

8. Conference Programme

9th International Conference on Sustainable Transportation & Smart Innovations

Gran Melia Hotels & Resorts, Arusha, Tanzania

July 29 – 31, 2024

Theme: "Safe, Smart and Sustainable Transport Systems for Global Economic Growth"

Day 1: Monday, July 29, 2024

Official Opening Ceremony & Plenary – Gran Melia Conference Main Room

8:00 am: On-site Registration of Conference Participants

Time (Hours)	Description	Speaker/Title	Organisation & Country
08:00-09:00	Onsite Registration	All	ICTA & TARA Secretariat
09:00-09:05	Opening Session: Moderator	Eng. Abdul A. Awadh, Immediate Past Chairman	Tanzania Road Association (TARA), Tanzania
09:05-09:15	Introductory Remarks	Mr. Joseph Haule Chairman	Tanzania Road Association (TARA), Tanzania
09:15-09:35	International Remarks: A Decade of Global Networking & Professional Development	Dr. Simon Oladele, Ph.D. ICTA International Coordinator	ICTA International Secretariat, USA
09:35-09:45	Global Remarks: Research Collaboration with International Scholars & Stakeholders	Dr. Raymond Winbush, Ph.D. Professor & Director	Institute for Urban Research, Morgan State University, USA
09:45-09:55	Global Briefing: Knowledge Exchange & International Connectivity for Global Economic Growth	Ms. Susanna Zammataro, Director General (IRF)	International Road Federation (IRF), Switzerland
09:55-10:20	Keynote Presentation: “Safe, Smart and Sustainable Transport Systems for Global Economic Growth”	Prof. David A. Mfinanga Ph.D. Professor of Transportation Engineering & Former Deputy Vice Chancellor, Administration	University of Dar es Salaam, Tanzania
10:20-10:30	Welcome Address	Amb. Eng. Aisha S. Amour Permanent Secretary (PS)	Ministry of Works, Tanzania
10:30-10:50	Keynote Speech: Official Opening	Hon. Innocent Bashungwa (MP) Minister for Works, Tanzania.	Ministry of Works (MoW), Tanzania
10:50-11:00	Vote of Thanks	Eng. Mohammed Besta The Chief Executive (CEO) (TANROADS)	Tanzania National Roads Agency, Tanzania
11:00-11:30	Cultural Entertainment, Group Photo, Exhibition & Tea Break – Gran Melia		
11:30-13:30	Plenary Session 1 – Main Room: Smart Innovations and Sustainable Development Chair: Immediate Past TARA Chairman, TARA, Tanzania		
(20 minutes for each presentation and 10 minutes for discussions)	<p>Integrating Social and Environmental Impacts of Green Transportation Infrastructure: A Framework for Effective Decision-Making - Ignatius Fomunung, Md Kamrul Hasan Sabbir, WSP, Jejal Bathi, Mbaki Onyango, Joseph Owino, <i>University of Tennessee Chattanooga, USA</i></p> <p>Financial Model for Airport Public-Private Partnership Projects (PPPs): Bridging Infrastructure Finance Gaps - Deepak Benny, Bortiorakor Nii Tsui Alabi, Samuel Labi, <i>Purdue University</i> & Cesar Queiroz, <i>Former World Bank Highways Adviser, Washington, DC, USA</i></p> <p>Opportunities and Challenges of Bascule Bridges Crossing Navigable Waterways and Infrastructure Management in Sub-Saharan Africa - Primus V. Mtenga, Egwu E. Kalu, <i>Florida A&M University, Florida State University, USA</i>, & Cuthbert Akaro, <i>Scopecon Engineering Company Ltd, Dar-es-Salaam, Tanzania</i></p> <p>Driving Factors to the Implementation of Road Project Monitoring Practices in Tanzania, Hussein Mativila, Salum K. Chang'waro, John Mahona, Manala Tabu Mbumba, <i>National Institute of Transport, Dar Es Salaam, Tanzania</i></p>		

