

## **ENG. SHAMMAH KITEME MUNYOKI, P.E. (EBK, MIEK, MAAK)**

### **CAREER SUMMARY**

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A trained and experienced professional civil engineer with 10 years' experience in the areas of structural engineering in design, production of drawings, structural detailing and bar-bending schedules, supervision, construction project planning and construction project management from inception to completion. Having managed a large portfolio of structural engineering projects with varying budgets up to Kshs. 170 million. Involved in areas of feasibility study, geotechnical investigations, structural calculations and design, preparation of structural drawings, specifications and details, preparation of Bills of Quantities. Preparation of tender documents and invitation of tenders. Tender evaluations and negotiations. Managing site meetings, stakeholder engagement, project closure and handover. Examining existing structures, carrying out structural integrity tests and writing engineering reports. Solving site problems as they come up during the construction life of engineering projects.

Design of sewer systems and waste water treatment plants having designed waste stabilization ponds and constructed wetland for effluent treatment to meet the desired effluent standards. Feasibility study, preliminary and detailed design, production of drawings and Engineers' Estimates. Preparation of contract documents and analysis of Tenders. Preparation of Tender analysis report, award of tenders and supervision of the project from groundbreaking to handover and commissioning. Management of Defects Liability Period to issuance of Certificate of Completion. Identification of new water resources, conducting water quality studies, gathering of water use data and forecasting water demand, design of water storage tanks and earth dams. Design of storm water management systems

Supervision of road projects in road materials, material labs, geotechnical investigations, traffic count, pavement design and construction. Field tests and site visits. Supervision of Earthworks and structural works in road projects.

Leading engineering teams in delivery of engineering projects from conception, project planning, project design, project implementation including decision on various project delivery modes, project closure, commissioning and handover. Overall Engineering planning, construction, and maintenance. Resource allocation, scheduling and work breakdown. Management of project resources for the entire project life. Recruiting employees; assign, direct, and evaluate their work; and oversee the development and maintenance of staff competence. Preparing budgets, bids, and contracts, and direct the negotiation of contracts. Administrative functions such as reviewing and writing reports, approving expenditures, enforcing rules of procedure and policies, and making decisions about the purchase of materials or services. Reviewing and recommending or approving contracts and cost estimates. Presenting and explaining proposals, reports, and findings to clients and technical and senior management teams.

## **JOB SKILLS**

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- I have high analytical, detail oriented and demonstrable problem-solving skills tested in the various assignments I have successfully carried out and delivered with notable success.
- I have strong mathematical, physics, chemistry, geophysical and diagrammatical skills including 3D conceptualization that I have employed effectively in solving various engineering problems, analysis of engineering properties of materials and impact of forces, stresses on structures. Simulation of design concepts and alternatives based on the expected performance in real life.
- I am an exceptional listener and communicator in both written and verbal communication. This has been useful for me as an engineering manager who has gone on to listen to my supervisors, peers and juniors for effective decision making and engagement with clients, other professionals and various stakeholders
- I have demonstrable goal-driven leadership ability that maintains productivity from motivated teams, mobilizes, trains and coaches employees to meet high standards and maintain a culture of continuous improvement.
- I am a proven relationship-builder with exceptional inter-personal skills and a personable professional who has worked in a multicultural setting requiring cultural sensitivity
- I am a results-driven achiever who has proven exceptional planning and organizational skills honed from building trusting relationships with colleagues and customers.
- I am a consummate professional, thorough in my work, patient and resilient solid worker who excels in putting optimal effort to successful delivery of tasks.
- I am dependable, responsible, loyal and dedicated person with commendable work ethic

