

Performance study of magnetorheological (MR) fluid actuators

Record number : OPR-767

Overview

RESEARCH DIRECTION

Jean-Sébastien Plante, Professeur -
Department of Mechanical Engineering

INFORMATION

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ADMINISTRATIVE UNIT(S)

Faculté de génie
Département de génie mécanique
Institut interdisciplinaire d'innovation
technologique (3IT)

LEVEL(S)

2e cycle
3e cycle

LOCATION(S)

3IT - Institut interdisciplinaire d'innovation
technologique

Project Description

Project

Experimental study of the performance of magnetorheological (MR) fluid actuators in transistor mode, i.e., when a small MR actuator (which acts as a "gate") controls a large conventional clutch (which acts as a source) .

The project requires the design, manufacture and integration of a prototype MR actuator in transistor mode for an automated gearbox application. Experimental tests will be carried out on a real car (Mustang 1200 HP) in collaboration with the company Exonetik. (www.exonetik.com).

TEAM AND ENVIRONMENT

The student will evolve within the Createk research group (www.createk.co), with 9 teachers, 15 professionals, 1 technician and more than 80 students, all passionate about the development of new technologies for tomorrow. For his day to day, the student will work with a team of engineers in the new Exonetik building located in the industrial district of Sherbrooke.

Ideal candidate

- Bachelor's or master's degree in mechanical engineering or related field
- Be a creative, passionate and action-oriented person
- Have the ability to work in a team

Start in January or May 2023

\$17,500/year (master's), \$21,000/year (doctorate) paid in scholarships
MITACS Corporate Internships and CoRoM Scholarship Eligibility

Are you interested? Send your resume and transcript to info@createk.co

Discipline(s) by sector	Funding offered	Partner(s)
Sciences naturelles et génie Génie mécanique	Yes \$ 17 500	Exonetik

The last update was on 12 March 2024. The University reserves the right to modify its projects without notice.