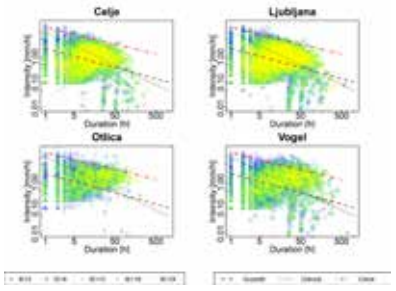
KADER / PERSONNEL

- Predstojnik
  Head
  prof. dr. Matjaž Mikoš
- Namestnik predstojnika
  Deputy head
  doc. dr. Dušan Petrovič
- Pedagogi
  Educators
  prid. prof. dr. Marko Komac
  izr. prof. dr. Tomaž Podobnikar
  viš. pred. mag. Jošt Sodnik
  izr. prof. dr. Blaž Stres
- Asistent
  Assistant
  asist. dr. Nejc Bezak
- Strokovni sodelavci
  Professional Associates
  Mateja Klun
  dr. Sašo Petan
  Katarina Zabret



Vpliv izbire časa med dvema padavinskima dogodkoma (IE) v urah na položaj empirične krivulje intenziteta–trajanje padavin za oceno praga proženja zemeljskih plazov
Influence of the inter-event time (IETD) selection on empirical rainfall threshold curves evaluation for triggering of landslides

INŠTITUT ZA GEO IN HIDRO TVEGANJA (RIGHT)

Inštitut za geo in hidro tveganja (RIGHT) so 2014 ustanovile Katedra za kartografijo, fotogrametrijo in daljinsko zaznavanje (KKFDZ), Katedra za matematično in fizikalno geodezijo ter navigacijo (KMFGN), Katedra za mehaniko tal z laboratorijem (KMTal) in Katedra za splošno hidrotehniko (KSH), da bi v njem opravljale raziskovalno delo na področju nevarnosti, tveganj in nesreč v geo in hidro okolju. Predstojnik inštituta je dr. Matjaž Mikoš, redni profesor za hidrologijo in redni profesor za inženirsko hidrotehniko, namestnik predstojnika je dr. Dušan Petrovič, docent za področje geodezije in geoinformatike.

Pri delu inštituta sodelujejo pedagogi ustanovnih kateder, zunanji dopolnilno zaposleni raziskovalci drugih raziskovalnih ustanov in podjetij v Sloveniji ter nekateri mladi raziskovalci, ki raziskujejo v programski skupini P2-0180 Vodarstvo in geotehnika: orodja in metode za analize in simulacije procesov ter razvoj tehnologij. Inštitut je na UL FGG samostojna raziskovalna skupina s šifro ARRS 0792-022.

UL FGG je od leta 2008 redno pridobivala naziv svetovnega centra odličnosti za zmanjševanje tveganja zaradi zemeljskih plazov (WCoE – World Centre of Excellence on Landslide Risk Reduction), ki ga ja na rednih trienalnih svetovnih forumih o zemeljskih plazovih podeljeval Mednarodni program za zemeljske plazove (IPL). Inštitut je po ustanovitvi postopno prevzel večino raziskovalnega dela na UL FGG in je fakulteti tudi v obdobju 2014–2017 pridobil naziv svetovnega centra odličnosti.

Inštitut od ustanovitve redno sodeluje z Mednarodnim konzorcijem za zemeljske plazove (ICL) s sedežem v Kjotu na Japonskem. Predstojnik RIGHT je bil podpredsednik ICL v letih od 2015 do 2017, sodeluje tudi v uredniškem odboru revije Landslides, ki ga izdaja založba Springer Verlag – gre za revijo z najvišjim faktorjem vpliva na področju inženirske geologije v bazi SCI-Expanded.

Inštitut s svojim delom in rezultati podpira delo Unescove Katedre za zmanjševanje tveganj zaradi vodnih ujm, ki jo je 2016 ustanovila Univerza v Ljubljani in deluje v okviru UL FGG.

