



Development of master curricula for natural disasters risk management in Western Balkan countries (573806-EPP-1-2016-1-RS-EPPKA2-CBHE-JP)

NatRisk newsletter, Issue 2/October 2017

IN THIS ISSUE

- ❖ [Catalogue of competencies](#)
- ❖ [Report on master curricula best practices in EU partner countries](#)
- ❖ [Survey of citizens' and public sector](#)
- ❖ [Dissemination activities](#)
- ❖ [Catalogue of courses](#)
- ❖ [News papers](#)
- ❖ [Study visit and training of teaching staff in Budapest, London, Chania and Messina](#)

Welcome to the NatRisk newsletter!

This bulletin provides information on the latest NatRisk project activities.



Enjoy your reading and visit the NatRisk website (www.natrisk.ni.ac.rs) to find more information.

With the best regards,

NatRisk project team



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein

CATALOGUE OF COMPETENCES

Nat Risk project, in line with the set goal - new competences based study programs in WB countries in the field of natural disasters risk management aligned with similar study programs in EU countries, established the Competence Catalogue as the starting point for further development of master curricula (Work Package 1.3).

Catalogue of competences contents an overview of existing master curricula in few EU and Western Balkan countries, definition of the notion of competence itself, list of competencies related to natural disasters risk management, table for translating of competencies into subjects and employment opportunities.

The risk management of natural disasters requires well-developed professionals with appropriate knowledge. Requirements for employees dealing with natural disaster risk management are wide-ranging and demanding. Skills for an integral management of natural hazards (“manager”), a technical know-how for necessary construction measures (“technician”) as well as a fundamental knowledge about valid natural hazard legislation (“lawyer”) are main elements in the catalogue of competencies for well-developed employees. Furthermore, soft skills including appropriate modes of behaviour during communications and presentations as well as experiences in project management are indispensable.

The expected employment opportunities include access to: public and private authorities in charge of natural disaster risk management, professional firms and consulting firms employing structural, civil or environmental engineers, public or private research institutes applied to the study of the conditions of the environment and risk management (university, research centre, etc.), emergency services and international agencies planning and managing crisis situations.

That is why natural disasters risk management is field that requires multiple competencies related to knowledge which covers complex nature of natural disaster risk management from interdisciplinary perspectives and practical skills for implementation of new

organisational strategies and use of the most advanced solutions to contemporary problems. To educate such professionals, it was necessary to create modern, multidisciplinary and interdisciplinary study programs in accordance with the needs of society in emergency situations, that will provides students with adequate competencies – “combination of knowledge, skills and attitudes and ability to their effective applying within the context of a work's responsibilities”. The competences based master study programs must be preceded with Catalogue of competences on which defining of subject content will rely. Transporting of competencies into the classroom will end with the final study programs with all its elements.

Development of Catalogue of competencies was also based on the conclusions resulting from the documents delivered during the NatRisk project (Report on natural disasters in the Western Balkans, Report on established practices in EU countries for natural disaster risk management (NDRM), and Survey of citizens’ and public sector awareness).

More details can be found on the web page

<http://www.natrisk.ni.ac.rs/activities?id=35>.

REPORT ON MASTER CURRICULA BEST PRACTICES IN EU PARTNER COUNTRIES

In this report information of several reports was merged to get an overview about all natural disasters in the Western Balkans. Natural disasters, which have occurred in Information about existing master curricula in EU countries is indispensable for developing master curricula for risk management in Western Balkan regions. In work package 1.3 (WP 1.3), a collaboration between BOKU and all partners from EU countries is foreseen to close the knowledge gap concerning master curricula.

In this report several existing master curricula are documented for different EU countries (Austria, Greece, Hungary, Italy, United Kingdom, Denmark, and Germany).

More details can be found on the web page

<http://www.natrisk.ni.ac.rs/activities?id=35>.

SURVEY OF CITIZENS' AND PUBLIC AWARENESS

In order to accomplish the one of the project goals - Develop and conduct educational trainings for citizens and public sector in the field of natural disasters risk management, the University of Defence in Belgrade (UNID), in cooperation with the higher education institutions (HEIs) in the region of Western Balkans (UNI, KPA, UNSA, UBL, UPKM and TCASU), has created a questionnaire and made a survey with total number of 3059 persons relating presence of awareness, readiness and resistance of a social community to effects of natural disasters.

The survey has been performed on three levels:

1. Political level (level of local government unit),
2. Level of commercial companies, public companies and other legal entities and
3. Level of an individual.

It can be concluded without any doubts that the survey results point to necessity of development of specialized university study programs for the persons from various social life fields.

