



Blending **academic** and **entrepreneurial** knowledge
in technology enhanced learning

Inter-project coaching of BAEKTEL and CaSa TEMPUS projects



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Presentation outline

Tempus project BAEKTEL

Objectives of the project

Software solution for BAEKTEL

Edx platform

CaSa-BAEKTEL cooperation

Conclusion

Tempus project- Blending Academic and Entrepreneurial Knowledge in Technology Enhanced Learning (BAEKTEL)

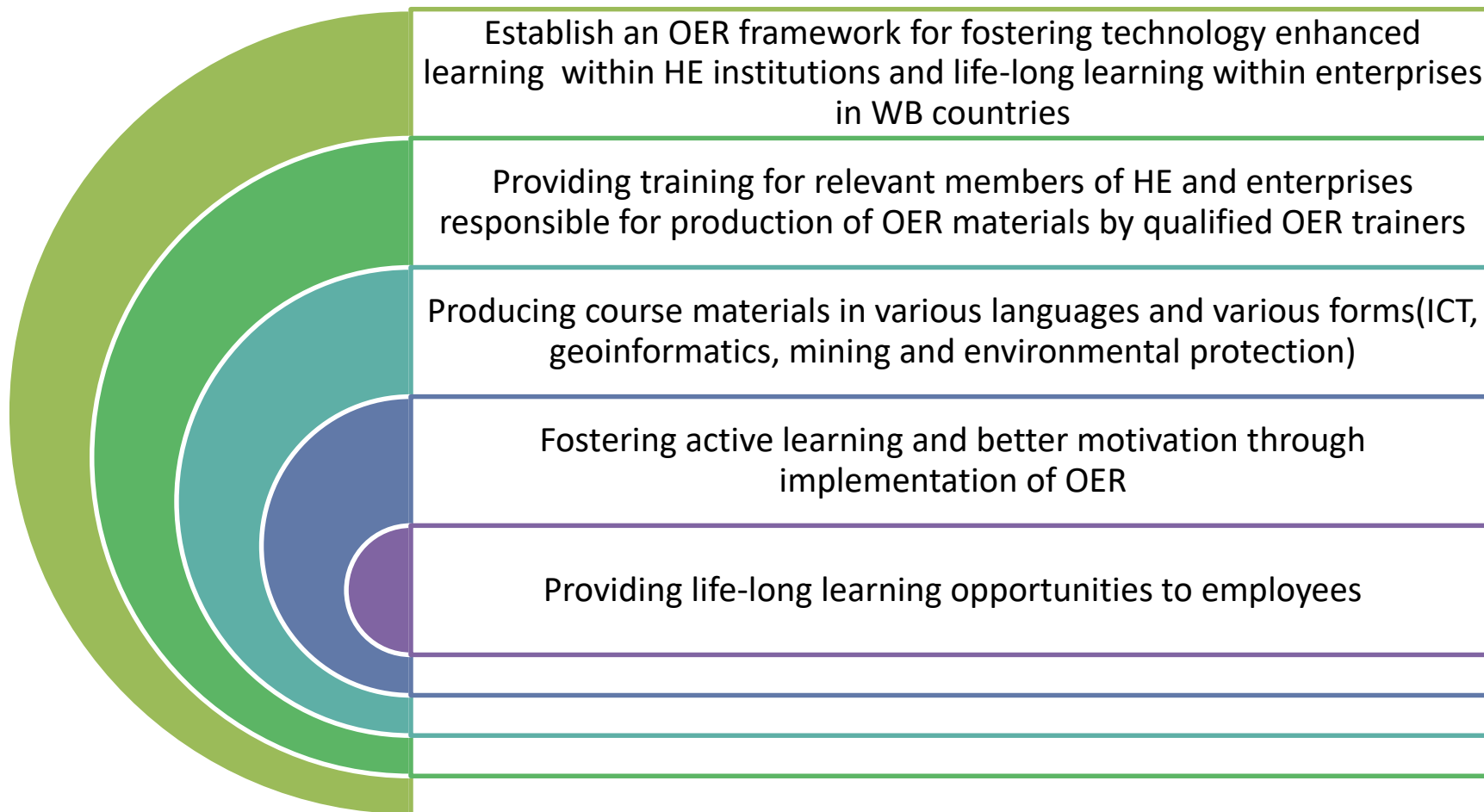
Main tasks:

- Creating OER content
- Establishing cooperation between academic institutions and enterprises in the purpose of sharing knowledge

Open Educational Resources:

- *OER materials are educational materials that can be freely accessed, changed, reused and shared. They include courses, textbooks, videos, tests, software ...*

Objectives of the project



Collaborators and partners

- Six universities from Western Balkan (Beograd, Kragujevac, Niš, Banja Luka, Tuzla, Mediterranean)
- Three universities from European Union (Basilicata, Lasi, Ljubljana)
- Two leading enterprises (Nis-Gazprom Njeft, Arcelor Mittal Prijedor)



