McMaster University | ENGINEERING
W Booth School of Engineering Practice and Technology

PROJECT SUMMARY

ROBOTIC CLEANOUT DEVICE

CHALLENGE

To build an automated device that cleans and dilute the solid sludge particles inside the digester.

PARTNER

WESSUC INC.

Manage wastes in municipal digesters and other industrial wastewater treatment plants.
Collected wastes are converted to biosolids for Ontario's effective farming.

TEAM

- Partner Representative: Crosby Davidson
- Project Lead: Dr. Tom Wanyama
- Project Students: Dwarak Nath P.L & Kaushik Ilangumaran

MILESTONES & OUTCOME

- Analyzed problems and benchmarked ideas in narrowing the scope.
- Researched for available products in the market.
- Conceptualized, designed, and controlled the system.

VALUE

Remote-controlled Robotic System

6 Degrees of freedom

CAD model

NEXT STEPS

- Realtime fabrication and automation.
- Optimization of the design.
- Build sensors for advanced control.

STUDENT REFLECTION

- CAD designing, market research, & automation
- Team discussions, and presentations.
- Tasks management as a team