



The **2022** Africa Asia Pacific Accord, WFEO-CECB
Capacity Building in Engineering Education International Forum,
and the **Zimbabwe Institution of Engineers'**
Biennial Conference

In Partnership with **UNESCO**

15 - 19 August 2022

Victoria Falls, Zimbabwe

Elephant Hills Resort Conference Centre




DEDICATION

The Conference is dedicated to all the Engineering Professionals who were promoted to glory during the turbulent COVID-19 pandemic era. We promise to run well the race they aborted. May their dear souls rest in eternal peace.

ABOUT THE VENUE

The Victoria Falls is one of the seven natural wonders of the world and a UNESCO Heritage Site. The Elephant Hills Hotel is the conference venue, and is situated 4kms from the Victoria Falls central business district, on a small hill. The hotel provides panoramic views of the Zambezi River and spray from the Victoria Falls.

This luxury hotel is decorated with an ethnic essence of Zimbabwe and even boasts an impressive miniature replica of The Victoria Falls in the middle. The Elephant Hills Hotel certainly does not lack entertainment with two swimming pools, tennis courts, squash courts and much more. The building with its thatched roof is an unmistakable landmark in the area and it blends well into the surroundings.

An aerial photograph showing the Elephant Hills Hotel, a large building with a prominent thatched roof, nestled among lush green trees. In the background, the Victoria Falls are visible, with a large plume of white mist rising from the water. The sky is a clear, pale blue.

Theme - Engineering the Future through
Quality Engineering Education, Partnerships,
Capacity Building and Innovation

AGENDA

Conference Agenda

Monday, August 15, 2022	
1400-1800	ARRIVAL AND REGISTRATION
1800-2000	WELCOME COCKTAIL HOSTED IN HONOUR OF OUR LOCAL AND INTERNATIONAL DELEGATES
Tuesday, August 16, 2022	
0800-0830	REGISTRATION
FACILITATOR – Prof. D. J. Simbi – Conference Organising Committee Co-Chair and Vice Chancellor of Chinhoyi University of Technology. Rapporteur General: Eng. Dr. W Goriwondo – Pro Vice Chancellor – National University of Science and Technology.	
0830-0833	National Anthem
0830 – 1100	AFRICA ASIA PACIFIC ACCORD, WFEO-CECB CAPACITY BUILDING IN ENGINEERING EDUCATION INTERNATIONAL FORUM AND ZIE BIENNIEL CONFERENCE CONFERENCE KICK-OFF SESSION SESSION CHAIRPERSON: Prof. D. J. Simbi <i>High Level Dialogue on Capacity Building in Engineering and Quality Education</i>
Exhibits Open & Robotics	

0833- 0835	Opening Prayer: Dr. Eng. Ben Rafemoyo
0835- 0840	Welcome Remarks: His Worship S. Dhlamini, The Mayor of Victoria Falls Municipality
0840- 0845	Introductory Remarks -WFEO Vice President and CECB Chair: Eng. Martin Manuhwa
0845- 0850	Objectives of the Conference - Planning Committee Chair: Dr. Eng. Tammy Stevenson
0850- 0900	Opening Remarks from the ECZ Chairman: Eng. Israel Rwodzi
0900- 0910	Opening Remarks from the ZIE President: Eng. Thami Mpala
0910- 0920	Keynote Address from the FEIAP President: Prof Huang Wei (China)
0920- 0940	Keynote Address from the WFEO President: Prof. José Vieira (Portugal)
0940- 1000	Keynote Address from the AAP Chairperson: Ir. Academician Emeritus Prof Tan Sri Dato' Dr. Chuah Hean Teik. "Benchmarking of Engineering Education for Regional and International Mobility: A FEIAP Experience"
1000-1010	Address by Professor Martiale Zebaze-Kana, Senior Programme Specialist- Natural Science UNESCO Regional Office for Southern Africa.
High Level Panel Dialogue and Discussion on Capacity Building in Engineering and Quality Education	
1010-1100	<p>Moderator - Prof. D. J. Simbi – Conference Organising Committee Co-Chair</p> <p><u>Panelists</u></p> <ul style="list-style-type: none"> - Eng. Mustafa Shehu - WFEO President Elect - Eng. Dr. W. Ganda – Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development (Zimbabwe). - Prof P. K Dzvimbo – Zimbabwe Council for Higher Education (ZIMCHE CEO) - Dr. Kwame Boakye – Ghana Institution of Engineering (GHiE) Past President. - Eng. Nathaniel Matalanga – IEK Past President and WFEO Executive Council Member (Kenya). - Dr. Eng. Sanzan Diarra – ZIE Chief Executive Officer <p>Concluding remarks for the morning Plenary session and Vote of thanks: Eng. Papias Kazawadi – FAEO PRESIDENT ELECT</p>
1100 - 1130	GROUP PHOTO AND COFFEE BREAK

