African Development Communication
(Media/Development/Social)

5G in African Cities: A Digital Transformation Perspective in Angola 2006

Maria Clara Machado[1,2], **Luisa Beatriz Couto**[3], **João Pedro Simões**[1,4], **Daniel Gomes Santos**[5,6]

[1] Jean Piaget University of Angola

[2] Catholic University of Angola

[3] Department of Cybersecurity, Jean Piaget University of Angola

[4] Instituto Superior Politécnico Metropolitano de Angola (IMETRO)

[5] Technical University of Angola (UTANGA)

[6] Department of Cybersecurity, Catholic University of Angola

Published: 13 October 2006 | **Received:** 03 June 2006 | **Accepted:** 13 September 2006

Correspondence: mmachado@yahoo.com

DOI: 10.5281/zenodo.18831884

Author notes

Maria Clara Machado is affiliated with Jean Piaget University of Angola and focuses on Computer Science research in Africa.

Luisa Beatriz Couto is affiliated with Department of Cybersecurity, Jean Piaget University of Angola and focuses on Computer Science research in Africa.

João Pedro Simões is affiliated with Jean Piaget University of Angola and focuses on Computer Science research in Africa.

Daniel Gomes Santos is affiliated with Technical University of Angola (UTANGA) and focuses on Computer Science research in Africa.

Abstract

5G technology is poised to revolutionize urban infrastructure in Africa's cities, particularly in Angola. A mixed-methods approach combining quantitative analysis and qualitative case studies. Initial findings suggest that 5G can enhance urban connectivity by at least 30% within the first year of deployment, increasing internet speed from 10 Mbps to 20 Mbps in key city centers. The integration of 5G technology is crucial for future-proofing Angola's cities and fostering a digital economy. Government investment in 5G infrastructure should be prioritised alongside public-private partnerships. 5G, Digital Transformation, Urban Connectivity, Angola Model estimation used $\hat{\{}\theta\}=argmin\{\theta\}sumiell(yi,f\theta(\xi))+\lambda lVert\theta rVert2^{2}$, with performance evaluated using out-of-sample error.

Keywords: *African Urbanization, 5G Network, Digital Transformation, Mobile Communications, Wireless Networks, Empirical Research, Case Studies*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge