

**CURRICULUM VITAE (CV)**

<b>Specialization</b>	Structural Engineer (Bridges and other road structures)
<b>Date of Birth:</b>	20/07/1972
<b>Country of Citizenship/Residence</b>	Kenya
<b>Contact</b>	Email: kitema2016@aticaskenya.com Phone Number: +254 733 941 474

**Education:**

1992-1997      University of Nairobi      Bsc. (Hons), Civil Engineering

**Training:**

2019 (1 <sup>st</sup> -5 <sup>th</sup> July)	<b>Kenya Bureau of Standards (KEBS) and Steel Construction Institute (SCI) UK Global Steel Expertise</b> Training of trainers' course on Eurocode Design of Steel Structures
2019 (26 <sup>th</sup> -28 <sup>th</sup> June)	<b>Kenya Bureau of Standards (KEBS), SCI-UK and Modulus Structural Engineering</b> Technical Introduction to Structural Eurocodes. Done to National Implementation Committee on Eurocodes Members
2016 (28 <sup>th</sup> -30 <sup>th</sup> September)	<b>Kenya Bureau of Standards (KEBS) and Moi University</b> Workshop on use of Structural Eurocodes in Kenya
2013 (23 <sup>rd</sup> -25 <sup>th</sup> Jan)	<b>Kenya Bureau of Standards (KEBS)</b> ISO 9000:2008 Implementation course
2006, 9 <sup>th</sup> -12 <sup>th</sup> April	<b>Outward Bound Trust Kenya</b> Management challenge course
2005, 28 <sup>th</sup> Feb - 4 <sup>th</sup> March,	<b>Kenya Institute of Highways (K.I.H.B.T)</b> Contract Management Course
2002, October-December,	<b>Road Bureau, JICA-JAPAN</b> Comprehensive Bridge Design and Maintenance Management
1998 (22 <sup>nd</sup> -23 <sup>rd</sup> May)	<b>Kenya Bureau of Standards (KEBS)</b> ISO 9000 awareness course

**Membership in Professional Associations and Registrations:**

Registered Consulting Engineer with Engineers' Board of Kenya,	Kenya	2008, May
Fellow-Institution of Engineers of Kenya,	Kenya	2014, June
Member, Association of Consulting Engineers of Kenya,	Kenya	August 2014
Professional Engineer with Engineer's Board of Kenya,	Kenya	2003, July
Registered Engineer, Engineering Registration Board,	Zambia,	March 2015
Professional Engineer, Engineering Institution of Zambia,	Zambia	Dec 2014
Corporate Member-Institution of Engineers of Kenya,	Kenya	2003, Aug

Year 2015 ELNET Mark of Ethics Awardee (ELNET), ref [www.elnetkenya.org](http://www.elnetkenya.org)

Year 2016, Member, the National Implementation Committee on Eurocodes (NICE)

### **Key Qualifications**

- Experienced bridge Engineer in design and construction supervision
- Trainer and mentor of young bridge engineer in bridge design using eurocodes
- A total of 20 years professional experience in contract administration involved in structural design of bridges and buildings, supervision construction, bridge piling works, bridge inspections, design of bridge rehabilitations, stream hydrological analysis for drainage structures, road drainage design, site investigations, interchange design, contract management, contract costing, contract documentation, contract tendering and evaluation, prequalification of bidders, construction supervision, evaluation of contractors' claims, preparation of claims evaluation reports, preparation of road and bridge maintenance programs
- Of these years, 18.5 years were spent mostly in structures and road related works ranging from design to supervision while 1.5 years were spent as a District Road Engineer in-charge of the road and bridge maintenance works in Meru North District. The works also involved execution of three Roads 2000 program road projects as a Resident Engineer.
- Computer literate and familiar with various applications of computer software that include AUTOCAD.
- He has a thorough knowledge in governments and administrative procedures. He is also familiar with construction materials quality control tests.
- Innovations: Developed a comprehensive excel based bridge design program which also computes Quantities and returns cost estimate; developed an excel based culvert design program. Also developed an excel based program for carrying out flood estimate and required waterway opening
- Trained in Japan in maintenance management and comprehensive bridge engineering which included: design of viaducts, design of pre-stressed concrete structures, design of reinforced concrete structures, design of box girder bridges, design of steel bridges, erection o steel bridges, various bridge construction methods, concreting procedures, bridge type selection criteria, foundations engineering, bridge inspection and rehabilitation methodology, rehabilitation and maintenance of steel and concrete structures, criteria for selection of bridge rehabilitation methods, construction of tunnels and construction management

