnan	
	Raghavendran, MBBS John Arudo, MPH, MSc Surveying	
	Prehospital Care and Emergency Medical Services in Kenya: A	
	National Study. African Journal of Emergency Medicine (AJEM),	
	Manuscript draft.	0
22.	Sum Jerotich Tecla; OPPORTUNITIES AND CONSTRAINTS	8
22.	AFFECTING SERVICE DELIVERY OF BASIC EMERGENCY	
	OBSTETRICS AND NEONATAL CARE (BEMONC) IN RESOURCE	
	CONSTRAINED ENVIRONMENT: WEST POKOT KENYA.	
	International Journal of Science and Research (IJSR) (Vol.9, Issue	
	No. 3). 2024:7.101. ISSN:2319-7064	0.00
23.	Sum J Tecla, Mosol Prisca, Roselyne A. Abwalaba, Morema J	3.20
	Everlyne.	
	CHALLENGES AND OPPORTUNITIES IN SERVICE DELIVERY	
	OF BASIC EMERGENCY OBSTETRICS AND NEONATAL CARE	
	(BEMONC) SERVICES IN WEST POKOT COUNTY, KENYA.	
	International Journal of Science and Research (IJSR) ISSN: 2319-	
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	Sum J. Tecla1, Obwoge Ronald Omenge.2, Mosol J. Priscah3.	4
24.	EVALUATING PROVIDER'S KNOWLEDGE LEVEL ON BASIC	4
	EMERGENCY	
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	<b>Tecla Sum Jerotich</b> , Franklin Boibanda, David Ayuku.	4
25.	EVALUATION OF EMERGENCY OBSTETRIC AND NEONATAL	4
_0.	CARE (BEMONC) SERVICES IN HEALTHCARE FACILITIES IN	
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26.	Mosol J., <b>Sum J. Tecla</b> Omenge O. Ronald (2016) Portfolio	2.67
20.	Development as a Method of Learning, Assessment, and Evaluation	
	in Clinical Nursing Education in Kenya. International Journal of	
	Scientific Research and Innovative Technology ISSN: 2313-3759	
	Vol. 3 No. 6:	
07	Roseline A, Ronald O, <b>Tecla S</b> ; Prevalence of Caesarean Section in	1.33
27.	Western Provincial General Hospital. Asian Journal of Science and	
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28.	Sauti za Wananchi "voice of the People": Patient Satisfactionon the	
	Medical Ward at a Kenyan Referral Hospital. The Pan African	
	Medical Journal ISSN 1937-8688: (2017) African Field	
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2 -	Sum J. Tecla, Amolo George: EMERGENCY MEDICAL SERVICE	5.33
29.	SYSTEM IN THE DEVELOPING NATIONS: KENYAN SCENARIO.	
	International Journal of Science and Research (IJSR) ISSN	
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	Mosol P, Mabeya H, <b>Sum Tecla,</b> Sitienei J: Providing	1.60
30.	Reproductive Health Module within HIV Care and Treatment	
	Centre in Kenya. IOSR-JNHS Journal of Nursing and Health	
	Science e-ISSN: 2320-1959 p-2320-1940 Vol 3 Issue 1	
	Sum Jerotich Tecla: MALARIA BURDEN AND ITS POSSIBLE	8
31.	RISK FACTORS AMONG PREGNANT WOMEN ATTENDING	
	ANTENATAL CARE AT AT ITEN COUNTY REFERRAL HOSPITAL,	
	ELGEIYO-MARAKWET COUNTY, KENYA. International Journal	
	of Science and Research (IJSR) ISSN (Online): 2319-7064 Volume	
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	<b>Sum Tecla Jerotich:</b> THE NEEDS OF MOTHERS OF PRETERM	8
32.	NEONATE(S) ADMITTED AT THE NEW BORN INTENSIVE CARE	
	UNIT (NICU) OF MOTHER BABY RILEY OF MOI TEACHING AND	
	REFERRAL HOSPITAL, KENYA. International Journal of Science	
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	2019.	
S/N	BOOK CHAPTER	
	Sum J Tecla, B Franklin, Ayuku David, Too K Jackson	6.0
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	EMERGENCY OBSTETRICS AND NEONATAL CARE (BEMONC)	
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	Sum T. Omuterema S. KENYA'S PREPAREDNESS FOR MASS	6.0
33.	CASUALTY INCIDENTS, A FOCUS ON NAIROBI AND MOMBASA	
	CITIES IN KENYA. Journal of Clinical Simulation Research (JCSR)	
	e ISSN 2433-054X Print ISSN 2186-2893 VoL 5. No 1 (2016):	
	Chelagat D, <b>Sum J. Tecla,</b> Obel M, A Chebor, R Sitienei;	6.0
34.	Documentation: Historical Perspectives, Purposes, Benefits and	
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	(print) Vol. 3. No. 16(2015)	
	TOTAL POINTS	

