

CURRICULUM VITAE

PERSONAL DETAILS

Name : **Gordon Ng'wono Olando**

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Date of Birth : 16th February, 1958

Marital Status : Married

Nationality : Kenyan

ACADEMIC QUALIFICATIONS

1988 : **Kharkov Polytechnic Institute (USSR)**
M.Sc. Electrical Engineering. Bias in Electrical
Networks and Systems.

Degree Thesis : Design of substation 330/110KV

2007- November : **Maseno University**
Master in Business Administration (MBA)-Finance
option

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PROFESSIONAL QUALIFICATIONS

1. Registered Engineer by the Engineers Registration Board of Kenya. (M.E.R.B)
2. Member of the Institution of Engineers of Kenya (M.I.E.K.)

3. Registered & Licensed Practicing Consulting Engineer by Engineers Registration Board.
4. Member of Association of Consulting Engineers of Kenya (MACEK).
5. Member of Chartered Institute of Building Services Engineers (UK)- C.Eng. MCIBSE
6. Chairman-Facilities Technical Committee-Kenya Bureau of Standards
7. Holder of Electricians Licence-Class-A1 (No. 005116) by Energy Regulatory Commission (ERC)
8. Member of the Institute of Directors (Kenya Branch).

WORKSHOPS AND TRAINING ATTENDED

1. **17th to 18th July, 2014**-attended Power Systems Protection Workshop at Sun Mayfair Hotel-Nairobi. Organized by Bizstrat-South Africa
2. **2nd to 4th April, 2014**-attended MV-EHV sub-station design Workshop at Sun Mayfair Hotel-Nairobi. Organized by Bizstrat-South Africa.
3. **31st March to 1st April, 2014**-attended Overhead Line Engineering Workshop at Sun Mayfair Hotel-Nairobi. Organized by Bizstrat-South Africa.
4. **6th to 7th August, 2012**-attended international course on the Practical use of the 1999 FIDIC Conditions of Contract and Multi-lateral development banks harmonized conditions of contract, 2010 edition (FIDIC Contracts Module 1)
5. **5th to 9th June, 2006**-attended Practical Project Management Principles-Module 1 of the Basic Certificate in Project Management at Serena Hotel-Nairobi.
6. **30th May to 1st June, 2005** attended training on “Financing Municipal Water Services–the creditworthiness challenge” in Durban South Africa organized by CIFAL Durban in conjunction with United Nations Training and Research (UNITAR), World Bank Institute (WBI) and Water Utility Partnership (WUP)

7. **22nd to 28th May, 2005** attended a “Five-day Residential Corporate Governance Training Course for Directors” at Kilaguni Serena Lodge, Tsavo West National Park. Sat and passed examination on the above course.
8. **24th to 30th October, 2004** attended a Chief Executive Officers conference on Performance Improvement Plans and Actions Plans for Unaccounted for Water at the United Kingdom in Birmingham hosted by Severn Trent Water International and funded by Water Utility Partnership in conjunction with SIDA.
9. Sewerage –case of Kisumu” at the launch of a workshop organized by Water Utility Partnership in Kampala Uganda on the theme of Management and Reduction of Unaccounted for Water.
10. **9th February, 2004** presented a paper titled “Case Study on Kisumu Water and Sewerage Company Strategy to Develop Services to the Urban Poor within the new Kenyan legal framework” at a workshop organized by Water Utility Partnership (part of World Bank) at the Kenya School of Monetary Studies-Nairobi.
11. **11th to 14th May, 2004** attended an FKE Top Management Policy Workshop in Labour Legislation and Their Implication to the Industrial Relations Practice in Kenya at the Kericho Tea Hotel.
12. 3rd February, 1999 became certified distribution Listed Installer for structured cabling by Siemon Co. (UK).
13. 20th to 22nd July, 1999 attended training on Practical aspects of electrical circuit breakers – network Design organized by Groupe Schneider in Nairobi.
14. 17th April, 1999 took and passed entry course in Arbitration organized by Chartered Institute of Arbitrators Kenya Branch in Nairobi.
15. 5th to 6th November, 1997 attended training on Practical aspects of electrical motor control organized by Groupe Schneider in Nairobi.
16. 3rd to 4th November, 1997 attended training on Practical aspects of electrical circuit breakers – plant level organized by Groupe Schneider in Nairobi.

MEMBERSHIP

1. Member, Nyanza Club.
2. Member, Board of Management of Got Agulu Secondary School.

CORE COMPETENCIES

Professionalism

Planning and Organizing

Communication and Teamwork

Accountability

Client Orientation

Technological Awareness:- Hands on experience in Microsoft Word, Ms Excel, Ms Power Points, Ms Access, Ms Project, Auto CAD proficient.

MISSION

To ensure by efficient management and co-ordination, that financial and other resources, including time scales are utilized in the most efficient way throughout any project to meet the clients' objectives while maintaining the highest professional ethics.