### **Employment record and experience**

<b>Period</b>	<b>Employing organization and your Title/position. Contact references</b>	<b>Country</b>	<b>Summary of activities performed</b>
2018 -to date	Vejtech Engineering Consultants Ltd  <b>Structural Engineer</b>  <b>Contact Person</b>  Eng James Mureithi  +254 717 030 614	Kenya	<b>Main project features:</b>  Design of structures and road drainage for Kiambu-Gatundu-Thika Road (B30).  Ongoing project

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
2017 Dec  Ongoing	ITEC Engineering Ltd  <b>Structural Engineer</b>  <b>For References</b>  Eng Tom Opiyo, MD  +254 722 517 209	Kenya	<p><b>Main project features:</b></p> <p><b>1. Road Technical Audits</b></p> <p>The project: Isebania-Kisii-Ahero(A1) Road Project</p> <p><b>Activities performed:</b></p> <p>Making an assessment of the global quality of the works in regard to</p> <ul style="list-style-type: none"> <li>(i) Technical quality,</li> <li>(ii) Timeliness in implementation,</li> <li>(iii) Supervision procedures laid by the supervising consultant and civil works contractor</li> </ul> <p>Examining the geotechnical investigation reports and structural integrity reports on existing bridges with a view to forming informed opinion on the recommendations of the supervising consultants on the structures in the interest of ensuring the loan proceeds are used economically.</p>
2017 to date	Ilovi Consulting Engineers Ltd  Bridge Engineer  Contact Person  Eng P.P Ilovi  +254 722 843 548	Kenya	<p><b>Main Project features</b></p> <p>Preliminary and detailed design of 4 No bridges for Eastern Nairobi Missing Links, Design of structures and drainage for North Horr-Marsabit road (ongoing).</p> <p><b>Activities performed:</b></p> <ul style="list-style-type: none"> <li>• Bridge option analysis</li> <li>• Advising client on best bridge option</li> <li>• Detailed Designing of the Bridges and Drainage Structures</li> <li>• Design Report Préparation</li> <li>• Preparation of Technical specifications</li> <li>• Prepare Take off Sheets and Bill of Qunatities</li> <li>• Preparation of specifications for the works</li> <li>• Preparation of the detailed bridge drawings</li> </ul>
June 2013 - Ongoing	Kiran & Musonda Associates Ltd  <b>Bridge Engineer</b>  Contact: Kiran Patel Tel: + 260 211 256519	Zambia	<p><b>Main project features:</b></p> <p>Detailed Engineering Design and Tender Document Preparation for the Construction of Bridges at Luangwa and Kampemba Rivers in Chama District of Muchinga Province.</p> <p><b>Activities performed:</b></p> <ul style="list-style-type: none"> <li>• Bridge option analysis</li> <li>• Advising client on best bridge option</li> </ul>