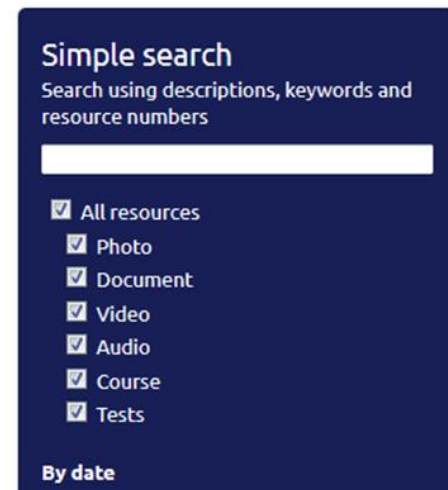
Software solution

EdX platform

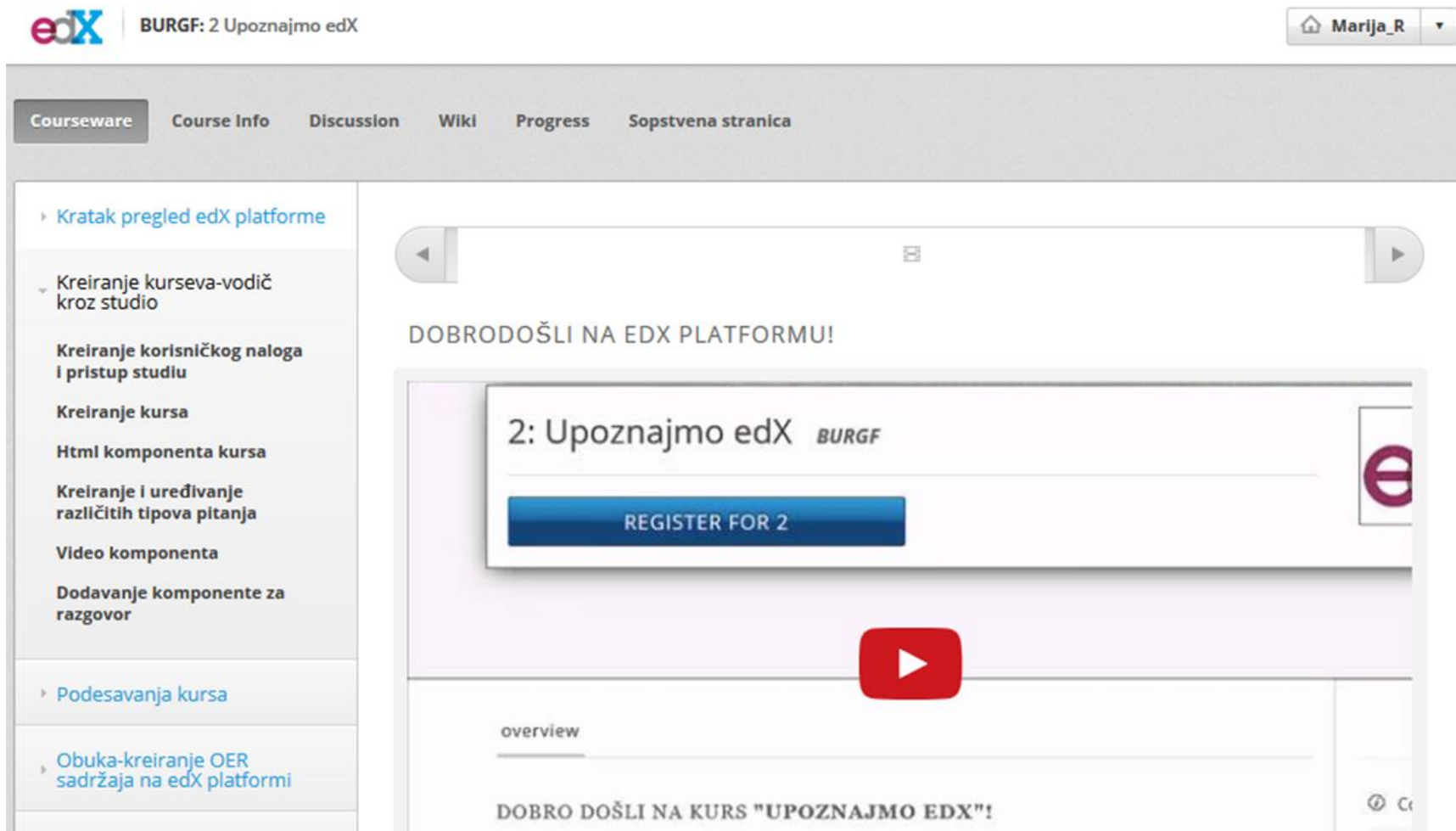


Resource Space

Home | Recently added | Help & advice | Upload



edX course



The screenshot shows the edX course interface. At the top left is the edX logo and the course title 'BURGF: 2 Upoznajmo edX'. On the right, there is a user profile for 'Marija_R'. Below the title is a navigation menu with 'Courseware' selected, and other options like 'Course Info', 'Discussion', 'Wiki', 'Progress', and 'Sopstvena stranica'. A left sidebar contains a list of courseware items, including 'Kratak pregled edX platforme', 'Kreiranje kurseva-vodič kroz studio', 'Kreiranje korisničkog naloga i pristup studiu', 'Kreiranje kursa', 'Html komponenta kursa', 'Kreiranje i uređivanje različitih tipova pitanja', 'Video komponenta', and 'Dodavanje komponente za razgovor'. The main content area features a large blue button labeled 'REGISTER FOR 2' and a red YouTube play button. Below the button, the text 'DOBRO DOŠLI NA KURS "UPOZNAJMO EDX"!' is visible. The top of the main content area also displays 'DOBRODOŠLI NA EDX PLATFORMU!'.

Task types

TEXT INPUT (1 point possible)

A text input problem accepts a line of text from the student, and evaluates the input for correctness based on an expected answer. The answer is correct if it matches every character of the expected answer. This can be a problem with international spelling, dates, or anything where the format of the answer is not clear.

Which US state has Lansing as its capital?

Check

NUMERICAL INPUT (3 points possible)

A numerical input problem accepts a line of text input from the student, and evaluates the input for correctness based on its numerical value.

The answer is correct if it is within a specified numerical tolerance of the expected answer.

Enter the numerical value of Pi:



Task types

DRAG AND DROP WITH OUTLINE

Please label hydrogen atoms connected with left carbon atom.

Hydrogen Hydrogen

Task types

