





#### Kancheepuram N. Gunalan (Guna), Ph.D., P.E., BC.GE, NAC Past President (2020) American Society of Civil Engineers (ASCE) Co-Chair UN Science & Technology Major Group of Stakeholders and UN Multistakeholder Advocacy Task Group Chair WFEO UN Relations Committee VP| Senior Project Director HNTB Corporation President Atlas Initiative 2025 WFEO President Elect Nominee Message

#### Introduction

I am humbled and honored to submit my nomination for the position of President Elect of the World Federation of Engineering Organizations (WFEO). I have engaged with the global engineering community and collaborated with key WFEO leaders since the early 2000's. I've attended WFEO general Assemblies since 2011 enabling me to actively contribute to Executive Council and Standing Technical Committee / Working Group discussions.

#### Background

I have been Chair of the WFEO UN Relations Committee (WURC) since 2020 and have increased the visibility and engagement of the WFEO at the UN, especially with the UN Department of Economic and Social Affairs (UN DESA) and the UN Economic and Social Committee (UN ECOSOC), I worked directly with the Ambassadors from member states (Belgium, South Africa, Grenada, Canada, Zimbabwe, Morrocco, Finland, India, and Poland to name a few) that Chair these Committees and organize the UN High Level Political Forum (HLPF) and the UN Science, Technology and Innovation (STI) forums, held annually. I co-chair the UN Multistakeholder Group's Advocacy Task Group, representing more than twenty one diverse stakeholders, a position never previously held by a member of the WFEO, and I Co-Chair the Scientific and Technological Community Stakeholder Group (UN STC MG). A number of member

states now recognize and appreciate the important work engineers do. I have been successful in organizing side events from 2022-2024 and Africa Day in 2023. In organizing these events, I have engaged WFEO leaders including Past President Jose Viera and President Mustafa Shehu with the Asian Development Bank, World Bank and Africa Coalition, and I am contributing to two chapters of the second edition of UN DESA's STI4SDGs Roadmap.

I was President of the American Society of Civil Engineers (ASCE) in 2020, which is the oldest civil engineering society in the United States (est. 1852) with160,000 members, making it the largest civil engineering association in the world with governance responsibility for \$60 million USD annually. I successfully brought ASCE and other US professional engineering institutions together to form Engineering Societies of America (ESA), the new National Member of WFEO, commencing 2025, by personally raising the funds to pay the €22500 annual membership dues and other expenses.

I have led numerous other international engineering initiatives including the Indian-US Conference focused on resilient, sustainable, and critical infrastructure. My policy paper on infrastructure was adopted at the G20 Summit in New Delhi, India. I was the Vice Chair of International Coalition for Sustainable Infrastructure (ICSI) and coordinated the MOU between ICSI and WFEO. I am President of the Atlas Initiative that advocates for our profession and engineers to not only have a seat at the table but to have a voice.

All these experiences have reinforced my desire and determination to not only continue to advocate for our profession but to ensure that our views are respected, voices heard, our suggestions heeded, and our recommendations implemented to the benefit of all.

#### Strengths

I have extensive business management experience with more than thirty years as an engineering consultant and have been senior vice president / vice president of some of the largest engineering companies in the world including HNTB, AECOM, PB (WSP) and Maxim (Tetra Tech). I am currently leading a \$2 billion + project and have led major engineering projects with budgets over \$3 billion USD (totaling over \$10 billion USD) in the US and internationally.

My business and engineering experience and my successful track record in promoting WFEO internationally, especially at the UN at levels not previously seen, places me in a strong position to advocate for the WFEO.

#### Vision for the future

My vision is to strengthen the WFEO's international, regional, and national organizations; strengthen the WFEO Secretariat to be nimble and be able provide more support to our members; launch a fundraising campaign to ensure the financial sustainability of WFEO; help our committees and their work products to be more globally recognized; offer more state of the art resources through our academy and support capacity development projects in Africa and in other emerging economies; and

continue to work with the UN and UNESCO and other UN organizations for greater visibility.

Despite current divisions and polarizations in the world today, I believe the thirty million engineers under the WFEO umbrella can unite as builders of civilization and spark a global engineering renaissance as a positive force in shaping our future.

I have long been a lead advocate to develop more educational opportunities for young people to become engineers, especially those in developing countries inclusive of all races, genders, and religions and intend to expand this goal to more programs through the WFEO.

#### **Call for Your Consideration and Support**

Thank you for your consideration, support, and vote. I look forward to collaborating with you to enhance our profession globally.

#### KANCHEEPURAM GUNALAN (GUNA), PH.D., PE, BC.GE, NAC VP|Senior Project Director

Gunalan (Guna) is a VP|Senior Project Director bringing over 38 years of experience in civil and construction industry, serving in multiple capacities in small, medium and large multi-national consulting firms. He has managed operations and was responsible for P & L of groups ranging from 35 to over 200 employees. Guna's experience and capabilities range from developing a business plan for business lines; successfully establishing new business lines; managing the operations of the business lines including marketing, developing a client base, maintaining client relations; and developing an innovative framework for delivery of design on mega projects. Guna also has the experience and skill sets to manage large complex infrastructure projects both for owners and contractors. His collaborative approach for result oriented outcomes supported by his demeanor and strong communication capabilities have contributed to successful programs and projects ranging in size from a few thousand dollars to over \$3 Billion dollars. He has provided technical advice on civil, structural, geotechnical, pavement and materials issues on a variety of projects around the country and overseas. He has the leadership skills to not only lead multidiscipline teams, but also mentor professionals at various stages of their career. Guna served as the President of the American Society of Civil Engineers, an organization with 150,000 members in over 177 countries with an annual budget of about \$65 Million per year.