KEY WORK EXPERIENCE

Eng. Orlando has 30 years' experience in various aspects of engineering discipline, 26 years of which was dedicated to management, design, installation and maintenance of electrical and mechanical engineering services in consultancy practice, 2 years exposure in a major international contracting firm and 2 years at the helm of a service provision industry as Chief Executive Officer.

Besides engineering training Orlando has attained a degree of Masters in Business Administration (MBA) (Finance option) and is therefore well equipped to run an engineering outfit as a business.

Assignments include design of electrical services in building installations, drawing up specifications, preparation of bills of quantities for tendering purposes, evaluation of tender bids, contract administration, setting to work, testing and commissioning of all electrical and related works.

Selected projects handled include multimillion dollar low, medium and high rise office accommodation and residential estates, hospitals and health centers, teacher training colleges and schools, wildlife conservation, banking facilities, petroleum depots, power substations and industrial installations among others.

SUMMARY OF WORK EXPERIENCE

August 2005 to Date	<i>Syldon and Partners Consulting Engineers Ltd</i>
Position:	Managing Director
June 2003 – June 2005	<i>Kisumu Water and Sewage Company Ltd. (KIWASCO) Water and Sewerage utility</i>
Position:	Chief Executive Officer (CEO) and Secretary to the Board
Main Duties:	Chief Accounting Officer
Feb 2001 – Feb 2003	<i>Joint Venture between J.A Jones International Company and Mugoya Construction and Engineering Company Ltd, Construction Managers, Building and Civil Contractors</i>
Position:	Electrical Engineer
Main Duties:	In-charge of all electrical and related services.
March 1992 – Jan 2001	<i>Ngilu Associates Electrical and Mechanical - Consulting Engineers</i>
Position:	Senior Electrical Engineer
Main Duties:	In-charge of Electrical Department
June 1988 – Feb 1992	<i>Apcon Associates Electrical and Mechanical Consulting Engineers</i>
Position:	Assistant Electrical Engineer
Main Duties:	Working hand in hand with the Engineer in designing electrical services in buildings
Sept 1985 – Dec 1987	<i>Kharkov 12th sub-station</i> Pupil Engineer to In-charge of substation.

LANGUAGES	READING	SPEAKING	WRITING
English	V.Good	V.Good	V.Good
Russian	V.Good	V.Good	V.Good
Kiswahili	V.Good	V.Good	V.Good

PROFESSIONAL EXPERIENCE

August 2005 to Date: *Syldon and Partners Consulting Engineers Ltd*

Position:

Managing Director in charge of Projects and day to day running of the firm.

Projects undertaken:

1. Gaculiro Shopping Mall-Kigali Rwanda

A complex of 35,000 square meters comprising the following facilities:

Lower and Mid ground floors for car parking. Plant rooms comprising Medium Voltage Switch room, Main Distribution Frame Room (MDF) and Transformer rooms are located on Lower Ground floor.

Upper ground floor through to second floor comprises shops/offices with a supermarket and Galleria located on Upper Ground floor.

The project entails installation of lighting and power including lightning protection to the proposed shopping mall for Social Security Fund of Rwanda (CSR).

Other facilities include installation of panoramic lifts, travelators, escalators, standby generators and structured cabling system.

Total estimated electrical sub-contract works: US \$6.7 million

Status: Awaiting tender action

2. ONATRACOM MALL-Kigali-Rwanda

The project comprises a complex of ground, first, second, third and fourth floors.

Ground floor houses shops, supermarket, theatre and fast food restaurants. Plants rooms such as transformer and switch rooms are also located on ground floor.

First floor comprises additional shops and Bar and Restaurant. Second floor is an office accommodation space while third and fourth floors house hotel rooms.

The project entails installation of lighting and power including lightning protection to the proposed shopping mall.

Total estimated electrical sub-contract works: US \$4.3 million

Status: Awaiting tender action

3. School of Finance and Banking-Kigali-Rwanda

Learning complex comprising six floors of classrooms of various sizes and two lecture theaters of 300 students each, a fully fledged kitchen and cafeteria.

Works involved provision of electrical installation, structured cabling, lifts installation and standby generator for the entire facility.

Total estimated sub-contract works: US \$1.1 million

Status: Tender action in process

4. Kigali City Tower

Complex comprising three phases namely:

Phase one: Seven storey car park

Phase two: Seven storey commercial center comprising two cinema halls shopping complex and restaurants.

Phase three: A tower wing of 16 floors of office space.

Project comprises provision of electrical installation, structured cabling, generator, lifts installation and closed circuit TV.

Total estimated sub-contract works: US \$2.5 million.

Status: Construction on going

5. Housing Development at Utange-Mombasa

Project comprises:

- Development of 800 units of medium houses comprising:
- 353 no-three and four bedroom maisonettes.
- 200 no-two and three bedroom flats.
- 239 no-two and three bedroom duplexes.
- 8 no-duka maisonettes.

Electrical and related sub-contract works comprise:

- Electrical installation.
- Street lighting.
- Ducting for power and telecommunication supply.

