# UNIVERSITY OF NAIROBI

### DEPARTMENT OF ARCHITECTURE

### **10<sup>TH</sup> ANNUAL EAST AFRICA ARCHITECTURE WORKSHOP & EXHIBITION**

### SUSTAINABLE ARCHITECTURE: HARNESSING DESIGN SOLUTIONS FOR

#### **CLIMATE CHANGE MITIGATION**

### DAY 1: WEDNESDAY, 4<sup>th</sup> October 2023, Venue: A.D.D. Building - 2<sup>ND</sup> FLOOR/ Level 4

MORNING SESSION		
8:00 - 8:30 AM	Registration	
Session Chair	Prof. Lilac Osanjo, Dean, Faculty of the Built Environment & Design	
8:30 - 8:55 AM	Official opening Remarks: Prof. Stephen Kiama, <i>Vice Chancellor, University of Nairobi</i>	
8:55 - 9:20 AM	Official opening & Key Note Address: Mr. Mwaura Hinga, <i>PS, Housing &amp; Urban Development, State Department for Housing &amp; Urban Development</i>	
9:20 - 9:45 AM	Background Presentation: Prof. P. Ngau, Former Principal, College of Architecture & Engineering, University of Nairobi	
9:45 - 10:00 AM	Discussant: Prof. Tom J.C. Anyamba, University of Nairobi	
10:00 - 10.15 AM	Plenary Discussion	
Rapporteur	Arch. Samantha Ponda, University of Nairobi	
10:15 - 10:45 AM	TEA BREAK	
MID MORNING SESSION		
Session Chairman	Arch. Philip Kungu, Otieno & Kungu Associates	
	Triad Architects at 60 years: Challenges and Opportunities	
10:45 - 11:15 AM	Speakers: Triad Architects	
11:15 - 11:30 AM	Discussant : Arch. F. G. Mungai, AAKI Consultants	
11.10 - 11.00 Alvi	The Future of Buildings in a World Currently Experiencing CLIMATE CHANGE	
11:30 - 12:00 Noon	Speaker: Arch. Musau Kimeu, University of Nairobi	
12:00 - 12:15 PM	Discussant : Dr. Linda Nkatha, University of Nairobi	
12:15 - 12:45 PM	Potential Application of Green Facades in Nairobi's Commercial Buildings Speakers: Abigael Jebichi & Franklin Mwango, Kenyatta University	
12:45 - 1:00 PM	Discussant : Arch. Peter Njeru, University of Nairobi	
1:00 -1:15 PM	Plenary Discussion	
Rapporteur	Arch. Nzilani Mbai assisted by Arch. Christine Yegon, University of Nairobi	
1:15 - 2:00 PM	LUNCH	
AFTERNOON SESSION		
Session Chairman	Dr. Isabella Njeri Wachira Towey, Education Board, BORAQS & University of Nairobi	
2.00 - 2.30 PM	Thermal Comfort in Urban Open Spaces: A Case of Nairobi	
	Speakers: Regina Kasau, Kenyatta University and Arch. Musau Kimeu, University of Nairobi	
2.30 - 2.40 PM	Discussant: Arch. Juma Oino, JKUAT	
2.40 - 3.10 PM	Contributions of the Informal Sector to Municipal Solid Waste Management in Nairobi County: A Case Study of Woodley and Makina Wards in Kibra Sub-County	
	Speakers: Dr. Anthony Ralwala, Dr. Margaret Macharia, Planner Sylvester Kasuku, Osewe Vincent Onyango, Evans Kiprono Chepkole and Michael Njuguna Nene - University of Nairobi	
3.10 - 3.20 PM	Discussant: Prof. J. Magutu, University of Nairobi	
3:20 - 3:50 PM	Sustainable Cities and Communities: The Case for Konza Technopolis	
	Speaker: Arch. Annah Musyimi, Konza Technopolis	
3:50 - 4:00 PM	Discussant: Arch. Erastus Abonyo, University of Nairobi	
4:00 - 4:30 PM	Building Management Systems as a means for Mitigating Climate Change Speaker: Arch. Marylyn Musyimi, <i>JKUAT</i>	
4:30 - 4:40 PM	Discussant: Dr. Martin Mbidhi, JKUAT	
4:40 - 5:00 PM	Plenary Discussion	
Rapporteur	Arch. Peninah Mutonga assisted by Arch. David Kibera, University of Nairobi	
5.00 - 6.00 PM	TEA BREAK	

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### DAY 2: THURSDAY, 5<sup>th</sup> October 2023, Venue: A.D.D. Building - 2<sup>ND</sup> FLOOR/ Level 4

