POST-DOCTORAL RESEARCHER H/F
H2MM PROJECT

The Department of Mechanical Engineering - Roberval Laboratory – Chair for Computational Mechanics - at Université de Technologie de Compiègne is recruiting a post-doctoral researcher for its Heterogeneous2 Multiscale Method Computations (H2MM) project. H2MM involves building a new platform for predictive simulations in multi-physics, multi-scale applications.

Place of work
Compiègne, France

Type and length of contract
Seven-month fixed-term contract from 01/12/2017 to 30/06/2018

Monthly salary
2 544 €

Workload
1 607 heures/an

Duties
The successful applicant will participate in research in computational mechanics.

Main activities
The main goal of the H2MM project is to create a new predictive simulation platform for multi-physics, multi-scale simulations. H2MM’s originality lies in its reuse of legacy software developed and tested for the different components in these kinds of multi-physics, multi-scale problems that include fluid-structure interaction and thermodynamic-electromagnetic coupling. Software to be used: FEAP for Solid Mechanics, Open-FOAM for Fluid Mechanics, and GetDP for electromagnetism. Research will go beyond the purely computational aspects and also address the theoretical formulation, the optimal choice of discretization, and the algorithmic aspects for ensuring the stability of operator-split computations.

Previous experience
Required qualification: a doctorate in either Mechanical Engineering, Civil Engineering, or Applied Mathematics.

Environnement et contexte de travail
Research will done at the Roberval Laboratory. In establishing a Chair for Computational Mechanics, Roberval declared its strategic objective of becoming a center of excellence in simulations of mechanical systems. Most of Roberval’s research adopts a system-based approach within a multi-physics, multi-scale, multidisciplinary framework capable of addressing interactions between the physical, chemical, mechanical, thermal, and acoustic aspects of different components in these systems. Numerical methods are employed at all levels, in the dialog between computations and testing, in the formulation and identification of models of constitutive behavior, and in the design, analysis and optimization of structures and systems. The successful applicant will report to the leader of this UTC project. Prof. Florian de Vuyst and Prof. Faker Ben Belgacem, both at LMAC (Laboratoire de Mathématiques Appliquées de Compiègne) will co-supervise this project.
Academic contacts
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CV and letter of application letter to be uploaded to
http://candidature.utc.fr/chercheur

For additional information please contact
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Direction des ressources humaines – pôle recrutement - UTC/DRH/PR/2017
https://www.utc.fr – under the heading “recrutement”