Raziskovalna dejavnost

Na inštitutu potekajo različni mednarodni, bilateralni in nacionalni raziskovalni projekti, npr. raziskovalni projekt s Hrvaško »SoLiFlyD – Zemeljski plazovi v flišu: mehanizmi plazenja in geotehnične lastnosti za modeliranje plazenja in varstvo pred plazenjem tal (SoLiFlyD – Study of landslides in flysch deposits: sliding mechanisms and geotechnical properties for landslide modeling and landslide mitigation)« (2014–2015) in raziskovalni projekt s Hrvaško »Laboratorijske preiskave in numerično modeliranje zemeljskih plazov v flišu na Hrvaškem in v Sloveniji (Laboratory investigations and numerical modelling of landslides in flysch deposits in Croatia and Slovenia)« (2016–2017).

RESEARCH INSTITUTE FOR GEO AND HYDRO THREATS (RIGHT)

Research Institute for Geo and Hydro Threats was founded by Chair of Cartography, Photogrammetry and Remote Sensing, Chair of Mathematical and Physical Geodesy and Navigation, Chair of Soil Mechanics with Laboratory and Chair of Hydrology and Hydraulic Engineering. The purpose was to implement research work in the areas of threats, risks and disasters in geo and hydro environment. The Institute is chaired by Matjaž Mikoš, PhD, full professor of hydrology and hydraulic engineering. His deputy is Dušan Petrovič, PhD, associate professor of the areas of geodesy and geoinformation.

Teachers of the founding chairs, external partners and researchers from other research institutions and companies in Slovenia and some young researchers involved in the work of the core research group P2-0180 Water Science and Technology, and Geotechnical Engineering: Tools and Methods for Process Analyses and Simulations, and Development of Technologies, all participate in the Institute's work. The Institute is an independent research group of UL FGG with ARRS code 0792-022.

Since 2008, UL FGG has been regularly awarded with the title WCoE – World Centre of Excellence on Landslide Risk Reduction, conferred at its regular triennial world forums on landslides by the International Program for Landslides (IPL). Since its foundation, the Institute has gradually taken over most of the research of UL FGG, and won the title of World Centre of Excellence also for the period 2014–2017.

Since its establishment, the Institute has been regularly cooperating with the International Consortium for Landslides (ICL) with its seat in Kyoto, Japan. In the time from 2015 to 2017, the Head of RIGHT was Vice-Chairman of ICL, and he also cooperates in the Editorial Board of the journal Landslides, published by Springer Verlag – this journal has the highest impact factor in the area of engineering geology in the SCI-Expanded base.

With its work and results, the Institute supports the work of Unesco Chair on Water-related Disaster Risk Reduction, founded in 2016 by the University of Ljubljana and active within UL FGG.

Research activity

Members of the Institute are involved in several international, bilateral and national research projects, e.g. research project with Croatia »SoLiFlyD – Study of landslides in flysch deposits: sliding mechanisms and geotechnical properties for landslide modeling and landslide mitigation« (2014–15) and research project with Croatia »Laboratory investigations and numerical modelling of landslides in flysch deposits in Croatia and Slovenia« (2016–17).

In 2017, basic ARRS project on the topic of resistance of Alpine landscapes from the aspect of natural disasters was successfully concluded, where the Institute cooperated with the Geographical Institute of Anton Melik, Scientific Research Centre of the Slovenian Academy of Science and Art and the Faculty of Arts, UL.

In 2017 the Institute's researchers won two national basic projects: J7-8273 »Recognition of potentially hazardous torrential fans using geomorphometric methods and simulating fan formation« and J1-8513 »Studying landslide movements from source areas to zone of deposition using a deterministic approach«.

Educational activity

Research is the basis for quality teaching, especially in the 2nd and 3rd Bologna cycles. The Institute's research achievements are being implemented into educational contents of various courses at the 2nd cycle study programs and at the doctoral study programs Built Environment and Environment Protection. Quality research work of the Institute and supervision of young researchers are important guidelines for its activities.

PhD student Jošt Sodnik and young researchers Katarina Zabret and Mateja Klun continued their work on their PhD theses. In 2016, Assist. Dr. Nejc Bezak finished his PhD studies.

Between 2016 and 2017, the Institute cooperated in the implementation of the ERASMUS+ project Environmental Protection and Natural Disasters, within which two summer schools were organised at the University of Ljubljana.

The Institute's researchers actively cooperate in various promotional activities of UL FGG, mainly within technical days for secondary school population, in the Faculty's Open Day and in the Information Days for secondary school population.

