

CURRICULUM VITAE

PERSONAL DETAILS

Name : **Julius Mutia Kaliti**
B.Sc. (Hons.) Civil Eng., M.Sc. Civil Eng., (Geotechnical Option) (University of Nairobi)
Principal Lecturer of Civil Engineering.

Nationality : Kenyan.

Date of Birth : 23/12/1963.

Marital Status : Married.

Mission Field : Civil Engineering.

Mission Area : Civil Engineering infrastructure development, maintenance, management and rehabilitation.

Mission : **a.) Materials and Instrumentation: Investigations, Design and Characterization**
Geotechnical materials, pavement materials, site investigations, soils, rocks, bitumen and bituminous mixtures.

b.) Infrastructure systems engineering
design of roads, pavements, overlays, drainage systems, foundations, earth retaining structures, earth and rock fill dams.

c.) Training in infrastructure systems construction, maintenance, management and rehabilitation skills, strategies, techniques and technologies
Labour-Intensive Techniques and Technologies
Machine-Intensive Techniques and Technologies
Performance Based Road Maintenance Contract (PBC)

Personal Address : **P.O. Box 68094 - 00200. Nairobi. Kenya.**
Phone: +254722356804, +254 799 174 177
Email: kalitijulius@yahoo.com
or kalitijulius@gmail.com

Office Address : **Roads Division**
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works
P.O. Box 30260-00100. Nairobi. Kenya.
Tel: +254-02-2723232 Ext.63121
Email: chiefengineerroads@gmail.com

INTERESTS/HOBBIES

- Keeping tree nurseries.
- Planting trees.
- Farming.
- Traveling, sight-seeing and photography.
- Performing keep-fit exercises and sports e.g. cycling, jogging, swimming, etc.

A BRIEF SUMMARY OF ACCOMPLISHMENTS

I am a university trained Civil Engineer, a Trainer and a Principal Lecturer of Civil Engineering. I earned The Kenya Polytechnic commendations for good examinations results in my subject areas and diligence in responsibilities of departmental timetable coordination, production and administration

I hold a Master of Science (M.Sc. in Civil Engineering) degree and a Bachelor of Science (B.Sc.(Hons.) in Civil Engineering), Second Class Honours (Upper Division) from the University of Nairobi (UoN), Department of Civil Engineering and Construction, School of Engineering.

In the Master degree thesis research I undertook extensive and intensive research in **Design and ‘Characterization of Bituminous Mixtures for Analytical Design of Pavements’ in Kenya.** Besides, at the University, I fabricated an apparatus called ‘**M-Elasticometer**’ for measurement of **tensile strength and elastic properties of bound pavement materials.** I undertook this study under Prof. Eng. Francis J. Gichaga and Prof. Eng. Sixtus K. Mwea both of University of Nairobi-School of Engineering, and Prof. Eng. Carl L. Monismith of University of California at Berkeley-Institute of Transportation Studies, Berkeley, USA.

I taught and trained in Building and Civil Engineering in TVET institutions in Kenya for a period of Twenty-Seven (27) years and Two (2) months. This included One (1) year and Three (3) months at Jomo Kenyatta University College of Agriculture and Technology (JKUCAT) and Fifteen (15) years and Eight (8) Months at The Kenya Polytechnic (KP). Lastly I taught and trained Civil Engineering at the Kenya Institute of Highways and Building Technology (KIHBT); Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works (MoTIHU&PW) for a duration of Ten (10) years and Three (3) months. I obtained many commendations from my supervisors for my good results in my subjects and leadership responsibilities in the School of Building and Civil Engineering and Department of Civil Engineering.

I have taken many professional, management and leadership short-term courses. I am a registered graduate civil engineer with Engineers Board of Kenya (EBK) and a graduate member of Institution of Engineers of Kenya (IEK).

A BRIEF SUMMARY OF CURRENT ENGAGEMENTS

2019 - Date: Road Project Intern

Deployed in Western Bypass Road Project in Kiambu County

Owner: Government of Kenya (GoK)

Function: Decongestion of the Nairobi City

Description: A Bypass Road Project to complete Nairobi City outer circuit Roads (Eastern, Southern, Northern and now Western)

Client: Kenya National Highways Authority (KeNHA) Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works (MoTIHU&PW)

Basis: EPC/Turnkey Projects, FIDIC 1999 (Silver Book)

Resident Engineer: Eng. Saleh A. Parpia

Contractor: China Road and Bridge Corporation (CRBC)

Duties and Responsibilities

- a.) Design
- b.) Contract Management
- c.) Contract Administration

2017 - Date: Principal Lecturer - Road and Bridge Engineering Intern and Trainer

Deployed in Roads Division; State Department of Infrastructure; Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works (MoTIHUD&PW)