# RESEARCH GRANTS MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY As at 14<sup>TH</sup> April, 2025

#### Dr. Sum Psusma Tecla **Project Title Amount Attracted Status of Project** Role **Funding Start End** in Kshs **Organization** Year Year **Ultra-Modern-High** Project Malteser Completed 650,000,000 2023 2021 **Fidelity Simulated** Coordinator International Laboratory; Goal: **Transforming Health in African Training Institutions through Digital Innovations Evaluation of Reward** Principal IMMUNIFY-Phases one, two and 60,000,000 2022 Ongoi LIFE from **System on HIV&AIDS** Investigator three: Patient ng **Treatment Outcomes of** Australia and recruitment and **Patients with Suspected** United clinical management **Treatment Failure in** Kingdom complete. Western Kenya -Analyzing outcome of reward system.

	<b>Project Title</b>	Role	<b>Amount Attracted</b>	Funding	Start	End	Status of Project
	-		in Kshs	Organization	Year	Year	
3	<b>European Commission</b>	Project	71,000,000	European	2022	2025	Ongoing.
	<b>Funded Erasmus Plus</b>	Coordinator		Commission			A total of 37 students
	<b>Exchange Program for</b>						and 8 staff from
	Staff and Students						MMUST and Oulu
	under Global Mobility						University of Applied
	programme No KA171						Sciences in Finland
							Have so far
	Goal:						benefitted from the
	The mobility project is relevant						exchange program
	to the internationalization						
	strategy of the higher						
	education institutions involved						
	in and outside Africa.						
	-enhance education exports,						
	reinforce educational and						
	multicultural knowledge/skills,						
	and build experiences and						
	excellent competitive edge for						
	future opportunities for our						
	staff and students.						
	-Corporation also seeks to						
	increase quality of teaching,						
	networking, competence						
	development, promote cultural						
	awareness, and develop more						

	Project Title  positive attitude towards internationalization.	Role	Amount Attracted in Kshs	Funding Organization	Start Year	End Year	Status of Project
4	Emergency Medical Trainings in Level 4 And 5 Hospitals from High Burden Counties	Principal Coordinator of the project	35,000,000	Malteser International Germany.	2023	Ongoi	MMUST in collaboration with American Heart Association and Malteser International have trained a total of 172 facilities from 5 counties using American Heart Association Curriculum
	White Box Entrepreneurship Innovation Training	Project Coordinator	1.5 million	ICT Authority Kenya	2025	Ongoi ng	Ongoing

Project Title	Role	<b>Amount Attracted</b>	Funding	Start	End	Status of Project
		in Kshs	Organization	Year	Year	
Trauma and Emergency training and empowerment of Lay First Responders in Kenya	Project Coordinator	16 million	LRF International and Michigan University	2023	2028	Ongoing
UNIVERSITY Research Fund (URF	Principal Investigator	1.2 million	MMUST	2022	2023	Completed

## **Supervision of Postgraduate Students**

#### A. PhD Students

- 1. Lucy Kavinguha Kageha.: PhD in Nursing, MASINDE Muliro University of Science and Technology; EFFECTIVENESS OF PEER SUPPORT ON FOOT SELF-CARE PRACTICES AMONG DIABETIC PATIENTS IN WESTERN KENYA. Completed 2025.
- 2. **Millicent Jemesunde Kapigen**: PhD Moi University. College of Health Sciences. EVALUATING THE CLINICAL LEARNING ENVIRONMENT FOR THE UNDERGRADUATE NURSING STUDENTS AT SELECTED HEALTH FACILITIES IN CENTRAL AND EASTERN KENYA. **Completed 2024.**
- 3. Wilfrida Bore: PhD in Nursing, Masinde Muliro University of Science and Technology EFFECTIVENESS OF EDUCATIONAL PROGRAM ON UTILIZATION OF ALTERNATIVE BIRTHING POSITIONS DURING SECOND STAGE OF LABOUR AMONG PARTURIENT WOMEN IN WESTERN KENYA: Completed 2025.
- 4. **Ogana Simon Ochieng:** PhD in Nursing, Masinde Muliro University of Science and Technology: *EFFECTIVENESS OF MAJOR TRAUMA CLINICAL PATHWAY ON PATIENT OUTCOMES AT EMERGENCY DEPARTMENTS IN WESTERN KENYA.* **Awaiting final Oral Defense.**
- 5. **Jeptalam Doris Tuitoek:** PhD in Nursing, Masinde Muliro University of Science and Technology: *EFFECTS OF INTIMATE PARTNER VIOLENCE ON THE MENTAL HEALTH AMONG UNIVERSITY STUDENTS IN WESTERN KENYA.* **Awaiting final Oral Defense.**

