POSITION : Spacecraft Guidance, Navigation & Control (GNC) Engineer

DETAILS

Position type : full-time/CDI

Starting : September 2018

Salary : depending on experience

Location : Toulouse, France

ABOUT EXOTRAIL

Exotrail is a French start-up based in Ecole polytechnique in France. We are part of the *New Space* global movement that is disrupting the space industry. In the past 10 years, the cost of access to space has been divided by 1000. Private companies are investing billions of dollars to develop constellations of small satellites to deliver Internet everywhere, IoT communication or very high revisit rate Earth observation services.

Our vision at Exotrail is to help building an agile space. We are developing propulsion and operation technologies for these small satellites. Our small propulsion system is the smallest Hall Effect Thruster in the world. Thanks to our electric propulsion system and our unique operation software, small satellites can change their orbit after launch. With this new agility, they increase their performance while lowering their costs.

We believe that this is only the beginning and that small satellites equipped with propulsion will be able to deliver new space services to entirely disrupt the space industry by being able to service, repair, assemble and manufacture spacecrafts directly in orbit. Join us and be part of our great ambition !

JOB DESCRIPTION

- You will work on the control algorithms used in satellites' maneuvers. Your main objectives will be to design and implement control algorithms to ensure the execution of planned maneuvers. You will have to:

- Set up methods to design your control algorithms;
- Interface with a space mechanics engineer who is working on trajectories design;
- Develop the testing environment for the control algorithms to be integrated in our maneuvers planner;
- Integrate operational constraints in your developments (anti-collision, sparse/mixed sensors data, etc.);
- Be proactive and propose solutions to the problems you may identify.

- Additionally, you will complement the trajectories design (guidance) with our dedicated engineer.

- You will report directly to the Chief Scientific Officer.

PROFILE

- You must have an engineering background with a strong experience in control and applied mathematics. A background in aerospace is certainly a plus.

- You should have very good soft and presentation skills (presentations, technical documentation, assumptions, oral presentation). You need to be able to work with a great autonomy. You must have a full proficiency in English or French (both is a plus). You must have very good analysis skills and work efficiently.

- You should be passionate with space and entrepreneurship and be ready to work in a very demanding, evolving and challenging environment – and be ready to propose suggestions and be pro-active!

CONTACT

Send an email at careers@exotrail.com with a CV and a cover letter