Total estimated sub-contract sum: US\$3.0 million.

Client: Ngilu Associates for Southern Bell Properties Ltd.

Status: Documents and drawings ready for tender action.

6. Top end House Accommodation in Up Market Areas:

Cottesbrook Villas in Lavington: A group of four executive villas in a compound with common gate. Each villa comprising lounge, dining, kitchen and car parking on the ground floor. Four bedrooms all ensuite and a master bedroom ensuite on the first floor.

Attic floor is used as a gymnasium complete with sauna and spa.

Kyuna Rise: Two executive houses in a gated compound with similar facilities as for Cottesbrook above.

Karen & Runda Housing Projects: Gated developments within a compound with amenities and facilities as for Cottesbrook.

7. Theta Lane Apartments-Kilimani Area:

A block of two-four storey apartments. Each apartment comprising 3 bedrooms, lounge and kitchen. Each floor carries two apartments.

8. Metropolitan Villas

34 no maisonettes in a gated compound. Each house in own compound and comprising 3 bedrooms, a lounge, dining, kitchen and domestic staff quarters.

9. Teachers' Service Commission Office Accommodation Building

Complex comprising:

- Basement for car parking, archive and plant rooms.
- Ground floor housing transformer, generator and MDF rooms. Includes kitchen and restaurant.
- Podium of three floors for banking facilities and offices.
- Tower wing comprising seven floors of office space.
- Total floor area approximately 20,000 square meters.

Salient features of the project:

- Provision of structured cabling for the entire building.
- 5 No. lifts, 3 on the podium wing and 2 on the tower wing.
- 650 KVA generator set for fire fighting and essential load e.g. all lighting load, maintained socket outlets and lifts.
- Restricted access control system.

Electrical and related sub-contract works comprise:

- Electrical.
- Lifts installation.
- Structured cabling system.
- PABX installation.

- Generator installation.

Total sub-contract sum: US\$1.5 million.

Client: Ngilu Associates for Teacher's Service Commission.

Status: On-going.

10. New works at CID Headquarters-Mazingira House-Nairobi

New works comprises:

- Perimeter lighting to 3.2 Km boundary wall.
- Electric fence and electronic surveillance installation to boundary wall.
- Electronic surveillance involves CCTV and fiber optic vibration sensor installation.
- Electrical installation to Dark room, Dog Kennel, Finger Print Bureau, Armoury and Workshop.

Total sub-contract sum: US\$0.9 million.

Client: Ngilu Associates for Criminal Investigation Department

Status: Documents and drawings ready for tender action.

11. Overseeing miscellaneous on-going projects nearing completion on behalf of M/s Ngilu Associates

Projects include:

- Chemistry and Physics laboratories at University of Nairobi-Chiromo Campus.
- Chemistry laboratory at-University of Nairobi-Kabete Campus.
- Social Security House-Parking Silo.

12. Model Primary School

This is a complex comprising two storey Tuition block for 8 classes, Multi-Purpose Hall, Workshops, Dining Hall/Kitchen, 2 No. Dormitories for girls and similar number for boys, staff accommodation for Headmaster and Deputy, Senior Staff, Junior Staff and Subordinate staff.

Salient features of the project include:

- Provision of lighting and power.
- Structured cabling.
- External power distribution.
- External lighting.
- Stand by generator

Estimated sub-contract sum: USD 4.2 million

Client: Unity State-South Sudan.

Status: Drawings & tender documents are at approval stage by client.

13. Model Secondary School

This is a complex comprising two storey Tuition block for 8 classes, Multi-Purpose Hall, Workshops, Dining Hall/Kitchen, 1 No. two storey Dormitory for girls and similar number for boys, staff accommodation for Headmaster & Deputy, Senior Staff, Junior Staff and Subordinate staff.

Salient features of the project include:

- Provision of lighting and power.
- Structured cabling.
- External power distribution.
- External lighting.
- Stand by generator

Estimated sub-contract sum: USD 4.4 million

Client: Unity State-South Sudan.

Status: Drawings & tender documents are at approval stage by client.

14. Kigali Convention Center

This is a complex comprising Convention Center carrying a platform and a dome to seat 2,000 people, 300 bed hotel, flexible office units (for small and medium size enterprise), restaurants, kitchen and car parking facilities.

Reviewed design for the following services:

- Lighting and power.
- High and medium voltage switchgears.
- Power distribution.
- Structured cabling.
- Security surveillance system
- Standby generator.

Estimated total project cost: Euros 1.1 billion

Client: Government of Rwanda

Status: Proposed design is under review by client.

June 2003 to June 2005: *Kisumu Water and Sewerage Company Ltd.*
(KIWASCO).

Utility charged with abstraction, treatment and distribution of potable water in Kisumu city, a city with population of approximately five hundred thousand people. Other area of activity include safe disposal of waste water for domestic, commercial and industrial customers.