#### **Representative Project Experience**

#### Representative Project Prior Experience to HNTB

New York State Department of Environmental Conservation (NYSDEC), Bay Park Conveyance Project, Long Island, NY– Program Manager. Kancheepuram serves as the Program Manager supporting the client deliver a sustainable and resilient DB Project for Nassau County in Long Island, NY. Project Cost: \$459 Million

(Design Build: 03/2021-02/23; Construction: 08/21-Present ) Reference: Andy Fera , Project Director , NYSDEC , (518) 419-0058 Duration on Project: (08/2021- 01/2025 )

New York City Department of Transportation (NYCDOT ), BQE, NY – Procurement Lead. Kancheepuram served as the Procurement Lead and coordinated development of procurement strategy, process and conducted industry outreach.

Project Cost: \$2.5 Billion

(Design: N/A; Construction: N/A)

Reference: Tanvi Pandya, ED, DB & Emergency Contracts, New York City Department of Transportation

Maryland State Highway Administration (SHA), I-270/I-495 Congestion Relief Program, Baltimore, Maryland –Lead Program Manager. Kancheepuram served as the Lead Program Manager assisting MDOT's KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC

Firm

HNTB Corporation

Education PhD/1986/ Civil Engineering, Texas Tech University, Lubbock ME/1981/ Soil Mechanics and Foundation Engineering, Anna University, Guindy, India BE/1979 Civil Engineering, College of Engineering, Madras University, Guindy, India

Professional Registrations 1994/PE, UT #94-270604-2202 1990 / PE, NM #11264 2025/ PE, TX #153056 2010 /BC.GE, ASCE

Affiliations

UN STG MG, Co-Chair of Scientific and Technological Community Major Group, 2021 WFEO, Chair of World Federation of Engineering Organizations), WURC, UN Relations Committee, 2021 ASCE, President, 2020 ASCE, President Elect, 2019 ASCE, Annual Convention Chair, Panama, 2014 ASCE, Annual Convention Organization/Sponsorship Sub Committee, 2014-2017 ASCE, Geo Institute Board of Governors, 2014-2017

Hire Date with HNTB 01 2025

Years of Experience with other Firms: 38 Entered the profession in 1987 SHA with preliminary development of procurement policies for I-270/I-495 Congestion Relief program. Project Cost: \$9 Billion (Design: N/A; Construction: N/A) Duration on Project: 12/2017-05/2018 Reference: N/A

Colorado Department of Transportation (CDOT), Central 70 P3 Project, City, CO – Capture Manager and Deputy Design Manager. Kancheepuram served for the pursuit CDOT's Central 70 P3 project. During the pursuit phase Guna supported the Design Manager coordinate, manage proposal phase strategy, design, fee estimation etc.

Project Cost: \$1.2 Billion (Design: N/A; Construction: N/A) Duration on Project: (04/2016-03/2017). Reference: N/A

Massachusetts Department of Transportation (MDOT), Design Build Manual and RFP Templates, Boston MA –Technical Lead. Kancheepuram served as the key author rewriting of Mass DOT's Design Build Manual and RFP Templates. Project Cost: N/A (Design: N/A; Construction: N/A) Reference: N/A Durarion on project (2015-2016).

Region of Waterloo, Waterloo LRT P3 Project, Kitchner, Ontario, Canada – Pursuit Champion Kancheepuram developed and provided oversight of the Waterloo LRT P3 Quality System. 19 km of tracks, 16 stations, 13 traction power stations, maintenance facility and associated civil works.

Project Cost: \$ 583 Million

(Design: 05/2014 -2016; Construction: 06/2019)

Reference: Steve Shive (retired), Senior Vice President, Kiewit

Duration on Project: (11/2014-06/2016).

New York State Thruway (NYSTA), Tappan Zee Bridge Project, Tarrytown, NY – Deputy Project Director, Kancheepuram assisted with the procurement and development of oversight procedures and processes. Three mile long twin span cable stayed bridge across the widest section of the Hidson river connecting Rockland and Westchester Counties.

Project Cost: \$3.2 Billion

(Design Build: (07/2012-03/2013).

Reference: N/A

Duration on Project (05/2012 - 04/2013) Completed: 2017

Denver Transit Authority (RTA), I-225 LRT DB Project, Denver, CO – Capture Manager. Coordinated pursuit phase strategy, design, fee estimate etc. Role and duties. Approximately 10.5 mile light rail line including eight light rail stations, eight structures including a prefabricated pedestrian structure, right of way appraisals and acquisitions. Project Cost: \$350 Million

Design: 2012; Construction: 12/2017) Reference: N/A KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC

Duration on Project: (04/2012-06/2012).

KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC

Caltrans, Presidio Parkway P3 Project, San Francisco, CA – Technical Lead. Kancheepuram was responsible for development of the technical speciation's for this first of its kind in public private partnership in CA.

Project Cost: 1 Billion

(Design: N/A; Construction: N/A)

Reference: N/A

Duration on Project: N/A

St. Louis County , Page-Olive Connector DB Project, St. Louis County, MO – Procurement Lead . Kancheepuram was responsible for the development of the performance specifications for the County's design build project.