1130 - 1330	CAPACITY BUILDING AND ENGINEERING EDUCATION PLENARY SESSION 1 Chair: UNESCO ROSA (TBA)
	<i>Keynote Address: Transforming Engineering Education Capacity Building for Africa – From Strategy to Implementation.</i> Speaker 1: Eng. Yashin Brijmohan (South Africa) – FAEO CHAIR Standing Technical Committee in Engineering Education and AAP Co-Chair
	<i>“Achievement oriented engineering education professional certification”</i> Speaker 2: Prof. Wang Xue – Tsinghua University P. R. China
	<i>“Setting up of FEAIP Graduate Engineering Personnel Registry”</i> Speaker 3: Ir. Dr. Tan Yean Chin, Secretary – The Federation of Engineering Institutions of Asia and the Pacific (FEAIP) & Past President, the Institution of Engineers, Malaysia.
	<i>Keynote Address - “The Role of Education in Creating a Global Engineer”</i> Speaker 4: Mr. Damien Owen (Ireland) - Deputy Chair - International Engineering Alliance.
	<i>Keynote Address – Education of Professional Engineers and Engineering Educators</i> Speaker 5: Ir. Dr. Prof. Norlida Buniyami, IEM President – MALAYSIA
1330 - 1430	LUNCH
14:30 – 17:30	PLENARY SESSION 2 Chair: Prof. D. Musademba (Dean CUT) Rapporteur General: Dr. Eng. A. Mamuse (Dean MSU)
	<i>Keynote Address - “The Future of Jobs for African Graduates in the Digital Age.”</i> Speaker 1: Academician Dato` Ir (Dr) Lee Yee Cheong – WFEO Past President
	<i>Strategies for Engineering the future through Quality Engineering Education, Capacity Building, and the Development of Innovative Infrastructure: The Case of Global South Countries3</i> Speaker 2: - Eng. Ronald Robertson -Tarugarira
	Speaker 3: Catching them Young through Sibombe the Engineer - Michelle Maphosa
	Engineering the alternative way: Locating the place of soft skills in the success of the engineering profession Speaker 4: Marjorie Munyonga <i>Keynote Address “Roadmap for transforming Africa with focus on gender</i>

