

Initiative Excellence in Africa 100 PhDs for Africa



Lou Tinan Ange-Laetitia TRA

Swiss Center for Scientific Research in Ivory Coast / Université Félix-Houphouët-Boigny





Research field **Urban systems**

PhD title

Optimisation of the management of sludge from septic tanks in Non-Collective Sanitation in low-income African areas: the case of Abidjan in Ivory Coast





Keywords

- optimisation
- sludge
- septic tanks
- artificial intelligence
- urban planning
- Abidjan

Summary

The provision of sanitation services in large African cities is still insufficient and rarely consider an urban planning model that includes poor households. Innovative approaches are needed to achieve the sanitation Sustainable Development Goals. The combination of urban and sanitation engineering and artificial intelligence is well appropriate to this innovation. Through an inclusive approach at the city level, the study proposes to design monitoring and decision-making tools

to optimise the management of septic tank sludge. The city of Abidjan will be used as a case study with a use generalization of the tools in other cities.

The outcomes of this project will be useful for the ongoing restructuring policy regarding sludge management in the District of Abidjan. The results will contribute to the improvement of training curricula in inclusive sanitation in relation to urban planning.



Supervisor Prof. Kouassi DONGO CSRS / UFHB, Ivory Coast



Co-supervisor Dr Jérôme CHENAL EPFL