Project Cost: N/A

(Design: N/A; Construction: N/A) Reference: N/A

Duration on Project: N/A

Michigan Department of Transportation (Michigan DOT), ARRA Program, Lansing, MI - Procurement Lead. Responsible for development of procurement strategy for two projects (Bike Path and ITS for Mackinac Bridge) under the ARRA schedule.

Project Cost: N/A

(Design: N/A; Construction: N/A)

Reference: N/A

Duration on Project: N/A

Texas Department of Transportation, DFW Connector DB Project, Dallas-Fort Worth, TX – Principal in Charge. Kancheepuram was responsible for leading contract negotiations: guiding designer's PM and the design team in setup, coordination and execution of design.and duties.

Project Cost: \$900+ Million (Design: N/A; Construction: N/A) Reference: Jerry Porter, Senior Vice President, Kiewit Duration on Project: N/A (Design: N/A; Construction: N/A) Reference: N/A

#### **Continued Professional Affiliations:**

WFEO UN Relations Committee Chair 2020- present
ASCE Foundation Chair 2023- present
President Atlas Initiative for Disaster Resilient Earth 2021- present
ASCE, Global Strategy Council Corresponding Member, 2016- 2017
NIEE, Board Member, 2015- Present
ASCE, Indian Initiative Advisory Committee, 2015-2017
WFEO Anti-Corruption Committee Vice Chair Americas, 2014-2018
ASCE, Key Contact Committee and Advocacy Captain, 2015-present
Conference, Panama City, Panama Conference Chair, 2014



ASCE Committee on Ethical Practice, Chair, 2012-2015 WFEO Anti-Corruption Committee, 2013-2015 ASCE Annual Conference, Montreal, Canada Program Chair, 2012 ASCE, Task Committee on International Strategy, 2012- 2014 ASCE, Chair Sub Committee on Global Principles for Professional Conduct, 2009-2012 ASCE, Region 8 Governor, 2005-2007 ASCE, Task Force on Global Principles for Professional Conduct, 2005-2006 ASCE, Geo Institute Task Force on MSE Wall Chair, 2005-2007 ASCE, Technical Committee on Embankments Dams and Slopes, 2005-2008 ACEC, Utah UDOT Liaison Committee/DFCM QBS Selection Committee Chair, 1993-1995 Chi Epsilon Honor Society, ACEC Utah Chapter, 1993- 1996

#### Awards and Recognition:

Texas Tech University College of Engineering, Distinguished Engineer, 2019 Utah Engineers Council, Engineer of the Year Nominee, 2018 ASCE Region 8, Engineer of the Year, 2017-2018 ASCE Utah Section, Engineer of the Year, 2017-2018 ASCE Professional Practice Ethics and Leadership Award, 2016 Texas Tech University Civil Engineering Academy, Inductee, 1997

#### **Presentations and Publications**

Patron/ moderator, ASCE IS International Conference on Climate and Disaster Resilient, Sustainable, Equitable and Inclusive Infrastructure, ahead of G20 with the support of World Federation of Engineering Organizations (WFEO) and Asian Development Bank (ADB), September 8, 2023

Keynote, "Geotechnical Aspects of Mega Transportation Projects in the Future", CIC2020, Doha, Qatar, February 2-5, 2020.

Keynote Address, "Future of Engineering", at various ASCE Events in the USA, Egypt, Qatar, Lebanon and India.

Keynote, "Understanding and Developing Geotechnical Performance Criteria", GeoMEast 2019, Cairo, Egypt, November 10-14, 2019.

Keynote Speaker, "Development of Reliable, Sustainable and Resilient Infrastructure", Global Engineering Congress, ICE, London October 22-26, 2018.

Keynote Speaker, "A Blueprint for Successful Delivery of P3 Project", ASCE Conference on Urbanization Challenges in Emerging Economies", New Delhi, India, December 12-14, 2017. KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC

Moderated Panel discussions on a variety of topics including topics on Ethical Challenges at various ASCE Annual Convention/Conferences.

Presentations on various topics of ethics - at ASCE MRLC, AECOM.

Keynote Speaker, "Understanding Performance and Developing Global Geotechnical Standards", Indian Geotechnical Conference 2016 Geotechnology Towards Global Standards, IIT, Madras, India, December 2016.

Invited Lecture, "Risks and Challenges of Deep Excavations in Urban Settings", Deep Foundations IGC Pre Conference Workshop, IIT Madras, India, December 2016.

Expert Panelist, DBIA Transportation Conference, Grapevine, Texas, April 2010.

Invited Lecture, "Geotechnical Challenges on Transportation Projects",

Geotechnical Engineering – Indian Experience GEOINDEX, Indian

Geotechnical Conference 2006, Chennai, India, December 14-16, 2006.

Principal Author, "Chapter 14 – Highway Construction, the Handbook of Highway Engineering", CRC Publication 2006.

Patrick Drennon, Nancy Smith, Charlie T, K. N. Gunalan, Workshop on "Design Build, Warranties and Performance Speciation" for FHWA Field Engineers, Washington DC, December 2004.

Principal Author, "Accelerating Construction of Bridge abutments and Embankments, Legacy Parkway DB Project, Salt Lake/Davis Counties, Utah", Geo Trans 2004, Los Angeles, California, May 26-28, 2004.

"Developing Pavement Performance Speciation's for Interstate 15 Reconstruction Project, Salt Lake County, Utah," 4th International Conference on Road and Airfield Pavement Technology, Kunming, Yunnan Province, P. R. China, April 23-25, 2002.

"Beneficial Use of Ground Improvement on a Major Design Build Transportation Project in Salt Lake Valley, Utah, USA," 4th International Conference on Ground Improvement Techniques, Kuala Lumpur, Malaysia, March 26-28, 2002.

"Ground Modifications on I-15 Reconstruction Project, Salt Lake County, Utah," Symposium on Recent Developments of Ground Improvement, Osaka, Japan, May 22, 2001.

Coauthor, "Accelerated Reconstruction of I-15 through Salt Lake County, Utah," International Conference on Soft Ground Technology, Netherlands, May 28-June 2, 2000.

"Keynote Address - I-15 Project," Rocky Mountain Concrete Pavement Conference, Salt Lake City, Utah, February 1-2, 2000.

#### **Employment History:**

KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC

VP| Senior Project Director, HNTB, January 2025 to Present Senior Vice President, AECOM, July 2019 to January 2025 Vice President, AECOM, April 2012 to July 2019 Vice President, Parsons Brinckerhoff, May 1996 to April 2012 Area Manager, Maxim, July 1993 to May 1996 VP/ General Manager Terra Engineers, 1986-1993

KANCHEEPURAM GUNALAN, PH.D., PE, BC.GE, NAC





**ENGINEERING COUNCIL OF ZIMBABWE** Suite Y103-Y106, Bay 26, National Sports Stadium, Samora Machel Avenue, <u>Harare,</u> <u>Zimbabwe</u> Tel: +2634227188/222611, E-mail: <u>engineering@ecz.co.zw.</u>Website: <u>www.ecz.co.zw</u>

08 April 2025

### MESSAGE FROM DR ENG. MARTIN MANUHWA TO ALL WFEO MEMBERS ON HIS WFEO PRESIDENT ELECT CANDIDATURE.

Ladies and gentlemen, esteemed colleagues and members of the engineering community, I am writing to you today with *great humility* and enthusiasm as I declare my candidacy for the esteemed position *of President-Elect* of the World Federation of Engineering Organisations (WFEO).

I pledge my support to the *WFEO Governance systems*, especially the policies led by past, present, and future Presidents and their Boards. This is vital to build on past successes, as it ensures the *incoming President is fully supported* in realising the vision and mission of the WFEO. I have successfully fulfilled this role, having served as a member of the WFEO Council with a proven record of distinguished service to the engineering profession, leading national, regional, and international professional engineering bodies for many years.

Throughout my career, I have strived to embody the *values and principles* that this organisation holds dear, and I am honoured to have been given the opportunity to present my vision for the future of our profession. I am particularly encouraged because *I have served WFEO in various capacities since 2009, chairing two Standing Technical Committees (Anti-Corruption and Engineering Capacity Building) and all STC chair committees.* 

My journey in the field of engineering has been one of *dedication, passion, and relentless pursuit of excellence.* As a Registered Professional Engineer from Zimbabwe, I have served in various leadership roles regionally and globally. My tenure as *Vice President of WFEO* and *Chair of its Capacity Building Technical Standing Committee* has equipped me with the necessary experience and insights to lead this prestigious organisation effectively. I am proud to have played an integral role in the *Engineering*  *Capacity Building for Africa Programme (ECBAP)* and the *Alliance of International Science Organisations on Disaster Risk Reduction (ANSO-DRR)*. These experiences have underscored the importance of collaboration, innovation, and resilience in tackling today's global challenges.

As a founding member of the *Asia-Africa-Pacific Accord (AAP) Engineering Council* and a past president of the Federation of African Engineering Organisations (FAEO), I have always believed that strong partnerships and cross-regional cooperation are key to advancing the global engineering agenda. I have also served as the President of the Zimbabwe Institution of Engineers (ZIE), a founding member of the WFEO, formerly known as the Rhodesia Institution of Engineers. Additionally, I chaired the Engineering Council of Zimbabwe (ECZ) and the Southern African Engineering Organisations (SAFEO). I was also one of the founding members of the Executive Committee of the World Council of Civil Engineers (WCCE). Over the years, I have observed that the world is now more interconnected than ever, primarily through AI and the 4<sup>th</sup> Industrial Revolution, and our collective efforts are crucial in shaping the future of infrastructure, energy, disaster risk reduction, and sustainable development.

At the heart of my vision for WFEO is a commitment to fostering capacity building, education, and training within the engineering profession. I have spent much of my career advocating for the development of infrastructure solutions that address our communities' immediate needs and ensure a sustainable future for generations to come. Through my work with *ZAIDG Consulting Engineers* and collaboration with partners like *Hatch Africa*, I have seen firsthand the transformative power of engineering in building resilient societies.

As you all know, Engineering plays a vital role in infrastructure development, innovation, and economic growth. WFEO's Vision, therefore, needs to be "strengthened to ensure it remains the leading global voice of engineering, with strong institutional presence, sustainable funding, and impactful influence on engineering education, practice, and policy worldwide."

I am deeply committed to continuing WFEO's mission of advocating for engineering excellence, ethical practices, and diversity within our profession. In the coming years, I believe that WFEO must continue to serve as a beacon of leadership in promoting engineering as a vital tool for addressing the United Nations' *Sustainable Development Goals (SDGs)*. Together, we can drive progress in clean energy, infrastructure development, and disaster resilience.

I will also focus on enhancing WFEO's global partnerships to ensure that engineering knowledge and expertise are shared across borders. By strengthening our relationships with governments, educational

institutions, and industries, we can unlock the full potential of our profession to shape a more sustainable, equitable, and innovative world.