### **B.** Masters Students:

- 1. Rukia Achieng Nyatogo: MSc.N. Critical Care Nursing. Masinde Muliro University of Science and Technology. EFFECTIVENESS IN CLINICAL MANAGEMENT OF MYOCARDIAL INFARCTION AMONG HEALTH CARE PROVIDERS IN SELECTED HOSPITALS IN WESTERN KENYA. Completed in 2024.
- **2. Ruth M. Shitabule.** MScN. Maternal and Neonatal Nursing. Masinde Muliro University of Science and Technology. TARGETED POSTNATAL CARE IMPLEMENTATION FOR MOTHERS IN SELECTED HEALTH FACILITIES IN WESTERN KENYA. **Completed in 2025.**

- 3. Okwiri Dinah: MSc.N Trauma and Emergency Nursing. Masinde Muliro University of Science and Technology. HEALTHCARE PROVIDERS' FACTORS INFLUENCING TRAUMA CARE PREPAREDNESS IN ACCIDENT AND EMERGENCY DEPARTMENT OF SELECTED HOSPITALS IN KAKAMEGA COUNTY, KENYA. Completed in 2021.
- **4. Angose Faith Sabwa:** MSc.N Trauma and Emergency Nursing. Masinde Muliro University of Science and Technology; TRIAGE COMPETENCY AND ITS ASSOCIATED FACTORS AMONG HEALTHCARE PROVIDERS IN EMERGENCY DEPARTMENT IN KENYA. **Completed in 2023.**
- 5. **Daniel Chelal: MSc.N.** Trauma and Emergency Nursing. Masinde Muliro University of Science and Technology; PATIENTS' MANAGEMENT OUTCOME OF TRIAGED AND CODED PATIENTS AT ACCIDENT AND EMERGENCY DEPARTMENT, KENYATTA NATIONAL HOSPITAL, KENYA. **Completed in 2024.**
- **6. Enos Walela.** MSc.N. Medical Surgical Nursing. Masinde Muliro University of Science and Technology; TREATMENT OUTCOMES AND ASSOCIATED FACTORS FOR HOSPITALIZED STROKE PATIENTS IN SELECTED HEALTH CARE FACILITIES OF KAKAMEGA COUNTY, KENYA. **Completed in 2024**
- 7. Lucian Tabi Manyalu; Master of Science in Mathematics. Masinde Muliro University of Science and Technology; SIR MODEL FOR COVID-19 DYNAMICS INCORPORATING CLINICAL MANAGEMENT. Completed in 2022
- 8. Thomas Ngambwa: Master of Science in Medical Surgical Nursing. Masinde Muliro University of Science and Technology; FACTORS INFLUENCING CONTROL OF BLOOD PRESSURE LEVELS AMONG HYPERTENSIVE ADULT PATIENTS IN SELECTED HOSPITALS, KAKAMEGA COUNTY, KENYA. Completed in 2021.
- **9. Kwena Tito:** MSc.N. Advanced Nursing Practice (Community Health and Primary Health Care). Masinde Muliro University of Science and Technology. ASSESSMENT OF COVID-19 PREPAREDNESS IN BUSIA COUNTY REFERRAL HOSPITAL, BUSIA Completed
- **10. Kololi, Gellause;** MSc. Optometry and Vision Science. Masinde Muliro University of Science and Technology. PARENTAL INFLUENCES ON CONTACT LENS UPTAKE AMONG SCHOOL-AGED INDIVIDUALS WITH MYOPIA IN KENYA. **Completed in 2024.**