## **JOB ACHIEVEMENTS**

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- I have done structural design of buildings and produced drawings and details, bending schedules and supervised the construction from substructures to superstructures including geotechnical investigations to completion and occupation
- I have designed waste water treatment plants, produced the drawings and details, prepared the contract documents and managed the tendering process to award of contracts. Supervised the project during the construction period to commissioning and handover and maintenance.
- I have delivered multiple projects with different contract arrangements including design-bid-build, Engineer-Procure-Construct, Design-Build using various FIDIC standard contracts such as Red, White, Silver, Yellow, Green books as well as JBC contracts for building works
- I have been the team leader in the Engineering Division in a large organization responsible for Maintenance, Capital Projects delivery, Transport and fleet management, Corporate security and Engineering multi-disciplinary services including electrical, mechanical, biomedical, structural as well as Architectural aspects
- I have led the divisional administrative functions of planning, organizing, staffing, controlling, resource allocation and management reviews including staff appraisals
- I have worked as engineering executive in a senior management role providing overall leadership in a large organization and led physical master-planning development and implementation

## **EDUCATIONAL BACKGROUND**

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**2012-2014-** University of Nairobi (**Master of Arts in Project Planning and Management**)

**2004-2009-** University of Nairobi (**Bachelor of Science in Civil Engineering**)

**1999-2002-** Mutito Boys' High School (**KCSE A-Minus**)

## **PROFESSIONAL EXPERIENCE**

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### **June 2018 to Present**

CengProm Services Ltd – **Principal Engineer and Director of Projects**

Leading the company in administrative and business development as well as liaising with clients on all the projects. Lead Engineer in Civil Structural Design of Building structures, Waste Water systems, Directing all the projects

### **January 2014 to May 2018**

AIC Kijabe Missions Hospital - **Engineering and Facilities Director**

Leading the Engineering and Facilities Division in general maintenance, Master-planning for the hospital facility, facility improvement, delivery of capital projects in new buildings, power systems, Medical gases, Water resources planning and development of storage facilities, Waste Water treatment plant, Stormwater management systems. Management of fleet vehicles including hospital ambulances and staff transportation. Managing Corporate Security in the hospital

### **August 2011 to December 2013**

AIC Kijabe Missions Hospital - **Capital Projects Manager**

Identification of the capital projects that the hospital needs to implement, planning, designing, tendering, tender assessment and analysis, contract award, project supervision during construction to completion and handover. Defects liability management.

### **February 2010 to August 2011**

Mangat I.B Patel and Partners Consulting Engineers- **Assistant Civil/Structural Engineer**

Structural design in concrete, steel and timber of buildings and other structures. Production of drawings, structural details, bar bending schedules, site visits during project construction and liaison with architects, Quantity Surveyors, Services Engineers and Contractor's staff

### **September 2009 to January 2010**

Unispan Ltd. - **Site Engineer**

Overall site in-charge in leading construction project. Determining the work on site, hiring the required staff, ordering the required materials, supervising the construction project following the engineers' drawings to carefully meet the design specifications.

**Detailed projects done are attached**

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## **MEMBERSHIP TO PROFESSIONAL BODIES**

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Registered Professional Engineer – **Engineers Board of Kenya (EBK- A3032)**

Corporate Member– **Institution of Engineers of Kenya (IEK-M3822)**

Corporate Member– **Architectural Association of Kenya-Engineer's Chapter (AAK-M4203),**

## **LEADERSHIP RESPONSIBILITIES**

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Council Member- Institution of Engineers of Kenya (2018-2020)

Assistant Secretary- AAK Engineers Chapter (2019-2021)

Committee Member- National Implementation Committee on Eurocodes (NICE)

Governing Board Member- Uttermost Evangelistic Team (UET) 2017/2019

Vice-Chairman Uttermost Evangelistic Team (UET) Nairobi Branch 2015/2017

Vice-Chairman Parkroad Fellowship Executive Committee 2012/2013

Head boy (School Captain) Mutito Boys' High School

Chairman Mwingi University Students Association(elected)

## **KEY AREAS OF PROFICIENCY**

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Ability to serve as a technically responsible specialist in the field of civil Engineering design, construction supervision, contract management and engineering problems solving in Civil and structural Engineering for high-rise buildings, low-rise buildings, Civil works, steel structures, Water retaining structures, Water Supply and Waste water Engineering, Highway design, supervision construction with regard to the following roles: -

