***CURRICULUM VITAE***

**PERSONAL DETAILS**

**Name** : DUNCAN K. MAINA.

**ID No.**  : 24392006

**Nationality**  : Kenyan

**Languages** : English, Kiswahili

**Cell Phone** : +254720734686

**E- Mail**  : [dmk2005@yahoo.com](mailto:dmk2005@yahoo.com)

**CAREER OBJECTIVE**

To serve in an innovative and future- oriented institution that is open to new ideas and also ready to offer unprecedented challenges and programmes for dynamism.

**PRELIQUESITE SKILLS**

|  |  |
| --- | --- |
| Management skills | Safety management, quality management, conflict management |
| Computer skills | Design using simulation software (MIDAS GTS NX,SURPAC GEOVIA,AUTOCAD) and Basic computer skills |
| Geo-data management | Geo-data development, management and implementation, Remote sensing. |
| Life skills | Work ethics, self-reflection, leadership, stress management, communication skills. |
| Core business skills | Business finance, marketing, entrepreneurship, customer care |
| Driving skills | Heavy Commercial, mini buses and cars |

**EDUCATION**

**2015-2017:Kumamoto University**

*Master of Engineering (Civil and Environmental Engineering)*

*Master thesis: Stability Analysis of underground cavern based on back-analyzed rock mass mechanical properties.*

**2007- 2012: Jomo Kenyatta University of Agriculture and Technology, Kenya**

*B.S.C Degree mining and mineral processing engineering-Second Class*

*Honours (Upper Division)*

**2001-2005: Kenyatta High School (Mahiga)**

*KCSE:B+ (plus)*

1992- 2000**:** Kamoko Primary School.

**PROFESSIONAL MEMBERSHIP**

* Registered Engineer by Engineers Board Of Kenya
* Founding member of Mining Engineers Society of Kenya(MESK)
* Member-international Society of Rock Mechanics(ISRM)
* Jica Ex-Participant Association Of Kenya(JEPAK)
* Kakehashi Africa

**CONFERENCE ATTENDED**

Mining Business and Investment In Eastern Africa(MBI 2013)

Mining Business and Investment In Eastern Africa(MBI 2014)

Land and Natural Resources Conference-2015

Mining and Material Processing Institute Of Japan(2015)

Mining and Material Processing Institute Of Japan(2016)

International Society Of Rock Mechanics (Korea) -2016

**RELEVANT TRAINING UNDERTAKEN**

**Core business skills Training**-Ministry of Devolution and Planning and World Bank-16th jun-18th July 2014-5weeks.

**Life Skills Training**- Ministry of Devolution and Planning and World Bank-22nd April -3rd May 2014-2weeks

**Geo-database management using GIS**-Regional Centre of Mapping of Resources for Development-Dec 2013-1 week

**Safety and Health management**-OshAcademy- Sept 2013-2 weeks.

**ReachUp! Programme**-Digital Opportunity Trust(DOT)-4 weeks.

**WORK EXPERIENCE**

**FEB 2018-Todate: Taita Taveta University**

* Lecturing mining and civil engineering courses i.e surface and underground mine design, rock and soil mechanics etc.
* Administration and management of Mining department.
* Development of short courses in geosciences and environment.

**NOV 2017-Todate:Jomo Kenyatta University Of Agriculture and Technology(Part Time)**

* Lecturing mining and civil engineering courses i.e surface and underground mine design, rock and soil mechanics etc.
* Development of short courses in geosciences and environment.

**September 2017:Sumiko Resources Exploration and Development Co.Ltd(JAPAN)**

**Trainee Engineer**

* Geological survey of Geothermal Field at Hokkaido Prefecture
* Airborne Gravity Gradiometric (AGG)Survey at Tochigi Prefecture
* Overview of Geothermal production and re-injection research at Mori Geothermal Plant
* Application of Reservoir geomechanics in Geothermal

**September 2016:Jomo Kenyatta University Of Agriculture and Technology.**

**Researcher**

* Collecting and analysing data on stability of underground mine, influence of groundwater and geology at Chawia and Davis mine.
* Presentation of technology applied in Japan in extractive sector on Rock mechanics
* Research on application of Rock Mechanics in oil and gas, Geothermal ,mining and civil projects in Kenya

**August 2016:Sumitomo mining and metal co.ltd,(JAPAN)**

**Trainee Engineer**

* Exploration technique of gold on hot spring areas.
* Borehole logging and management.
* Stability analysis of underground excavations.

**Jan 2014-August2015: Geomine Engineering and Exploration ltd.**

**Mining Engineer**

* Ore reserve estimation using modern software (Surpac, GIS).
* Consultancy on blasting designs and quarry management.
* Research on gold mining in Kenya to ascertain the best technology applicable in recovery of high percentage gold content and design of modern processing plant
* Liaising with Geochemists at ministry of mining and University of Nairobi (Geology Department) for analysis of the samples.
* Preparation of quarterly exploration report as required by ministry of mining.
* Negotiations for joint venture on behalf of the company.