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
			<ul style="list-style-type: none"> <li>Detailed Designing of the Bridges and Drainage Structures</li> <li>Design Report Préparation</li> <li>Preparation of Tender Documents</li> <li>Prepare Take off Sheets and Bill of Quantities</li> <li>Preparation of specifications for the works</li> <li>Preparation of the detailed bridge drawings</li> <li>River revetment design</li> </ul> <p>Construction supervision</p>
2017, Jan-Dec	<p>Techniplan <b>Structures Engineer</b></p> <p><b>For References</b> Carlo Moriondo: tel.: + 39 06 8535 0880; techniplan@gmail.com.</p>	Kenya	<p><b>Main project features:</b> Supervision of Maji ya Chumvi Rail Over Bridge and Pedestrian underpass on Bachuma Gate-Maji ya Chumvi road project. Involved in checking and approving of the shop drawings for steel fabrication, supervision of piling works, supervision of the foundation and superstructure works</p>
2008 July to date	<p>Terms Kenya Ltd Then Aticas Kenya Ltd</p> <p><b>Managing Director / Bridges &amp; Structures Eng,</b></p> <p><b>For References</b> Eng S.M Kitema <b>Tel:</b> (+254) 733 941 474</p>	Kenya and Uganda	<p><b>Main project features:</b></p> <p><b>1. Design of various Road Bridges</b> among them the Bridges for Makutano-Kaumoni-Wote Road (6No bridges), Lodwar-Nadapal Road (A1) (27No bridges), Langata road underpasses (4No),</p> <p>Design of Ngong-Langata Road missing link (M12) bridges (4Nos and 2No box culverts), Design of pile foundations for Mbita Causeway bridge, Design of Eldoret Footbridge across Sosian River,</p> <p>Preliminary Design of Rironi-Lanet Road Bridges (15No) and Marigat-Karandi Road (C51) - (6No bridges), Preliminary Design of Ntungwe, Mitaano, Ora, Aji, Awoo and Enyau Bridges in Uganda,</p> <p>Design review of Bararyet river bridge on road C35, A bridge underpass for Two Rivers Development limited, 3No box underpasses to Thika greens limited, 20No. Bridges for Outering Road dualling in Nairobi, Detailed design of Mutonga river bridge on Ena-Ishiara Road, Detailed design of Thua river bridge on Kitui-Mwitika road, foundation design review for Mbita Causeway (120m long) bridge pier foundation.</p> <p>Design Changamwe Interchange bridges (2 No), Changamwe interchange's underpasses (2 No) and retaining walls.</p> <p>Review and commenting on the Structural Integrity report for existing structures (2No) on Digo-Kwa Jomvu Interchange road project, Mombasa road.</p>

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
			<p><b>2. Activities performed:</b></p> <ul style="list-style-type: none"> <li>• Bridge analysis</li> <li>• Detailed Designing of the Bridges</li> <li>• Preparation of take off sheets and Bill of Qunatities</li> <li>• Preparation of the detailed bridge drawings</li> <li>• Report writing</li> </ul> <p><b>2. Design of Railway Bridges</b> among them -Nairobi-Jomo Kenyatta Airport-preliminary design of Ngong river rail bridge (65m), railway bridge (120m) across Mombasa road at Syokimau railway station, Jomo Kenyatta Airport railway viaduct (600m) for design and build tender, Kisian railway bridge (72m) on Kisian-Busia road: Preliminary and detailed design</p> <p><b>Activities performed:</b> Actual design including production of design calculations, drawings, bills of quantities and estimates</p>
2009 to 2012	<p>Apec Consortium Ltd, the Supervising Consultants</p> <p><b>Assistant Resident Engineer</b></p> <p><b>For References</b> Eng James Karanja</p> <p><b>Tel:</b> (+254 ) 722 757 165</p>	Kenya	<p><b>Main project features:</b></p> <p>Supervision of Nairobi-Thika Road (Lot II). The construction Works supervised included among others:</p> <ul style="list-style-type: none"> <li>• New 8-lane bridges (2 No.),</li> <li>• New 6-lane flyovers (2 No.),</li> <li>• New 6-lane rail over bridges (1 No.),</li> <li>• New 6-lane overpasses (2 No.)</li> <li>• New 6-lane underpasses (3 No.);</li> </ul> <p><b>Activities performed:</b></p> <p>Day to day management of the project and quality control.</p>
2007 to 2009	<p>Abdul Mullick Associates Ltd, Consulting Engineers</p> <p><b>Project Bridges Engineer</b></p> <p><b>For References</b> Eng C.O Ojowi</p> <p><b>Tel:</b> (+254) 722 861 340</p>	Kenya	<p><b>Main project features:</b></p> <p>Embakasi - Machakos turnoff road included Athi river composite bridge (100m long); two major tunnels/underpasses at Namanga Interchange (with total length of about 160m); 11 box culverts and several pipe culverts.</p> <p><b>Activities performed:</b></p> <ul style="list-style-type: none"> <li>• Culvert fitting to ensure functionality based on the topography and adequate road cover to ensure durability</li> <li>• Design of Stony Athi composite bridge which is a new bridge</li> <li>• Namanga interchange setting to ensure alignment, slope, skew and vertical clearance for vehicle passage</li> <li>• Design check and evaluation for fitting of the drainage structures for the interchange to ensure drainage and safe</li> </ul>

