## A. 1<sup>ST</sup> ASRIC CONFERENCE ON ENGINEERING SCIENCE

The 1st ASRIC Engineering Conference on Engineering Sciences is a special one that was held 6th – 8th September 2021 virtually. This conference is a call for Africa's Engineering scientific community to lead the change and transformation by availing solutions and interventions to the challenges of Africa's urbanization. Motived by the above-mentioned and after intensive consultation with relevant stakeholders in Africa's Engineering scientific community, the theme of the conference is "Engineering and Informatics for Africa's Urbanization" with a sub-theme;

- 1. Eco Engineering for Mega Cities and Urbanization "Green & low carbon solutions for utilities/infrastructure for inhabitants' daily activities that includes new materials, methods, processes which have positive impact on the environment"
- 2. Informatics and Big data for urbanization and Mega City Management "Remote sensing, AI, GIS, ICT, Communication, Internet of things for applicable/innovative solutions for mega cities and their transformation towards smart cities".
- 3. Urban and Mega Cities Planning development and management "Airports; water supply management; mapping and designs, sewage, waste management; transport solution including mega transport; land utilization and management; economic impacts of mega cities; and etc."

The Conference was organized in partnership with the Obour Institutions "the Higher OBOUR Institute for Finance; Management; Computing and Information Systems and the Higher OBOUR Institutes for Engineering Technology". The Conference was attended by over 200 participants globally and brought together lead academic scientists, researchers, and scholars from Africa and its Diaspora to exchange and share their experiences, research findings on all aspects of Engineering to address Africa's Urbanization. The conference provided an opportunity to strengthen intra-Africa research and cooperation, it is also a platform for researchers, practitioners that discussed the most recent solutions, innovations, trends, and concerns as well as practical challenges encountered and solutions adopted to achieve inclusive and eco-friendly urbanization.

Initially the conference was organized to be a physical one with a call for papers along the theme of the conference with the following events.

- UNESCO Engineering Agenda This side event included a special delivery of the outcome of the recently launched 2<sup>nd</sup> UNESCO Engineering Report titled "Engineering for Sustainable Development: Delivering on the Sustainable Development Goals"; AI for Deduction of Water Leaks in urban environment project results; and Women in STEM session to boost women's and girls' participation in Engineering.
- Federation of African Engineering Organizations (FAEO) Executive Council Meeting The FAEO is an international non-governmental organization which represents the interests of all engineering practitioners in Africa, with a large membership of National and Regional Institutes and Councils of Engineering Sciences across AU Member States. The FAEO

Executive Council Meeting was held during the Conference and discussed on various issues towards the achievement of the organization's objectives to facilitate and enhance development in engineering across Africa.

- ASRIC-OHI Business Development Lounge The ASRIC-OHI Business development lounge
  is a one of its kind opportunity for a selected number of leading firms and businesses to meet
  with their potential clients to develop business proposals and partnerships. The Lounge is
  designed to attract about 400 participants representing various African countries; Research
  Institutions/Universities; Engineering consultations firms, Engineering and construction
  firms, real estate developers, technological and innovation solution firms, governmental and
  nongovernmental actors, engineering registry bodies, and Engineering African and
  international organizations.
- Ministerial Saloon for AU Member States Ministers of Science and Technology; Housing and Urban Planning/Development The Ministerial Saloon is organized to provide an interactive forum for AU Member States Ministers to reflect on the Conference sub-themes and identify the way forward to creating enabling environment and how Africa can achieve eco-friendly urbanization. The portfolio of Ministers includes Science, Technology and Innovation; Housing and Urban Planning; Housing and Development; Infrastructure, Development and Construction; Power and Energy amongst others. It will be an interactive session where Member States Ministers can share their unique experiences, success stories and areas of cooperation and mutual interest. Also, it creates opportunities for knowledge sharing and collaboration to assist Member States in addressing similar/common challenges. The Saloon will avail a conducive environment where private sector, NGOs and sectorial companies/firms to dialog and interact with ministries for betterment of their insight and to be informed on win-win partnership opportunities with relevant stakeholders.

However, due to the COVID-19 pandemic 3<sup>rd</sup> wave there were some travel challenges that necessitated the conference to be virtual in which the ASRIC-OHI Business Development Lounge and the Ministerial Saloon where cancelled despite the confirmation of 9 ministers to participate. The Conference saw a presentation topnotch keynote speeches from the three sub-theme of the conference and the following number of technical papers were presented. There were 56 papers submitted for review out which 46 where accepted and when properly clustered into specific ASRIC Scientific journals is as follows:

ASRIC Scientific Journal of Engineering Sciences

Country	Institution	Number of Papers
Egypt	Helwan	6
	A Obour	7
	Valley High Institue	1
	Al Azhar	1
India	Chennai	1
Nigeria	Kwara	1
	Lagos	1
	lmo	2
Ghana	Accra	1
Togo	Lome	2

ASRIC Scientific Journal of Natural Sciences

Country	Institution	Number of papers
Egypt	Al Obour	5
Ethiopia	Addis	1
Nigeria	Akure	3
Ghana	Accra	1
Cameroun	Yaounde	1
Togo	Lome	1

## ASRIC Scientific Journal of Health Sciences

Country	Institution	Number of papers
Nigeria	Kwara	1
Egypt	Al Obour	3
Egypt	Minia	1

## ASRIC Scientific Journal of Humanities and Social Sciences

Country	Institution	Number of papers
Nigeria		1
Egypt	Al Obour	3
Ghana	Accra	1

## ASRIC Scientific Journal of Agricultural Sciences

Country	Institution	Number of papers
Nigeria	lmo	1
Sudan	Khartoum	1