- 11. **Aisha Zainab Harun.** MSc. Disaster Management and Humanitarian Assistance. Masinde Muliro university of Science and Technology; INFLUENCE OF SOCIO-ECONOMIC FACTORS ON THE MENTAL HEALTH OF VULNERABLE POPULATIONS AT RISK IN KAKUMA REFUGEE CAMP, KENYA. EXPLORATION OF THE PSYCHOSOCIAL WELLBEING ASPECT OF VULNERABLE POPULATIONS AT RISK IN KAKUMA REFUGEE CAMP, KENYA. **Completed in 2023.**
- **12. Vincent Ngetich.** MSc. N. Critical Care Nursing; Masinde Muliro University of Science and Technology. NURSE ADHERENCE TO VENTILATOR-ASSOCIATED PNEUMONIA CARE BUNDLES IN CRITICAL CARE UNITS IN BOMET AND KERICHO COUNTIES, KENYA. **Awaiting final Oral Defense.**
- **13. Asimba Getrude Sagero.** MSc.N. Maternal and Neonatal Nursing; Masinde Muliro University of Science and Technology. EFFECTIVENESS OF PRE-TERM LABOUR CARE AT SELECTED HEALTH FACILITIES IN BUSIA COUNTY. **Awaiting Final Oral Defense.**
- 14. **Josephine Lugaye.** MSc.N. Critical Care Nursing; Masinde Muliro University of Science and Technology; PREDICTORS OF EXTUBATION FAILURE AMONG NEUROLOGICAL PATIENTS ON MECHANICAL VENTILATION ADMITTED AT INTENSIVE CARE UNITS IN SELECTED PUBLIC HOSPITALS IN WESTERN KENYA. **Analyzing Data.**

### THESIS EXAMINATION

I have examined a number of masters and PhD thesis at Masinde Muliro University of Science and Technology from the Schools of Nursing, Public Health and Disaster Management and Humanitarian Assistance.

I also serve as an external examiner for School of Medicine & Nursing Moi University and School of Nursing University of Eastern Africa Baraton.

NB: Identification of students and University not provided for Confidentiality reasons.

### PhD and MASTERS THESIS EXAMINED

SN	Title of Thesis	University	Level of Thesis
1.	Effectiveness Of Midwife Led		PhD
	Debriefing on Prevention of		
	Postpartum Depression In Western		
	Kenya."		
2.	Neonatal Pain Management Practices		PhD
	Among Nurses Working in Newborn		
	Units in Nyanza and Western Kenya."		
3.	Factors Influencing Effective		PhD
	Management of Enteral Nutrition		
	Among Nurses In Health Facilities In		
	Kisumu County."		
4.	Utilization Of Digital Learning		Masters
	Technologies by Student Nurses at		
	Kenya Medical Training College."		
5.	Relationship Between the Three Delays		Masters
	Model and Perinatal Mortality in		
	Lurambi and Butere Sub-Counties,		
	Kakamega County, Kenya.		
6.	Knowledge, Attitude and Practices		Masters
	Influencing Early Detection of Breast		
	Cancer among Women in Homa Bay		
	County".		
7•	Factors Influencing Psychiatric Clinical		Masters
	Learning Experiences for Diploma		
	Nursing Students at Kakamega County		
	Referral Hospital		
8.	Determinants of Diet and Fluid		PhD
	Adherence among end Stage Renal		
	Disease Patients Undergoing		

	Hemodialysis at Moi Teaching and	
	Referral Hospital, Uasin Gishu County,	
	Kenya.	
9.	Patient Surge Management Strategies	PhD
	for Effective Emergency Response to	
	Mass Casualty Incidents along Nakuru	
	Eldoret Malaba A-109 Road, Kenya.	
10.	Determinants of uptake of	Masters
	pneumococcal conjugate vaccine 10	
	among infants in Rongai SubCounty,	
	Nakuru, Kenya.	
11.	Maternal and Fetal outcomes Among	Masters
	Mothers Referred with Obstetric	
	Emergencies in Baringo County	
	Referral Hospital."	
12.	Acribing Causes of Maternal Mortality	Masters
	in Homabay County-Kenya.	
13.	An Assessment of Post Natal Care	Masters
	Practices by Clinicians at Jaramogi	
	Oginga Odinga Teaching and Referral	
	Hospital.	
14.	Effectiveness Of Drug and Substance	Phd
	Abuse Prevention Programs in Selected	
	Public and Private Universities in	
	Kenya	
15.	Factors Influencing Psychiatric Clinical	Masters
	Learning Experiences for Diploma	
	Nursing Students at Kakamega County	
	Referral Hospital.	
16.	Patient and Health System Factors	Masters
	Influencing Clinical Management of	
	Hypertension in Adult Patients,	
	Kakamega County, Kenya	
17.	Factors Influencing Women's Preferred	Masters
	Mode of Delivery in Kericho County	