Position:

Chief Executive Officer (CEO) and Secretary to the Board.

Reports to the Board of Directors of KIWASCO.

Main Duties and Accountabilities:

- Develop and ensure the implementation of the company's approved water and sewerage business strategies, policies, procedures, practices and operating plans that reflect the longer term corporate goals and priorities as established by the Board of Directors.
- Change the culture within the company to one more consistent with private sector principles and practices.
- Develop and maintain good public relations with the community, the council and the customers.
- Advise the Board of Directors concerning objectives and policies as they relate to the technical, financial and legal affairs of the Company, and to future activities in the area of water supply and sewerage.
- Formulate and periodically update the Corporate Plan including projections of any necessary expansion or development of facilities, extension of business operations and to ensure that the Company operates in an effective and efficient manner.
- Conduct the affairs of the Company such that the performance meets expectations and requirements of the Board of Directors.
- Review with senior management, budget proposals and manpower plans, for approval by the Board of Directors.
- Make regular reports to the Board of Directors on the actual performance of the Company, compared with approved targets and budgets, and formulate recommendations for discrepancies to be corrected.
- Provide and source for the required inputs such as finances, plan and equipment to enable the Company to provide and distribute a constant supply of potable water for domestic, commercial and industrial use and also provide adequate sewerage services.
- Develop and implement performance improvement strategies in major areas of the Company's operations in order to:
- Improve and monitor the quality, life span as well as utilization of the company's infrastructure.

- Improve water purification and distribution, sewerage treatment and disposal to the required quality and service standards.
- Invest the company's funds in profitable business ventures to generate additional income for the company.
- Raise and sustain employee's performance standards, engender a sense of commitment to duty and company values.
- Improve and maintain a sound company organization posture that portrays a positive image to the public through the quality of service provided.
- Initiate and maintain good liaison with external support Agencies and other investors with respect to potential investments in capital expenditure projects within the set guidelines.
- Provide overall management guidance and advice to the senior staff, including directors and managers.

Major achievements:

- Setting up new establishment for the new company (from scratch) including installation of systems both technical and financial to deliver on company objectives.
- Reduction of operation costs by approximately 30% by introduction of cost effective measures in the use of chemicals and prudent installations electrical systems.
- Reduction of un accounted for water (UFW) by 15% from 75% to 60% without major capital inflows.
- Increased revenue by 38% through closer monitoring of customer zones, accurate metering and aggressive collection of arrears.
- Increase of water production by an average of 20% from 15,000 m³ to 18,000 m³ per day.
- Substantial investment in water meters and intensive rehabilitation of old pumps.
- Introduction of innovative measures in provision of water and sanitation services to the Urban Poor in the informal settlements.
- Soliciting for donor funding for investment in service provision to the Urban Poor.
- Fostering understanding of new water reform amongst councilors and other stakeholders and general publics.
- Implementation of various capacity building measures to achieve culture change and enhance efficiency amongst employees.

- Preparation of short term business plan as a condition precedent to disbursement of Ksh1.8 billion loan for capital development by the French Development Bank (AFD) for the Kisumu Water and Sanitation Project.

**February 2001
to February 2003:**

Joint venture between J.A. Jones International Co. (American firm) and Mugoya Construction and Engineering Co. Ltd.
Construction Managers, Building and Civil Contractors.

Position

Electrical Engineer
In-charge of all electrical and related services.

Main Duties:

Supervision of installation of the following sub-contracts: electrical (lighting & power), switchgears and transformers, building automation systems, standby generating sets, security surveillance systems, telecommunications systems, fire alarm system and lifts installation.

- Production of working drawings for issuance to field team for implementation.
- Coordination of mechanical and electrical services.
- Taking off of materials from contract drawings and placement of firm purchase orders for various sub-contracts.
- Preparation of daily progress report of works for various sub-contracts.
- Financial control of eight different sub-contracts ensuring compliance in terms of budget and time scales.
- Discussion with vendors for various trades to ensure technical and cost compliance.
- Managing a team of six (6) Engineers and seventy five (75) Electricians of various categories.

Assignment:

Embassy for the United States of America at Gigiri – Nairobi

Total contract sum – US\$. 40,000,000.00 (Duty and VAT exempt).

Client- The Government of United States of America

Status – Complete

- Project type – Design and Build.
- Comprises New Offices Building (NOB) with 3 floors viz: lower ground, first, second, third floor for offices and penthouse for mechanical plants (equipments).

Outbuildings include:

- 3 compound area control (CAC)-guard houses-controls vehicular and human traffic into and outside the buildings.
- Utilities building - houses switchgears, transformers and standby generating sets.
- Pump house for water storage and treatment.
- Motor pool.
- Truck transfer.
- Waste water treatment plant – for treatment of foul (waste) water from the entire embassy before discharging into storm water open drain.