13:30-14:30	Exhibition & Lunch Break – Gran Melia Hotel Cafeteria	
14:30-16:30	Professional Development/ Concurrent Workshop Session 2	
	WORKSHOP ON PPP PROJECTS	WORKSHOP ON SUSTAINABLE SOLUTIONS
14:30-15:30	<p><i>Series 1: Public-Private Partnership Projects (PPPs): Bridging Infrastructure Finance Gaps</i></p> <p>Workshop Facilitator/ Presenter: Dr. Cesar Queiroz, Ph.D., Consultant, Roads and Transport Infrastructure & Former WorldBank Highways Adviser, Washington, DC, USA</p>	<p><i>Series 1: Green Transportation Infrastructure: A Framework for Effective Decision-Making</i></p> <p>Workshop Facilitator/ Presenter: - Dr. Ignatius Fomunung, Ph.D., UC Foundation Professor & Director, Center for Energy, Transportation & the Environment (CETE), University of Tennessee Chattanooga, USA</p>
15:30-16:30	<p><i>Series 2: Output and Performance-based Road Contracts (OPBRC) for Transport Sector</i></p> <p>Workshop Facilitator/ Presenter: Dr. Cesar Queiroz, Ph.D., Consultant, Roads and Transport Infrastructure & Former World Bank Highways Adviser, Washington, DC, USA</p>	<p><i>Series 2: Smart Road Initiative - Best Software for Designing Village Roads, District Roads, and Highways</i></p> <p>Workshop Facilitator/ Presenter: Saroj Gautam, Director - Smart Tech Solution, Thapagaun, Baneshwor, Nepal</p>
16:30-17:00	Exhibition, Networking & Tea Break – Gran Melia Hotel	
17:00-18:00	Panel Discussions/ Concurrent Forum Session 3	
	University Vice Chancellors & Researchers Forum	Road Agency CEOs & Transport Sector Forum
	<p>Special Forum dedicated to Academia/ University VCs/ HODs & Researchers</p> <p>Facilitator: Prof. Kweku Bentil, Ph.D., Former Vice Provost of the Aga Khan University, Kenya & Founding Vice Chancellor of Botswana International University of Science & Technology (BIUST), Botswana & Professor of Civil Engineering, USA</p> <p>Panelist(s): Representatives from each country</p>	<p>Special Forum dedicated to Transport Sector/ Road Agency/ Roads Department CEOs/ Directors & Contractors/ Consultants/ Workforce</p> <p>Facilitator - Munesu Munodawafa, Managing Director, Zimbabwe Traffic Safety Council, Harare, Zimbabwe</p> <p>Panelist(s): Representatives from each country</p>
END OF DAY 1		