Duties and Responsibilities

- a.) Review and Formulation of Standards, Specifications, Manuals, Guidelines, Handbooks, Codes of Practices and Construction Procedures of Roads Infrastructure development, maintenance, management and rehabilitation
- b.) Technical Trainer in Road Infrastructure development, maintenance and management skills, strategies, techniques and technologies
- c.) Oversight of Roads and Bridges Projects Implementation
- d.) Roads and Bridges Projects Monitoring and Evaluation

DETAILED KEY EXPERIENCES/ACHIEVEMENTS

2019 - Date: Road Project Intern

- a.) Design: Geometric, Materials, Drainage Structures, Earth Retaining Structures, etc
- b.) Contract Management: Management of EPC/Turnkey Projects, FIDIC 1999 (Silver Book)
- c.) Contract Administration: Administration of EPC/Turnkey Projects, FIDIC 1999 (Silver Book)

Nairobi Western Bypass Road Project

P. O. Box 47967 - 00100, Nairobi, Kenya

2017 to Date: Principal Lecturer - Road and Bridge Engineering Intern and Trainer

- a.) Review and formulation of standards, specifications, manuals, handbooks, guidelines, codes of practices, construction procedures and standard tender documents of roads and bridges works for road infrastructure development, maintenance and management:
 - Involved in development of Handbooks, Manuals and Guidelines of Performance-Based Road Maintenance Contract (PBC) Strategy
 - A member of 'Roads and Roads Furniture Committee' charged with formulation and review of Roads standards.
 - Involved in the development of Standard Tender Document for Performance-Based Contracts (Road Maintenance Works)
 - Developed and proposed procedures for review and formulation of standards
- b.) Technical/Professional Trainer in Road Infrastructure development, maintenance and management and rehabilitation skills, strategies, techniques and technologies
 - Master Trainer of Performance Based Road Maintenance Contract (PBC) Strategy.
 - Developed Curriculum for PBC Training of Managers, Engineers, Roads Overseers and Superintendents.
 - Trained Managers, Engineers, Roads Overseers and Superintendents.
 - Developed Curriculum for Professional Training of Engineers, Technologists and Technicians in Roads and Bridges
- c.) Oversight of Roads and Bridges Projects Implementation:
 - Attend monthly Projects Site Meetings.
- d.) Roads and Bridges Projects Monitoring and Evaluation

- Attend Monitoring and Evaluation programs.
Roads Division
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing, Urban Development and public Works.
P.O. Box 30260 - 00100. Nairobi. Kenya.

2013 to 2017: Head of School - Building and Civil Engineering

- Strategic leader of the school.
- Initiated and led research and consultancy in infrastructure development, maintenance, management and rehabilitation.
- Assimilated new and emerging technologies for infrastructure development, maintenance, management and rehabilitation.
- Developed curricula, syllabi and timetables for training the technologies.
- Disseminated knowledge of the same through short-term courses for capacity building.
- Overseen lecturers, support staff and trainees.
- In-charge of funds and inventory.

Building and Civil Engineering School.
Kenya Institute of Highways and Building Technology (KIHBT)
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing and Urban Development.
P.O. Box 57511-00200. Nairobi. Kenya.

2011 to 2017: Coordinator

- Coordination and implementation of training programmes between the Institute and other colleges and universities

Building and Civil Engineering School.
Kenya Institute of Highways and Building Technology (KIHBT)
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing and Urban Development.
P.O. Box 57511-00200. Nairobi. Kenya.

2007 to 2017: Head of Department-Civil Engineering

- Strategic leader and administrative manager of the department.
- Developed curricula, syllabi and timetables.
- Hired Part-time lecturers.
- Rolled out work for staff and students.
- Overseen lecturers, support staff and students.
- In-charge of funds and inventory.

Civil Engineering Department
Kenya Institute of Highways and Building Technology (KIHBT)
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing and Urban Development.
P.O. Box 57511-00200. Nairobi. Kenya.