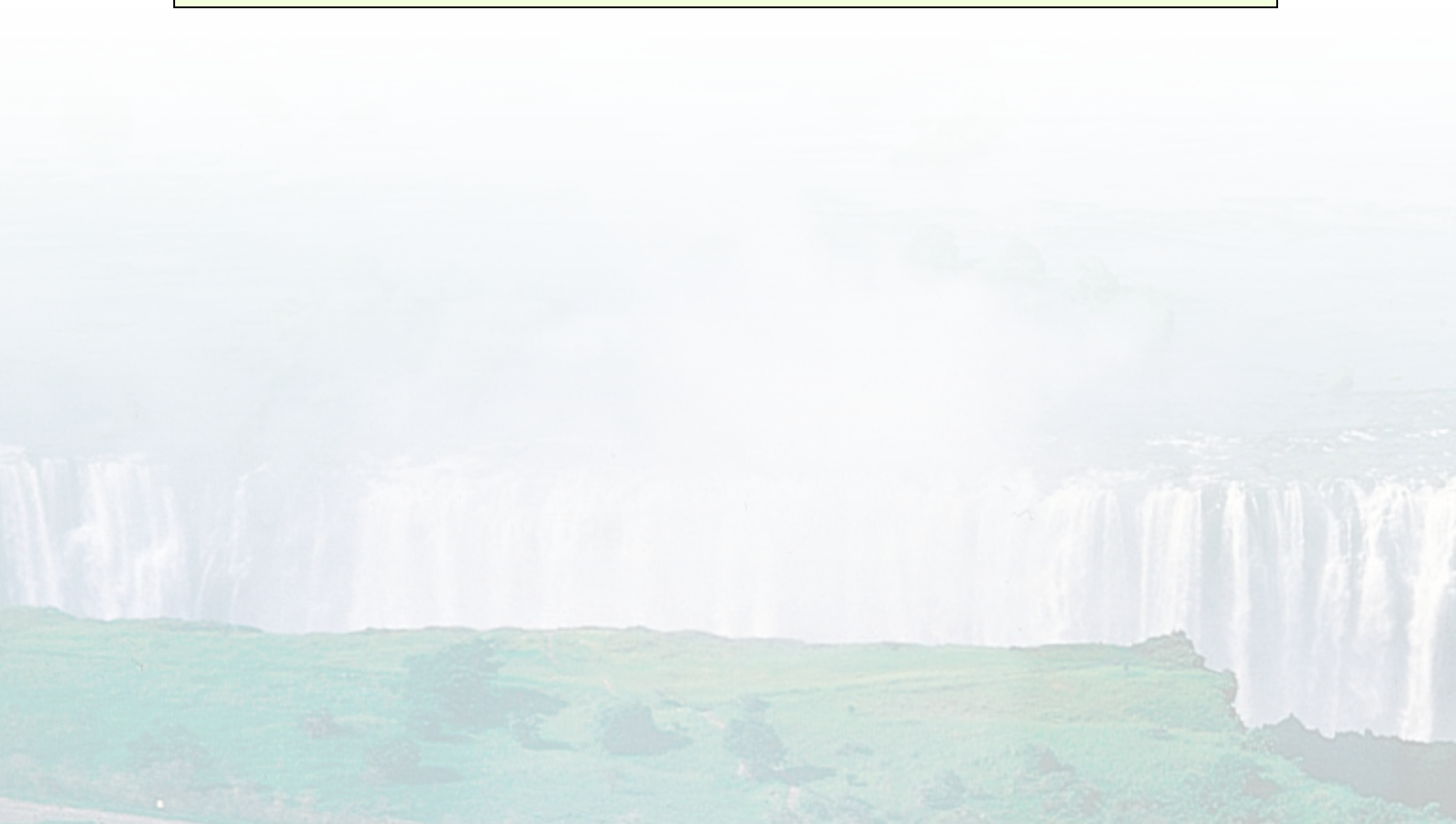
	<i>transformative STEM Higher Education and Innovation”</i> Speaker 5: Eng. F. Mavhiya , Deputy President ZIE and Past Chairperson ECZ.
Wednesday, August 17, 2022	
0830 – 1100	<p>AFRICA ASIA PACIFIC ACCORD, WFEO-CECB CAPACITY BUILDING IN ENGINEERING EDUCATION INTERNATIONAL FORUM AND ZIE BIENNIAL CONFERENCE</p> <p>SECOND DAY PLENARY SESSION</p> <p>CHAIR: Prof Mercy Manyuchi – Chief Director - Ministry of Mines and Mining Development</p> <p>Rapporteur General: Eng. Dr. W Goriwondo – Pro Vice Chancellor – National University of Science and Technology</p>
0833-0835	Opening Prayer: Local Pastor
0835- 0850	Recap of Day 1 Activities: Engr. Ovens F. Ehimatie
0850- 0910	Feedback on WFEO CECB Water Infrastructure Training and FAEO Capacity Building Initiatives– Eng. M. Manuhwa
0910-0930	Keynote Address from the FAEO President: Ing. Carlien Bou Chedid
0930-1010	<p><i>Panel Discussion “Towards the Implementation of the SADC Engineering Needs and Numbers Study”.</i></p> <p>Moderator - Prof. Martiale Zebaze Kana – UNESCO ROSA</p> <p>Panelists:</p> <ul style="list-style-type: none"> - Ms. Phathi Masimirembwa - Ms. Anneline Morgan - SADC Secretariat - Dr. Muchaneta Munamati – UNESCO - Dr. Eng. T. Stevenson -ZIE - Eng. Martin Manuhwa – WFEO CECB - SA Department of Science & Innovation – TBA - Eng. Yashin Brijmohan
1010- 1050	<p>Panel Discussion on Engineering Regulation, Innovation, Capacity Building, and Infrastructure in the FAEO African Regions.</p> <p>Moderator - Prof. Hodson Makurira – Dean of the Faculty of the Built Environment – University of Zimbabwe</p> <p><u>Panelists</u></p> <ul style="list-style-type: none"> - Eng. Collins Juma - East African Federation of Engineering Organisations (EAFEO) President (Kenya) - Eng. Linda Moseki – Southern African Federation of Engineering Organisations (SAFEEO) President (Botswana) - Engr. Tasiu Sa’ad Gidari-Wadul – Nigerian Society of Engineers (NSE) President

