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Towards new e-Infrastructure and e-Services for Developing Countries

12th EAI International Conference, AFRICOMM 2020 Ebène City, Mauritius, December 2–4, 2020 Proceedings



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Preface

It is our utmost pleasure to introduce the proceedings of the 12th European Alliance for Innovation (EAI) International Conference on e-Infrastructure and e-Services for Developing Countries (AFRICOMM 2020) held on December 3–4, 2020. This unique edition was held online due to the ongoing pandemic, but nevertheless the organising committee came up with a very interesting programme that brought together researchers, ICT practitioners, engineers and policy makers to share their experiences and research output during this two-day event.

AFRICOMM 2020 was kickstarted by a pre-event held on December 2, 2020 and organised by AFRINIC and the Internet Society as part of the IETF-Africa initiative. The attendees benefited from a very informative session on how to increase the involvement of academia in Internet Standards development. For the main technical track, AFRICOMM 2020 received a record number of 89 submissions out of which 20 full papers were selected following a very thorough review and shepherding process. The low acceptance rate of 22.4% testifies to the high-quality programme put together by the TPC. The technical talks were grouped in 6 different sessions, namely: Dynamic Spectrum Access and Mesh Networks, Wireless Sensing and 5G Networks, Software-Defined Networking, Internet of Things, e-Services and Big Data, and DNS Resilience and Performance. The papers were pre-recorded and presented during the online session, followed by live Q&A, which allowed participants to actively engage with the authors.

This year's edition also featured three very insightful and enlightening keynote speeches. Prof. Aminata Garba, Assistant Professor at Carnegie Mellon University-Rwanda, talked about Data Infrastructure for Development and the importance for developing nations to harness the power of Big Data. Prof. Thomas Magedanz from Technical University Berlin, Germany presented the Fraunhofer 5G playground, which is one of the most advanced open 5G testbeds for research purposes. Finally, Prof. Nick Feamster from University of Chicago, USA talked about the importance of encrypting DNS traffic and showcased a revolutionary new concept called "Oblivious DNS", designed to keep users' privacy at the centre of everything.

AFRICOMM 2020 would not have been a success without the tireless efforts of the TPC chairs: Ahmed Elmokashfi (Simula Research Lab), Assane Gueye (CMU-Rwanda), Josiah Chavula (University of Cape Town) and Nabil Benamar (Moulay Ismail University of Meknes), together with the 65 reviewers who made sure we had a high-quality programme. Many thanks go to Enrico Calandro (Research ICT Africa) who helped organise 3 different panel sessions on (1) Artificial Intelligence and Social Innovation, (2) Cyber Maturity Assessment and (3) Privacy & Pandemics: Developing privacy laws and policies in a post-COVID Africa.

Congratulations to the best paper "Predictive Policing using Deep Learning: A Community Policing Practical Case Study" by Omowunmi Isafiade, Brian Ndingindwayo and Antoine Bagula. The paper was selected by a sub-committee based on the

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quality of writing, the reviews received, its relevance to the conference as well as its potential to solve an African problem.

Our final word of gratitude goes to AFRINIC, the Regional Internet Registry for Africa, who provided tremendous support to the organisation of this conference through its chairmanship and also graciously sponsored the registration fees for all African authors.

December 2020

Amreesh Phokeer Visham Ramsurrun

The original version of the book was revised: The address of Assane Gueye in the front matter of these proceedings has been updated. The correction to the book is available at https://doi.org/10.1007/978-3-030-70572-5_21

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