The study (education) program should meet the following requirements:

- ❖ Obtaining of expert knowledge relating the fields which deal with every risk (danger) from the natural disasters group that threatens national and neighbor geo-space;
- ❖ Obtaining of knowledge and skills in the field of natural disasters risk management;
- ❖ Obtaining of organization-planning knowledge and skills in the field of protection and rescue measures;
- ❖ Obtaining of analytic knowledge and skills in the area of operation research and geo-information technologies which are necessary for support in the process of decision making when solving practical problems in protection and rescue systems in case of natural disasters.

More details can be found on the web page

<http://www.natrisk.ni.ac.rs/activities?id=32>

CATALOGUE OF COURSES

Based on identification of natural disasters needed to be managed in WB, introduction with established practices in EU countries for natural disasters risk management, Catalogue of competences, extensive consultation between partners in the Consortium, professors on each WB HEIs and with relevant institutions in the field of natural disasters risk management, new study programs have been determined, specified and comprehensively presented in Catalogue of courses (Work Package 2.1).

Catalogue of courses contents description of the study programs in all partners` Western Balkans HEIs - University of Nis, Academy of criminalistics and police studies, University of Pristina settled in Kosovska Mitrovica, University of Sarajevo, University of Banja Luka, Technical College of Applied Sciences Urosevac and University of Defense in Belgrade. New study programs are specified with description of their purpose, objectives, competencies of graduated students, quality, contemporaneity, international compatibility, subjects and links between competencies and subjects.

While creating the structure of new study programs and related subjects, all the analyzes about natural disaster in West Balkans region that preceded were respected, because it was indispensable for developing master curricula for risk management. Planned activities in WP1 intended to close the knowledge gap about natural disasters between West Balkans region and UE countries. Austrian university BOKU as leading partner produced reports that have merged several reports to get an overview on:

- natural disasters in WB countries i.e. natural disasters that occurred in Western Balkan countries were qualitatively and quantitatively identified for all WB countries;
- established practices in EU countries for NDRM;
- master curricula best practices in EU partners;
- competencies needed for professionals in NDRM.

The collected material of previous activities was the basis for conclusion about necessary

topics and structures of new study programs in all WB HEIs. Catalogue of courses is an integral document that gives an overview of these new master curricula and it will be followed by elaboration and precision of all elements of each study program separately in preparation for accreditation.

More details can be found on the web page <http://www.natrisk.ni.ac.rs/activities?id=102>

DISSEMINATION ACTIVITIES



The fourth Green building conference, April 2017



Gradjevinijada 2017, May 2017



Resilience as a Base of Security Culture, KPA, May 2017



Scientific and professional conference, KPA, May 2017



Technische Universität München, May 2017



University of Montenegro, June 2017



One day training for civil sector, UNID, June 2017



Round table “Natural disaster risk management”, University of Banja Luka, September 2017



NatRisk at Forum of Advanced Technologies, October 2017

NEWSPAPERS



Narodne novine, 17 May 2017
[http://www.natrisk.ni.ac.rs/files/disseminatio/n/newsletter/Narodne novine - 17 May 2017.pdf](http://www.natrisk.ni.ac.rs/files/disseminatio/n/newsletter/Narodne_novine_-_17_May_2017.pdf)

NatRisk oktatási módszer workshop



Az Óbudai Egyetem Bánki Donát Gépész és Biztonságtechnikai Karán nagy sikerrel zajlott

le az Erasmus+ Program keretében támogatott NatRisk projekt első oktatási módszerekről szóló workshopja 2017. május 23-25. között Budapesten. A NatRisk projekt (<http://natrisk.ni.ac.rs/>) célja természeti katasztrófák kockázatmenedzsmentje mester képzés fejlesztése a Nyugat-Balkán országokban. Az ÓE BGK által szervezett workshop a szerbiai, koszovói és bosznia-hercegovinai egyetemi oktatók ismerkedhettek meg a magyar oktatási gyakorlattal, különös tekintettel a BGK-n folyó munkára.

A 3 napos workshopot Dr. habil. Tick József, az Óbudai Egyetem rektorhelyettese és Prof. Dr. Rajnai Zoltán, az ÓE BGK dékánja nyitotta meg. Dr. Nagy Rudolf előadásában részletezte a magyarországi katasz-



trófavédelem feladatait, kihangsúlyozva a hadsereg szerepét. Őszi Arnold előadásában részletezte az UAV-k használatának fontosságát a természeti katasztrófák nyomán kialakult helyzet felderítésében, valamint gyakorlatban is bemutatta a drónok használatát. A tanácskozás második napján Dr. Szabó Gyula tartott bevezetést

Hírmondó szerkesztősége, 5 June, 2017

[http://www.natrisk.ni.ac.rs/files/disseminatio/n/newspapers/hirmondo majus fin.pdf](http://www.natrisk.ni.ac.rs/files/disseminatio/n/newspapers/hirmondo_majus_fin.pdf)

