

Opis raziskovalnega dela (Research work description)

1. Članica UL (UL member):

Fakulteta za gradbeništvo in geodezijo (Faculty of Civil and Geodetic Engineering)

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

Prof. dr. Dejan Zupan, dejan.zupan@fgg.uni-lj.si

3. Raziskovalno področje (Research field):

Mehanika (Engineering Mechanics)

4. Opis raziskovalnega dela (Research work description):

Vključuje morebitne dodatne pogoje, ki jih mora izpolnjevati kandidat/ka za mladega raziskovalca/ko, ki niso navedeni v razpisu za mlade raziskovalce (It includes any additional conditions that the candidate for a young researcher must meet, which are not listed in the call to tender for young researchers.).

Slov.: Usposabljanje za pridobitev doktorata znanosti bo potekalo v okviru raziskovalne skupine Katedra za mehaniko in v sodelovanju z njihovimi industrijskimi in akademskimi partnerji v Sloveniji in tujini. Skupina proučuje stabilnost in dinamiko konstrukcij ter razvija nove modele in računske algoritme za reševanje aktualnih problemov na tem področju. Znotraj skupine gojimo široka znanja, uspešno izdelane metode in algoritme, ki predstavljajo dobro in trdno osnovo za raziskovalno delo mladega raziskovalca.

Mentor in raziskovalna skupina tako kandidatki ali kandidatu nudita odlične delovne pogoje za študij in raziskovalno delo, ustvarjalno, konkurenčno in prijateljsko ozračje in možnosti znanstvenih diskusij tudi z znanstveniki iz tujine ter primerno računalniško strojno in programsko opremo. Doktorsko delo bi bilo nadaljevanje in razširitev dosedanjih rezultatov raziskovalne skupine s poudarkom na aktualnih problemih pri modeliranju slojevitih konstrukcij z možnostjo delaminacij.

Iščemo kandidatke in kandidate, ki jih zanima poglobljen študij in imajo ustrezna znanja na področju modeliranja, reševanja enačb in programiranja. Primerna izobrazba je zaključena druga stopnja gradbeništva, strojništva, matematike, fizike ali druge tehnične smeri z dovolj vsebin mehanike in modeliranja konstrukcij. Zaželeno je znanje programiranja, še posebej v okoljih kot sta Matlab in Python. Zahtevano je aktivno znanje angleškega jezika.

Eng.: The PhD position is at the Research group Chair of Mechanics at Faculty of Civil and Geodetic Engineering, University of Ljubljana. The group investigates the stability and dynamics of structures and develops new models and numerical formulations for structural mechanics. The wide knowledge and research results within the research group represent an excellent starting point for the early-stage researcher – doctoral student.

The selected candidate will work in a stimulating and collaborative research environment, benefiting from excellent working conditions, access to cutting-edge computational tools, and opportunities for scientific discussions with both local and international researchers. The doctoral research will build upon the group's existing work, with a particular focus on modeling layered structures and addressing challenges related to delamination.

We are looking for highly motivated candidates with a strong academic background and a keen interest in structural modeling and computational mechanics. Appropriate background is the completion of the second level studies in civil engineering, mechanical engineering, mathematics, physics or similar with sufficient coursework in mechanics and structural modelling. Programming skills are highly desirable, in particular experiences with Matlab or Python. High standard of spoken and written English is required.

5. Priloge, ki jih kandidat priloži k prijavi (Documents that the candidate submits with the application):

diplomska listina/potrdilo o zaključku študijskega programa (diploma certificate for study programme, with which the candidate has enrolled/ will enroll in a doctoral degree programme)

priloga k diplomi/ potrdilo o opravljenih obveznostih (official transcript of all the grades for study programme, with which the candidate has enrolled/will enroll in a doctoral degree programme)

potrdilo o do sedaj opravljenih obveznostih z ocenami študijskega programa, s katerim se bo kandidat prijavil na študij (official transcript of all the grades the candidate has received so far for the study programme, with which the candidate will enroll to a doctoral degree programme)

nagrade (awards (e.g. Prešeren Prize of the University of Ljubljana, Prešeren Prize of a University of Ljubljana member and/or another equivalent award))

- bibliografija** (*bibliography*)
- življenjepis** (*CV*)
- motivacijsko pismo** (*motivation letter*)
- opis dosedanjega sodelovanja pri raziskovalnem delu** (*description of the candidate's research work*)
- osnutek idejne zasnove raziskovalnega dela** (*preliminary research proposal*)
- priporočilno pismo** (*letter of recommendation*)
- druge priloge** (*other attachments*)