

Subject: Multiple post-doctoral positions in the field of modeling, simulation, assessment and optimization of multi-functional materials and structures (second round)

The Czech Technical University in Prague - University Center for Energy Efficient Buildings offers nine post-doctoral positions in the field of modeling, simulation, assessment and optimization of multi-functional materials and structures.

Start date: as soon as possible after 21 June 2013, until all positions are filled
Contract duration: until 30 June 2015 (with a critical evaluation after the first year)

The present project integrates eight different topics, each of which will be supervised by a mentor from the Faculty of Civil Engineering of the Czech Technical University in Prague. The particular topics include:

1. Drying and desalination of historical buildings using hydrophilic mineral wool
Mentor: Robert Černý (e-mail: cernyr@fsv.cvut.cz)
2. Low-energy building materials
Mentor: Robert Černý (e-mail: cernyr@fsv.cvut.cz)
3. Modeling of coupled cracking, creep and hygrothermal effects in construction materials
Mentor: Milan Jirásek (e-mail: Milan.Jirasek@fsv.cvut.cz)
4. Ultra high performance fiber-reinforced concrete in different loading conditions
Mentor: Petr Konvalinka (e-mail: petr.konvalinka@fsv.cvut.cz)
5. Wood-based materials
Mentor: Petr Kuklík (e-mail: kuklik@fsv.cvut.cz)
6. Numerical and experimental analysis of concrete performance in irradiated environment
Mentor: Petr Štemberk (e-mail: stemberk@fsv.cvut.cz)
7. Durability of reinforced cementitious materials
Mentor: Vít Šmilauer (e-mail: smilauer@cml.fsv.cvut.cz)
8. Micromechanical modeling of thermal and acoustic insulation materials
Mentor: Jan Zeman (e-mail: zemanj@cml.fsv.cvut.cz)
9. Development of FFT-based solvers for homogenization of periodic media
Mentor: Jan Zeman (e-mail: zemanj@cml.fsv.cvut.cz)

Interested candidates are invited to send their applications directly to the relevant mentor, using the e-mail address provided above, no later than 31 May 2013.

Additional details are available at
[http://mech.fsv.cvut.cz/wiki/index.php/](http://mech.fsv.cvut.cz/wiki/index.php/Department_of_Mechanics:_Vacancies:_UCEEB_Postdocs)
Department_of_Mechanics:_Vacancies:_UCEEB_Postdocs