Salient features of project include:

- a) Medium voltage switchgear – 4,000 amps split bus bar with a bus coupler.
- b) Transformer – 1 x 2500Kva.
- c) Generating sets – 2 x 1500 Kva feeds separate buses serve most of embassy needs and 1 x 400 Kva for security equipments and selected lighting.
- d) Regulator – 165 Kva with bypass switch
- e) Power factor correction bank – 1 x 475 Kvar
- f) Waste water treatment plant: processes 66,000 liters of foul (waste) water per day from the entire embassy before discharging into storm water open drain.
- g) Water treatment plant:
 - Processes water flow of 22 gallons per minute.
- h) • Performs filtration, chlorination and PH adjustment.
- i) Security installation includes: CCTV cameras, audio, signal, regulated power and teargas systems.
- j) Building automation system: employs supervisory control and data acquisition (SCADA) system to monitor and manage (control) heating, ventilation and air conditioning (HVAC), water treatment plant, waste water disposal, fuel pumps, fire alarm system and lifts evacuation system in event of fire.
Provides communication amongst the facilities through a central computerized system.

March 1992- January 2001: *Ngilu Associates – Electrical & Mechanical Consulting Engineers*

Position

Senior Electrical Engineer

In-charge of Electrical Department.

Main Duties:

- Design of electrical services, fire alarm and detection Systems, structured cabling systems, lifts, escalators and generators.
- Coordinating requirements of mechanical services.
- Liaising with clients, architects and other consultants to realize set brief.
- Production of drawings.
- Preparation of bills of quantities and specifications for bids.
- Tender evaluation reports.
- Valuation of works done and preparation of interim Payment Certificates.
- Overall budget control of various sub-contracts.
- Liaising with power and telephone authorities for prompt provision of electricity and telecommunications services.
- Managing a drawing office of five engineers and ten draughts men.

MAJOR ASSIGNMENTS INCLUDE:

A. COMMERCIAL DEVELOPMENTS

**1. Extensions to National Social Security House
(SOCIAL SECURITY HOUSE)**

Total sub-contract cost - US\$. 10,333,333.00

Client - Government Parastatal (NSSF)

Status – Complete

- A complex of 2 blocks (A & B). Block ‘A’ comprising 4 basement floors for car parking and a high rise of 24 floors for office space, split into two wings. Block ‘B’ comprising 2 basements and a high rise of 16 floors for additional office space.
- Designed and supervised installation for the following Services: - electrical installation (lighting & power), medium and high voltage switchboards, transformers, mechanical supervisory panel, lifts and escalators and fire alarm and detection system.

Salient features of the project include:

- a) Switchgear – 4000 amps split bus bar
- b) Transformer – 2 x 1250 Kva in block “A” & 2 x 630 Kva in block “B.”
- c) Generating sets – 1 x 750 Kva in block “A” & 1x400 Kva in block “B.”
- d) High voltage switchgear – 4 panel, 11 Kv, SF6
- e) Incoming breaker withdraw able type.
- f) Lifts and escalators (Schindler & Kone type):
 - 13 No, 16 passenger, 3.2 m/sec ordinary lifts for block “A”
 - 2 No, 16 passenger, 1.5 m/sec panoramic lifts in block “A”
 - 4 No, 16 passenger, 3.2 m/sec lifts in block B”
 - A total of 7 No escalators installed with 900mm step width in block “A”.

2. Partitioning work for Government Ministries and Department at the Social Security House

Total sub-contract cost - US\$. 300,000.00

Client - Various Government Ministries and Departments

Status – Complete

- Provision of lighting and power installation to suit Office requirement of various Government

Ministries and Departments.

- Provision of PABX and terminal equipments.
- Involved in design and supervision upto handover

3. Windows cleaning system at the Social Security House

Total sub-contract cost - US\$. 166,666.00

Client - Government Parastatal (NSSF)

Status – Complete.

Provision of power and earthling for window
Cleaning system
Involved in design and supervision upto handover

4. Parking Silo for Social Security House

Total sub-contract sum – US\$. 3,633,333.00

Client - Government Parastatal (NSSF).

Status – Started but stalled.

- A complex comprising 4 basement floors for car parking facilities, lower and upper basements for Shops, a Bank and a Supermarket, 8 floors for additional car parking facilities and 8 floors for office space.
- Involved in design and supervision

Salient features of the project include:

- a) Switchgear – 2000 amps split bus bar
 - b) Transformer – 2 x 630 Kva
 - c) Generating sets – 1 x 500 Kva
 - d) High voltage switchgear – 3 panel, 11 Kv, SF6 incoming breaker withdrawable type.
 - e) Lifts and escalators:
 - 5 No, 16 passenger, 2.6 m/sec ordinary lifts
 - 4 No, vehicle lifts, 1.5 m/sec
- 1 No escalator installed with 900mm step width.

**5. Kenya Posts & Telecommunications Corporation
Headquarters (KPTC) – Teleposta Towers**

Total sub-contract sum – US\$. US\$. 7,800,000.00

Client - Government Parastatal (KP & TC).

Status – Complete.

