

## Personal Details

SURNAME: **BARASA**

FORENAMES: **Gilbert Wafula Musamali**

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NATIONALITY: Kenyan

## Summary

Assistant manager in Engineering Division with 7 direct reports and over 50 indirect reports, and indirect control of a production budget of over USD 6M.

**Research and Development** team leader with 5 years' manufacturing experience notably establishing and growing electrical **control and instrumentation function**, and developing **digital innovations** to drive production and service efficiencies. In addition, 2 years' experience in customer-facing roles encompassing technical sales and cross-functional teams' coordination.

Specific areas of expertise include production management, **industrial control systems design** (PLC, SCADA), water treatment and pumping, **renewable energy solutions**, **energy management** (CEM), and digital innovations management.

## Professional Experience

**Davis & Shirliff Limited** (November 2018 to date)

**Function: Research and Development Manager**

### Main responsibilities and accountabilities

- Identify, research and develop new innovations, differentiations and adaptations in water and energy segments including water treatment, water pumps, generators, solar, irrigation and water pumps.
- Delivery of digital systems innovation projects to enhance production and service efficiencies.
- Technical advisor and member at the company's Product Committee, ICT Systems Control Board and ERP 2020 Committee.

### Key achievement

- Implementation of Manufacturing Execution System with live BI reports driving efficiencies in Production.
- Development of economical plug and play solar pump kit destined to replace hand pumps in Africa.

**Davis & Shirliff Limited** (November 2014 to October 2018)

**Function: Assistant Manager, Engineering - Control & Instrumentation**

### Main responsibilities and accountabilities

- Developing and managing the control and instrumentation engineering business supporting Davis & Shirliff Group, business process management, P&L management and standardization across the Group.
- In conjunction with commercial departments, designing and specifying customized industrial control systems to address specific customer requirements.
- Developing and implementing training programmes for Davis & Shirliff engineers and technicians on specifying and supporting electrical/electronic products.

### Key achievements

- Development of a new technical function in the engineering division accounting for generation of 15% in direct revenues within 3 years and delivering new capabilities to the Group.
- Development of iDAYLIFF, an **IoT** system for remote monitoring and control of field equipment.
- Establishment of a new workshop with Kenya Bureau of Standards certification and digitalized systems.

- Electrical lead in 15 key projects worth USD 2M.
- Transfer of all outsourced electrical systems development to internal staff. In-house development of advanced control solutions established a sustainable competitive advantage in the market.

#### Major Projects completed:

- Automation of battery cooling system at the formation tub of Associated Battery Manufacturers Ltd that improved production capacity by about 40%; project cost - USD110,000.
- Supply and installation of **UDV (Kenya) Ltd** 15m<sup>3</sup>/hr Reverse Osmosis plant designed to meet **DIAGEO Engineering Standards**; supervised by main contractor **NIRAS Ltd (UK)** , project cost - USD110,000.
- Ngoma Irrigation Project (Rwanda) comprising 45kW installed PV with 5 pumps delivering 5000m<sup>3</sup>/day supervised by Takaoka Engineering Co. Ltd (Japan); project cost - USD190,000.
- Garden City Mall water play park automation; project cost - USD250,000.
- Two Rivers Mall Riverfront water filtration system and waterfall automation, supervised by Maiteri & Associates Consulting Engineers; project cost - USD350,000.

**Davis & Shirliff Limited** (November 2011- September 2013)

**Function: Sales Engineer**

#### Main responsibilities and accountabilities

- Assisting client with specification and advice on use of technical products and services.
- Conduct site surveys to determine project scope and provision of technical descriptions for tenders.
- Provide operational and technical support during supply, installation and product lifecycle.

### Education, Training and Certifications

**Graduate Diploma in Digital Innovation** (2019 - Ongoing); University of London - Distance Learning

**Master of Science in Control Systems Engineering** (2013-2014), Distinction

The University of Sheffield - Sheffield, United Kingdom

Kenya Postgraduate Merit Scholarship & Bechtel Prize 2013/2014

**Bachelor of Science in Electrical and Electronic Engineering** (2006-2010), First Class Honours

Jomo Kenyatta University of Agriculture and Technology-Nairobi, Kenya

**T3 Grid Tie and Hybrid Course** (2016); Strathmore Energy Research Centre

**Postgraduate Engineer's Water and Energy Training** (2011-2013); Davis & Shirliff Limited

### Professional Memberships

**MInstMC**

Institute of Measurement and Control (UK)

**MIEEE**

Institute of Electrical and Electronics Engineers

**Certified Energy Manager**

Association of Energy Engineers

**Graduate Engineer**

Engineers Board of Kenya

### Referees

**Eng. Charles KEBASO**

Engineering Manager

Davis & Shirliff Ltd

[Charles.Kebaso@dayliff.com](mailto:Charles.Kebaso@dayliff.com)

**Eng. Philip HOLI**

Technical Director

Davis & Shirliff Ltd

[Philip.Holi@dayliff.com](mailto:Philip.Holi@dayliff.com)

**Dr. Paul TRODDEN**

Lecturer, Controls and Systems

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The University of Sheffield

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