

*Aalto University is a new multidisciplinary university in the fields of technology, business, and art and design. It opens up new possibilities for strong multidisciplinary education and research. Aalto University has 20 000 students and a staff of 5 000 including 370 professors.*

Aalto University School of Engineering, Department of Civil and Structural Engineering invites applications for:

## **TWO DOCTORAL CANDIDATE POSITIONS in ROBUSTNESS OF ADVANCED MULTI-STOREY STEEL-FRAME BUILDINGS IN FIRE**

### **Research Group**

The doctoral candidate positions are available in an Academy of Finland –project “Robustness of Advanced Multi-Storey Steel-Frame Buildings in Fire”, at the Department of Civil and Structural Engineering (<http://buildtech.aalto.fi/en/>).

### **Requirements**

**Required background:** A Master’s degree in engineering, physics or mathematics, preferably with excellent or very good grades.

**Important skills:** Using computational tools (e.g. CFD and FEM), understanding of thermodynamics, mechanics or structural design (fire dynamics and structural fire design competences are plus), fluency in English, scientific writing, active reporting and interaction with project members.

### **Research**

One of the doctoral candidate positions (**Position 1**) will focus on the modelling of fires in large multi-storey buildings using deterministic and probabilistic tools, aiming at stochastic characterization of travelling fires and the extraction of design basis for the structures. The work includes computational tool development (programming) and applications.

The other position (**Position 2**) will focus on developing performance-based design approach against fire for sustainable large, open-space buildings. The work includes numerical simulations and derivation of design equations based on theoretical and experimental results received for describing the behavior of the structures under concern at elevated temperatures.

### **Contract and salary**

The doctoral candidate positions are contract-based; one year contract is granted first, followed by a possible extension for a three-year period depending on the achievements during the first contractual period. In a maximum of four years, the doctoral candidate is required to 1) complete the doctoral dissertation, 2) finish relevant courses for 40 ECTS credits and 3) participate in teaching. The applicant must fulfill the requirements for entitlement to do postgraduate studies at Aalto University: <https://into.aalto.fi/display/endofdoctoraleng/Admission+requirements>

Aalto University applies the salary system of Finnish universities.

### **For more information**

For further details, please contact

Position 1: Associate Professor Simo Hostikka, tel. +358 50 447 1582, [simo.hostikka@aalto.fi](mailto:simo.hostikka@aalto.fi)

Position 2: Senior University Lecturer, Dr. Wei Lu, tel. +358 50 350 2974, [wei.2.lu@aalto.fi](mailto:wei.2.lu@aalto.fi)

Professor Jari Puttonen, tel. +358 50 3841 782, [jari.puttonen@aalto.fi](mailto:jari.puttonen@aalto.fi)

For further information regarding the recruitment process, please contact  
HR Coordinator Hanna Ropponen, tel. +358 50 400 2881. E-mails: [hanna.ropponen@aalto.fi](mailto:hanna.ropponen@aalto.fi)

### **How to apply**

The applications for the doctoral candidate position are to be submitted through the eRecruitment system (<http://www.aalto.fi/en/about/careers/jobs/view/575/>), **no later than September 28<sup>th</sup> 2015**. Please specify the preferable position (Position 1 or 2 defined above in section 'Research').

Required application documents (pdf files):

1. CV
2. A certified copy of master's and bachelor's degree certificate and official transcript of records, and their translations, if the originals are not in Finnish, Swedish or English. (Minimum average grading requirements: <https://into.aalto.fi/display/endoctoraleng/Application+instructions>)
3. A summary of the master thesis and accounts for suitability of the candidate for this doctoral candidate position. Maximum one A4 page is allowed for the document.
4. Proof of proficiency in Finnish, Swedish or English if the applicant is not a native speaker of or educated in any of them. (Language skill proof requirements): [http://www.aalto.fi/en/studies/admissions/tech/masters\\_degree/language\\_requirements/](http://www.aalto.fi/en/studies/admissions/tech/masters_degree/language_requirements/)
5. A list of publications, if any.

All materials should be submitted in English.

Aalto University reserves the right for justified reasons to leave the position open, to extend the application period and to consider candidates who have not submitted applications during the application period.

In Espoo, August 24, 2015