- A complex comprising 3 basement floors, for car parking, a podium of 5 floors and a high rise of 29 floors for office space split into three cores A, B & C forming a star configuration.
- Involved in design and supervision

Salient features of the project include:

- a) Switchgear – 2000 amps split bus bar
- b) Transformer – 2 x 1250 Kva
- c) Generating sets – 1 x 800 Kva and 1 x 750 Kva
- f) High voltage switchgear – 3 panel, 11 Kv, SF6 incoming breaker withdrawable type.
- g) Rising mains of 400 amps & 200 amps for non-maintained and maintained services.
- h) Lifts and escalators:
 - 11 No, 16 passenger, 4.6 m/sec ordinary lifts for
 - 4 No escalator installed with 900mm step width.

**6. Kenya Local Government Officers Superannuation
Fund Building - Loita House: -**

Total sub-contract sum – US\$. US\$. 7,800,000.00

Client – Kenya Local Authority Superannuation Fund Building.

Status – Complete.

- A complex comprising 4 basement floors for car parking and 18 floors for office space, plus two mezzanine floors for shops and restaurants.
- Involved in design and supervision.

Salient features of the project include:

- a) Switchgear – 1200 amps split bus bar
- b) Generating sets – 1 x 600 Kva
- i) Rising mains of 200 amps & 100 amps for non-maintained and maintained services.
- j) Lifts and escalators:
 - 8 No, 13 passenger, 3.2 m/sec ordinary lifts.
 - 4 No escalator.

7. The Central Bank of Kenya Headquarters –Times Tower

Total sub-contract sum – US\$. 11,833,333.00

Client – The Central Bank of Kenya.

Status – complete.

A complex comprising 2 basement floors for storage of currencies, a banking wing with 5 floors for office space, tower wing with 36 floors for additional office space, 11 levels of car parking wing and large conference center above level 11 in car park wing.

Involved in design and supervision.

Salient features of the project include:

- a) MV switchgear – 4000 amps split bus bar
- b) HV switchgear – 3 panel 11 Kv SF6 incoming breaker
- c) Transformers – 2 x 1250 Kva in parallel.
- d) Generating sets:
 - 1 x 300 Kva to serve basements, banking wing, staircases and corridors.
 - 600 Kva for selected lifts.
 - 810 Kva for fire fighting equipments namely Sprinkler pumps, wet riser pumps etc.
- e) Rising mains bus bars:-
 - Tower wing: 400 amps for non-maintained services.
200 amps for maintained services.
 - Tower wing bus bars split at level 16 for reliability and flexibility namely one set serving ground to 16th floor and the other from 17th floor to 32nd floor.
 - Car park wing: 200 amps for non – maintained services.
- f) Security surveillance systems:
 - Personal attack (PA) buttons along the tellers at the banking wing.
 - Foot operated buttons at the tellers.
 - Combination motion detectors at the vaults.
 - Vibration sensors within the vault walls.
 - CCTV cameras include pan, tilt and zoom strategically located.
- g) Start/stop station: Installed at level for remote operation of various fans and pumps within building.
- h) Mechanical supervisory panel: Installed at level 4 to monitor the status of various fans and pumps.

- i) Structured cabling systems: Flood wiring for voice and data all over the building.
- j) Fire alarm system: Semi addressable panels installed.
- k) Lifts and escalators:
 - 8 No, 13 passenger, 4m/sec.
 - 1 No, 13 passenger (VIP), 4 m/sec.
 - 2 No, 13 passenger (staff), 1.6 m/sec.
 - 4 No, 2000 Kg (vault lifts), 0.4 m/sec.
 - 2 No escalators.

8. Rehabilitation works at Bruce House

Total sub-contract cost – US\$. 2,716,666.00

Client - Government Parastatal (NSSF)

Status – Complete

- A complex comprising 2 floors of car parking wing and 16 floors of office space.
- The scope of works entailed survey of existing services with a view to upgrading them to required and acceptable standards.
- Involved in design and supervision.

Salient features of the project include:

- Replacement of existing MV switchboard with modern cubicle pattern one and installation of separate meters for various tenants.
- Rewiring of lighting and power in the offices including installation of skirting trunking.
- Introduced rising mains bus bars for maintained and non-maintained services.
- Installed 500 Kva genet for fire fighting equipments and other essential services.
- Replaced existing 4 lifts with new ones- namely new cars, driving gears and hall buttons.

9. Ambank House

Total sub-contract sum – US\$. 2,083,333.00

Client - Chartered Properties.

Status – Complete.

- An office block comprising lower and upper basements for shops, 9 car parking floors above ground and 10 floors above the parking floors for office space
- Provision of lighting and power installation complete with fire detection and alarm system
- Installation of standby generating set
- Provision of 4No. lifts
- Telephone block wiring
- Lightning protection system
- Involved in design and supervision upto handover

10. Charlanda Center

Total sub-contract sum – US\$. 1,666,666.00

Client - Ndangaruendo Investment Ltd

Status – Construction on-going.