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
			<p>passage of the sabaki stream through the interchange</p> <ul style="list-style-type: none"> <li>Carried out a review of the site investigations' report and requested another investigation at Athi river bridge based on site conditions</li> <li>Inspection of the existing structures with a view of strengthening them or having them replaced</li> <li>Preparation of drawings, bar bending schedules, records and quantities for all the structures on the road project.</li> </ul>
2005 to 2007	<p>Ministry of Roads and Public Works, Republic of Kenya</p> <p><b>Superintending Engineer (Roads and Bridges)</b></p> <p><b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-<b>Eng M.O.A Bajaber</b></p> <p><b>Tel:</b> (+254) 722 867 101</p>	Kenya	<p><b>Main project features:</b></p> <p>Farm-Kawiru road (Bitumen standard road), Maua-Athi road(Rd 2000), Kiguchwa-Kagaene road(Rd 2000) and Athi-Kiguchwa road (Rd 2000) projects</p> <p><b>Activities performed:</b></p> <ul style="list-style-type: none"> <li>Bridges and roads maintenance: District Roads' Engineer (Meru North District)-Responsible for bridges' and roads' maintenance management works in the district including planning, programming, implementation, supervision, evaluation and human resource management besides being Secretary to the District Roads Committee. Motorable road network improved tremendously thereby promoting economic growth through improved goods and service delivery.</li> <li>Northern corridor transport improvement project: Bridges expert in the project's steering technical team in-charge of ensuring technical compliance of bridge works. Competently handled all the bridge related works in the project</li> <li>Design: Successfully carried out designs for Wakor composite bridge, New Malaba composite bridge and eight bridges/overpasses for Kisumu by-pass</li> <li>Design Check: Successfully carried out design checks for Maji ya chumvi river bridge</li> <li>Design of bridge remedial works: Successfully undertook design of rehabilitation works for Maji ya chumvi river bridge and Old Malaba bridge</li> <li>Preparation of reliable bills of quantities and Engineer's estimate for eight bridges on Kisumu bypass</li> </ul>
2001 to 2005	<p>Ministry of Roads and Public Works, Republic of Kenya</p> <p><b>Engineer (Bridges)</b></p> <p><b>For References</b> Chief Superintending Engineer (Bridges),</p>	Kenya	<p><b>Main project features:</b></p> <p>Designs for Nzeeu Bridge (Pre-Stressed Concrete), Ndula Composite Bridge And Mwanjui Bailey Bridge Pier</p> <p><b>Activities performed:</b> Actual design, production of design calculations, drawings, bills of quantities and estimates</p>

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
	Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101		
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Design of Rehabilitation Works for Nairobi River On Sagana State Lodge Road, Nzeeu River Drift, Nzombe Drift  <b>Activities performed:</b> Site inspection, design and production of bills of quantities, drawings, cost estimates and tender documents
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Hydrological analysis: Successfully did flood estimates for Kibwezi Athi bridge, three vented drifts on road B7, Kisat bridge in Kisumu, Nzeeu bridge, Ndula bridge, Nairobi river bridge on sagana state lodge road, Mbogolo bridge  <b>Activities performed:</b> Carrying out hydrological analysis for the bridge crossings using the appropriate applicable methods and sizing the structures openings
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Resident Engineer</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Supervision of repairs of Kamandura bridge  <b>Activities performed:</b> <ul style="list-style-type: none"><li>• Coordinating construction teams</li><li>• Preparing progress reports</li><li>• Monitoring programme of works</li><li>• Preparation of payment certificates and ensuring smooth running of the projects by solving site disputes</li></ul>
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Supervision of Repair Works for Nyali (390m Long) and Mtwapa (192m Long) Box Girder Pre-Stressed Concrete Bridges  <b>Activities performed:</b> <ul style="list-style-type: none"><li>• Crack sealing using epoxy resin grout</li><li>• Corrosion resistant coating</li><li>• Replacement of expansion joints</li><li>• Bonding of strengthening steel plates and installation of external pre-stressing cables</li></ul>

Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel: (+254) 722 867 101</b>	Kenya	<b>Main project features:</b>  Nzeeu bridge, Mwakanju bridge pier, Ndula bridge and three vented drifts on National road B7  <b>Activities performed:</b>  <ul style="list-style-type: none"> <li>Preparation of reliable bills of quantities and Engineer's estimate</li> </ul>
2001 to 2005	Ministry of Roads and Public Works, Republic of Kenya  <b>Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel: (+254) 722 867 101</b>	Kenya	<b>Main project features:</b>  Kamandura bridge (works tender), Sagana-State Lodge Access roads (works tender), Machakos turnoff- Embakasi road, Machakos turnoff-Sultan Hamud road, Mau summit-Kericho-Kisumu road, Kibwezi-Kitui-Isiolo road  <b>Activities performed:</b>  <ul style="list-style-type: none"> <li>Tender evaluation</li> <li>Production of tender evaluation reports</li> </ul>
1998 to 2001	Ministry of Roads and Public Works, Republic of Kenya  <b>Assistant Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel: (+254) 722 867 101</b>	Kenya	<b>Main project features:</b>  Designs for Ithekahuno bridge, Mwitasyano river bridge, Yondoni River Bridge pier and National Security Intelligence services footbridge  <b>Activities performed:</b> Actual design, production of design calculations, drawings, bills of quantities and estimates
	Ministry of Roads and Public Works, Republic of Kenya  <b>Assistant Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel: (+254) 722 867 101</b>	Kenya	<b>Main project features:</b>  Design Checks for Amala River composite Bridge, Voi Bridge, Langata Road Footbridges (2no), Ngong River Bridge on Langata Road  <b>Activities performed:</b>  <ul style="list-style-type: none"> <li>Checking the designs to ensure compliance with the design standards and safety requirements</li> </ul>



Period	Employing organization and your Title/position. Contact references	Country	Summary of activities performed
	Ministry of Roads and Public Works, Republic of Kenya  <b>Assistant Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Design of Rehabilitation Works for Habaswein Bridge and Kone Washout in Garissa  <b>Activities performed:</b> Actual design, production of design calculations, drawings, bills of quantities and estimates
	Ministry of Roads and Public Works, Republic of Kenya  <b>Assistant Engineer (Bridges)</b>  <b>For References</b> Chief Superintending Engineer (Bridges), Ministry of Roads-Eng <b>M.O.A Bajaber</b>  <b>Tel:</b> (+254) 722 867 101	Kenya	<b>Main project features:</b>  Odda box culvert, lthekahuno bridge, Irigu bridge, Naka bridge, Kiunguni bridge, National Security Intelligence services footbridge  <b>Activities performed:</b> <ul style="list-style-type: none"> <li>Preparation of reliable bills of quantities and Engineer's estimate</li> </ul>



ENGINEERS BOARD OF KENYA

## Engineer's Practising Licence

Pursuant to the Engineers Act, 2011, I hereby certify that

Eng. Solomon Muli Kitema  
is duly registered as a Registered Consulting Engineer  
in the field of Civil Engineering

for the period between

2<sup>nd</sup> January 2019 - 31<sup>st</sup> December 2019, and is licensed to practice as such.

