

Kratek opis usposabljanja mladega raziskovalca (*Short description of the Young Researcher's training*)

1. Raziskovalna organizacija (*Research organisation*):

Univerza v Ljubljani, Fakulteta za gradbeništvo in geodezijo (University of Ljubljana, Faculty of Civil and Geodetic Engineering)

2. Ime, priimek in elektronski naslov mentorja (*Mentor's name, surname and email*):

Matija Gams, mgams@fgg.uni-lj.si

3. Šifra in naziv raziskovalnega področja (*Research field*):

2.01.04 Potresno inženirstvo (2.01.04 Earthquake Engineering)

4. Kratek opis usposabljanja mladega raziskovalca (*Short description of the Young Researcher's training*):

Navedite tudi morebitne druge zahteve, vezane na usposabljanje mladega raziskovalca (npr. znanje tujih jezikov, izkušnje z laboratorijskim delom, potrebne licence za usposabljanje...).

slo:

Usposabljanje mladega raziskovalca(e) bo potekalo na doktorskem študiju Grajeno okolje na Fakulteti za gradbeništvo in geodezijo Univerze v Ljubljani. Usposabljanje bo potekalo v okviru raziskovalnega programa P2-0185 Potresno inženirstvo.

Področje raziskovanja bo potresna odpornost zidanih konstrukcij. Odziv teh konstrukcij na potresno obtežbo je namreč razmeroma zapleten, saj je zidovje krhek material, nehomogen in anizotropen material. Kandidat bo imel možnost, da se ukvarja z razvojem sistemov utrjevanja starih zidanih stavb s kompozitnimi materiali, ali pa s potresno odpornostjo sodobnih zidanih stavb grajenih v tehnologiji povezanega zidovja. V prvem primeru bo cilj raziskav razvoj novih sistemov utrjevanja, v drugem pa razvoj novih in boljših modelov obnašanja zidanih stavb z upoštevanjem interakcije med zidnimi vezmi in zidovjem ter predlagati izboljšave tehnologije gradnje.

Delo kandidata bo predvidoma sestavljeno iz eksperimentalnega dela v laboratoriju in raziskav z numeričnimi modeli. Za potrebe prvega dela je zaželeno, da ima kandidat praktične izkušnje s področja gradbeništva, za potrebe drugega dela pa osnovno znanje programiranja/modeliranja in željo po spoznavanju in uporabi naprednih numeričnih modelov in principov modeliranja.

Kandidat(ka) mora izpolnjevati vse kriterije razpisa in imeti magistrsko izobrazbo na področju tehničnih znanosti. Zahtevano je znanje angleškega jezika. Prednost bodo imeli kandidati z izkušnjami na področju zidarstva in uspešno opravljenim razgovorom s predvidenim mentorjem.

eng:

The young researcher will be trained in the doctoral study program Built Environment at the Faculty of Civil and Geodetic Engineering of University of Ljubljana. The training will be part of the research program P2-0185 Earthquake Engineering.

The field of research is seismic resistance of masonry structures. The response of masonry structures to seismic loads is relatively complex due to brittleness, non-homogeneity, and anisotropy of masonry. The candidate will have the option to choose between research and development of new systems of strengthening of old masonry structures based on the use of composite materials, or to research response of modern masonry structures built as confined masonry. In the former case, the goal of the research will be to develop new systems of strengthening, and in the latter to develop new numerical models for seismic response of masonry structures, which take into account interaction between the RC ties and the masonry, and to suggest improvements to the technology of construction of such systems.

The work of the candidate will include experimental work in the laboratory and research using and developing numerical models. Practical experience with construction work and at least basic knowledge of programming/numerical modelling are desired. The candidate should be motivated to develop skills in the field of numerical models and modelling.

The candidate should fulfil all the requirements of the call and have a master's degree in technical sciences. The candidate should be proficient English speaker. Priority will be given to candidates with experience in the field of masonry and to those who perform well at the interview.