

# MOHAMUD IBRAHIM MATHOPE

*BSc. Mechatronics Engineering*

P.O Box 13117 – 00200  
Nairobi, Kenya.  
Phone: +254 722 84 20 08  
E-mail:  
[mohamudidhoom2@gmail.com](mailto:mohamudidhoom2@gmail.com)

## Profile

I am a forward-thinking result-oriented Mechatronics Engineer with practical industrial solutions. I possess hands-on skills and solid knowledge of the practical application of Engineering science and technology with experience in plant maintenance, automation & process control, and MEP design & installation. I am an avid learner who can work effectively as an independent or team member and have displayed excellent leadership skills.

## Area of expertise

1. CAD Software programs – AutoCAD, AutoCAD MEP, SolidWorks, and Siemens NX.
2. PLC – programming, configuring, fault diagnosis, logic modification, and maintenance.
3. Drives and Motion Control - Installation, configuring, commissioning, troubleshooting, and maintenance of VFDs.
4. Electro-mechanical systems design, troubleshooting, and maintenance.
5. Machine installation, testing, and commissioning.
6. Energy management and energy management systems
7. Renewable energy systems (PV Systems) design, operation and maintenance
7. Condition-based maintenance (CBM), Kaizen, Total Productive Maintenance, and Total Quality Maintenance tools implementations.
8. Gantt charts, project planning and management.
9. Strong research and presentation skills. Mathematical and analytical aptitude.
10. Quality Management Systems – Implementation (ISO 9001:2015)

## August 1, 2019 – To date

Kenya Bureau of Standards – Market Surveillance officer

### Duties

1. Participate in risk assessment of products in the technical sectors and use the risk-based ranking to identify risky products for targeting.
2. Preparation of work plans for Market Surveillance activities by gathering and analyzing market intelligence.
3. Ensuring working documents are adequate and up-to-date about procedures, legal regulations, standards, and other technical information.
4. Participate in raids and seizures of substandard goods from the market by referring to procedures, legal regulations, standards, and other technical information.
5. Participate in the planning and preparation of departmental operating procedures to ensure adequacy and completeness.

## Work History

6. Implement the Department's quality procedures to comply with the requirements of ISO 9001 Quality Management Systems.
7. Responsible for the successful implementation of regional Performance Management System (PMS) as the PMS champion.

**April 2, 2018 – July 31, 2019**

Umoja Rubber Products LTD. –Assistant Mechatronics Engineer.

**Duties**

1. Oversee factory expansion projects by receiving and approving construction plans from contractors, developing and incorporating MEP designs, and machine layouts for proposed project plans.
2. Developing a comprehensive MEP Bill of Material, plan, and execute the installation and commissioning of expansion projects.
3. Prepare Gantt charts for project planning, resource allocation, and easy tracking of project tasks from the start to completion.
3. Monitoring and managing continuous improvement on machines failure metrics MTBF, MTTF and MTTR
4. Ensure the full implementation of machine condition monitoring and consequently Condition Based Maintenance(CBM)
5. Responsible for the maintenance of production equipment, electro-hydraulic, and electro-pneumatic system maintenance.
6. Preparing maintenance and plant condition reports by collecting and analyzing information and trends.
7. Keeping track of Overall Equipment Efficiency (OEE) data from QA/QC and production teams for proper maintenance scheduling.
8. Keeping data on Turnaround time for both internal and external jobs requested from the Engineering department for quality service.
9. Analyzing Energy Management Data, Preparing and presenting reports on the same to different departments in the factory and energy committee members.
10. Spearhead energy management campaigns by training and sensitizing machine attendants and their supervisors on energy efficiency and their role on the same.
11. Conduct training for Engineering technicians on troubleshooting techniques, Standard Operating Procedures, safety standards, procedures, and best practices.

**September 26, 2016 – March 31, 2018**

Umoja Rubber Products LTD. – Mechatronics Engineering Trainee

**Duties And**

1. Coordinating with a team of mechanical and electrical technicians in maintaining an effective running of the plant and minimum/zero downtime.
2. Carrying out root cause analysis of break downs using the “Five Why” model and presenting the most economical and effective solutions.
3. Conducting daily preventive maintenance of machines and preparing reports on the same for the improvement of production by maintaining minimal downtime.