Η Κρήτη της εξωστρέφειας

12 Ιουλίου 2017



Τρεις ειδήσεις έρχονται να αναδείξουν την Κρήτη της εξωστρέφειας, αυτή που έχει το βλέμμα προσανατολισμένο στον σύγχρονο κόσμο της γνώσης. Πρώτη είδηση: Σε εργαστήριο του Ινστιτούτου Ηλεκτρονικής Δομής και Λέξης του Ιδρύματος Τεχνολογίας Έρευνας (ΙΤΕ) της Κρήτης, φιλοξενείται ομάδα 9 φοιτητών από το Πανεπιστήμιο της West Virginia (WVU) των ΗΠΑ, με σκοπό την εκπαίδευση σε θέματα νανο-τεχνολογίας.

Haniotika, 12 July 2017

<http://www.haniotika-nea.gr/i-kriti-tis-exostrefias/>

Χανιά | Συνάντηση εταίρων προγράμματος NatRisk στην Πολυτεχνειούπολη

12 Ιουλίου 2017



Στα πλαίσια του προγράμματος Erasmus+ για την ανάπτυξη ικανοτήτων, με στόχο την ανάπτυξη με ταπτοχικών προγραμμάτων σπουδών για τη διαχείριση φυσικών καταστροφών στις χώρες των Διτικών

Zarpanews, 12 July 2017

<http://www.zarpanews.gr/>

STUDY VISIT AND TRAINING OF TEACHING STAFF IN BUDAPEST

Bánki Donát Faculty of Mechanical and Safety Engineering at Óbuda University organised the first teaching staff training and study visit for Western Balkan partner HEIs, 23-25 May, 2017 in Budapest.

Within the Activity 2.3 the trainers of the OE showed the teaching methods of Hungary to the teachers of Western Balkan countries. Also, within Activity 3.2 study visit was organized with the following topics: 1) Disaster management – The role of the army and 2) Application of UAVs in case of natural disasters - Laboratory work.

The meetings were concluded with positive impressions and it was everyone's opinion that it was very beneficial.



Presentations from the events can be downloaded from:

<http://www.natrisk.ni.ac.rs/activities?id=71>

<http://www.natrisk.ni.ac.rs/activities?id=72>

STUDY VISIT AND TRAINING OF TEACHING STAFF IN LONDON

Middlesex University (MUHEC) organized the second teaching staff training and study visit for Western Balkan partner HEIs, 28-30 June, 2017 in London.

Within the Activity 2.3 the trainers from the CAPE (Centre for Academic Practice Enhancement) introduced to all WB project partners the most relevant issues related to the learning theories, learning outcomes, assessment criteria and feedback processes. Also, within Activity 3.2 study visit was organized to present the social aspects of vulnerability as well as engaging communication to build local capacities to flood risk.

The meetings were very beneficial for preparing new master curricula in the field of natural disaster risk management.



Presentations from the events can be downloaded from:

<http://www.natrisk.ni.ac.rs/activities?id=83>

<http://www.natrisk.ni.ac.rs/activities?id=88>

STUDY VISIT AND TRAINING OF TEACHING STAFF IN CHANIA

Technical University of Crete (TUC) organized the third teaching staff training and study visit for Western Balkan partner HEIs, 10-12 July, 2017 in Chania.

Within the Activity 2.3 the following topics were presented: humanitarian logistics, quality assurance techniques, earthquake-related geohazards and seismic design, MSc Course Geoenvironmental Risk & Resources and the UNESCO Chair on Solid Earth Physics & Geohazards Risk Reduction. Also, within Activity 3.2 study visit was organized to present how to apply software and hardware tools into new master curricula and laboratory work.

The meetings were very beneficial for further improvement of laboratory work and preparing new master curricula.



Presentations from the events can be downloaded from:

<http://www.natrisk.ni.ac.rs/activities?id=87>

<http://www.natrisk.ni.ac.rs/activities?id=89>

STUDY VISIT AND TRAINING OF TEACHING STAFF IN MESSINA

University of Messina (UNIME), Italy, hosted the fourth teaching staff training and study visit for Western Balkan partner HEIs, 19th-21st September, 2017 in Messina. The meeting sessions hold in the Senate Room of the Rectorate Building. Study visit was to the laboratories of the Department of Engineering (structures, geotechnics and hydraulics) and the CERISI laboratories (seismic and geotechnics).



Presentations from the events can be downloaded from:

<http://www.natrisk.ni.ac.rs/activities?id=96>

<http://www.natrisk.ni.ac.rs/activities?id=97>



For further information about the project please refer to the website www.natrisk.ni.ac.rs, and feel free to get in touch with us also via natriskuni@gmail.com or on one of our other social media channels.



Co-funded by the
Erasmus+ Programme
of the European Union

This project has been funded with support from the European Commission.

This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.