**Major projects supervised:**

1.Acquisition of block cutting machine in Kenya and transport arrangement in Tanzania(Mbeya)

2.Design, Open and supervision of the quarry at Mbeya.

3.Maximising gold output in Migori mine(Nyatike)

**May 2014: CAMAC ENERGY LIMITED (INDIVIDUAL CONTRACT)**

**Duties andResponsibilities.**

* Identifying key stakeholders in Kilifi,Tana River and Garissa County.
* Provide Camac Energy Ltd with written report of the works done on data collected on culture, security and accessibility of the area.
* To attend any other activity linked to the 2D Mapping exercise like explaining the geological maps, equipment to be used to the county officials and community.
* Taking the coordinate points of the shrines using GPS for planning during exploration period

**APRIL 2013- Dec 2013: GEOFIRM LTD (KILIFI)**

**Mining Engineer**

**Duties and Responsibilities.**

* Management, supervision and coordination of office administrator, supervisors, casuals and operators at the mine.
* Being in-charge of mobile crusher, mobile screen,2 wheel loaders and 1 excavator
* Advising the project manager on production, operation costs and report writing
* Preparation of mining maps, mining technical report,exploration report, data acquisitionand analysis on production, cooperation cost and profit.
* Planning, designing and selecting mining equipment, mineral treatment machinery and equipment in collaboration with other engineering specialists.
* Planning, organizing and supervising the development of mines and mine structure,operations and maintenance of mines

**APRIL 2013- Dec 2013(PART-TIME): KEIWAY MINING AND TECHNOLOGY COLLEGE**

**Mining Engineer**

**Duties and Responsibilities.**

* Promotion and lecturing geosciences course(Mining and Petroleum)
* Organizing fieldwork and timetable for students
* Lobbying scholarships for the students
* Recruitments of students and administration

**SEPT- DEC 2011: EAST AFRICAN PORTLAND CEMENT CO. LTD**

**Trainee Engineer**

**Key Responsibilities:**

* Conducting preliminary surveys and studies of limestone deposits to assess the economic and environmental feasibility of potential mining operations
* Determining the appropriate means of safely and efficiently mining deposits
* Determining and advising on appropriate drilling and blasting methods for mining.
* Design, develop and implement computer applications such as for mine design, mine modeling, mapping or for monitoring mine conditions
* Planning, organizing and supervising the implementation of solid waste management program, quarry rehabilitation, safety monitoring.

**SEPT- DEC2010: MINISTRY OF MINING.**

**TraineeMiningEngineer.**

**Duties and Responsibilities**

* Inspections of quarries to ensure explosives arewell utilized, safety and health regulations are adhered to.
* Coordination of exploration and quarry closure to ensure environmental regulations are followed to the letter
* Chemical analysis of samples (chemical, physical) and shift operations.
* Preparation of exploration and mining licenses, and interpretation of mine maps.

**KEY STRENGTHS**

* Am fast learner and decision maker in volatile situations
* Reasonable, dynamic and firm.
* Result oriented and can work under pressure.
* Flexible team player with ability to listen to others including the juniors.
* I have good public relations and good interpersonal skills.

**KEY COMPETENCE**

* Excellent stability analysis and design of underground Infrastructures
* Proficiency in administrative, leadership and supervisory duties
* High ability to prioritize between numerous high profile projects and responsibilities
* Report writing and Data analysis skills

**CAREER ACHIEVEMENT.**

* Redesigning of manganese mine systems to a modern standardthat increased production by 50% in Kilifi manganese mine.
* Identifying and eliminating health hazard (solid waste management) in a quarry at East Africa Portland Cement.

**ADDITIONAL INFORMATION**

* Appointed to serve as Electoral Commission Clerk to oversee JKUSO elections 2010.
* Appointed to share a committee on hazard identification and risk assessment in East Africa Portland cement in 2011.
* Served as secretary and project coordinator at Nawiri Investment Group

**HOBIES AND INTERESTS**

* + Playing badminton and gymnastics.
  + Reading Extractive Journals and research.
  + Watching engineering documentaries.
  + Nature Walks.
  + Outreach Services like visiting children homes.

**REFEREES:**

Cyrus Njonde

Kasaghn and Ramji Ltd

Cell phone:0728464888

Email:cnjonde@gmail.com

Professor Yuzo Obara

Geomechanic laboratory

Kumamoto University

<TEL:+819043404043>

[obara@kumamoto-u.ac.jp](mailto:obara@kumamoto-u.ac.jp)