- Office block comprising 2 basement floors for storage purposes 5 floors above ground for car parking and 10 floors above parking for office space
- Provision of lighting and power including fire detection and alarm system
- Installation of lifts
- Telephone block wiring
- Lightning protection
- Involved in design only.

11. Jorua Enterprises

Estimated sub-contract sum – US\$. 1,500,000.00

Client - Mathu & Gichuri Associates

Status – Construction not yet commenced.

- An office block of 10 floors
- Provision of lighting and power installation, including fire detection and alarm system

- Telephone block wiring
- Provision of lifts and standby generator
- Lightning protection system
- Installation of lifts
- Telephone block wiring
- Involved in design

12. Rehabilitation of Cooperative House Headquarters Building – Nairobi

Sub-contract sum - US\$.3,200,000.00 (Duty free)

Client – United States Aid for International Development (USAID)

Status –Complete.

Total revamp of services of the building substantially destroyed by bomb blast. Comprises 2 basements for car parking and plant rooms. 24 storey office space tower including caretaker's house and additional plant rooms. An Annex building for banking facilities comprising 3 floors and 2 mezzanine floors.

Tasks include:

- Rehabilitation of services to pre-bomb status and even better in instances where previous installations have been overtaken by new and modern technologies.
- Provision of lighting and small power
- New metal cable trunking.
- Raising mains bus bar
- Redesign of power distribution
- Provision of new high voltage switch gears and transformers
- New modern modular pattern medium voltage switchboard
- Specification for new lifts
- Provision of fully addressable fire alarm and detection system.
- Structured cabling system
- Teamed up with other consultants and several specialist contractors with Mugoya Construction & Engineering Limited as lead team to submit a Technical and Financial Proposal for a "Design and Build" Bid, which won the tender.
- Involved in design and supervision.

B. HOSPITALS AND HEALTH CENTRES.

1. Rehabilitation of Hospitals and Health Centers for Ministry of Health for World Bank:

Estimated cost - US\$4,000,000.000

Client - Ministry of Health – World Bank Funded

Status – Complete

- Works involved assessment of existing facilities with a view to upgrading them to required standards in terms of various provision of services e.g. lighting, power “nurse – patient” call station, provision of standby generator for essential services in areas like operation theatres etc. Hospitals and health centers surveyed include:
 - Muranga District Hospital
 - Kerugoya District Hospital
 - Embu Provincial General Hospital
 - Ishiara District Hospital

C. TEACHER TRAINING COLLEGES

1. Bondo Teachers Training College

Total sub-contract cost – US\$. 383,333.00

Client - Ministry of Education – **World Bank Funded**

Status – Complete.

- A complex of teaching and training facilities including class rooms, dormitories, Administration block, Conference Halls, Dinning Hall, Staff Houses.
- Lightning protection system
- Provision of lighting and power installation including fire alarm and detection system
- Provision of street lighting, telephone block wiring and pre-wiring
- Involved in design and supervision

2. Tambach teachers Training College

Total sub-contract cost – US\$. 366,666.00

Client - Ministry of Education – **World Bank Funded**

Status – Complete

- A complex of teaching and training facilities including classrooms, dormitories, Administration block, Conference Hall, Dining Hall Staff Houses
- Provision of lighting and power installation including fire alarm and detection system
- Lightning protection
- Provision of street lighting, telephone block wiring and pre-wiring
- Involved in design and supervision

D. BANKING FACILITIES

1. Meridian BIAO Bank

Total sub-contract sum – US\$. 275,000.00

Client - Meridian BIAO

Status – Complete

- Rehabilitation of Windsor House to accommodate bank
- Provision of lighting and power installation including fire detection and alarm system
- Standby generating set
- Telephone Installation
- Involved in design and supervision upto handover

2. Barclays Bank - Mbale Branch

Total sub-contract cost – US\$. 390,000.00

Client - Barclays Bank (K) Ltd

Status – Complete

- Provision of lighting and power installation including fire detection and alarm system
- Telephone installation
- Lightning protection system
- Involved in design and supervision upto handover.

3. Extensions to Existing Central Bank of Kenya Headquarters Building – Nairobi.

Total sub-contract cost – US\$. 100,000.00

Client - Government Parastatal CBK

Status – Complete

- Provision of conference facilities, offices, and kitchen and dining hall by adding additional floor on rooftop of the existing headquarters building.
- Installation of power and lighting including fire detection and alarm system
- Telephone block wiring and pre wiring
- Lightning protection
- Extension of lifts services to serve the additional floor
- Involved in design and supervision

E. RESIDENTIAL FACILITIES:

1. Redevelopment of Central Bank of Kenya Staff Pension Fund Flats:

Estimated sub-contract sum – US\$. 200,000.00

Client - Central Bank of Kenya Pension Fund.

Status – Complete.