2006 to 2017: Principal Lecturer

- Involved in teaching and training
Building and Civil Engineering School.
Kenya Institute of Highways and Building Technology (KIHBT)

*State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing and Urban
Development.
P.O. Box 57511-00200. Nairobi. Kenya.*

2004 to 2006: Timetable Consultant

- Trained newly appointed timetable officers on timetable preparation, production and administration.
 - Overseen departmental timetable preparation, production and administration.
- The Kenya Polytechnic.
Building & Civil Engineering Department.
P.O. Box 52428-00200. Nairobi. Kenya.*

2002 to 2006: Senior Lecturer of Soil Mechanics and Foundation Engineering

- Researched, taught and examined Soil Mechanics and Foundation Engineering.
 - Obtained The Chief Principals' commendations for good examinations results.
- The Kenya Polytechnic.
Building & Civil Engineering Department.
P.O. Box 52428-00200. Nairobi. Kenya.*

1996 to 2002: Lecturer of Soil Mechanics and Foundation Engineering

- Researched, taught and examined Soil Mechanics and Foundation Engineering.
 - Obtained The Chief Principal's letter of commendation for Good examinations results.
- The Kenya Polytechnic.
Building & Civil Engineering Department.
P.O. Box 52428-00200. Nairobi. Kenya.*

1995 to 2006: Departmental Library Advisory Committee Member

- Advised the library management on the appropriate textbooks and learning materials for the Building and Civil Engineering Department.
 - Advised the library administration on security measures to prevent loss of textbooks and learning materials.
- The Kenya Polytechnic.
Building & Civil Engineering Department.
P.O. Box 52428-00200. Nairobi. Kenya.*

1995 to 2004: Departmental Timetable Master

- Dealt with timetable preparation, production and administration.
 - Dealt with teaching personnel, time, space and general resources allocation for college academic curricula implementation. At times there would be over forty (40) courses and over seventy lecturers (Full-time and part-time) to be timetabled.
 - Advised the Deputy Principal on departmental Curriculum Based Establishment (CBE) and hiring part-time lecturers.
 - Obtained commendation from The Chief Principal and Board of Governors for the best prepared and presented timetable in the Polytechnic.
- The Kenya Polytechnic.
Building & Civil Engineering Department.
P.O. Box 52428-00200. Nairobi. Kenya.*

1992 to 1993: Actively interacted intellectually with Prof. Eng. Carl L. Monismith.

The Robert Horonjeff Professor of Civil Engineering,

Research Engineer and Principal Investigator

- Got involved in Strategic Highway Research Program – SHRP, on design and characterization of bituminous mixtures.
- Obtained SHRP materials and papers to enrich M.Sc. research.
- Received comments on the M.Sc. research model and work, for it had similarities with the SHRP model in USA.
- M. Sc. research activities were examined and useful comments provided.

Institute of Transportation studies. Room 115 McLaughlin Hall.

The University of California at Berkeley

Department of Civil Engineering

Berkeley. California 94720. USA.

1991 to 1996: Assistant Lecturer of Soil Mechanics and Foundation Engineering

- Researched, taught and examined Soil Mechanics and Foundation Engineering at Diploma and higher Diploma Levels

The Kenya Polytechnic

Building and Civil Engineering Department

P.O. Box 52428-00200. Nairobi. Kenya.

1989 to 1990: M.Sc. Thesis Research

- Wrote proposal for Masters of Science degree thesis research.
- Designed and fabricated an apparatus called ‘**M-Elasticometer**’ for measurement of **tensile strength and elastic properties** of bound pavement materials.
- Undertook research in bituminous mixtures.
- Researched extensively and intensively in **Design and ‘Characterization of Bituminous Mixtures for Analytical Design of Pavements’ in Kenya.**

University of Nairobi

School of Engineering

Department of Civil and Construction Engineering

P.O. Box 30197-00100. Nairobi. Kenya.

1988 to 1990: Graduate Assistant of Geotechnical Engineering

- Researched, taught and examined Soil Mechanics and Foundation Engineering.

Jomo Kenyatta University College of Agriculture and technology

Department of Civil Engineering

P.O. Box 62000-00200. Nairobi. Kenya.

1988 to 1990: Assistant Engineer II

- Involved in water treatment works at Ng’ethu and wrote a report on the plant.
- Highlighted by a report the problem of leaking 2Nos. (1 tonne) steel drums of Liquid Chlorine.
- Designed a Liquid Chlorine Reactor

Nairobi City Commission

Water & Sewerage Department

P.O. Box 30075-00100. Nairobi. Kenya.

1988 to 1993: Actively interacted intellectually with Prof. Eng. Francis J. Gichaga.

Professor of Civil Engineering and former Vice-Chancellor of University of Nairobi.

- Trained in pavement design, evaluation and overlay design in M.Sc. studies.
 - Supervised in M.Sc. thesis research on '**Design and Characterization of Bituminous Mixtures for Analytical Design of Pavements in Kenya**'.
- Department of Civil and Construction Engineering*
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.

1988 to 1993: Actively interacted intellectually with Prof. Eng. Sixtus K. Mwea.
Professor of Civil Engineering and former Chairman of Department Civil and Construction Engineering.

