

CONSTRUCTION 5.0: TOWARDS A COLLABORATIVE AND PEOPLE CENTRED INDUSTRY

DAY 1: MONDAY, 15 JULY 2024 – NORTH CAMPUS CONFERENCE CENTRE

PLENARY 1: ROOM A – Chair: Prof Theo Haupt	
08h00-09h00	Registration
09h00-09h20	WELCOME ADDRESS Prof Marshall Sheldon - <i>Executive Dean: Nelson Mandela University</i>
09h20-09h30	Conference Program Overview Prof Theo Haupt - <i>Nelson Mandela University/University of Wyoming</i>
09h30-10h10	Keynote Address: How Future-Forward is Construction 5.0? Prof Chrisna Du Plessis - <i>University of Pretoria</i>
10h10-10h40	Keynote Address: Construction at the Crossroads: The Leadership Challenge - How to Effectively Pivot? Dr Kolosa Madikizela
10h40-11h10	Presentation: SACPCMP Sharon Shunmugam - <i>Vice-President SACPCMP</i>
11h10-11h30	TEA
11h30-12h00	Keynote Address: People at the Centre: Leading Diverse Teams Innocentia Mahlangu - <i>SHEngineers</i>
12h00-12h30	Keynote Address: Housing in Informal Settlements. Grassroots Approach to Sustainable Urban Regeneration in South Africa Prof Claudia Loggia - <i>University of Kwa-Zulu Natal</i>
12h30-13h00	Presentation: Constructing Efficiency: Leveraging Advanced Software for Enhanced Project Management Tammy Venter - <i>Modena-Autodesk</i>
13h00-14h00	LUNCH

PARALLEL SESSIONS: PLENARY 2			
14h00-14h40	KEYNOTE ADDRESS: Building the Future: How Robotics are Revolutionizing Industrialized Construction Aladdin Alwisy - <i>University of Florida</i>		
	Chair: Ferdinand Fester Venue:	Chair: Wayne Draai Venue:	Chair: Athenkosi Sogaxa Venue:
14h50-15h10	Assessing Timber Construction in South Africa: Perceived Quality, Barriers and Solutions <i>Schalk Grobbelaar, Ferdinand Hassan</i>	A Case Study on Collaborative Instruction Platforms: Exploring Multi-Campus Interconnected Teaching with Industry Engagement, Technology Integration, and its Impact on Aligned Learning Outcomes <i>John Annor, Francois Jacobs, Jason Eggemeyer, Rob Hill</i>	Evaluation of Building Information Modelling Tools as a Communication Strategy among Stakeholders in the Construction Industry <i>Bamgbos Ayobami, Babatunde Ogunbayo, Clinton Aigbavboa</i>
15h10-15h30	Innovative and Intervention Strategies to Tackle Challenges Associated with Water Infrastructure Management By Public Sector <i>Iruka Chijindu Anugwo, Olatunji Joseph Oladiran, Nosipho Buhle Faya</i>	Bridging Construction 4.0 and 5.0: Strategic Attributes for Transforming South African Undergraduate Built Environment Programs through Activity Theory <i>Somarie Holtzhausen, Henri Du Plessis</i>	A Review of Circular Economy Practices on Construction Projects <i>Fidelis Emuze, Rotondwa Nemakhavhani, Josephine Dzansi</i>
15h30-15h50	Assessing the Impact of Frugal Innovation in the Construction Industry <i>Tsireledzo Maliehe, Schalk Grobbelaar</i>	Construction 5.0: Innovations, Trends, and Implications for the Future <i>Progress Chigangacha, Theo Haupt</i>	Adopting Construction 5.0 for Operational Excellence of Construction SMES <i>Henok Asfaw Hailu</i>
15h50-16h10	Mentorship as a Mechanism to Enhance Emerging Contractor Development <i>Arnold Wagenstroom, Theo Haupt</i>	Infrastructure in Human Settlements in South Africa <i>Jeremy Gibberd</i>	CONSTRUCTION 5.0: A Policy Approach to Future Workforce Adaptability in the South African Construction Industry <i>Fortune Aigbe, Clinton Ohis Aigbavboa, John Aliu, Lekan Amusan</i>
16h10-16h30	Opportunities for Achieving Optimal Sustainable Performance of Water Infrastructure in Gauteng Province, South Africa <i>Gift Laolang, Innocent Musonda, Morena Nkomo, Motheo Tjebane</i>	Towards Collaborative and Sustainable Construction 5.0: Benefits of Integrating People-centred Principles in Construction <i>Seyi Segun Stephen, Clinton Aigbavboa, Ayodeji Emmanuel Oke, Opeoluwa Akinradewo</i>	Strategies to Improve Material Management on Construction Site <i>Mdudi Bongekile Vuziwe, Cecilia Modupe Mewomo, Chikezirim Okorafor</i>
16h30-16h50	Costing Refurbishment Projects: Approach and Challenges of Quantity Surveyors <i>Christopher Amoah</i>	Addressing the Construction Skills Shortage in South Africa: An Exploratory Study <i>Prianca Naicker, Theo Haupt</i>	The Role of Digital Technologies in Promoting Sustainable and Human-Centric Waste Management Practices: A Review of Current Practices and Future Directions <i>Athenkosi Sogaxa, Nontlahla Mphako, Eric Kwame Simpeh</i>
18h30	Conference Dinner: Lifetime Achievement Awards Dinner – RadissonBlu Hotel, Summerstrand.		