# LEADERSHIP AND MANAGEMENT POSITIONS HELD

YEAR	POSITION	REMARKS
2024 to	Director, Science Park, Innovation	Progressing Well with
present	and Incubation Centre. MMUST	significant successes
2019-2024	Chairperson of Department,	Developed MSc Curriculum in
	Paramedical Sciences, MMUST.	Trauma and Emergency
		medicine. Produced overall
		best students in the university
		for 3 consecutive years.
		Established an Ultra-Modern
		High- fidelity SIM LAB.
2024-	Board Member Directorate of Post	Advocacy for quality Research
Present	Graduate Studies	and quality completion rate.
November	Acting Dean, School of Nursing,	Learnt a lot about emotional
2023-March	Midwifery & Paramedical Sciences,	maturity in leadership
2024	MMUST	
2016-2024	Board Member, SPIIC	Successful
2016-2019	Program lead, Paramedical Sciences,	Accreditation of BSc
	MMUST	Paramedicine
2013-2015	Medical Training Coordinator,	Established additional medical
	MTRH	curricula
2010-2013	Clinical Auditor and Research,	Improved patient Outcomes
	MTRH	
2008-2010	Head of Department, Accident and	Successfully Rearranged the
	Emergency, MTRH	ER operations to
		accommodate and promote
		REAL time management of
		patients.

# **COMMUNITY OUTREACH**

S/No	OUTREACH	ROLE
1.	Graduation Awards	Sponsor
2.	MMUST Medical Camp	Patron, MMUST
3.	Mental Health Wellness and Rehabilitation	Project Assistant Lead
4.	Kakamega Forest Heritage Foundation	MMUST Coordinator
5.	Covid 19 Pandemic Case Management	University Focal person and County Chief Expert
6.	Faculty Mentorship programme for Ortum Mission Hospital School of Nursing a project between MMUST School of Nursing and Intra-health International	Member
7•	7 <sup>th</sup> ACDE Conference 2024	Organizer
8.	Intellectual Property Drafting, Centre for Intellectual Property & Information Technology Law, CIPIT	Member
9	Mental Health Counsellor and Mentor, Moi Girls High School Eldoret and St. Brigid's High School Kiminini	Counsellor
10.	Eldoret Premier and Koisagat Primary Schools.	Parent Representative

### **Professional Achievement**

- 1. Established MMUST Innovation Academy (Mi-A) for young innovators where I led the team in developing the IP Curriculum, Digitalized training Modules which are available in Odel Platform
- 2. Developed Intellectual Property & Expertise Commercialization Framework which has been adopted by various stakeholders.
- 3. Developed Strategic Roadmap for Innovation & Entrepreneurship (2025-2030).
- 4. Certified Chief International innovation expert & mentor in Digital Transfer Technology in Emergency Medicine by Russian Federation and Ministry of Education in 2024.
- 5. Attracted funding of 650 million Kenyan Shillings with the German Government in 2023 to establish and complete an Ultra-Modern High Fidelity Simulation Laboratory at MMUST that is currently utilized by medical students from various medical colleges in Kenya.
- 6. Mentored and supported staff and students to incubate ideas into innovations and have so far **Registered 67 Intellectual Properties (IPs)** which have since placed the university as the lead institution with the highest innovation technologies in the country.
- 7. Won a European Commission 5-year Exchange Project for several students and staff at MMUST which has since internationalization and job opportunities for our Kenyan Citizens.
- 8. Supervised and graduated more than 1000 BSc. Students; 16 Masters and 4 PhD students.
- 9. Trained over 700 health care providers in Emergency Care in Kenya.
- 10. Attached 5 innovators to Industry i.e. Kenya Civil Aviation Authority, KENIA, TWG, CEAP, SMART Farm and TWG.
- 11. Developed and successfully launched BSc. Paramedicine and PhD in Nursing programs at the university to meet the evolving needs of local, national and international industry.
- 12. Developed clinical logbook for Paramedics which has been adopted by the Kenya Medical Training Colleges for their EMT Basic and EMT Advanced programmes
- 13. Supported school of Nursing in the CUE assessment and approval of PhD in Nursing program in the year 2023.
- 14. Successfully reviewed Master of Science in Trauma and Emergency Nursing and Master of Emergency Medicine Curricula.
- 15. Improved student enrollment, retention and graduation rates through innovative programs, academic support services, and initiatives to enhance the overall student experience.
- 16. Chairperson of Department, Paramedical Sciences since 2019 to 2024 with several success stories to include establishment of an Ultra-Modern High-Fidelity Simulation Laboratory, Exchange program of over 37 students and over

