

## Preface

*Stéphane C. K. Tékouabou*<sup>1,2,3</sup>, *Jérôme Chenal*<sup>1,4</sup>, *El Bachir Diop*<sup>1</sup>, and *Rida Azmi*<sup>1</sup>

<sup>1</sup>Center of Urban Systems (CUS), Mohamed VI Polytechnic University (UM6P), Lot 660, Hay Moulay Rachid, 43150, Benguerir, Morocco.

<sup>2</sup>Laboratory of Computer Science and Educational Technologies (LITE), University of Yaoundé 1, Yaoundé, Cameroon

<sup>3</sup>Department of Computer and Educational Technology (DITE), Higher Teacher Training College (HTTC), University of Yaoundé 1, Yaoundé, Cameroon.

<sup>4</sup>CEAT, ENAC, EPFL, Lausanne, Switzerland

**Abstract.** From the search for funding for this conference, through the various preparations, scientific contributions and evaluations, to the organization and preparation of these conference proceedings, an international scientific committee with a diverse profile has been mobilized. For our first edition, we are publishing almost 29 articles selected by this international scientific committee among 74 submitted paper, from over 12 countries. This document constitutes a complete state-of-the-art review of the issue of African cities, approached as digital and smart cities, in relation to territorial, social and technological issues, as well as governance and financing. It presents the best innovative technological and management solutions related to the digital and smart city as an alternative to the urban challenges of African cities.

On May 23 and 24, 2023, the first edition of the African Cities Lab 2023 Summit took place under the theme of "digital and smart African cities". The event was in hybrid mode (face-to-face and immersive real-time broadcasting via three online channels) in parallel on 3 sites, including Sémé city in Cotonou, Benin; the UM6P CUS in Benguerir, Morocco, and KNUST in Kumasi, Ghana.

As part of the African Cities Lab 2023 Summit, the first International Conference of African Cities (ACC) was organized, with scientific activities taking place at the sites of Benguerir in Morocco for face-to-face scientific activities, and Kumasi in Ghana for online scientific activities. The conference consisted of a variety of activities including keynote sessions, panel discussions, parallel presentation sessions, workshops and demonstrations. The ultimate goal of this conference was to increase the scope and influence of research, entrepreneurial innovation and solution-creation activities on the African continent related to digital and smart cities issues. The 2023 edition focuses on different models of African digital and smart cities as potential solutions to urban challenges in Africa.

The conference covered all topics related to digital and smart cities in Africa, including but not limited to the digital transition of cities and urban planning, African smart cities, Smart geo-information systems (Smart GIS), smart governance, challenges of digital cities in Africa, urban sustainability, planning/management issues of emerging cities in Africa, urban socio-economic challenges (education, health, employment, youth, economy, food security, etc.), urban environments, information and communication technologies applied to the urban issues.

## Acknowledgment

On behalf of the entire organizing committee of the African Cities Lab 2023 Summit and the African Cities Conference, we would like to express our deepest gratitude first and foremost to the African Cities Lab (ACL) project founder, the **State Secretariat for Economic Cooperation and Development (SECO)** of Switzerland. We would also like to thank the various member institutions of the ACL project, as well as the members of the ACL project's board of the directory.

Additionally, the organizing committee would like to thank the speakers, authors, conference participants, reviewers and all those who contributed both to the organization of this conference and to the preparation of this volume of proceedings for publication in the E3S Web of Conference magazine, whom we would also like to thank.

## Organizing Committee

### ❖ General Conference chair

Jérôme Chenal, CEAT, EPFL, Lausanne, Switzerland

### ❖ Plenary co-chairs

Jérôme Chenal, CEAT, EPFL, Lausanne, Switzerland

Claude Borna, Sèmè City, Cotonou, Benin

Khalid Baddou, UM6P, Benguéirir, Morocco

### ❖ Program chair

Stéphane C. K. Tékouabou, Center of Urban Systems - CUS, UM6P, Benguéirir, Morocco

### ❖ Global Coordinator

Chiara Ciriminna, EXAF, EPFL, Lausanne, Switzerland

### ❖ Steering Committee

Jérôme Chenal, CEAT, EPFL, Lausanne, Switzerland

Stéphane C. K. Tékouabou, Center of Urban Systems - CUS, UM6P, Benguéirir, Morocco

Rida Azmi, Center of Urban System CUS, UM6P, Ben Guerir, Morocco

Antoine de Padoue Nsegbe, University of Dschang, Cameroon

Anastasija Nikiforova, University of Tartu, Estonia

El Bachir Diop, Center of Urban System CUS, UM6P, Benguéirir, Morocco

Ștefan Cristian Gherghina, Bucharest University of Economic Studies, Bucharest, Romania

### ❖ Special Issues Co-chairs

Ștefan Cristian Gherghina, Bucharest University of Economic Studies, Bucharest, Romania

Anastasija Nikiforova, University of Tartu, Estonia

El Arbi Allaoui Abdellaoui, ENS, mouley Ismail University, Meknes, Morocco

Antoine de Padoue Nsegbe, University of Dschang, Cameroon

❖ **Doctoral Consortium & Spring School Chair**

El Bachir Diop, Center of Urban System CUS, UM6P, Benguéir, Morocco

❖ **Workshops & Tutorials chairs**

Rida Azmi, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

Vitor Pessoa Colombo, CEAT, EPFL, Lausanne, Switzerland

❖ **Publication Co-Chairs**

Stéphane C. K. Tékouabou, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

El Bachir Diop, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

Rida Azmi, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

❖ **Technical Program Committee**

Jérôme Chenal, CEAT, EPFL, Lausanne, Switzerland

Rida Azmi, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

Nesrine cherata, Bordeaux INP, Bordeaux, France

El Bachir Diop, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

Anastasija Nikiforova, University of Tartu, Estonia

Ștefan Cristian Gherghina, Bucharest University of Economic Studies, Bucharest, Romania

Stéphane C. K. Tékouabou, Center of Urban Systems - CUS, UM6P, Benguéir, Morocco

Hamza Toulni, ENIM, Rabat, Morocco

Éric Désiré Kameni, HTTC, Yaoundé, Cameroon

Antoine de Padoue Nsegbe, University of Dschang, Cameroon

Munyaka Baraka Jean-Claude, CEAT, EPFL, Lausanne, Switzerland

Fouad Ayadi, IDC, UM6P, Benguerir, Morocco

Elarbi Abdellaoui Alaoui, ENS, mouley Ismail University, Meknes, Morocco

Younouss Lahboub, SADV, Benguerir, Morocco

Thierry D'Almeida, Sèmè City, Cotonou, Benin

Guy Bakumba Mangitukulu, ISAU, Kinshasa

Vitor Pesa Colombo, CEAT, EPFL, Lausanne, Switzerland

Akuto Akpedze Konou, CEAT, EPFL, Lausanne, Switzerland

❖ **Communication Team**

Axelle Loko, Sémè City, Cotonou, Benin

Orianne Homeky, Sémè City, Cotonou Benin

Grâces Ngatsogo, Sémè City, Cotonou, Benin

Rim Merini, Center of Urban Systems, UM6P, Benguéir, Morocco

❖ **Design and Website**

Nabil Raimi, Sémè City, Cotonou, Benin

Marti Bosch, EXAF, EPFL, Lausanne, Switzerland