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## Projet de semestre M3 Automne 2016

Candidat:

NGUYEN Duy Tam Frédéric

Section de génie mécanique

Sujet:

Swing-up of a Triple Arm Inverted Pendulum using

**Time Reversal** 

The LA recently upgraded its single arm inverted pendulum into a triple arm inverted pendulum. The mechanical part as well as the measurements part are now completed. The challenge of this project is to swing up the triple inverted pendulum using a time-reversal strategy. Numerical experiments using Matlab will be used to validate the approach and an implementation in Labview is also foreseen.

This project requires the following courses: Control Systems or Automatic and Commande Multivariable or equivalent. Nonlinear control will be a plus.

Le nombre de crédits réservés au plan d'études pour ce projet est de dix.

Dr. Philippe MULLHAUPT

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Assistants responsables : SARSHARI Ehsan