Exceptional achievements

The Institute and its members contributed considerably to successful implementation of the 4th World Landslide Forum from May 29 to June 4, 2017 in Ljubljana; it was an event that provided excellent promotion for Slovenia, University of Ljubljana and UL FGG, as well as for the Slovenian knowledge on protection against landslides. Another achievement is also publication from the area of rainfall-induced landslides in the leading journal from the field of hydrology:

- Bezak, N., Mikoš, M., Šraj, M. (2016). Copula-based IDF curves and empirical rainfall thresholds for flash floods and rainfall-induced landslides. Journal of Hydrology 541, 272–284.

Leta 2017 se je končal temeljni projekt ARRS na temo prožnosti (odpornosti) alpskih pokrajin z vidika naravnih nesreč, kjer smo sodelovali z Geografskim inštitutom Antona Melika ZRC SAZU in UL FF.

V letu 2017 so raziskovalci inštituta pridobili dva temeljna projekta ARRS, in sicer J7-8273 »Prepoznavanje potencialno nevarnih hudourniških vršajev z metodami geomorfometrije in simulacijami nastanka vršajev« in J1-8513 »Preučevanje premikanja plazov od izvornih območij do mesta odlaganja z deterministčnim pristopom«.

Pedagoška dejavnost

Raziskovanje je temelj kakovostnega poučevanja, predvsem na 2. in 3. bolonjski stopnji. Raziskovalni dosežki inštituta se prelivajo v pedagoške vsebine različnih predmetov na drugostopenjskih študijskih programih ter na doktorskih študijskih programih Grajeno okolje in Varstvo okolja. Kakovostno raziskovalno delo na inštitutu in mentorsko delo z mladimi raziskovalci je pomembna usmeritev dela inštituta.

Z raziskovalnim delom na doktorski disertaciji so nadaljevali mag. Jošt Sodnik in mladi raziskovalki Katarina Zabret in Mateja Klun. Leta 2016 je doktoriral asist. dr. Nejc Bezak.

Inštitut je v letih 2016 in 2017 sodeloval pri izvedbi projekta ERASMUS+ Environmental Protection and Natural Disasters, v okviru katerega smo na Univerzi v Ljubljani organizirali dve poletni šoli.

Raziskovalci inštituta aktivno sodelujejo v različnih promocijskih aktivnostih fakultete, predvsem pri tehniških dnevih za srednješolce, dnevu odprtih vrat fakultete in pri informativnih dnevih za dijake srednjih šol.

Izjemni dosežki

Inštitut je s svojimi sodelavci bistveno pripomogel k uspešni izvedbi 4. Svetovnega foruma o zemeljskih plazovih od 29. maja do 4. junija 2017 v Ljubljani. Dogodek je odlično promoviral Slovenijo, Univerzo v Ljubljani in UL FGG ter tudi slovensko znanje na področju varstva pred zemeljskimi plazovi. Dosežek je tudi objava s področja raziskovanja zemeljskih plazov, ki se prožijo ob padavinah, in sicer v vodilni reviji s področja hidrologije:

- Bezak, N., Mikoš, M., Šraj, M. (2016). Copula-based IDF curves and empirical rainfall thresholds for flash floods and rainfall-induced landslides. Journal of Hydrology 541, 272–284.

Fakulteta za gradbeništvo in geodezijo Univerze v Ljubljani prejema na 4. Svetovnem forumu o zemeljskih plazovih junija 2017 v Ljubljani plaketo Svetovnega centra odličnosti na področju zmanjševanja tveganj zaradi zemeljskih plazov
Faculty of Civil and Geodetic Engineering, University of Ljubljana is receiving the certificate for the World Centre of Excellence on Landslide Risk Reduction at the 4th World Landslide Forum in June 2017 in Ljubljana, Slovenia

Na dan ustanovitve Unescove Katedre za zmanjševanje tveganja vodnih ujm, ki deluje na Univerzi v Ljubljani, 1. decembra 2016
On the inauguration day of the UNESCO Chair on Water-related Disaster Risk Reduction at the University of Ljubljana, December 1, 2016

Sodelovanje pri raziskovalnem projektu o odpornosti (prožnosti) alpske pokrajine z vidika naravnih nesreč je z geografi na terenu lažje kot v pisarni
Collaboration with geographers on the research project on the resilience of the alpine environment from the perspective of natural hazards is easier in the field than in the office