- Production of design calculations and drawings (using design software's Robot, Prokon, Staad-pro, Revit and AutoCAD), doing design reviews and quality assurance.
- Feasibility studies and Geotechnical investigations
- Interpretation of geotechnical reports.
- AutoCAD, Revit detailing and preparation of reinforcement bending schedules.
- Site supervision of construction works.
- Preparation of Engineering estimates and construction material estimates
- Complete project management
- Contract management using standard contracts
- Engineering projects implementation from inception to commissioning
- Team leadership

## **SPECIAL COMPETENCES**

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- An experienced and competent executive leading engineering firm as the founder and sourcing business as well as deliverable the desirable outcomes to clients
- An experienced and competent manager having led an engineering division in a big hospital
- Professional registered civil and structural engineer
- All round trained (**Project Management Professional-PMP**, PMI) and experienced Professional Project Manager
- Structural Design in **Concrete** Using **PROKON, ROBOT** Structural Design Software
- Structural Steel Design Using **STAAD PRO** Design Software for **Steel**
- Proficiency in Revit BIM modelling software platform

- Proficiency in **Auto CAD** basic and **3D modeling**
- Proficiency in **ArchiCAD 3D modeling**
- Proficiency in **Microsoft office, MS-Project, Internet** and basic computer knowledge
- Knowledge of **FIDIC contracts**- Having used the Red, White, Silver, Yellow and Green books in various contracts. Also attended a five-day Contract management seminar organized by Institution of Engineers of Kenya. Attended a one-day training on FIDIC contracts organized by Chartered Institute of Arbitrators (Kenya Chapter)
- Knowledge of **JBC standard contract document**

## INTERESTS

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- Leading in the formation and implementation of best engineering standards in construction industry
- Advocating for the welfare of engineers and engineering profession as an integral part of the society
- Leading delivery teams in infrastructure development and community assistance, Managing engineering processes, projects and teams
- Research, design and development of efficient water supply, sewer and solid waste treatment and disposal systems.
- Management of projects in the entire project life cycle with keen interest in Monitoring and Evaluation for Quality design implementation
- Civil/Structural design of high-rise buildings, low-rise buildings, road structures, steel structures.
- Research, design and development of efficient highways and other transport systems.

## REFEREES

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### 1. Eng. Solomon Kitema

Terms Kenya Ltd. Consulting Engineers.

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### 2. Eng. Shedrack K. Yego

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### 3. Eng. S. K Ngari

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## **WORK EXPERIENCE**

### **LIST OF PROJECTS HANDLED IN MY WORK EXPERIENCE**

#### **1. CengProm Services Ltd**

I am involved in the leadership and management of the engineering practice in sourcing for clients and jobs, tendering and negotiations with clients, liaising with other consultants in projects. I also lead project teams in ongoing design projects as well as supervision in matters of site visits as well as solving site problems.

I oversee the commercial aspects of the firm ensuring that all the establishment payments are submitted, all the statutory payments are submitted and that the company complies with the regulatory framework set up in Kenya.

I represent the company in meetings, negotiations, industry liaisons and in establishing partnerships across the industry

I produce designs and drawings (using design software's Robot, Prokon, STAAD Pro, Revit and AutoCAD), design reviews, feasibility studies, Geotechnical studies, Interpretation of geotechnical reports, **project supervision** of the actual construction work, scheduling, contract administration and construction project management, tendering and tender evaluation for contractors.