DAY 2: TUESDAY, 16 JULY 2024 – NORTH CAMPUS CONFERENCE CENTRE

	PLENARY 3: ROOM A Chair: Chris Allen
08h00-09h00	Registration
09h00-09h10	WELCOME
09h10-09h40	Keynote Address: Global trends in construction Don Ward - <i>CEO: International Council for Research and Innovation in Building and Construction (CIB)</i>
09h40-10h10	Keynote Address: Trajectories of Current & Future Construction Delivery Change: Implications for businesses, BEPs & Educators Bob Hindle - <i>Independent Researcher</i>
10h10-10h40	Keynote Address: Discursive Cohesion Prof. Jeremy Gibberd - <i>CSIR</i>
10h40-11h00	Tea
11h00-12h30	Industry Roundtable: Construction at the Crossroads: Past, Present and Future
12h30-13h30	LUNCH
13h30-14h00	Keynote Address: The Impact of a Construction Skill Training Framework Prof Francois Jacobs - <i>University of Wyoming, USA</i>
14h00-14h30	Presentation: FEM Sanjay Munroo
14h30-15h00	Keynote Address: 'PROJECT TURN THE TITANIC' Prof Theodore Haupt - <i>Nelson Mandela University/University of Wyoming</i>
15h00-15h20	Afternoon Tea

PARALLEL SESSIONS: PLENARY 4			
	Chair: Progress Chigangacha Venue: Room A	Chair: Ferdinand Fester Venue: Room B	Chair: Iruka Anugwo Venue: Room C
15h20-15h40	An Investigation into Stakeholder Collaboration for Increased Building-Integrated Photovoltaics Adoption within the South African Construction Industry Rumbidzwai Mhinga , Progress Chigangacha, Theo Haupt	Enhancing Collaborative Learning Across Institutions through Videoconferencing: A Pedagogical Perspective John Annor, Francois Jacobs, Jason Eggemeyer, Rob Hill	Quantifying the Influence of Subsurface Fractures on Infrastructure Stability: Integrating Electrical Resistivity and Magnetic Survey Techniques in Construction Projects Raimi Samson, Babatunde Ogunbayo , Clinton Aigbavboa, Iroko Oluwatoyin
15h40-16h00	Leveraging Blockchain Smart Contracts to Mitigate Construction Payment Delays: A Bibliometric Analysis Siso Hlophe , Progress. Chigangacha, Theo Haupt	Retrospective Insights and Future Directions for Innovation and Sustainability in the Construction Industry Nishani Harinarain	Health and Safety Practices in the Fourth Industrial Revolution: Opportunities and Challenges to the Construction Workers Kunle Ogundipe , Clinton Aigbavboa, Babatunde Ogunbayo
16h00-16h20	Collaborative Co-instruction Practice: Active Versus Passive Learning Theo Haupt, Francois Jacobs	Construction 5.0: Towards a Human-Centric Approach for Addressing the Poor Welfare of Construction Workers in South Africa Nonhlakanipho Ntuli, Clinton Aigbavboa , Babatunde Ogunbayo	Factors Contributing to Efficiency Losses in Small Construction Companies in the Eastern Cape Tirivavi Moyo, Lindiwe C. Dhlamini
16h20-16h40	Risk Factors for Building Information Modelling (BIM) Implementation in The Construction Industry Fikile Yalo, Clinton Aigbavboa, Samuel Adekunle	Drivers for the Effective Implementation of Service Delivery in the South African Public Sector – a Delphi Study Neil Sirbadhoo, Nishani Harinarain	The Barriers of Sustainable Housing Development: A Bibliometric Review Boitumel Mogashoa, Morena Nkomo, Ramabodu Molusiwa, Letsau Maphutha (Gift Laolang)
16h40-17h00	Bridging the Gap: A Holistic Approach to AEC Education through BIM and Collaborative Pedagogy John Smallwood, Jean-Pierre Basson	Improving Built Environment Education: Analysing User Comfort in VR Learning with Oculus Quest 2 Jean-Pierre Basson, Ashvin Manga	Challenges Affecting the Adoption of Sustainable Energy-efficient Building in the Nigerian Construction Industry James Toyina, Tomiwa Adegbiteb, Cyril Ejidikec, Modupe Mewomo (Iruka Anugwo)
17h00-17h20	Universal Access and Design in Public Sector Buildings: Efforts and Challenges for Retrofitting Mohlomi Raliile ; Theo Haupt	Post-Occupancy Evaluation of a Green-Rated Educational Building Leveraging AI and Multimetric IoT Ashvin Manga , Aysha Dilsiz, Theo Haupt	Workforce Prioritisation in the Construction 5.0 Era Thalente Lungile Nkosi , Fidelis Emuze
17h20-17h40			
17h30-18h00	Conference Closure		