

Opis delovnega mesta mladega raziskovalca/ke (*Description of the Young Researcher's position*)

1. Članica UL (*UL member*):

Fakulteta za gradbeništvo in geodezijo

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

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3. Raziskovalno področje (*Research field*):

Potresno inženirstvo, gradbene konstrukcije

4. Opis delovnega mesta mladega raziskovalca/ke (*Description of the Young Researcher's position*):

Vključuje morebitne dodatne pogoje, ki jih mora izpolnjevati kandidat/ka za mladega raziskovalca/ko, ki niso navedeni v razpisu za mlade raziskovalce.

slo:

V zadnjem času se zaradi ekonomičnosti v Sloveniji vedno bolj pogosto gradijo stavbe, v katerih so armiranobetonske plošče podprte le s stebri. Pri tem ni povsem jasno kako so takšne stavbe načrtovane za vpliv potresne obtežbe, saj veljavni predpisi takšnih sistemov ne podpirajo v celoti. Iz izkušenj, ki jih imajo na drugih potresno ogroženih območjih je razvidno, da se primerna potresna varnost takšnih sistemov lahko zagotovi predvsem v potresno zmerno ogroženih področjih.

Glede na to, da je potresni odziv plošč na stebrih (gobastih plošč) v splošnem še vedno razmeroma slabo raziskan, in glede na to, da se takšne plošče vedno bolj uporabljajo, bo tema doktorske naloge – Protipotresno projektiranje in potresni odziv plošč na stebrih (gobastih plošč). V okviru naloge bo treba najprej narediti pregled znanstvene literature in prakse na tem področju, vključno z novim Evrokod 8 standardom, ki je dopolnjen z določili, ki se nanašajo na takšne konstrukcijske sisteme.

Nadaljnje raziskave bodo predvidoma analitične in eksperimentalne. Zato je zaželeno, da ima kandidat tudi izkušnje pri eksperimentalnem delu. Izvajale se bodo v okviru raziskovalnega programa Potresno inženirstvo.

Obvezna je magistrska izobrazba s področja gradbeništva. Zaželeno je predznanje iz potresnega inženirstva, in dobro predznanje na področju projektiranja armiranobetonskih konstrukcij. Mladi raziskovalec (MR) naj bi imel odlično znanje angleškega jezika in izkazano sposobnost za samostojno delo. Obvezen je vpis na doktorski študij Grajeno okolje, v okviru katerega bo MR moral opraviti vse predpisane obveznosti (izpite, raziskovalne delo).

eng:

The popularity and the use of flat slabs in Slovenia are rapidly increasing mainly because of economic reasons. However, It is not entirely clear how the seismic design of such buildings is performed since the currently available standards used in Slovenia do not fully support such systems. Based on the experiences from other seismic areas, it can be concluded that adequate seismic safety of such systems can be provided mostly only in the moderate seismic regions.

Given that the seismic response of flat slabs, in general, is still relatively deficiently investigated, and given that the use of such slabs is rapidly increased, the doctoral dissertation will be devoted to the seismic response and design of such systems. The first phase of the research will include the review of the available scientific literature and practice related to the flat slabs, including the new Eurocode 8 standard, supplemented by the provisions relating to such structural systems.

Further research is expected to be analytical and experimental. Thus, it is preferred that the candidate has experience in experimental work. The research will be conducted in the frame of the research program Earthquake Engineering.

A master's degree in civil engineering is obligatory. Appropriate knowledge of seismic engineering is preferred. Good prior knowledge about the design of reinforced concrete structures is required. The young researcher (MR) is expected to have an excellent knowledge of English and a demonstrated ability for independent work. Enrollment in the doctoral study Built Environment is mandatory, within which the MR will have to complete all prescribed obligations (exams, research work).