As President, I will lead with integrity, inclusiveness, and a focus on solutions that elevate the role of engineering in society. My experience as a *chairperson on various boards*, involvement in policy initiatives, and deep connection with engineering communities worldwide provide me with a strong foundation to guide this organisation toward new heights.

Together with the members, I will develop a five-point futuristic plan to rebrand WFEO as more responsive to global and complex engineering solutions, more visible and impactful in policy thought leadership, and with an amplified voice for the profession.

The 5-point plan is anchored on the following principles:

- i. To create an *innovative ecosystem of engineering solutions* to advance the SDGs and other global North, South, East and West aspirations and Challenges!
- ii. To generate a conducive and productive environment of *positive engagement* that will *reform and leapfrog* WFEO into a global giant in engineering matters.
- iii. Open new *opportunities for Engineering* to offer solutions to societal challenges to end global poverty.
- iv. Enter into *win-win relationships* that propound the WFEO brand to unprecedented heights!
- v. Engage with *Policymakers, Industry, and Academia to raise WFEO's visibility* and reach and restore Engineering to its rightful place in society.

Together, we can build a future where engineering drives *positive change*, *shapes resilient communities*, and addresses the most pressing challenges of our time. I request your support as we strive to make the World Federation of Engineering Organisations a stronger, more influential, and more inclusive global voice for the engineering profession.

Please find my brief biodata attached. Thank you all for the excellent friendship and mentorship you have offered me over the years. I always find guidance from an African proverb, *"If you want to go fast, go alone; if you want to go far, let's go together."* As a team, we can create the blue-chip WFEO we all want.

minna Thank you.  $\zeta$ 

WFEO President-Elect Candidate

### BIO DATA FOR WFEO PRESIDENT-ELECT CANDIDACY





<u>()</u> +263 77 380 3310

**in** <u>Martin Manuhwa</u>

### Languages

English

Fluent

### Key Skills

- Sustainable Energy Engineering
- Project Management
   & EPCM
- Policy Development & Capacity Building
- Big Data Analytics & AI Integration
- Strategic Leadership & Global

Collaboration

- Communication
- Negotiation
- Public Speaking
- Teamwork

### Eng. Dr. Martin Manuhwa

#### **Pr. Eng(Z), FZwIE, FASI, FAAET, FAETDEW, AFASCE** Vice President, World Federation of Engineering Organisations (WFEO) Chair, WFEO Capacity Building Committee (2019–Present)

Registered Professional Engineer with over 30 years of leadership in global engineering initiatives, specializing in sustainable energy infrastructure, project management, and capacity building. Vice President of WFEO, Founding President of SAFEO, and Past President of FAEO. Managing Consultant at Zimbabwe Africa Infrastructure Development Group (ZAIDG), delivering high-impact energy and infrastructure projects across Africa. Recognized globally for contributions to engineering excellence, anti-corruption, and sustainable development.

### **Professional Experience**

Managing Consultant | Zimbabwe Africa Infrastructure Development Group (ZAIDG), Harare 1995 - Present

- Lead engineering, procurement, construction management (EPCM), and consulting services for energy, mining, and public sector projects.
- Collaborate with Hatch Africa (Pty) Ltd to provide technical advisory services to Zimbabwe Power Company (ZPC).
- Key projects:
- 1. Kariba Hydro Power Station Extension (300 MW): Successfully commissioned.
- 2. Hwange Power Station Expansion (600 MW): In final stages.
- 3. Harare Master Plan Consultancy and
- 4. Bulawayo Repowering ZPC Project

#### Vice President & Chair, Capacity Building Committee | World Federation of Engineering Organisations (WFEO) 2011–Present (Voting Member, Executive Council); 2019– Present (Chair, Capacity Building)

- Architect of the Engineering Capacity Building for Africa Programme (ECBAP), leading the Africa Office in partnership with the Chinese Academy of Sciences' ANSO-DRR.
- Chair of the Anti-Corruption Standing Technical Committee and All STC Chairs Committee.
- Advisor to three WFEO Presidents, shaping global engineering policies.

#### Past President | Federation of African Engineering Organisations (FAEO)

• Led initiatives to advance engineering standards and education across Africa.

#### Founding President | Southern African Federation of Engineering Organisations (SAFEO)

• Established SAFEO to foster regional collaboration in engineering innovation and capacity building.

### Professional Affiliations

- Founding Member, Asia-Africa Pacific Accord (AAP) Engineering
   Council
- Founding Member, World
   Council of Civil Engineers (Chair, Education, Training, and
   Capacity Building Committee)
- Steering Committee Member,
   Engineering Capacity Building for Africa Programme (ECBAP)
- Steering Committee Member,
   Chinese Academy of Sciences'
   ANSO-DRR

### Fellowships

- Fellow, African Scientific
   Institute (ASI)
- Fellow, Academy of Engineering and Technology of the Developing World (AETDEW)
- Foreign Fellow, ASEAN Academy of Engineering and Technology (AAET)
- Past President Fellow,
   Zimbabwe Institution of
   Engineers (ZIE)
- Affiliate Member, American Society of Civil Engineers (Aff.MASCE)

#### Chairman | Engineering Council of Zimbabwe (ECZ) & Zimbabwe Institution of Engineers (ZIE), Harare

• Spearheaded regulatory and professional development frameworks for Zimbabwe's engineering sector.

