

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. Tomaž Hozjan, tomaz.hozjan@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 Katedre za mehaniko ter v sodelovanju z njenimi industrijskimi in akademskimi partnerji v Sloveniji in tujini. Skupina proučuje požarno odpornost lesenih in drugih konstrukcij ter razvija nove modele in računske algoritme za reševanje aktualnih problemov na tem področju. Znotraj skupine imamo široka znanja ter razvite metode in algoritme, ki predstavljajo dobro in trdno osnovo za raziskovalno delo mlade raziskovalke oziroma mladega raziskovalca.

Mentor in raziskovalna skupina kandidatki oziroma kandidatu nudita odlične delovne pogoje za študij in raziskovalno delo, ustvarjalno, konkurenčno in prijateljsko okolje, možnosti znanstvenih razprav tudi z raziskovalci iz tujine ter ustrezno računalniško infrastrukturo in programsko opremo. Doktorsko delo bo predstavljalo nadaljevanje in razširitev dosedanjih rezultatov raziskovalne skupine, s poudarkom na aktualnih problemih modeliranja in raziskovanja oglečenja ter požarne odpornosti lesenih konstrukcij.

Iščemo kandidatke in kandidate, ki jih zanima poglobljen študij ter imajo ustrezna znanja s področja modeliranja, reševanja enačb in programiranja. Primerna izobrazba je zaključena druga stopnja študija gradbeništva, strojništva, matematike, fizike ali druge tehnične smeri z zadostnimi vsebinami s področja 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 doctoral training will take place within the research group of the Chair of Mechanics, in cooperation with its industrial and academic partners in Slovenia and abroad. The group studies the fire resistance of timber and other structures and develops new models and computational algorithms for solving current problems in this field. The group has broad expertise, as well as well-developed methods and algorithms that provide a solid foundation for the research work of the young researcher.

The supervisor and the research group offer the candidate excellent working conditions for study and research, a creative, competitive and friendly environment, opportunities for scientific discussions with researchers from abroad, and suitable computer infrastructure and software. The doctoral work will continue and extend the research group's previous results, with an emphasis on current challenges in the modelling and investigation of charring and fire resistance of timber structures.

We are looking for candidates who are interested in advanced study and have appropriate knowledge in the fields of modelling, equation solving and programming. Suitable educational backgrounds include a completed second-cycle degree in civil engineering, mechanical engineering, mathematics, physics, or another technical field with sufficient content in mechanics and structural modelling. Programming skills are desirable, particularly in environments such as Matlab and Python. Active knowledge of 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*)