MORNING SESSION		
8:00 – 8:25 AM	Registration	
Session Chair	Arch. Nathan Kureba, Former Chief Architect / Former Chairman, BORAQS	
8:25 - 8:50 AM	Acoustics: The Missing Piece of Sustainable Indoor Environmental Quality	
	Speaker: Arch. Daniel Too, University of Nairobi	
8:50 - 9:00 AM	Discussant : Dr. Joseph Mukeku, University of Nairobi	
9:00 - 9:25 AM	Link between Air Pollution, Respiratory Health and City Infrastructure, Cooking and Indoor Air Pollution	
9:25 - 9:35 AM	Speaker: Arch. Duncan Wamugi Kariuki, <i>Technical University of Kenya (TUK)</i>	
	Discussant: Arch. Gedion Olawo, EDC Chapter, Architectural Association of Kenya A Reconsideration of Mental Health Enhancing Features of the Urban Built Environment at a disaggregate level	
9:35 - 10:00 AM	Speakers: Arch. Michael Barry Onyoyo, Dr. Linda Nkatha Gichuyia, Dr. Joseph Mukeku and Mbwayo A., University of Nairobi	
10:00 - 10:10 AM	Discussant: Arch. Caleb Mutali, University of Nairobi	
10:10 - 10:25 AM	Plenary Discussion	
Rapporteur	Arch. Asya Essajee assisted by Arch. Zahra Adan, University of Nairobi	
10:25 - 11:00 AM	TEA BREAK	
	MID MORNING SESSION	
Session Chair	Arch. Aidah Munano, Kenyatta University	
11:00 - 11:25 AM	Environmental Awareness and Competence in Amelioration of the Built Environment	
	Speakers: Judy Kebenei and Rayhab Elnaggar, Kenyatta University	
11:25 - 11:35 AM	Discussant: Dr. Anthony Ralwala, University of Nairobi	
11:35 - 12:00 PM	Integration of Wind Catchers in High-rise Residential Developments in Warm Humid Climates	
	Speakers: Arch. Samantha Ponda, Arch. Asya Essajee and Arch. Zahra Adan	
12:00 - 12:10 PM	Arch. Musau Kimeu, Universityof Nairobi	
12:10 - 12:35 PM	Overcoming Limitations in Widespread use of Adobe in Construction in Kenya: Case Study of Kenyatta University Main Campus, Kiambu County	
10.05 1.45 DM	Speaker: Caleb Wemali, Kenyatta University	
12:35 - 1:45 PM 12:45 - 1:00 PM	Discussant: Prof. Laban Shihembetsa, University of Nairobi Plenary Discussion	
Rapporteur	Arch. Mumbi Maina assisted by L/Arch. Julie Nyambura Wanjohi, University of Nairobi	
1:00 - 2:00 PM LUNCH AFTERNOON SESSION		
Session Chair	Dr. Kalandar Khan, Technical University of Mombasa (TUM)	
2:00 - 2:25 PM	Covid 19 Response in Kenya's Informal Settlements: Demand, Supply, and Policy Recommendations	
	Speakers: Alfred Omenya, Kenyatta University	
2:25 - 2:35 PM	Discussant: Prof. Robert Rukwaro, University of Nairobi	
2:35 - 3:00 PM	Advancing Social Equity and Community Engagement through the Integrated and Inclusive Infrastructure Framework (3iF) for Kenya Speakers: Kounkuey Design Initiative (KDI), AAK, Akiba Mashinani Trust, Arup E.A.,	
	UCL - Engineering for International Development Centre, Michelle Ouma	
3:00 - 3:10 PM	Discussant: Dr. Joseph Kedogo, Technical University of Kenya (TUK)	

Arch. Victor Mahinda, assisted by Arch. Daniel Too, University of Nairobi

Rapporteur

### UNIVERSITY OF NAIROBI DEPARTMENT OF ARCHITECTURE 10<sup>TH</sup> ANNUAL EAST AFRICA ARCHITECTURE WORKSHOP & EXHIBITION SUSTAINABLE ARCHITECTURE: HARNESSING DESIGN SOLUTIONS FOR

#### **CLIMATE CHANGE MITIGATION**

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PANEL DISCUSSION		
TOPIC: SUSTAINABLE ARCHITECTURE, AFFORDABLE HOUSING & CLIMATE CHANGE		
Session Moderator	Arch. James Gitoho, Triad Architects	
3:10 - 4:10 PM	<ul> <li>Panelists: Dr. Vincent Kitio, Chief, Urban Energy Unit, UN-Habitat Arch. James Kaniaru, CEO, Heri Limited Arch. Musau Kimeu, University of Nairobi Dr. Joseph Mukeku, University of Nairobi Arch. Julius Kipketer, Tej Architects Arch. Florence Nyole, President, Architectural Association of Kenya Arch. Sylvester Muli, Chairman, BORAQS Arch. Lawrence Mochama, Chief Architect, State Department of Public Works</li> </ul>	
4:10 - 4:40 PM	Resolutions: Rapporteurs	
Session Chairman	Arch. Musau Kimeu, Chairman, Department of Architecture	
4:40 - 5:00 PM	Closing Remarks: QS. Nicholas Mutua, Works Secretary, State Department for Public Works	
5:00 - 6:00 PM	TEA BREAK	

#### POSTER PRESENTATIONS

1	Sustainability: Attempts at Decarbonizing the Built Environment
	Speaker: Christine Nzilani Mbai, University of Nairobi
2	Data Management and Analysis for Sustainable Architecture: Harnessing Design Solutions for Climate Change Mitigation
	Speaker: Joseph Esau, University of Nairobi
3	Manifestations, Enablers and Inhibitors of Vernacular Architecture of the Pokomo People of Kenya
	Speakers: Eunice Mwaka, Kenyatta University
4	Regional Cultural Influences in the Traditional Architecture in the Kerio Valley, Kenya: Case Studies of the Pokot, the Marakwet and the Keiyo People
	Speakers: Weldon Kimutai, Judy Kebenei, Kenyatta University
5	Healing and Therapeutic Spaces in Nairobi Hospitals: Case studies of Kenyatta National Hospital and Aga Khan Hospital, Nairobi
	Speakers: Sylvia Namatsi & Robinson Manguro, Kenyatta University

Chief Rapporteur: Dr. Anthony Ralwala

Event Coordinators: Arch. Norbert Musyoki Arch. Adnan Mwakulomba Arch. Musau Kimeu, CHAIRMAN, Department of Architecture