- 15 staff between Kenya and European countries under European Commission Funded project;
- 17. Facilitated job acquisition for over 30 Paramedics with NHS UK Ambulance, US, AMREF HEALTH AFRICA among others.
- 18. Championed the planning, development and implementation of Advanced Emergency Medical Technology Curriculum in our Kenyan Medical Training Colleges and Bachelor of science degree in Nursing at Kenya Highlands University.
- 19. A member of International Emergo Train System, Inter professional Models in Global Injury Care and Education and Kenya Emergency Medical Board.
- 20. Appointed member of Disaster Medicine Education and Training Association in Toyama Japan.
- 21. Established partnerships with Kenya Medical Training Colleges, NHS UK Ambulance, Rutgers & Robert Wood and Johnson's University Hospital (USA), Lingoping University (Sweden), KEMRI and Kenya Council of Emergency Medical Technician.
- 22. Kenya representative in the United Nations Economic Commission for Africa (UNECA) following my breakthrough discovery and outstanding innovation of a cloud-based contact tracing application tool (eKonnect) Patent Number KE/P/2020/3647.
- 23. Appointed County Covid-19 Technical expert to Spearhead the County and University Covid Rapid Response activities.
- 24. Spearheaded the integration of technology into the curriculum, enhancing teaching and learning experiences for both faculty and students. Further, encouraged and supported the adoption of innovative teaching methods, including blended and experiential learning
- 25. A member of Patent Drafting programme Chapter with Kenya Industrial Property Institute (KIPI).
- 26. Developed a Paramedic Medical Camp Program that aims to treat, educate and sensitize communities on Emergency Care Services. The first phase of the program started at Kakamega County. (Muliro gardens, Likuyani, National Rugby Tournament at Lions school, Nanyuki Safari Rally.
- 27. Appointed MMUST Board Member, Directorate of Science Park Innovation and Incubation Centre (SPIIC).
- 28. Published over 20 articles from refereed journals, 1 book and 2 book chapters.
- 29. Appointed Co- Investigator after successfully securing grants for a research project between Linkoping University and Moi Teaching and Referral Hospital on "Validation of Current Hospital Triage Performance System Versus Rapid Emergency and Treatment System".
- 30. Appointed external examiner at University of Eastern Africa Baraton and Moi University.

- 31. Presented a conference Papers at the various international forum to include Shangai, China, Emergo Train System Workshop in Linkoping Sweden and at Toyama Japan.
- 32. Presented a Paper at during the Inter professional Models in Global Injury Care and Education at Robert Wood Johnson University Hospital, USA.
- 33. Presented a Paper at the International Conference at Masinde Muliro University of Science and Technology on Covid 19 management strategies.

### **CURRICULUM DEVELOPMENT AND REVIEW**

I have served as a reviewer of academic programmes at MMUST since 2015 and have participated in curriculum development and review at different capacities both internally and externally.

YEAR	CURRICULUM REVIEW
2022- PRESE NT	Review of Medical Education and Nursing Programmes at the School of Medicine, Moi University
2023	Participated in the CUE assessment process for PhD in Nursing programme that led to its recommendation for approval.
2023	Participated as the expert Team lead in the development of National Emergency Medical Technology Curriculum for the Kenya Medical Training Colleges at Mombasa Medical Campus
2022	Appointed as an expert in development and review of Bachelor of Science in Nursing and Paramedicine Programmes for MMUST
2022	Participant in National Multiplication Programme Workshop I at Moi University funded by DAAD, theme, "Enhancing Strategic Leadership and Management of Institutions of Higher Learning in Post COVID-19 ERA."
2018	Participated in the development of PhD in Nursing Curriculum of MMUST
2017	Participated in the review of BSc. Nursing Upgrading programme by Distance Learning and Master of Science in Advanced Nursing Practice of MMUST
2014 &	Participated as an expert in development and review of

