Post-doctoral position

**Title:** Optimization of energy consumption for tramways taking into account driver actions

**Advisors:** S. Enjalbert (Ass-Professor, UVHC-LAMIH UMR CNRS 8201)

**University:** UVHC – University of Valenciennes and Hainaut-Cambrésis

**Project:** ELSAT 2020 by CISIT/ GS2RI : Greener & Safer Rail Road Interaction

**Position**
Post-doctoral position at UVHC, monthly gross salary: 2550€

**Mission**
In the transport domain, the aim of operators and manufacturers is not only to perform a route as quickly as possible but also to take into account the energy consumption. The scientific advances in the field of solving optimization problems challenge driving habits. Eco-driving assistance systems are then designed to reduce energy consumption. In this post-doctoral position, further developments based on previous works on energy efficient driving profiles for a tram-driver system will be realized. The objective of the post-doctoral are:

- To contribute with the partners of the project to minimize energy consumption for tramways by solving optimization problem respecting the constraints imposed by tram and route models and including driver,
- To validate through experimentations on PSCHITT-RAIL platform,
- To realize several scientific publications in highly ranked international journals,
- To purse existing international collaborations of the lab with teams and labs from Hauts-de-France and with industrials from domain.
Skills
PhD in Automatic control, Computer Sciences, Industrial Engineering with a specialization in solving optimization problems (optimal control) and/or Human-Machine Systems

Strong abilities in Programming (Matlab, Simulink, VBA or C++) and experience in driving experiments.

Duration
September 2017, 12 months.

How to Apply
Please send a CV, a covering letter, your list of publications, and a letter(s) of recommendation to simon.enjalbert@univ-valenciennes.fr

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