### Education

#### PhD in Sustainable Energy Engineering

European International University, Paris

MBA in Digital Transformation and Strategic Management

University of Zimbabwe, Harare

#### **Engineering Graduate Qualifications**

University of Zimbabwe, Harare

#### Postgraduate in Powertrain Project Management

**Royal Steward and Associates, Toronto, Canada** 1998

#### Study Tour: US Energy Systems, Power Industry Services, and Business Practices

Los Angeles Department of Water and Power, UC Berkeley, NASA Goddard Space Flight Centre 1995

### Board Memberships & Leadership Roles

Chairperson | Chinhoyi University of Technology (CUT) Council, Chinhoyi 2020–Present

Chairperson | **ZISCOSTEEL Board, RedCliffe** 2021–Present

Faculty Advisory Board Member | **Various SADC** Engineering Faculties

Past Chairperson | Industrial Energy Solutions P/L, Zimbabwe Infrastructure Build (Zim-Build)

Board Technical & ICT Committee Chairperson | Zimbabwe Broadcasting Corporation (ZBC), State Procurement Board, Zimbabwe Higher Education Council (ZIMCHE) Consultant | SADC Mutual Recognition Agreement & Trade in Services Strategy Formulation

Contributor | UNECA Africa SDG Dashboard Series, United Nations Summit of the Future (ARFSD)

### **Honours & Awards**

- Global Excellence and Leadership Award in Energy and Sustainable Engineering 2025
- FAEO Distinguished Services to African Engineering 2024
  - ZIE Lifetime Achievement Award Kariba & Hwange Projects
- Global Engineering Excellence Award India
- WCCE Engineering Award
- WFEO Recognition for Leadership in Anti-Corruption
- ZIE SKF Service to Engineering Award
- FAEO Engineering Week Founders Award



01 MAY 2025



# **CURRICULUM VITAE**

Dr Eng. Martin Manuhwa - Pro (Eng) (Z), FZwIE, FASI, FAETDEW, Aff. MASCE.

WFEO Chair of Capacity Building Committee (2019-Present) Chairman Chinhoyi University of Technology (2020-Present)

WFEO Awards Committee - Chairperson (2023-Present)





of WFEO the **Chairman** Martin is Engineering Capacity Building Committee since 2019. He is a Registered Professional Engineer from Zimbabwe. He is also a Vice President of the World Federation **Engineering** Organisations of (WFEO) and of its Awards Committee since 2023. He was recently Chair appointed to the steering committees of the Engineering Capacity Building for Africa Programme (ECBAP) and the Chinese Academy of Sciences' Alliance of International Science Organizations Risk Reduction (ANSO-DRR) respectively. He is a on Disaster founding member of the Asia Africa Pacific Accord (AAP)'s Engineering Council and a Past President of the Federation of Organisations (FAEO). African Engineering He is а past Chairman of the Engineering Council of Zimbabwe (ECZ) and Past President of the Zimbabwe Institution of Engineers (ZIE). He is the Founding President of the Southern African Federation of Engineering Organisations (SAFEO). Martin is a founding member of the World Council of Civil of Engineers where he chairs the Education Training and Capacity Building Committeee.

#### **MARCH 2025**

#### **CURRICULUM VITAE (CV)**

| Position Title.       | ZAIDG CONSULTING ENGINEERS-MANAGING DIRECTOR |
|-----------------------|--|
| Name of Expert:       | Eng. Martin Manuhwa                          |
| Date of Birth:        | 01/01/1967                                   |
| Country of            | Zimbabwe                                     |
| Citizenship/Residence |  |

#### **EDUCATION:**

- Doctor of Philosophy (PhD.) Sustainable Energy Engineering European International University Paris.
- Masters of Business Administration (MBA) University of Zimbabwe (2001). Passed with a Merit (2.1) grade. Specialised in Strategic Management and Information Technology.
- Bachelor of Technology in Electrical and Electronic Engineering (Honours), University of Zimbabwe (1993). Graduated with an Upper Second grade (2.1) pass.
- Diploma in Project Management: Steward & Associates, Canada
- Member Project Management Institute (PMI-USA)
- International Computer Driving Licence (ICDL): Computer Society of Zimbabwe.

#### SERVICE TO WFEO & OTHER PROFESSIONAL ORGANISATIONS

- World Federation of Engineering Organisations (WFEO) **Chair of the Engineering Capacity Building Committee** (2019-Present).
- Southern Africa Federation of Engineering Organisations (SAFEO) President(2012-15)
- Chair of WFEO Anti-corruption Standing Technical Committee (2013-2018).
- President of the Africa Federation of Engineering Organisations (FAEO) (2018-20).
- Engineering Council of Zimbabwe (ECZ) Chairman (2014-2016)
- WFEO Awards Committee Chairperson (2013-Present)
- Fellow and Past President of the Zimbabwean Institution of Engineers (ZIE). (2007-8)
- American Society of Civil Engineers (ASCE) Affiliate Member
- World Council of Civil Engineers (WCCE) Vice President and Chair of Training, Education and Capacity Building Commitee.
- World Federation of Engineering Organisations (WFEO) Member of the Energy Committee
- Global Infrastructure Anti-Corruption Centre (GIACC) UK Advisory Council

Member (2009-Present)

#### **PROFESSIONAL INFORMATION:**

#### International

- Consultant for COMESA and SADC on Economic Partnership Agreements and trade in services with the European Union (EU) (construction and engineering relat**sd**rvices).
- Consultant on Energy and Engineering Services in the African Region
- Hatch local partner for the Energy and Infrastructure in Africa.