	<p>- Ing. Prof Rev Charles Adams – Ghana Institution of Engineering (GHiE) President</p> <p>- Eng. Erastus Mwongera – Engineers Board of Kenya (EBK) Chairman</p> <p>- Eng. Dr. Rafemoyo – ECZ CEO</p> <p>Concluding remarks for the morning Plenary session and Vote of thanks: Ing. Alex Ayeh – President West African Federation of Engineering Organisations (WAFEO)</p>		
1050-1110	<p><i>Keynote Address by our Special Guest “Education 5.0. The Doctrine”</i></p> <p>Prof. dr. Amon Murwira – Minister of Higher and Tertiary Education, Science, Innovation and Technology Development</p>		
1110 - 1130	GROUP PHOTO AND COFFEE BREAK		
FIRST BREAKAWAY SESSION			
1130-1300	PARALLEL TECHNICAL SESSION 1		
	<p>Venue: KALUNDU</p> <p>Theme 1 – Engineering Diversity and Inclusivity</p> <p>Chair: Dr. Eng. E. S. Maputi – Engineering Dean (HIT)</p>	<p>Venue: KALALA (Main Room)</p> <p>Theme 2 – Capacity Building, Innovative Infrastructure</p> <p>Chair: Dr Eng. A. Mamuse - Engineering Dean (MSU)</p>	<p>Venue: MATETSI</p> <p>Theme 3 – UNESCO, ECZ, WFEO CECB Robotics Boot Camp</p> <p>FACILITATOR: Dr Eng. T. Mushiri – Deputy Dean: Engineering and Built Environment (UZ)</p>
	<p>Speaker 1: Zvikomborero Hweju</p> <p>Engineering Education for the Accomplishment of Sustainable Development Goals</p>	<p>Speaker 1: Engr. Nnadikwe Johnson (Nigeria).</p> <p>Engineering Capacity Building in Developing Countries</p>	High School Robotics Bootcamp
	<p>Speaker 2: Engr. Unyime Enobong Okure & Engr. Ovens Ehimatie Festus -</p> <p>Engineering Institution-Industry Partnerships a Panacea for Quality Engineering Education</p>	<p>Speaker 2: Ivy Getanda (Kenya)</p> <p>Optimization of Career Bootcamps as A Capacity Building Effort for Engineering Students and Graduate Engineers</p>	

	Speaker 3: Aldridge Takura Nyamowa - Inclusivity and sustainability: a perspective of young people	Speaker 3: Eng. Mary Nyaradzayi Chikuruwo, et al. - Development of a Computerised Maintenance Management System (CMMS) Learning Tool: Case Study for Harare Institute of Technology	
	Speaker 4: Hagreaves Kumba (SA) Review on how to bridge the gap between Engineering Education and Industrialisation for Sustainable Development in Zimbabwe		
13:00	LUNCH		
SECOND BREAKAWAY SESSION			
14:00 – 16:30	PARALLEL TECHNICAL SESSIONS		
	Venue: KALUNDU Theme 1 – Capacity Building	Venue: KALALA (Main Room) Theme 2. Innovative Infrastructure	Venue: MATETSI Theme 3 – UNESCO, ECZ, WFEO-CECB Robotics Boot Camp
	Chair : Engr. Aishatu Umar (WCCE & NSE NIGERIA)	Chair: Eng. Margret Ogai (EBK-KENYA)	FACILITATOR: Dr. Tawanda Mushiri – UZ Deputy Dean - Built Environment
	Speaker 1: Ben Edenseting (Nigeria) Bioethanol Production through Simultaneous Saccharification and	Speaker 1: Engr. Unyime Enobong O. (Niger) Novel Algorithm for Enhancing Power	High School Robotics Bootcamp