- Trained in Site Investigations, Advanced Soil Mechanics and Foundation Engineering in M.Sc. studies.
 - Supervised in M.Sc. thesis research on '**Design and Characterization of Bituminous Mixtures for Analytical Design of Pavements in Kenya**'.
- Department of Civil and Construction Engineering*
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.

1988 to 1989: M.Sc. Theory Student.

- Undertook advanced coursework in Geotechnical Engineering.
- Department of Civil and Construction Engineering*
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.

1987 to 1988: B.Sc. Research Student

- Carried out a B.Sc. degree project on the '**Infrastructural Adequacy to cater for the Future Population in Nairobi City**'
- Department of Civil and Construction Engineering*
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.

1985 to 1988: B. Sc. Degree Student

- Undertook study for B. Sc. degree in Civil Engineering
- Department of Civil and Construction Engineering*
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.

1985: Serviceman Trainee

- Undertook Pre-university training programme
- National Youth Service College*
Gilgil, Nakuru.

1984 to 1985: Classroom Teacher

- Taught Mathematics, Physics and Chemistry
- Board of Governors (BOG)*
Thitani Girls' Secondary School.
P. O. Box 1. Migwani. Kitui County.

I.) ACADEMIC QUALIFICATIONS

- 2008: Master of Science (In Civil Engineering)**
- Developed a Research Proposal, Researched, Compiled and Successfully Defended a Thesis in Geotechnical Engineering and Pavement Materials entitled: **Design and 'Characterization of Bituminous Mixtures for Analytical Design of Pavements'**
- Department of Civil and Construction Engineering
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.*
- 1989: Coursework of Master of Science (In Civil Engineering)**
- Studied advanced coursework in Geotechnical Engineering
 - The Subjects studied included:
 - ❖ Site Investigations
 - ❖ Advanced Soil Mechanics
 - ❖ Rock Mechanics
 - ❖ Foundation Engineering
 - ❖ Retaining Structures
 - ❖ Pavement Design I
- Department of Civil and Construction Engineering
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.*
- 1988: Bachelor of Science (In Civil Engineering)**
- Awarded Honours Bachelors of Science (B.Sc. (Hons)) Degree in Civil Engineering. Second Class Honours (Upper Division)
 - Researched and Authored a B.Sc. Project Report entitled: **'Evaluation of Infrastructural Adequacy of Nairobi City: Case Study of Nairobi South C Region'**
 - The Subjects majored in final year are:
 - ❖ Theory of Structures III
 - ❖ Soil Mechanics III
 - ❖ Civil Engineering Design
 - ❖ Fluid Mechanics
 - ❖ Public Health Engineering
 - ❖ Water Resource Engineering
 - ❖ Highway Engineering & Traffic.
 - ❖ Civil Engineering Project (Research Oriented Project)
- Department of Civil and Construction Engineering
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.*
- 1983: Kenya Advanced Certificate of Education (KACE)**
- The Subjects majored in final year are:
 - ❖ Further mathematics
 - ❖ Mathematics

- ❖ Physics
- ❖ Chemistry
- ❖ General Studies

Mang'u High School
P.O. Box 34. Thika. Kiambu County.

1980: Kenya Certificate of Education (KCE)

- The Subjects majored in final year are:
 - ❖ Technical Drawing (Mech.)
 - ❖ Mechanical Technology (Theory and Practice)
 - ❖ Mathematics, Physical
 - ❖ Sciences (Physics and Chemistry)
 - ❖ Geography and Languages (English and Kiswahili)

Kabete Technical School
P.O. Box 29010. Nairobi.

1976: Certificate of Primary Education (CPE)

- The Subjects majored in final year are:
 - ❖ English
 - ❖ Mathematics
 - ❖ General Paper (Natural Science, Geography, History, Civics and Agriculture).

Kanyaa Primary School
P.O. Box 23. Migwani. Kitui County.

1969: Nursery School.

- The Subjects studied included:
 - ❖ *Number Work*
 - ❖ *Letter Work*

Kanyaa Nursery School
P.O. Box 23. Migwani. Kitui County.

