Research Associate  
**Modeling, Simulation and System Identification**  
**Frederick Research Center (in collaboration with School of Engineering and Applied Science of Frederick University)**

It is well known that from the 160 million buildings in the EU the majority of them (estimated 85%) are thermally inefficient. Therefore, it is of serious matter that existing buildings become energy renovated. However, experiences gathered during the last decade showed that this process is not straightforward. This project will focus on early phases of a building project when the building owner still hasn’t decided what to do and there is a possibility to influence the thoughts about renovation in order to plan for renovation measures that will make the building operate in a more sustainable way. In this context, an inventory with the methods for quality assurance of the renovation measures will be created. Furthermore, recommendations will be provided on how quality control and quality assessment can be improved.

It is expected by the applicant for this position to develop new RC building thermal models for modeling, simulation and system identification of existing building structures. The computational results will be validated using experimental measurements.

Strong personality is also expected by the applicant since she/he will be attending the coordination meetings within the Eracobuild consortium throughout Europe, will be in close cooperation with the partners in the consortium and will be reporting to the supervising scientific officer within Frederick University. The applicant will have a BSc (submitted or obtained) in a relevant discipline. She or he should have strong knowledge in Matlab code and programming and knowledge of Numerical Analysis. She or he should be also able to use technical instrumentation for measuring and analyzing the dynamic thermal behavior of existing buildings.

It is expected and supported by the Frederick University that the applicant has a strong interest in R&D and will contribute significantly in the further development of R&D in Frederick University on a long-term basis.
The post is available from 24 October 2011 for a period of 18 months.

Salary depending on qualifications and experience

**Informal enquiries**
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