Day 2: Tuesday, July 30, 2024

08:00-09:00	Onsite Registration	All
09:00-11:00	Concurrent Session 4: Pavement Management Systems Monitoring and Performance Assessment Chair: Dr. Bola Mudasiru, Ph.D. , Nigerian Institution of Highway and Transportation Engineers (NIHTE), Abuja, Nigeria	Concurrent Session 5: Traffic Safety and Risk Management Chair: Prof Nurdin Mushule, Ph.D. , College of Engineering and Technology, University of Dar Es Salaam, Tanzania
(20 minutes for each presentation and 10 minutes for joint discussions)	<p>Improving Rigid Pavement Smoothness in Chattanooga - Mbakisy Onyango, Mawazo Fortunatus, Joseph Owino, Ignatius Fomunung, <i>University of Tennessee at Chattanooga</i>, Sampson Udeh, <i>TDOT Roadway Design Division</i>, USA</p> <p>Case Study for the Development of an Integrated Road Asset Management and Geo-database System for the Ministry of Roads and Highways (MRH) of Ghana and its Implementing Agencies - Kwasi Osafo Ampadu, Nii Klemesu Ashong, Raphael Natsui, Clement Somuah, Benjamin Boakye, Vincent Otu Addison, Daniel Amanoo Ochere, Emmanuel Sasu, Elijah Ashitey, Peter Kobena Eduah, <i>Development Institute of Business Solutions</i>, Haatso, Accra, Ghana</p> <p>Developing Options for Sustainable Road Infrastructure's Maintenance Management in Nigeria - Joel Ademola Ojekunle, Stephen Sunday Kolo, Opeyemi Aribiike Abisoye and Blessing Olatunde, Abisoye, <i>Federal University of Technology</i>, Minna, Nigeria</p> <p>GIS-Based Assessment of Ogbere River Basin, South-West Nigeria - Ayodele, T.O., Akintayo, F.O., Dahunsi, B. I., <i>Department of Civil Engineering, University of Ibadan</i>, Ibadan & Ganiyu H.O., <i>Kwara State University</i>, Male Nigeria</p>	<p>Explorations of Signal Timing Optimization and Geometry Configuration to Improve Operation of Signalised Intersection in Urban City - Akinfiloye M. Ebenezer, Kwame Nkrumah <i>University of Science and Technology</i>, Williams Ackaah, (<i>CSIR-BRRI</i>), Kumasi Ghana</p> <p>Managing Traffic Crash Data and Enhancing Performance of the Road Safety System in Tanzania and Low Middle-Income Countries (LMICs) - Laurent Maganga; <i>University of Birmingham</i>, UK</p> <p>An Indigenous Knowledge Approach to Understanding the Prevalence of Beliefs in Superstitions as a Road Traffic Crashes Factor - Emmanuel Kofi Adanu, <i>Alabama Transportation Institute, The University of Alabama</i>, Tuscaloosa, Alabama – USA & Thomas Kolawole Ojo, <i>Department of Geography and Regional Planning, University of Cape Coast</i>, Cape Coast & Kwame Nkrumah <i>University of Science and Technology</i>, (<i>TRECK</i>) Kumasi, Ghana</p> <p>Traffic Management in the Cape Coast Metropolis, Ghana - Thomas Kolawole Ojo, <i>Department of Geography and Regional Planning, University of Cape Coast</i>, Cape Coast & Kwame Nkrumah <i>University of Science and Technology</i>, (<i>TRECK</i>) Kumasi, Ghana</p>
11:00-11:30	Exhibition, Networking & Tea Break – Gran Melia	
11:30-13:30	Concurrent Session 6: Innovative Design Methods and Materials Chair: Bizzar B. Madzikigwa , University of Botswana, Department of Civil Engineering, Botswana	Concurrent Session 7: Transport Services and Safe Infrastructure Chair: Dr. Jacqueline E. Masaki , College of Engineering and Technology, University of Dar Es Salaam, Tanzania
(20 minutes for each presentation and 10 minutes for joint discussions)	<p>Performance Evaluation of Full Depth Reclaimed (FDR) Pavements in Tennessee - Joseph Owino, Mbakisy Onyango, Ignatius Fomunung, Odia Dumbiri, <i>University of Tennessee at Chattanooga</i>, Sampson Udeh, <i>TDOT Roadway Design Division</i>, USA</p> <p>Composite Anisotropy and Evaluation of Permanent Deformation in Unbound Granular Material - Christopher Mulenga Nondo, Chewe Kambole, <i>Copperbelt University</i> & Yohanne Tembo, <i>National Road Fund Agency</i>, Zambia</p> <p>Developing Empirical Understanding of Stone Matrix Asphalt Performance Characteristics to Enhance Adoption in Sub-Saharan Africa - Collins A. Nketiah, Kenneth A. Tutu, David A. Azong-bil & Ebenezer D. Adom-Barnor, <i>Regional Transport Research and Education Centre Kumasi (TRECK)</i>, Kwame Nkrumah <i>University of Science and Technology (KNUST)</i>, Ghana.</p>	<p>Intelligent Transportation Systems (ITS): Best Practices and Future Developments - Bola Mudasiru & Jones Nwadike, <i>Nigerian Institution of Highway and Transportation Engineers (NIHTE)</i>, Abuja, Nigeria</p> <p>Safe, Smart, and Green Urban Mobility: A Bibliometric Analysis - Joash Mageto, Rose Luke, <i>Department of Transport and Supply Chain Management, University of Johannesburg</i>, South Africa</p> <p>The Rising Tide of Accidents and Insecurities in the Nigerian Railway System: Causes, Implications, and Solutions towards a Sustainable Mass Transport System in Nigeria - Abubakar Al-Hasan, <i>Auchi Polytechnic</i>, Nigeria & Joseph Eremiokhale, <i>Morgan State University</i>, USA</p>

