

# ***CURRICULUM VITAE***

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***Eng. Collins Gordon Juma, MBS, BEng (Mech), PE., RCon.Eng. FIEK, MASME, MBA, PhD (On-going)***

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## ***Contact Address:***

Address: P. O. Box 62287-00200, NAIROBI-KENYA

Telephone: +254-722-525890

E-Mail: [jugoco3@gmail.com](mailto:jugoco3@gmail.com)

## ***Date of Birth:***

31<sup>st</sup> December, 1965

## ***Academic Qualifications:***

- 1) PhD. in Operations Management (On-going) – University of Nairobi
- 2) Master of Business Administration (Operations Management) University of Nairobi)
- 3) Bachelor of Engineering (Upper Second) –Nagpur University on Commonwealth Scholarship
- 4) Diploma in Power Pool Design – Energinet – Denmark
- 5) Certificate in Leadership - Institute for Public Private Partnerships (IP3), USA
- 6) Certificate in Leadership - Public Utility Research Centre (PURC), University of Florida
- 7) Certificate in Leadership – Argonne National Laboratory, USA
- 8) Kenya Advance Level of Education (2 Principal Passes in Maths & Physics and 2 Subsidiary Passes in Chemistry & General Paper) – Kisumu Boys High School
- 9) Kenya Certificate of Education (2<sup>nd</sup> Division) – St. Mary’s School Yala
- 10) Certificate of Primary Education (35 Points) – Mutumbu Primary School

## ***Professional Qualification:***

- Registered Professional Engineer with Engineers Board of Kenya
- Registered Consulting Engineer with Engineers Board of Kenya
- Accredited Checker with Engineers Board of Kenya
- Fellow, the Institution of Engineers of Kenya

## ***Membership of professional Bodies:***

- An associate member of the American Society of Mechanical Engineers. (ASME) Membership No.7261258) – U.S.A.
- Consulting Engineer with Engineers Board of Kenya (Membership No. E368)
- Fellow at the Institution of Engineers of Kenya – (Membership No. M 2476)
- President of the Institution of Engineers of Kenya (IEK) (2018-2020)
- Vice Chair – International Framework for Nuclear Energy Corporation (IFNEC)
- President – Federation of Eastern Africa Engineering Organizations (FEAEO) (2020-2023)

## ***Work Experience:***

### ***1<sup>st</sup> August 2023 to Date - Managing Director - \_Jugoco Engineering Services***

I am currently the managing director and the lead consulting engineer for the Jugoco Engineering Services where we offer:

- **Mechanical, Electrical, & Plumbing Engineering Services:** I provide leadership in Mechanical, Electrical, and Plumbing (MEP) engineering services, covering system design, energy optimization, and sustainable solutions that meet industry standards and regulations.
- **Structural Engineering Services:** I provide leadership in the comprehensive structural engineering services, including structural design, analysis, and evaluation for a wide range of projects such as buildings, bridges, industrial structures.
- **Construction Management Services:** I oversee professional construction management services, overseeing project coordination, scheduling, quality control, and budget management to ensure successful project execution.
- **Sustainability and Green Solutions:** Recognizing the importance of sustainable practices, I provide leadership in integrating environmentally friendly strategies in all engineering solutions at Jugoco Engineering Services.

### ***December 2017 to 30<sup>th</sup> July 2023: Chief Executive Officer – Nuclear Power and Energy Agency***

In August 2017, the Board of Nuclear Power and Energy Agency (NuPEA) appointed me to the position of Chief Executive Officer after having served in the same position in an Acting Capacity since December 2015, and subsequently, the National Liaison Officer between Kenya and the International Atomic Energy Agency (IAEA) where my tasks include the following:

- Promote and expedite the development of nuclear electricity in Kenya.
- Develop policies, and propose legislation necessary for the successful implementation of the Nuclear Power Program.
- Undertake public education and awareness on Kenya's Nuclear Power program.
- Identify, prepare and facilitate the implementation of a road map for a Nuclear Power Program.
- Develop a comprehensive legal and regulatory framework for nuclear electricity generation in Kenya.
- Develop a human resource capacity to ensure that Kenya has the requisite manpower to successfully establish and maintain a nuclear power program.
- Identify appropriate sites in Kenya for the construction of nuclear power plants and related amenities.
- Enter into collaborative programs related to nuclear electricity research and development with other international and national organizations.
- Establish a library and information Centre on nuclear and technology.

***November 2011 to 2015: Director, Technical Affairs – Kenya Nuclear Electricity Board***

I am currently working for the Kenya Nuclear Electricity Board (KNEB) as the Director, Technical Affairs, where my tasks include the following:

- Supervision of technical Functions including Research and Electricity Development.
- Developing collaborative program with Universities and Research Institutions with regard to Nuclear Energy.
- Identifying suitable site within the republic of Kenya which can be considered for constructing nuclear power plants.
- Facilitating and conducting studies relating to nuclear electricity generation.
- Conducting Pre-feasibility study for the roadmap for the development of nuclear electricity.

***October 2009 to October 2011: Chief Technical Engineer –KenGen***

Worked for biggest electricity generating utility in Kenya as the Chief Technical Affairs Engineer, Regulatory where my tasks included the following:

- Identifying bottlenecks in the Power System that affect KenGen's Plants and possible mitigation measures.
- Implementation of the existing power Purchase Agreements for Hydros, Kipevu Gas Turbine, Kipevu Stream, Olkaria I & II Geothermal Power Plants.
- Conceptualizing, Structuring and negotiating Power Purchase Agreements for the ongoing projects namely: Kipevu III MSD, Sangoro Hydro, Enhanced Tana, Upgraded Kindaruma, Olkaria Wellhead power plants.
- Analyse the dispatch process across KenGen plants and identify areas that require review to make the process optimal.
- Create and maintain a historical data base on the KenGen's dispatch process across all its plants.
- Analyse technical aspects of regulations in the Energy sector and identify their impact on KenGen's operations as well as mitigation measures.
- Analyse and ensure that KenGen Plants are dispatched as per the dispatch regulations in force.
- Provide technical support and analysis in the formulation of Power Purchase Agreements.
- Provide guidance regarding technical implications in the evolution of tariff structure by undertaking a comparative study, analysis and maintain a database across other utilities.
- Monitor and maintain a data base on operation efficiency in KenGen Plants.
- Monitor and ensure System adherence to applicable statutory and in-house technical standards in KenGen operations.
- Establish links with the System Operator and other relevant players in the Energy Sector and maintain Technical database regarding their systems and operations.

***January 1998 to 2009: Senior Energy Purchase Engineer – KPLC***

Worked in the Power Transmission and Distribution utility ***The Kenya Power and Lighting Company Limited***, for 11 years in various divisions. The last assignment at KPLC was at the level of Senior Engineer, Energy Purchase in the Transmission Division where I gained a lot of experience and challenges in areas enumerated below;

- Coordination of generation and transmission of electrical energy by power producers.
- Successfully structured, negotiated and implemented the Power Purchase Agreements for Iberafrica, Tsavo, Mumias Sugar, OrPower, Westmont Berge, Kengen and Rabai Power Plants.
- Conceptualize the structuring of Power Purchase Agreements and drafting of the same line with World Bank and IMF guidelines.
- Providing technical expertise in the interpretation and implementation of Power Purchase Agreements (PPAs)
- Conducting energy audits for both urban and rural energy needs in order to optimally locate and install power plants within the country.
- Participate in negotiation for investments in new Power Plants involving multi-disciplinary and multi-sectoral arms of the Government and Private Sector.
- Ensuring that the new Power Projects are fast tracked and are constructed within the budgetary controls, environmentally sound and completed within schedules.
- Ensuring the commissioning of new power projects are carried out in accordance with the prescribed schedules and specifications.
- Continuous monitoring of new and old power projects in order to review procedures and set new targets and goals without compromising the services to the customers.
- Checking the performance of the Power Plants in terms of Capacity availability and efficiency in terms of specific fuel consumption.
- Participate in the Development of National Energy Policies in terms of Least Cost Power Development Plans in consultation with regulating bodies e.g Energy Regulatory Commission.
- Coordination of monthly energy meter readings of power generators in order to audit the bulk energy bills from Power Producers.
- Participate in Fuel Procurement for the generators to check conformity with engine manufactures requirement and environmental regulations.
- Conducting Plant Contracted Capacity Tests for the Independent Power Producers.
- Drafting of Request for Proposals for new Power Plants, project proposals and technical papers related to the energy generation, transmission and pricing.

***July 1996 to January 1998:***

Prior to joining KPLC, I worked for ***Iberafrica Systems Limited, a subsidiary of Union Fenosa Group of Spain***, as a Functional Consultant. This involved the Conceptual Design, Development, Implementation and User Training of information systems for Transport and Human Resources Departments during Re-engineering of KPLC.

***February 1996 to June 1996:***

This was a short engagement as a Design Engineer in a fasteners manufacturing plant called ***Gnanjivan Screws and Fasteners Company Limited***, where I had hands-on in the manufacturing of Bolts, Nuts and Steel Washers.

***June 1995 to January 1996:***

I was employed by ***UB engineering (A Subsidiary of Sumitomo Construction Company at the IHI Project)*** as a Site Engineer in charge of materials during Rehabilitation and Modernization of East Africa Portland Cement Company Limited in Athi River.

***October 1994 to May 1995:***

I commenced my working life as a Quality Control Engineer in 1994 with ***Industrial Plant (EA) Limited*** IN Nairobi in the Quality Control Department and was attached to the IHI project for the fabrication work for the Rehabilitation and Modernization of the East African Portland Cement in Athi River.

***Seminars, Workshops and Short Courses Attended:***

- Interregional Training Course on Technical Aspects of Feasibility, Contracting and Construction of a Nuclear Power Plant in Deajeon, South Korea.
- Interregional Training Course on Leadership and Management for Introducing and Expanding Nuclear Power Plants at Argonne National Laboratories in Chicago, USA.
- Energy Trading and Risk Management in Johannesburg, South Africa.
- Transacting, Negotiating and Structuring PPAs for IPPs –IP3, Washington DC
- Utility Regulation and Strategy – Public Utility Research Centre (PURC) University of Florida.
- Change Management and Team Building.
- Contract Management.
- Implementation of ISO 9001: 2000
- Performance Management.
- Extended Life Coolants.
- Industrial Relations.
- Customer Care.
- Success through People Management.

***Publications:***

- Presented a paper on the Role of Independent Power Producers (IPPs) in Kenya at the International Conference organized by the Institution of Engineers of Kenya (IEK) held in Nairobi in April 2007.
- Availability of Hydro Power Plants and Electricity Consumer Prices: A case Study of Kenya Electricity Generating Company (Yet to be published)

***Referees:***

- **Mr. Ezra Odhiambo Odondi**  
Chairman of the Board  
Nuclear Power and Energy Agency  
P.O Box 26374 – 00100  
**NAIROBI**  
Phone: 0722 518977
  
- **Ms. Teresia Mbaika Malokwe**  
Principal Secretary for Devolution  
Office of the Deputy President  
P. O. Box 3 - 90300  
**OKIA, MAKUENI**  
Phone: 0722134243
  
- **Eng. Prof. Harry Kaane**  
Professor of Electrical and Computer Engineering  
Moi University  
P.O Box 3900-30100  
**ELDORET**  
Phone: 0721 970616