#### National

- Consultatiand Engineering advisor team member with Hatch and ZAIDG on the Hwange (600MW) and Kariba Expansion Projects (300MW).
- Energy ManagementConsultant to Industry and Government Depts.
- Member of the Zimbabwe School of Mines Board. (2016-18)
- o Chairman the Chinhoyi University of Technology 2020 to Current
- o Chairman of Ziscosteel Board 2020- to Current
- Councilor of the Zimbabwe Council for Higher Education (ZimCHE).
- Former Board Member State Procurement Board SPB (2015-2018).
- Facilitator and Consultant for the Zimbabwe Economic Development Strategy thematic group on Infrastructure (2009-15).
- Member of the Ministerial Task force on Water (2016).
- Part time Lecturer at the University of Zimbabwe Graduate School of Management in Masters of Business Administration (MBA) 2006-15).
- Part time Lecturer at the Bindura University of Science Education Graduate School of Leadership in Masters of Business Leadership (MBL) 2012-15).
- Part time Lecturer at the Zimbabwe National Defense University in Masters of Science in Software Engineering (2018-2021).

#### **PUBLICATIONS**

- Manuhwa, M. (2019). Engineering Education and Sustainable Development in Africa. Journal of African Engineering, 7(2), 124-138.
- Mbohwa, C., & Manuhwa, M. (2009). Energy efficiency demand side management for

sustainability: Applicability of new methods in the SADC region. In Energy Efficiency Research

(pp. 167-185). Nova Science Publishers, Inc. Nova Science Publishers, Inc. Nov 15, 2008.

#### **SUMMARY OF EXPERIENCE:**

Martin is an engineering consultant with more than 25 years extensive experience and expertise in infrastructure construction, power system grid design, power station and substation design, energy projects evaluation, auditing and financial appraisal of projects. **He has managed projecst to ensure efficient and effective delivery and has done advisory services on listing of assets to finance power system expansion.** He is an action centred engineer with ability to handle projects from concept to commissioning. He has extensive expertise in power engineering protection, distribution as well as both production & manufacturing engineering consulting. He has extensive experience in building services, feasibility studies from concept to bankability as well as design, construction and supervision of residential electrical supply services.

He has worked for ZESA Transmission and distribution for more than a decade. He specialises in the integration of renewable energy systems; small hydroelectric projects, solar power; renewable energy resource assessment, market assessment and planning alternative energy sources and applications. Martin was part of the team of consultants raised finance for ZESA 's Expansion Projects at Kariba and Hwange.

#### **KEY SKILLS:**

- Project Management, Engineering and Financial Consultancy
- Infrastructure Planning and Policy Development;
- Management of technical change; training and capacity building; strategic planning; technology development and technology transfer;
- Financial Modelling
- Organisational Design and Operations Management
- Power Systems Management
- Electrical System Design and Modelling
- Energy Management.
- Renewable Energy Technologies and modern electrical design and deployment
- Feasibilities and Project management, planning, monitoring and evaluation;
- Infrastructure Management Financing and appraisals.
- Water and Energy Policy formulation for utilities.

#### **EMPLOYMENT RECORD:**

| Period             | Assignment and your title/position.<br>Contact info for references   | Country  | Martin is Managing Consultant<br>of ZAIDG   |  |
|--------------------|--|----------|---|--|
| 2018 to<br>present | Consultant Engineer and Technical<br>Advisor with Hatch/ZAIDG on the<br><b>Hwange Thermal Power Station</b><br><b>Expansion (600MW).</b> | Zimbabwe | Bankable Feasibility studies for<br>the1.4 Billion USD Hwange<br>Thermal Power Station Expansion<br>Project (600MW).<br>Design Reviews, supervision and |  |
|                    |  |          | construction management.  |  |
|                    |  |          | ESIA and EMP team leader in Environmental Assessment.,  |  |
|                    |  |          | Design, specification and engineering   |  |
|                    |  |          | Electrical Engineering Services.  |  |
| 2011 to<br>present | Hwange Thermal Power Station<br>Expansion (600MW).   | Zimbabwe | <b>Bankable Feasibility studies</b> for<br>the1.4 Billion USD Hwange Thermal<br>Power Station Expansion Project<br>(600MW).                             |  |
|                    |  |          | Design Reviews, supervision and construction management.  |  |
|                    |  |          | ESIA and EMP team leader in<br>Environmental Assessment.,   |  |
|                    |  |          | Design, specification and engineering   |  |
|                    |  |          | Electrical Engineering Services.  |  |
| 2011-2018          | Kariba Hydro-Power Station Extension<br>(300mW) Projects: 2011 and on-going.   | Zimbabwe | ESIA and EMP Project Manager.   |  |
|                    |  |          | Feasibility studies for the Kariba<br>Power Station Expansion (300MW).  |  |
|                    |  |          | Design Reviews, supervision and construction management.  |  |
| 2016               | ZPC Bulawayo Repowering Project.   | Zimbabwe | Team leader, Topograghic Survey and<br>EIA as well as Construction and<br>engineering related services.   |  |
| 2007               | ZINWA and DBSA on their initial engagement<br>for Harare Water Projects Project Consultant   | Zimbabwe | Implementation for Investment<br>funding based on Harare Water<br>Priority Projects.  |  |
| 2007               | ZESA Transmission Expansion<br>Project for the powerline and<br>substation construction projects with                                    | Zimbabwe | Feasibility Studies, Construction<br>Supervision, ESIA, EMPs and<br>Electrical Engineering Services.  |  |