- Rehabilitation of existing Central Bank of Kenya Pension Fund flats to bring them upto up market standard of residential facilities. 3 new blocks consisting 8 flats of 2 bedrooms each. A new block consisting 19 flats of 1 bedroom each, additional 10 flats of 2 bedrooms each above existing blocks and 6 flats of 3 bedrooms each above existing 3 bedroom blocks.
- Provision of lighting and power.
- Updating of existing switchgears to accommodate additional load.
- Landscape lighting.
- Provision of master Antenna T.V. System.
- Telephone services including UG cabling, block & pre-wiring.
- Involved in design & supervision

F. OTHER FACILITIES:

1. Kenya Wildlife Service - Nairobi Package

Total sub-contract cost – US\$. 2,000,000.00

Client - Government (KWS) – **World Bank Funded**

Status – Complete

Comprises Wilson Airport - Hanger, Animal Clinic-
Langata and central workshops of Mbagathi Road

- Provision of lighting and power installation
- Standby generator installation
- Telephone block wiring
- Involved in design and supervision upto handover

2. Milimani Commercial Courts

Total sub-contract cost – US\$. 416,666.00

Client - High Court of Kenya

Status – Complete.

- Renovation of an existing 5 floor building to accommodate commercial courts including 1 no. basement
- Provision of lighting and power installation
- Telephone block wiring and pre-wiring
- Installation of PABX equipments and terminal sets.
- Lightning protection system
- Involved in design and supervision upto handover

3. B.A.T (K) Limited GLT - Thika Plant

Total sub-contract cost – US\$. 33,333.00

Client - B.A.T (K) Limited

Status – Complete

- Rehabilitation of 3 large godowns for storage of dry leaves
- Provision of lighting and power installation including fire detection and alarm system
- Involved in design and supervision up to handover

4. Corpus Christi Monastery- Karen.

Total sub-contract sum - US\$.83,333.00

Client - Dominican Nuns.

Status – Complete.

- Provision of a two storey building comprising dormitories, workshop, kitchen, Dining Hall, guest quarters and Infirmary.
- Provision of lighting and power installation.
- Fire alarm and detection system.
- Lightning protection system.
- Involved in design and supervision.

1988 June - February 1992: *Apcon Associates Electrical & Mechanical Consulting Engineers.*

Assistant Electrical Engineer. Designing of electrical services in buildings. Formulation/Evaluation of tender documents. Co-ordination of sub-contracted works between sub-contracted electrical engineer and electrical contractor. Administration. Handling of correspondences. Scheduling of works.

EXPERIENCE:

1988 - 1992 1. Reconstruction of Criminal Investigation Department

Client – Office of The President

Status – Complete

(CID) Headquarters - Valley Road - Nairobi:

A three-storey building comprises of basement; offices; conference hall and kitchen.

2. Police Lines - Industrial Area Nairobi

Client - Office of the President.

Status – Substantially complete

Comprises seventeen blocks, three storey each of residential houses; family center (Social Hall); Officers mess; Police Station and Divisional Headquarters.

3. **Police Driving School - Nairobi.**

Client - Office of the President.

Status – Not commenced yet

A complex of barracks for men and women; administration hall; residential houses; Officers' Mess; family center (Social Hall); lecture rooms; dining hall/kitchen, guard room and parking area.

4. **Health Centers:-**

- Pumwani health Center cliff wards
- Karatu health Center (Kiambu)
- Kapkatet Health Center
- Sigoet Health Center
- Olenguruone Health Center

5. **Police Central Stores.**

A complete administration block; Tailoring workshop (with 40 Nos. sewing machines); Carpentry Workshop; Printing Press; Warehouses (of 8 units); Collection Room; Dispatch room and Ablution block.

6. **Esso (K) Ltd. - Mombasa Terminal (Shimanzi).**

Re-organizing of electrical services in the existing terminal namely;

Relocation of filling machines from lubricating oil blending plant to separate premises (filling plant) attention put on safety and integrity of installation right from design stage.

Replacement of existing main M.V. switch board and other sub-main switch boards with cubicle type M.V. Switch boards as well as improvement of load power factor from 0.7 to 0.9 Grounding of lorry loading gantries and rail loading to acceptable levels.

7. **Esso Terminal Depot (Nairobi)**

Involved in survey of the terminal with a view of improving earthing system at the loading gantries and filling points. Revamping of electrical installation within the Depot.

8. **Seychelles Petroleum Depot**

Was involved in the expansion of Seychelles Petroleum Depot. Provided new M.V. switchboard, remote start/stop station for various pumps both in dry land and at the shipping point, provided general power

distribution and installation of lightning protection system.

Assisted design engineer.

9. **Co-operative Rural Development Bank (CRDB) Tanzania.**

Building comprises of Basement; Ground floor (Banking Hall); First floor (offices) and Second floor (apartments). I carried out the co-ordination work between the designing engineer and client.

10. **British High Commission - Nairobi (BHC).**

Complex of Consular Chancery building staff housing. Carried out co-ordination work between principal consultants; and Kenya Power & Lighting Company.