

Type of Contract: permanent contract or fixed term contract for doctoral student Workplace: Ecully, France	Beginning of the contract: march 2018 Remuneration: to be defined
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JOB DESCRIPTION:

- ⇒ Establish, coordinate, lead and participate in R&D projects and design / realization of a vehicle system for passengers and freight guided transport, suspended on a beam and with a self-guided bogie.
- ⇒ In collaboration with the President of the company, you will work on missions related to the R&D and sizing of an innovative self-guided bogie.

COMPANY DESCRIPTION:

- ⇒ SUPRAWAYS is an innovative start-up incubated at the EM Business School in Lyon, which is developing a smart transport system.
- ⇒ SUPRAWAYS offers an efficient and environmentally friendly air transport system for passengers and freight.
- ⇒ Website : www.supraways.com

« **Joining us is taking part in the revolution of the urban transport of tomorrow** »

MISSIONS :

- ⇒ Establish, coordinate, lead and participate in R&D projects and design / construction of a vehicle system for passengers and goods guided transport, suspended on a beam and with a self-guided bogie:
 - Ensure the development of the suspension system, the modeling and the validation of the system (bogies, beam and cabin interface, behavior during rowing) using the tools of your choice, MBS (Multi- Body Simulation),
 - Evaluate by simulation of the performances of the system in the face of safety criteria, vibratory comfort, resistance to crosswinds, behavior in highly inclined zones (20% max), ...
 - Define the on-board guidance characteristics (based on an existing patent held by Supraways) to verify vehicle safety criteria,
 - Define the characteristics of the suspension components (springs, rubber elements, air suspension, shock absorbers) in order to check the safety criteria (coefficient of flexibility, derailment, etc.) and comfort by performing parametric analyzes to obtain the optimal solution. ,
- ⇒ Propose design solutions in order to ensure a good dynamic performance of the vehicles to ensure optimal performance with respect to the users and towards the operator,
- ⇒ Model the system with MBS tools (typically Simpack and Vampire).

You will assist the Head of the Studies Department:

- ⇒ participate in bidding or fundraising files,
- ⇒ the planning of operations and projects; the technical coordination of the partners.

YOUR PROFILE:

With a strong appeal for innovative projects you are ready to invest in a high-stakes environment:

- ⇒ knowledge of the regulatory, legal and financial framework, of transport infrastructures on national and European levels;
- ⇒ technical skills related to design studies / construction of transport infrastructure;
- ⇒ a Master 2 or an engineering degree in the fields of mechanical engineering and energy management;
- ⇒ Minimum 3 years experience (except doctor) in project management in a design office or in a method department in the aforementioned fields;
- ⇒ excellent skills in technical English; another language is a plus;
- ⇒ excellent skills in Office or Apple equivalent packs;
- ⇒ indispensable skills in CAD software and mechanical design: CATIA V5, MATLAB, SOLIDWORKS, AUTOCAD, PRO ENGINEER - CREO;
- ⇒ personal and professional qualities: autonomy, accuracy, responsiveness, and excellent writing skills, teamwork, social skills and initiative, ability to integrate an international and multicultural environment.

We ask you to send us a letter explaining why you want to participate in the Supraways project, what are your motivations and how this project fits you.