2015	Medical Diploma programmes at Moi Teaching and	
	Referral Training Centre. Among the courses were Nursing,	
	Clinical Medicine, Medical Laboratory Sciences, Nutrition	
	and Trauma & Orthopeadic	

### **COMMITTEE MEMBERSHIP**

I have served and continue to serve in different committees in the university with the most recent appointment giving me the opportunity to serve as a member of the Board for Directorate of Research and Postgraduate Support of MMUST

DATE	COMMITTEES
2024 to	Member of the Board for Directorate of Research and
present	Postgraduate Support of MMUST
2024 to	Secretary to the Board, Science Park Innovation and Incubation
Present	Centre
2024 to	Board Member & Chair, Clinical Services, Nandi County, Kenya.
Present	
2023& 2024	Member, Chief guests Committee of the 20 <sup>th</sup> and 21 <sup>st</sup> Graduation of MMUST
2024 to Present	Board Member, Mental Wellness Centre and Management, MMUST.
2023 to present	Board Chair for CIC for installation of High Fidelity SIM LAB
July-Dec 2023	Member of MMUST STEMEIC Conference organizing committee
2022 to	Member of the African Council for Distance Education (ACDE)
present	Conference Committee. The 7th African Council for Distance
	Education 2024 Conference which was held in MMUST from
	26th-29th March 2024
2019	Member, of Scientific Committee for Inter- disciplinary International Conference held in June 2019
2018 to	Member of School Post-Graduate Committee, School of Nursing,
present	Midwifery and Paramedical Sciences

#### CONFERENCES ATTENDED AND PAPERS PRESENTED

- 1. Presented two papers during Innovation Conference at Bomet University; From Laboratory to the Market: Driving Sustainability Through Commercialization of Innovation and Research Output at Bomet University. 2025.
- 2. Attended an 8 Module Training Program for Science Technology and Innovation Anchored in Research (STIR-Pro) organized by NACOSTI in 2025.
- 3. Attended the Kenva National Research Festival in 2024
- 4. Participated in the 7<sup>TH</sup> ACDE Conference 2024 at MMUST.
- 5. Presented a paper at Technical University of Mombasa (TUM) during International Innovation Conference; Translating Research into Sustainable Solutions and the Role of Innovation and Outreach in Commercialization. 2024
- 6. Public Health Conference in Zambia on Augmented on Transforming health in Africa through digital innovation.2023
- 7. Presented a conference Paper at the United Nations Economic Commission for Africa on the innovation eKonnect; a cloud-based contact tracing tool to enhance disease surveillance.2022
- 8. Presented a paper at 2023 IEEE Conference on Virtual Reality and 3D User Interfaces in Shangai, China. 2023
- 9. Presented a paper on Strategic Importance of Scientific Engagements and Services in Healthcare at the IQVIA webinar.2024
- 10. Presented a conference Paper at the International Emergo Train System Workshop in Toyama Japan. 2022
- 11. Presented a Paper at during the Inter professional Models in Global Injury Care and Education at Robert Wood Johnson University Hospital, USA. 2018
- 12. Presented a Paper at the International Conference at Masinde Muliro University of Science and Technology on Covid 19 Clinical management. 2022

### PROFESSIONAL MEMBERSHIP

- Member of Internation Emergo Train System by Centre for Teaching & Research in Disaster Medicine and Traumatology (Sweden); Member Number 1424-05.
- Member of Kenya Emergency Medical Association.
- Member of National Nurses Association of Kenya.
- Member of Kenya National Union of Nurses.

#### REGISTRATION AND LICENSURE

- Registered by Nursing Council of Kenya, Registration Number BSN (KRCHN) 511
- Licensed by Nursing Council of Kenya-Practice License Number 373918
- Registered by the Kenya Council of Emergency Medical Technology, Registration number KCEMT/M25/23



### **REFEREES**

1. Professor Asenath Sigot

Professor of Nutritional Sciences.

Masinde Muliro University of Science and Technology,

P.O Box 190-50100 Kakamega.

2. Professor Maurice Omollo

**Professor of Organic Chemistry** 

Masinde Muliro University of Science and Technology,

P.O Box 190-50100 Kakamega.

3. Prof. Mutai Kipkirui Charles

Principal

Bomet University College,

P.O Box 701-20400

Bomet, Kenya.