Issued this

2<sup>nd</sup>

day of

January 2019

Issued under the Seal of the Board

Serial No. EBK

2019/E 222/K 314

ENG. N. M. MUSUNU

Registrar

GPB (U) 472 - 2000 - 1/2018

326293

# UNIVERSITY OF NAIROBI



This is to certify that

*Muli Solomon Kitema*

having satisfied the requirements  
for the award of the degree of the

**BACHELOR OF SCIENCE**  
(IN CIVIL ENGINEERING)

*Second Class Honours (Upper Division)*

was admitted to the degree  
at a Congregation held at  
this University on the

First Day of December in the Year  
1997

I CERTIFY THAT THIS IS A TRUE COPY  
OF THE ORIGINAL

*[Signature]*  
JOHN M. MATIVO ADVOCATE  
Commissioner for Oaths / Notary Public

*[Signature]*

VICE - CHANCELLOR

*[Signature]*

DEPUTY VICE - CHANCELLOR (ACADEMIC AFFAIRS)

THE REPUBLIC OF KENYA

# The Engineers Registration Board

## Certificate of Registration



I CERTIFY THAT THIS IS A TRUE COPY  
OF THE ORIGINAL

JOHN M. MATIVO ADVOCATE  
Commissioner for Oaths / Notary Public

THIS IS TO

CERTIFY THAT

Eng: Solomon Muli Kitema

HAS BEEN DULY

REGISTERED AS A

CONSULTING ENGINEER

pursuant to and in accordance with the provisions  
of the Engineers Registration Amendment Act  
1990, and that on the

28th May 2008

such name was entered in the Register under the  
Serial Number

E 222

Given under our hands and Common Seal of the  
Engineers Registration Board, at Nairobi this

28th May 2008

CHAIRMAN

ENG. M.S.N. KANAU

MEMBER

ENG. PROF. A.V. OTTENO

MEMBER

ENG. D.M. WANJAU

REGISTRAR

ENG. G.N. AMALA



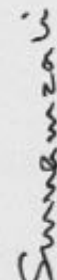
## The Institution of Engineers of Kenya Certificate of Membership

This is to certify that **Solomon Mululi Kitema**  
has been elected **Fellow F. 2601**  
of the Institution of Engineers of Kenya  
on the **5<sup>th</sup> June 2014**

given under our hands and the common seal  
of the said Institution on the **13<sup>th</sup> June 2014**

  
Member

  
Chairman

  
Secretary







## Certificate of Completion

This is to certify that:

**Eng. Solomon Muli Kitema**

*Has successfully completed a Training of Trainers' course on:*

***Eurocode Design of Steel Structures***

organised by  
**Kenya Bureau of Standards**

and facilitated by  
**The Steel Construction Institute (SCI) UK Global Steel Expertise**

**Held at Gelian Hotel, Machakos on 1<sup>st</sup> – 5<sup>th</sup> July, 2019**

The following topics were covered:

- Eurocode 0: Basis of structural design
- EN 1090: Execution of Steel Structures
- Eurocode 1: Actions on structures
- Eurocode 3: Design of steel structures

Dated this day 5<sup>th</sup> July, 2019

A handwritten signature in blue ink, appearing to read 'David Brown'.

**David Brown**  
**(Steel Knowledge)**

A handwritten signature in blue ink, appearing to read 'Esther Ngari'.

**Esther Ngari**  
**Director-Standards Development & Trade**  
**KEBS**



## Certificate of participation

This is to certify that:

**Eng. Solomon Muli Kitema**

*Participated in a workshop on:*

***Technical Introduction to Structural Eurocodes***

organised by  
Kenya Bureau of Standards

and facilitated by  
The Steel Construction Institute (SCI) UK Global Steel Expertise

and

Modulus Structural Engineering Ltd.

Held at Gelian Hotel, Machakos on 26<sup>th</sup> – 28<sup>th</sup> June, 2019

The following topics were covered:

- Situational analysis on the use of design codes in Kenya
- Eurocodes: History and reason of their development
- Eurocodes: General design philosophy
- The Structural Eurocodes suite
- Basis of structural design (Eurocode EC0)
- Actions on structures (Eurocode EC1)
- Concrete structures, fire design, concrete bridges (Eurocode EC2)
- Steel structures (Eurocode EC3)
- Summary of Eurocodes (EC4 – EC9)
- Road map for the development of NDPs for Kenya
- Training programmes in the United Kingdom

Dated this day 28<sup>th</sup> June, 2019

David Brown  
(SCI)

Esther Ngari  
(Director-Standards Development & Trade)  
KEBS

Owen Brooker  
(Modulus)

