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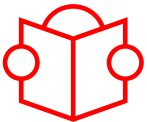
UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Engineering, Built Environment and
Information Technology

Research field

**Chemical and Environmental
Engineering**

PhD title

**Continuous flow systems for
industrial wastewater treatment:
leveraging polymer and magnetic
nanoparticle nanocomposites
supported on biochar**



Keywords

- Nanocomposites
- Adsorption
- Continuous-flow system
- Biochar

Summary

My PhD project focuses on developing an innovative solution for industrial wastewater treatment using advanced materials. We are creating nanocomposites by fusing polymers with magnetic nanoparticles, supported on biochar. These materials will undergo testing in a continuous flow system to replicate real-world industrial scenarios. The objective

is to improve the efficiency and sustainability of wastewater treatment processes by harnessing the distinct attributes of these nanocomposites. This research addresses crucial environmental concerns by offering a scalable and efficient technique for treating industrial wastewater, ultimately contributing to cleaner water resources and reduced pollution.



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