#### **EXPERT'S CONTACT INFORMATION :**

| •                 | Hatch Africa (Pty) Ltd. 2011 and on-<br>going;<br>e-mail : mmanuhwa1@yahoo.com,<br>phone :+263773803310 |            | The transmission expansion project<br>ESIAs was divided into three<br>components as follows:<br>(1) Hwange-Insukamini (Bulawayo)<br>new 400 kV transmission line, new<br>Hwange substation and Insukamini<br>substation upgrade;<br>(2) Marvel-Insukamini new 330 KV<br>transmission<br>(3) New Sherwood substation, near<br>Kwekwe. |
|-------------------|---|------------|--|
| 2004 –<br>current | Consultant on Energy and Engineering Issues (Various Clients)   | SADC       | Design Engineer  |
| 2004 –<br>current | Energy Management Consultant to Industry and Government Departments                                     | Zimbabwe   | Consultant   |
| 1997-2000         | ZESA Power II Project on the Expansion of the transmission system and inter-connector with Mozambique,  | Mozambique | Design, engineering, installation and<br>commissioning of 420kV, 330kV lines<br>and associated substations under<br>Power Plan II;   |
| 1999-2000         | Kariba Power Station Refurbish Project  | Zimbabwe   | Protection Engineer  |

#### LANGUAGE SKILLS:

- English
- Shona

Martin Manuhwa

MA m

19/03/2025

Name of Expert

Signature

Date

### A JOURNEY OF COMMITMENT

Since 2007, Eng. Dr. Martin Manuhwa has served WFEO in numerous capacities, including as Chair of two Standing Technical Committees (Anti-Corruption and Engineering Capacity Building) and as Chair of all STC Chairs' Committees.

His tenure as VICE PRESIDENT of WFEO has further deepened his understanding of the organization's mission and global impact. These roles, combined with his contributions to initiatives like the Engineering Capacity Building for Africa Programme (ECBAP) and the Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR), have equipped him with the insights and expertise to lead WFEO effectively.

His journey in engineering reflects a relentless pursuit of excellence. As a licensed professional engineer from Zimbabwe, he has held leadership positions at national, regional, continental, and international levels.

He is a Founding Member of the Asia-Africa-Pacific Accord (AAP) Engineering Council, a PAST PRESIDENT of the Federation of African Engineering Organizations (FAEO), and a PAST PRESIDENT of the Zimbabwe Institution of Engineers (ZIE) - ZIE is a founding member of WFEO in 1968.

Additionally, he has chaired the Engineering Council of Zimbabwe (ECZ), the Southern African Federation of Engineering Organizations (SAFEO), and served as a Founding Executive Committee Member of the World Council of Civil Engineers (WCCE). These experiences have reinforced his belief in the power of partnerships and cross-regional cooperation to advance the global engineering agenda.

### A CALL TO ACTION

I seek your support to continue building a WFEO that is more responsive, influential, and inclusive - a true global voice for our profession. Together we can explore new paradigms to meet and solve the global challenges of the 21st century, with emphasis on sustainability, innovation and social responsibility as our overall goal. We will always work as a great WFEO team guided by the philosophy of teamwork and collaboration as summed up by the proverbial wisdom that states that:

### "If you want to go fast, go alone; if you want to go far , let's go together."

o Thank you for your friendship, mentorship, and unwavering commitment to engineering excellence over the years.

N

CONTACT INFO +263 77 380 3310 mmanuhwa1@yahoo.com





ENG. DR. MARTIN MANUHWA FOR WFEO PRESIDENT ELECT "Engineering a Sustainable Future Together"



### **FIVE POINT PLAN**

| VA |  |
|----|--|

#### INNOVATE

advance the SDGs and tackle global challenges.



#### REFORM

Enhance WFEO's role as a thought leader in engineering.



#### SOLVE

engineering to address soceital issues like poverty and inequality.



#### COLLABORATE

Build partnerships to strengthen WFEO's global influence.



#### ENGAGE

industry, and academia to amplify WFEO's visibility.

### **LEADERSHIP AND** CONTRIBUTION

| 07 | <b>NEW DELHI, INDIA</b><br>WFEO General Assembly;<br>Presentation of Technical Paper    |
|----|---|
| 09 | <b>KUWAIT CITY, KUWAIT</b><br>WFEO General Assembly,<br>Presentation of Technical Paper |
| 11 | GENEVA, SWITZERLAN  |

- WFEO General Assembly & World Engineer's Convention; Presentation of Technical Paper
- Elected to WFEO Executive Council

#### LJUBLJANA, SLOVENIA

2013

World Engineering Conference on Sustainable Infrastructure (coorganised by WFEO, UNESCO & FEIAP: Presentation of Technical Paper

#### **Became STC Anti-Corruption Chair**

#### ΚΥΟΤΟ, JAPAN

2015 WFEO General Assembly & World Engineer's Convention; Presentation of Technical Paper

#### ROME, ITALY

2017 WFEO General Assembly & World



#### LONDON, UK

WFEO Global Engineering Conference GEC and Executive **Council Meetings - Presented** 

#### a technical paper MELBOURNE, AUSTRALIA

#### WFEO General Assembly & World Engineer's Convention; Presentation of Technical Paper

**Became STC Engineering Capacity Building Chair** 

#### SAN JOSE, COSTA RICA

WFEO General Assembly & World **Engineering Summit; Presentation** of Technical Paper

#### KIGALI, RWANDA

**Global Engineering Conference on** Sustainable Energy; Presentation of Technical Paper.

# VISION

### **"To Amplify the WFEO** Brand to be the Leading Voice of **Engineering Globally.**









2023

2024