	<p>Use of Porous Concrete Pavement to Minimize Storm Water Run-Off in Areas Prone to Flooding in Zambia - Paul Emmanuel Siwila, G. Senthil Kumaran & Davy Silavawe, <i>Department of Civil Engineering and Construction, The Copperbelt University, Kitwe, Zambia</i></p>	<p>Community Organizing: Exploring the Intersection of Transportation Planning Models and Community Organizing - Chabria L. Thomas, <i>Association of Pennsylvania State College, and University Faculties (APSCUF) Harrisburg, Pennsylvania, USA</i></p>
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13:30-14:30	Exhibition & Lunch Break – Gran Melia	
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14:30-16:30	<p>Concurrent Session 8: Funding Mechanism & Effective Maintenance Chair: Dr. Andrew Ndaimanye, Executive Director, Uganda Road Fund (URF) and Vice Chairman ARMFA, Uganda</p>	<p>Concurrent Session 9: Sustainable Green Transportation & Artificial Intelligence (AI) Chair: Dr. Joseph O. Owino, Ph.D., P.E., Professor & Director, University of Tennessee at Chattanooga, USA</p>
(20 minutes for each presentation and 10 minutes for joint discussions)	<p>Effects of Plastic Waste on Bitumen Properties Used in Flexible Road Pavement - Bizzar B. Madzikigwa, <i>University of Botswana, Department of Civil Engineering, Botswana</i></p> <p>Geopolymer Binder: A Sustainable Pavement Construction Material: A Review - Gbenga E. Aderinto, Jacob O. Ikotun, <i>Durban University of Technology, South Africa</i>, Makungu M. Madirisha <i>University of South Africa & University of Dar es Salaam, Tanzania</i>, Valentine Katte, <i>University of Namibia, Namibia</i></p> <p>Towards Smart Road Infrastructure For Sustainable Development In Zambia - Denis Mwaba & Michael N. Mulenga, <i>Department of Civil and Environmental Engineering, University of Zambia, Zambia</i></p> <p>Cyanobacteria-Based Biofuels: Lipids from Solvent and Osmotic Pressure-Based Extraction Methods for Scaled-Up Production - Behnam Tabatabai, <i>HaloCyTech LLC, Baltimore & Viji Sither, Department of Biology, Morgan State University, USA</i></p>	<p>A Case Study of the Development of Artificial Intelligence System for Bridge Inspection in Mozambique utilizing the JICA Road Asset Management Platform - Masamune Takahashi, Seiya Hikino, Satoshi Kawasaki, Kohei Nagai, Kou Ibayashi - <i>Project for Improvement of Bridge Maintenance and Management Capacity, Japan International Cooperation Agency, Mozambique</i></p> <p>Proposed Preventive Accident Measures for the Jabi Bye-Pass Abuja, Nigeria - Eme Noel Effiong, Abubakar Dayyabu, Ifeyinwa Ijeoma Obianyo, Akeem Amuda, <i>Nile University, Nigeria</i></p> <p>The Traffic Environment as Predisposition to Child Road Safety Knowledge – N.K. Nsiah-Achampong, <i>CSIR – Building, Road Research Institute, Kumasi, Ghana</i></p> <p>Automatic Guided Vehicle System: A Neuro-Fuzzy Analytic Approach - Ehibe Prince, <i>Department of Electrical and Electronic Engineering, Abia State Polytechnic, Aba, Nigeria</i></p>

16:30-17:00	Exhibition & Tea Break – Gran Melia	
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17:00-18:00	<p>Concurrent Panel Session 10: Interdisciplinary Research Collaboration & Commercialization Chair: Prof. Joel Ademola Ojekunle, Ph.D., Federal University of Technology, Minna, Nigeria</p>	<p>Concurrent Panel Session 11: Advances in Road Agency & Transport Sector Management Chair: Prof. David A. Mfinanga, Ph.D., Professor of Transportation Engineering & Former Deputy Vice-Chancellor, Administration, University of Dar es Salaam, Tanzania</p>
	<p>Academia & Researchers Forum Lead Presenter: Dr. Jerome Egwurube, Ph.D., Department of Transportation, Queensland, Australia Panelist(s): Representatives from each country</p>	<p>Road Agency & Transport Sector Forum Lead Presenter: Eng. Mike Pinard, Managing Director, InfraAfrica, UK Panelist(s): Representatives from each country</p>

19:00 – 21:00	CONFERENCE DINNER		
Agenda	Moderator:	<i>MC</i>	Organization
19:00-19:10	Arrival and Networking	<i>All</i>	<i>Participants</i>
19:10-19:20	Welcome Address	Silver Sponsor	<i>Silver Sponsor</i>
19:20-19:30	Keynote Speech	Gold Sponsor	<i>Gold Sponsor</i>
19:30-20:00	Dinner is Served	<i>All</i>	<i>Participants</i>
20:00-20:20	<i>Global Presentation</i>	<i>Sustainable solutions – “Debt to Debt: Africa’s Four Decades of Public Sector Reform”</i>	<i>Dr Fred Amonya Ph.D., CEng, FCIHT, Complex Systems and Public Investment, University of Birmingham, UK</i>
20:20-20:40	<i>Global Presentation</i>	<i>Sustainable & Reliable Eco-friendly Electric/ Autonomous Vehicles for Smart Cities</i>	<i>Prof. Steven Jones, Ph.D. Professor & Interim Executive Director Alabama Transportation Institute (ATI), The University of Alabama, USA</i>
20:40-20:50	Presentation of Awards & ICTA Book Launch for decade of success	<i>ICTA International Secretariat</i>	<i>ICTA International Secretariat, USA</i>
20:50-21:00	Closing Remarks	<i>Local Organizing Committee</i>	<i>Tanzania Road Association, Tanzania</i>
	Networking	<i>All</i>	<i>Participants</i>
END OF DAY 2			
Day 3: Wednesday, July 31, 2024			
Outdoor Activities	FIELD TRIP/ TECHNICAL SITE VISIT – Meeting at the Hotel Swimming Pool		
09:00-17:00	 		
	SIGHTSEEING/ INDIVIDUAL VISIT – Tarangire National Park		
END OF CONFERENCE			