##### **a. I am handling/I have handled the following projects:**

- i. Lead Consultant for Design in Civil and Structural aspects of the Bomet County Mother and Child Hospital
- ii. Lead Consultant in Planning, Design and Construction supervision of International Cancer Center in Eldoret.
- iii. Design in Civil Structural aspects of PCEA Chogoria Hospital Nursing School Dormitory
- iv. Design of waste water collection, conveyancing, treatment and disposal system for Kibuye Hospital a Hope Africa University campus in Gitenga, Burundi.
- v. Civil Structural Engineering Commissioning verification of Doraleh Multi-Purpose Port in Djibouti City Djibouti
- vi. Structural Engineer for the Choppies Supermarkets stores renovations in Tom Mboya Street Nairobi
- vii. Civil/Structural Engineer for Benard Ngari residential project in Mugutha Nairobi
- viii. Project managers for the Kid's block building for Naomi's village in Mai Maahiu
- ix. Civil/Structural design and supervision of Mr. and Mrs. Joel Kariuki residential house in Membley
- x. Structural/Civil Engineering design and supervision of a residential flat for Mr. Anne Wanjiku Macharia in Zimmerman, Nairobi
- xi. Structural/Civil Engineering design and supervision of R.C Retaining wall and steel office space for A.I.C Milimani church in Nairobi
- xii. Structural design for St. Thomas Church hall in Mumias
- xiii. Civil and Structural Engineering Design and project supervision for a 13-floor residential flats in parklands belonging to Unique Holdings Ltd
- xiv. Structural/Civil Engineers for Amani estate development in Syokimau
- xv. Structural/Civil Engineers consultancy for GSU facilities in Kitisuru, Nairobi
- xvi. Civil/Structural Engineers and Project Managers for Moffat Bible School projects on the design and development of their Library building extension
- xvii. Civil/Structural design of Residential building for Mr. Osborne in Ngong, Nairobi
- xviii. Civil/Structural design of extension works for Muhammed Hemraj residential building in Nyari Estate, Nairobi
- xix. Structural Design and supervision of Naomi's village classrooms and water tower

## **2. A.I.C Kijabe Missions Hospital**

I was involved in the production of designs and drawings (using design soft ware's Prokon, Staad pro and AutoCAD), design reviews, feasibility studies, Geotechnical studies, Interpretation of geotechnical reports, **project supervision** of the actual construction work, scheduling, contract administration and construction project management, tendering and tender evaluation for consultants and contractors.

### **a. I handled the following projects:**

- i. Water upgrade project which involves a laying of new pipeline network and new 600m<sup>3</sup> water storage tank to match the increased water demand for the hospital.
- ii. Two-storey palliative care building. I have done structural design and am supervising its construction and contract management.
- iii. Two-storey BKKH children's wing. I have done geotechnical investigation and attended site visits and meetings.
- iv. A total overhaul of the waste water treatment system. I have designed the Kijabe Waste Water Conveyance and Treatment Plant and supervised its implementation up to completion and commissioning of the constructed plant. I have managed the maintenance during defects liability period and now in its operation stage
- v. Mother Child Care Health (MCH) facility I have designed this project and supervised it from inception to completion and handing over. The facility is in use now.
- vi. Extension of Dental and E.N.T building I have designed this project and supervised its implementation to commissioning. The facility is currently in use
- vii. Improvement of hospital road facilities, parking and drainage systems. This is a continuous maintenance process of the hospital facilities
- viii. Extension of Marira satellite clinic. This involves a complete design of a master-plan
- ix. Comprehensive Care Clinic design, construction and contract management.
- x. Casualty re-fitting. This is a renovation project that is now complete and the facility occupied.
- xi. Kijabe School of Nursing Dorm. I have done design of this project and supervised its construction. It is now occupied.
- xii. Borehole drilling for the hospital
- xiii. Design of the kitchen building including refurbishment of the burnt section and the construction of the extension. I have done the structural designs besides being the project manager
- xiv. Energy saving measures for the hospital in rolling out steam energy and solar PV
- xv. Design of Wetland system for EDCP for Laurel Investments Ltd.
- xvi. Design of wetland system for EDCP for Golden Tulip Flower farms
- xvii. Design of waste water treatment and conveyance system for Balaji Flowers Ltd.

## **3. MANGAT I.B PATEL AND PARTNERS CONSULTING ENGINEERS**

I was involved in the production of designs and drawings (using design soft ware's Prokon, Staad pro and AutoCAD), design reviews, Interpretation of geotechnical reports, AutoCAD detailing and preparation of reinforcement bending schedules, site visits for monitoring of the actual construction work. Being with Mangat I.B Patel and partners saw me handle either fully or partially the following projects:

### **a. Projects in which I handled the design, detailing and preparation of bending schedules of various elements in conjunction with other team of engineers.**

- i. Four residential houses a retirement facility for the first family in NYERI.
- ii. Three houses NEST Children's village and child protection training center in Runda Nairobi.
- iii. Three storeyed classrooms and Dormitories blocks for Starehe Girls' centre.

