

462, rue Benjamin Délessert, BP 83
77554 Moissy-Cramayel
France

www.cenaero.be

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Research Engineer - Development of finite element model of machining processes - Cenaero Headquarters Belgium

Position:

Cenaero (<http://www.cenaero.be>) is an applied research center focused on the development of advanced simulation technologies for aeronautics. Located within the Aéroport de Gosselies in Belgium, it employs about 50 highly skilled researchers working on virtual manufacturing, multi-scale material modeling, CFD-based multi-physics and optimization. To further grow its virtual manufacturing research activity, Cenaero invites applications for a research engineer position at Cenaero headquarters in Belgium, available immediately.

The position concerns contribution to the development of Morfeo, a manufacturing oriented finite element software. For any of the project activities, the candidate is expected to develop the numerical methodology up to industrial maturity. First of all, the candidate will contribute to machining oriented development. Morfeo relies on an innovative approach based on level sets in order to easily handle complex industrial applications. Developments include general modeling of the machining process, remeshing techniques, new boundary conditions, parallel implementation of the algorithms. Targeted applications include e.g. prediction of the distortions generated by the clamping system and relaxation of residual stresses during turning of large-scale components.

As member of the Morfeo development team, the candidate will also have to tackle more general developments within the finite element software, write portable code, stick to development rules already in place and write relevant test cases.

Profile:

Applicants should have an excellent scientific background in the field of numerical methods, and more specifically the finite elements method, structural mechanics and machining processes. Object oriented programming skills, especially C++, are essential. Experience with Extended Finite Elements Method (XFEM) is a plus. The candidate should also possess good written and oral communication skills in French and English. He/She must demonstrate ability to work in a team.

Offer:

Cenaero offers a position in a growing and leading technological sector, a direct relationship with the economical actors and experts of the aeronautical sector, a competitive salary, and a stimulating and dynamic work environment.

Interested candidates should send a cover letter and a resume via e-mail to rh@cenaero.be with mention to the reference number.