

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):

Oskar Sterle, oskar.sterle@fgg.uni-lj.si

3. Raziskovalno področje (Research field):

Geodezija / Geodesy

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.:

Mlada raziskovalka (mladi raziskovalec) bo delovala (deloval) na Katedri za matematično in fizikalno geodezijo ter navigacijo Oddelka za Geodezijo UL FGG, znanstveno usposabljanje pa bo izvedeno v okviru raziskovalnega programa Dinamična Zemlja (P1-0419), ki ga sestavljajo raziskovalci Geološkega zavoda Slovenije in en raziskovalec Oddelka za geodezijo UL FGG. Znanstveno področje raziskovalne skupine je usmerjeno v spremljanje, analiziranje in modeliranje dinamičnih procesov Zemlje, od aktivne globalne, regionalne in lokalne tektonike, potresnih mehanizmov, pobočnih masnih premikov in drugih površinskih procesov.

Znanstveno-raziskovalno delo mlade raziskovalke (mladega raziskovalca) bo usmerjeno v poglobljen študij geodetskih metod za potrebe spremljanja deformiranja Zemeljskega površja in analize stanja Zemljine atmosfere. Za kakovostno določitev in opredelitev dinamičnih procesov Zemlje je potrebno kakovostno določanje položajev karakterističnih točk in njihovih sprememb skozi čas. Obravnava položaja mora biti opredeljena znotraj modernega časovno odvisnega referenčnega sistema, ki temelji na tehnikah satelitske geodezije in daljinskega zaznavanja. Kandidatka (kandidat) bo znanje pridobila (pridobil) v okviru doktorskega študija, pri sodelovanju v aplikativnih in znanstvenih projektih, sodelovanja v multidisciplinarni skupini raziskovalcev Oddelka za geodezijo in Geološkega zavoda Slovenije in pri vključevanju v mednarodno okolje znanstvenih raziskav.

Iščemo kandidatko ali kandidata, ki jo/ga zanima poglobljen študij geodetskih metod določanja položaja geodetskih točk in njihovih sprememb skozi čas, za spremljanje in modeliranje dinamičnih procesov Zemlje. Zaželeno je znanje programiranja za reševanje matematičnih in fizikalnih problemov, kot sta to Matlab in Python. Zahtevano je aktivno znanje angleškega jezika. Pričakuje se odgovornost in samoiniciativnost, predvsem pa odprtost za delo v skupini.

Eng.:

The Young Researcher will work at the Chair of Mathematical and Physical Geodesy and Navigation, Department of Geodesy UL FGG, however the scientific training will be carried out within the framework of the research programme Dynamic Earth (P1-0419), a programme that consists of researchers from Geological Survey of Slovenia and one researcher from Department of Geodesy UL FGG. Scientific field of the research group focuses on monitoring, analysing and modelling of the Earth's dynamic processes; i.e. active global, regional and local tectonics, earthquake mechanisms, slope mass movements and other surface processes.

The scientific work of the young researcher will be focused towards an in-depth study of geodetic methods for monitoring the deformation of the Earth's surface and analysis of the Earth's atmosphere. To determine and define dynamic processes of the Earth with high quality, one must determine the positions of characteristic points and their changes in time. Positions of points must be determined within a modern time-

dependent reference systems that are based on satellite geodesy and remote sensing. The candidate will acquire necessary background knowledge through doctoral studies, participation in applied and scientific projects, and participation in a multidisciplinary group of researchers of the Department of Geodesy and the Geological Survey of Slovenia, with an integration into the international environment of scientific research.

We are looking for a candidate who is interested in an in-depth study of geodetic methods for determining the position of geodetic points and their changes over time, for monitoring and modelling the Earth's dynamic processes. Programming skills, in particular Matlab and Python, for solving mathematical and physical problems are desirable. Higher level of spoken and written English is required. The applicant should be responsible, show initiative, and be open for working in a dynamic team.

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*)