	Fermentation Process	Transformer Protection Sensitivity	
	Speaker 2: Engr. Ibe Raymond Obinna (Nigeria) Implications of Engineering Education & Capacity Building in Africa	Speaker 2: Eng. Mary Chikuruwo The Ergonomic Impact on General Complications on Tractor Drivers in Zimbabwe	
	Speaker 3: Engr. Nnadikwe Johnson (Nigeria) Design Method of Engineering Education Standard Assurance in African Educational Field	Speaker 3: Engr. Unyime Enobong O. (Niger) Achieving Sustainability in Robotics through Eliminating the Skill Gap in Academia and Industry	
1630-1700	NETWORKING & VISIT OF EXHIBITION STANDS		
Thursday, August 18, 2022			
OFFICIAL OPENING DAY PLENARY SESSIONS - KALALA MAIN CONFERENCE ROOM			
SESSION MODERATOR: Director of Ceremonies – Mavimba Mapuranga			
PAPER PRESENTATIONS			
08:30	Prayer - Local Pastor		
08:35	Official Opening Address by:  ECZ Chairman – Eng. Israel Rwodzi  ZIE President – Eng. Thami Mpala		
09:00	Keynote Opening Address by the UNESCO DIRECTOR GENERAL – Prof Lidia Arthur Brito, UNESCO Regional Director for Southern Africa		
09:20	Keynote Opening Address from WFEO VP &CECB Chair: Eng. Martin Manuhwa. “Digital Transformation through Engineering Capacity Building and Quality Education for New National Development Models: A Disruptive New World Order in Zimbabwe and Africa’s Favour”.		
09:40	Keynote Opening Address from :Eng. Joy Pedzisayi Makumbe (Zim); “A Review of the Role Played by Sustainable Infrastructure in Zimbabwean Cities: A Focus on the Contributions to the Economic Growth of the Country.”		
10:00	INTERACTIVE TEA BREAK (Guest of Honour Debriefing)		

OFFICIAL OPENING	
10:30	National Anthem
10:35	Introduction of the Guest of Honour: TBA
10:40	SPEECH by the Guest of Honour: His Excellency, President Dr. E. D. Mnangagwa
11:15	Gift Presentation & Group Photo
11:30	Keynote Address from the Engineering Council of South Africa (ECSA) President – Eng. Refilwe Buthelezi - Building and Regulating Engineering Capacity in South Africa.
11:50	Engineering Education: A case of Zimbabwe: Dr. Eng. Stevenson
12:10	Internet of Things (IoT) and Road Safety: Challenges and Opportunities for Africa- Cliford Gobo - Acting Managing Director: Traffic Safety Council of Zimbabwe
12:30	Keynote Address by WFEO President Elect Engr Mustafa Shehu – Vision and Roadmap for Africa Engineering for the Decade of Action and the Africa We Want.
12:50	CORPORATE MARKETING INTERFACE, DISCUSSION, CONFERENCE RESOLUTIONS AND WRAP-UP
13:35	Vote of Thanks: Eng. Farai Mavhiya – ZIE Deputy President
13:40	LUNCH, NETWORKING & VISIT OF EXHIBITION STANDS
16:00	SUNSET BOAT CRUISE AND TECHNICAL TOURS AND OTHER ACTIVITIES
19:00	CLOSING CEREMONY, GALA DINNER & RECEPTION (FORMAL DRESS)
22:00	END OF CONFERENCE
Friday, August 19, 2022	
GOLF DAY AND DEPARTURE FOR NON-GOLFER / EXCURSION (optional) TOUR ZIMBABWE AND VICTORIA FALLS!	



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