- iv. Nine storeyed building for reliable electrical engineers in Westlands.
- v. Ellams products security premises new factory on Mombasa road (two storeyed Industrial building with over 20,000M2 of office space.

**b. Projects handled individually/fully.**

- i. Residential houses for Muthaiga Developers Company LTD.
- ii. 182 M3 Water tank for Ellams products.
- iii. Resson village residential block for JK investments property development in Karen Nairobi.
- iv. Civil/Structural design for Mr. Alfred Kiteme business complex in Mwingi town
- v. Civil/Structural design for Mr. Antony Kilonzo building in Nzeluni/Mwingi.
- vi. Structural Integrity report for Bendatte M. Kimanthi's house in Machakos.
- vii. Civil/Structural design of Peter Kathuo residential flats in Mlolongo.
- viii. Design of Septic tanks and Soak Pits for AIC Cure International Children's Hospital.
- ix. Civil/Structural design of Mrs. Pamela Indiaka in Mlolongo Nairobi
- x. Civil/structural design of shopping complex for Kwali and others in Mwingi.
- xi. Structural design for Mr. Johnstone Kangotole residential building in Ruiru
- xii. Structural design and construction supervision of Mr. David Kamau residential flats in Kitengela
- xiii. Civil/Structual design of OPD complex building for AIC Cure International hospital in Kijabe
- xiv. Civil/Structural design for Janetor Vaati residential commercial flats under construction in Mlolongo
- xv. Civil/Structural design for Mr. Dan Omondi residential maisonette to be constructed in Kajiado
- xvi. Civil/Structural design for AIC Cure International Hospital Outpatient Complex facility
- xvii. Civil/Structural design of Mr. Crispus Tima residential Maissonete to be constructed in Mlolongo
- xviii. Civil/Structual design of Mr. David Kamau flats in Kitengela
- xix. Civil/Structural design of Mr. Ruo Ngugi in Wangige Kabete
- xx. Structural Design checks for Lewison Contractors in Naivasha. I had inspected the structural soundness of the structural designs

**4. UNISPAN LTD**

- a. Management of renovations of Mr. Mohamed Yusuf's rental houses in Parklands Nairobi.
- b. Renovations for Rift Valley Railways headquarters in Nairobi. Duties: Site supervision, interpretation of structural drawings, ensuring all works are done as per the consulting engineer's drawings.

**5. STUDENT INTERSHIPS EXPERIENCE**

- a. **July- October 2008**-Attached with TKM Maestro Company where I did design of GSM towers, supervision of sites interpretation of geotechnical reports and compiling of the design reports.
- b. **January and February 2008**-Attached with Victory Construction Company in the improvement of the Kanyoonyoo-Kabati-Syongila-Kitui road B& to Bitumen class from murrum standard. I worked with Resident Engineer in quality assurance, materials testing and work inspection for strict adherence to design and standards.



- c. **03/09/2007-26/10/2007**-Attached with Nicholas O'dwyer & Company IRELAND in Association with Abdull Mullic Associates Ltd. Kenya **in the JKIA junction-Machakos turn-off** road rehabilitation. I did materials testing in the lab and field tests, survey structural works inspection. I was particularly involved in the design and supervision of the arch structure on the Namanga junction that created the underpass to the Nairobi-Mombasa junction at that point.
- d. **07/08/2006-14/10/2006**-Attached with Surtech Consulting Engineers. I worked in Civil Engineering materials lab and did **(DBM)** dense bitumen macadam design.

## **5. OTHER EXPERIENCES**

Final year undergraduate project was a design of a 60m 4-legged angle member GSM steel tower. The Greenfield tower was to be built in Nairobi. I used the Computer programs STAAD Pro, Prokon and AutoCAD in this project.