4. Proposing, designing, and developing system modifications to improve the production process and minimize system inefficiencies.
5. Troubleshooting and servicing of electro-hydraulic and pneumatic systems and parts like valves, cylinders, motors, and pumps
6. Maintaining and servicing of power drive systems including VFDs, motors, gearboxes, belt and pulley systems, chains and sprockets, etc.
7. Cultivated good relations with production staff by frequently engaging them on matters pertaining to usage of equipment and proper handling of the same to facilitate smooth and easy maintenance of the plant.
8. Lead interdepartmental campaign team to create a culture of continuous improvement in line with Kaizen principles and implementation of 5S in the manufacturing shop floor.
9. Ensuring maximum adherence to the company's occupational safety and health policy by working with HSE department to ensure employees are informed about and strictly follow the company's Standard Operating Procedures (SOP's)

#### **Achievements at Umoja Rubber Products LTD.**

1. Managed to achieve over 65% reductions in machine downtime by introducing and maintaining an effective condition-based preventive maintenance.
2. Skills transfer:
  - Trained technical staff and machine operators on basic technical aspects of plant equipment, troubleshooting, and repair technics and basic inspection procedures.
  - Trained machine operators, production supervisors, and Gemba owners on the best energy management practices and elimination of wastes.
3. Worked on the documentation of Umoja Rubber factory layout complete with machine layouts, utilities such as compressors, boilers, generators, power rooms and substation, steam, compressed air and water lines, and oil pumping station with its oil lines and tanks using AutoCAD 2018 and AutoCAD MEP 2018.
4. Worked on the planning, design, and implementation of an EVA processing plant project in Umoja Factory.
5. Conducted the installation and commissioning of Bosch Universal steam boiler UL-S600 complete with control systems, Piping and Instrumentation, connection to steam header, and finally steam distribution line.
6. Duly filled and submitted an award-winning KAM-Energy Management Award 2019 assessment tool for Umoja Rubber Products LTD.

#### **January 8, 2016 - May 30, 2016**

Mekosan Machinery LTD, Kayseri Turkey – Automation Technician.

#### **Duties**

1. Assist design team in preparing computer-generated drawing packages.
2. Producing technical details using knowledge of material and installation techniques
3. Preparing documentation for submission to Planning and Building Control
4. Preparing presentation material and reports

5. Adhere to and promote the use of CAD systems with particular emphasis on notation, formatting, information transfer, and file management policy and procedures set within the company.
6. Coordinate and communicate with other design staff both externally and internally.
7. Assist in solving complex design issues through the use of sustainable and quality design solutions.
8. Enforce appropriate health and safety procedures and precautions.

## Education

**Erciyes University**  
2012-2016

BSc. Mechatronics Engineering

**Ankara University**  
2011-2012

TOMER—Turkish Language Diploma

**Mandera Secondary School**  
2007-2010

KCSE

## Languages

### Language

English

Swahili

Somali

Turkish

### Proficiency

Excellent

Excellent

Excellent

Excellent

## Vocational Training & Accreditation

### Institution

The Horn of Africa Management Institute

Scientific And Technological Research Council of Turkey (TÜBİTAK).

Centurion Systems LTD.

Kenya Bureau of Standards – National Quality Institute

NPS-DCI Academy

Supervisory Skills Development

### Course

Certificate in Information Technology

Certificate in Entrepreneurship

PLC programming, configuration and maintenance Training, LEVEL I and II.

ISO 9001:2015(Quality Management Systems) Implementation Course

Basic Investigation Techniques Course

Kenya School of Government

## ACCREDITATION AND MEMBERSHIP

Engineers Board of Kenya (EBK)

Graduate Engineer - B.19361

Institution of Engineers Kenya (IEK)

Graduate Member (GIEK) - G.8601

## References

1. P. Engr. Salah Abdi Maalim  
Coordinator, KOSAP Garissa County,  
P.O Box 64557 – 00619, Nairobi.  
Email: salah.abdi@energy.co.ke
  2. Anthony Mbitha  
Control and Instrumentation Engineer, Umoja Rubber Products LTD  
P.O Box 448, Mtwapa, Kilifi County, Kenya  
Email: ndettombitha@gmail.com  
Tell:+254 715 707096
  3. Samuel Kariuki  
Maintenance Manager, Umoja Rubber Products LTD  
P.O BOX 3228, 01000, Thika, Kenya  
Emil:kariukis52@yahoo.com  
Tell: +254 788 857963
  4. Abdirahman Ibrahim Ali  
County ICT Manager - IEBC  
P.O Box 18379-00100, Nairobi Kenya  
Email: IAbdirahman@iebc.co.ke
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