II.) PROFESSIONAL QUALIFICATIONS

2019: Training of Trainers

National Road Construction Sector Occupational Health and Safety Code of Practice
Institutional Support to the Kenyan Transport Sector
NTU International

2018: Public Private Partnership (PPP) Projects
Kenya College of Infrastructure

2018: Road and Bridge Design including Computer Aided Design Techniques
 Compiled a Training Report entitled: '**Road and Bridge Design including Computer Aided Design Techniques**' for Civil Engineers from Africa

Indian Academy of Highway Engineers (IAHE)
Ministry of Road Transport and Highways
Government of India

2016: Performance Based Road Maintenance Contract (PBC) as a Master Trainer
Department of roads
School of Building and Civil Engineering

Kenya Institute of Highways and Building Technology (KIHBT)

- 2016:** Introduction to Urban Transport Course
Institutional Capacity Building to the Transport/Road Sector
Mott MacDonald
- 2016:** Training of Trainers on Performance Based Road Maintenance Contract and Cost Estimation for PBC
Japan International Cooperation Agency
- 2015:** Road Safety Engineering and Road Safety Audit (Advanced Course)
The Chartered Institute of Logistics and Transport
Mott MacDonald
- 2015:** Road Safety Engineering and Road Safety Audit (Basic Course)
The Chartered Institute of Logistics and Transport
Mott MacDonald
- 2014:** Road Maintenance
Compiled a Training Report entitled: '**Road Maintenance in Japan: Take Home Points and Action Plan**'
Hanshin Expressway Company Limited
Japan International Cooperation Agency
- 2014:** Dynamic Intelligent Monitoring System (DRIMS)
Kenya National Highways Authority and
Japan International Cooperation Agency
- 2014:** DCP Method of design of Low Volume Sealed Roads
Crown Agents
UKAID
- 2012:** Training of Trainers
Developed a Project Proposal, Researched and Compiled a Project Report entitled: '**Survey of Factors, Causing Poor Enrolment in Physics in Secondary School Education and The Effects on Kitui County Economy**'
Department of Technical Education
Kenya Technical Teachers College
- 2012:** Introduction of Structural Eurocodes in Kenya
Organized by Department of Civil Engineering and Structural Engineering
Moi University (MU) & Kenya Bureau of Standards (KEBS)
Facilitated by Department of Mechanics of Materials and Constructions,
Vrije Universiteit Brussel (VUB), Belgium & Department of Buildings and Civil
Structures, Delft University of Technology (DUT), The Netherlands
- 2011:** Basic Training Course for Engineers
Department of roads
School of Building and Civil Engineering
Kenya Institute of Highways and Building Technology (KIHBT)
- 2010:** Employment Intensive Surfacing Techniques
Kisii Training Centre
Kenya Institute of Highways and Building Technology

- 2009:** R2000 (Roads2000) Maintenance Management System course
Department of roads
School of Building and Civil Engineering
Kenya Institute of Highways and Building Technology (KIHBT)
- 2007:** Resource Management (Induction)
Department of roads
School of Building and Civil Engineering
Kenya Institute of Highways and Building Technology (KIHBT)
- 2007:** Routine Road Maintenance for Site Supervisors
Department of roads
School of Building and Civil Engineering
Kenya Institute of Highways and Building Technology (KIHBT)
- 2007:** The Management of Labour-Based Road Contracts (As a Contractor)
Department of roads
School of Building and Civil Engineering
Kenya Institute of Highways and Building Technology (KIHBT)
- 1997:** Graduate Member
Institution of Engineers of Kenya (IEK)
- 1996:** Graduate Engineer
Engineers Board of Kenya (EBK)

III.) MANAGEMENT AND LEADERSHIP QUALIFICATIONS

- 2014:** Strategic Leadership Development Programme No. 77/2014
 Wrote a Project Report entitled: '**A Transformative Leader: Case Study of Dr. James Macharia Mwangi, the Founder and former CEO of Equity Bank in Kenya.**'
Kenya Institute of Administration (Kenya School of Government)
- 2011:** Senior Management Course No. 18/2011
 Wrote a Project Report entitled: '**The Role of Technical Vocational Education Training (TVET) Institutions in Provision of Competencies and Skills Based Training for Actualization of Vision 2030: Case Study of Kenya Institute of Highways and Building Technology (KIHBT)**'
Kenya Institute of Administration (Kenya School of Government)

REFERENCES

1. Prof. Eng. Francis J. Gichaga
Former Vice-Chancellor
Professor and Consultant Engineer of Civil Engineering
Department of Civil and Construction Engineering
School of Engineering
University of Nairobi
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2. Prof. Eng. Sixtus K. Mwea
Former Chairman of Department
Professor and Consultant Engineer of Civil Engineering
Department of Civil and Construction Engineering
School of Engineering
University of Nairobi
P.O. Box 30197-00100. Nairobi. Kenya.
Cell phone No.: +254 722 720 435
E-mail: smwea@uonbi.ac.ke

3. Eng. James M. Kung'u
Chief Engineer, Roads
Consultant Engineer of Civil Engineering
Roads Division
State Department of Infrastructure
Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works
P. O. Box 30260 – 00100. Nairobi. Kenya.
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