

# Geotechnical Centrifuge Modeling of Helical Pile Foundation

## PROJECT DESCRIPTION

Helical piles are an innovative foundation type commonly used in North America. The performance of helical pile is usually investigated by field load tests, which are prohibitively costly. Geotechnical centrifuge is an advanced tool for geotechnical engineering research. There are only two active centrifuge labs in Canada. The present research will conduct centrifuge modeling of helical piles. The research will prepare soil specimens, fabricate model piles, and install piles while the centrifuge is spinning. The model piles will then be loaded to understand their behaviour. Students will be trained for lab soil preparation, instrumentation, and data processing.

## FACULTY-DEPARTMENT

Engineering- Civil and Environmental Engineering

## DESIRED FIELD OF (STUDENT) STUDY

Civil, Geotechnical Engineering

## INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

## NUMBER OF INTERNSHIP POSITIONS

1

## INTERNSHIP START DATE

July 4, 2018

## INTERNSHIP END DATE

October 4, 2018

## ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)  
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