The Excellence in Africa (EXAF) Centre at EPFL (Swiss Federal Institute of Technology in Lausanne) was created in 2020, with the aim of promoting digital technologies and academic excellence throughout the African continent through training, innovation and cutting-edge scientific research.

Since 2020, the EXAF teams, under the leadership of Dr. Jérôme Chenal, have been managing projects in partnership with many African universities across the continent. Amongst these, Makerere University is pleased to have a project entitled ***Iron oxide based nanocomposite bio-adsorbents for water treatment***, as part of the 100 PhDs for Africa programme. The 100 PhDs for Africa programme, under the framework of the joint UM6P/EPFL EXAF initiative, is designed to give an opportunity to science and engineering graduates to pursue a PhD at an African higher education institution. The PhD candidates benefiting from this programme are jointly supervised by a professor of an African institution and a professor from EPFL. The project at Makerere University is implemented by Mr. Joseph Jjagwe as the student under the supervision of Dr. Peter Wilberforce Olupot from Makerere University and Professor Sandro Carrara from EPFL

In this project, Iron oxide nanoparticles will be developed from steel waste, and then combined with biomass derived activated carbon to form a nanocomposite that remains intact in water during water treatment. The developed nanocomposite will further be used to enhance the sensing performance of well-established electrochemical sensors to guide detection and removal of pollutants from water.

   