

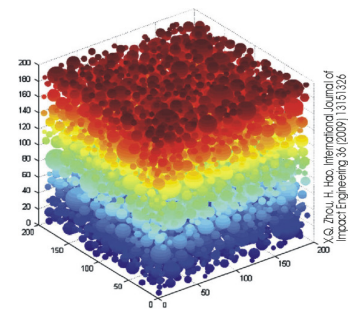


Open call for applications for a research project within the framework of LEONARDO DA VINCI or ERASMUS Mobility Programs, entitled “**OPTIBUILD 2.0 – Numerical analysis of multi-component building materials**”, under the following conditions:

**Duration and funding:** The project will have an initial duration of 9 months (minimum 1 semestre) with a predicted starting date of September 2012 (or February 2013; dates are flexible), and a possible extension up to a total period of 12 months (to be discussed). In addition to any grant offered by the sending institution (under LEONARDO DA VINCI or ERASMUS Mobility Programs), the host institution (CeNTI) will offer a monthly allowance of 250€ during the agreed duration of the project.

**Academic Background:** Applicants should be last-year students or possess a Master degree (or higher) in Chemical Engineering, Mechanical Engineering, Civil Engineering, Mathematics or related areas, with particular interest for heat and mass transfer and simulation/programming. Previous experience in programming or numerical simulation (with FLUENT, COMSOL, or similar) is preferable but not mandatory.

**Project outline:** The research work will be developed in the Products Characterisation Laboratory at CeNTI (Centre for Nanotechnology and Smart Materials) and will include the use of computational fluid dynamics (CFD) platforms to study building materials from the thermal and mechanical point-of-view. Several topics will be addressed namely the influence of components composition, arrangement and packing, on the overall performance of the resulting materials. The goal is to obtain information on ways to define an optimal trade-off between thermal and mechanical performance.



**Required documentation:** Applications should be sent by email to the contact given below. The applications should mention the reference OPTIBUILD 2.0 and include: 1) application letter, 2) Curriculum Vitae, 3) academic degree certificate (if applicable) and 4) list of completed curricular subjects with associated classifications.

**Applications should be sent by email to:**

Dr. Tiago Sotto Mayor (tsottomayor@centi.pt)  
 Products Characterisation Laboratory  
 Centre for Nanotechnology and Smart Materials  
 Rua Fernando Mesquita, 2785  
 4760-034 V.N.Famalicão, Portugal  
[www.centi.pt/productcharacterisationlab](http://www.centi.pt/productcharacterisationlab)