## 12 Month post-doc position in rail traffic optimization

This position is part of the ELSAT 2020 project: "Ecomobility, Logistics, Security and Adaptability in Transport." It is funded by the French government, the French "Hauts de France" Region and the European Regional Development Fund. In particular, the post-doc will be involved in the project COMPRAIL "Techniques and tools for rail competitiveness" of the fourth Strategic Objective "Design and performances of vehicle functions".

The post-doc will focus on the design and development of optimization modules for rail traffic management. These modules will be integrated in a closed-loop simulation environment for testing and assessing the rail system. The research will focus on both theoretical and methodological aspects, to allow the emergence of new solution approaches. These approaches will have to be effective for the solution of difficult and (very) large instances of hard combinatorial problems.

Applicants must have a PhD in operations research, computer science, software engineering, applied mathematics or equivalent. They must be willing to integrate to the research activities of the team of the COSYS-ESTAS laboratory by providing original ideas, participating to international conferences and producing high quality scientific papers. Good knowledge of C++ and fluency in spoken and written English are essential requirements.

## **Logistic details:**

- Location: Lille-Villeneuve d'Ascq (France)
- Type of Contract: Temporary, 12 months
- Job start date: As soon as possible, not later than July 1<sup>st</sup>, 2020.
- Salary: between 32 000 and 35 000 euro year gross salary

## **Contact persons:**

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## Application procedure, by February 14th:

Via email:

- detailed CV (education, work experience, internships, research projects carried out, publications)
- copy of the most relevant publications
- motivation letter explaining how the candidate's CV fits the position requirements and indicating the possible links of the publications chosen with the job description
- one or more recommendation letters