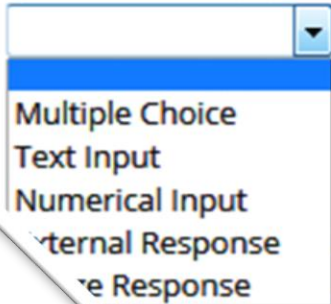
Dropdown EDIT

DROPDOWN (1 point possible)

Dropdown problems give a limited set of options for students to respond with, and present those options in a format that encourages them to search for a specific answer rather than being immediately presented with options from which to recognize the correct answer.

The answer options and the identification of the correct answer is defined in the **optioninput** tag.

Translation between Dropdown and _____ is extremely straightforward:



The screenshot shows a dropdown menu with a blue header and a white body. The options listed are: Multiple Choice, Text Input, Numerical Input, External Response, and Internal Response. The menu is open, showing the options below the header.

Task types

MULTIPLE CHOICE (1 point possible)

A multiple choice problem presents radio buttons for student input. Students can only select a single option presented. Multiple Choice questions have been the subject of many areas of research due to the early invention and adoption of bubble sheets.

One of the main elements that goes into a good multiple choice question is the existence of good distractors. That is, each of the alternate responses presented to the student should be the result of a plausible mistake that a student might make.

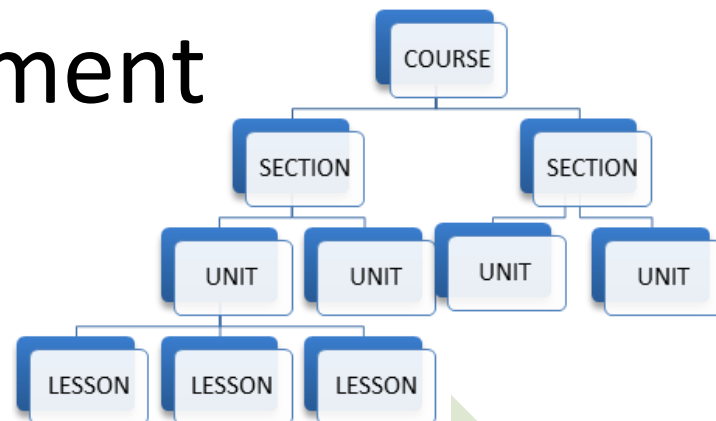
What Apple device competed with the portable CD player?

- The iPad
- Napster
- The iPod
- The vegetable peeler

Main didactical criteria for OER development

Principle of
systematization
and gradualism
in the teaching
process

Didactic
principle of
science



Principle of
active role of
end users in
learning process

Connecting
theory and
practice

Advantages of edX platform (in line with didactical criteria)

Allows adding and easy editing
videos, tasks, texts...

Easy to use

Combining different
components in the
same unit

Detailed description of
learning materials

Wide specter of tasks
in various form

Monitoring a progress of
users

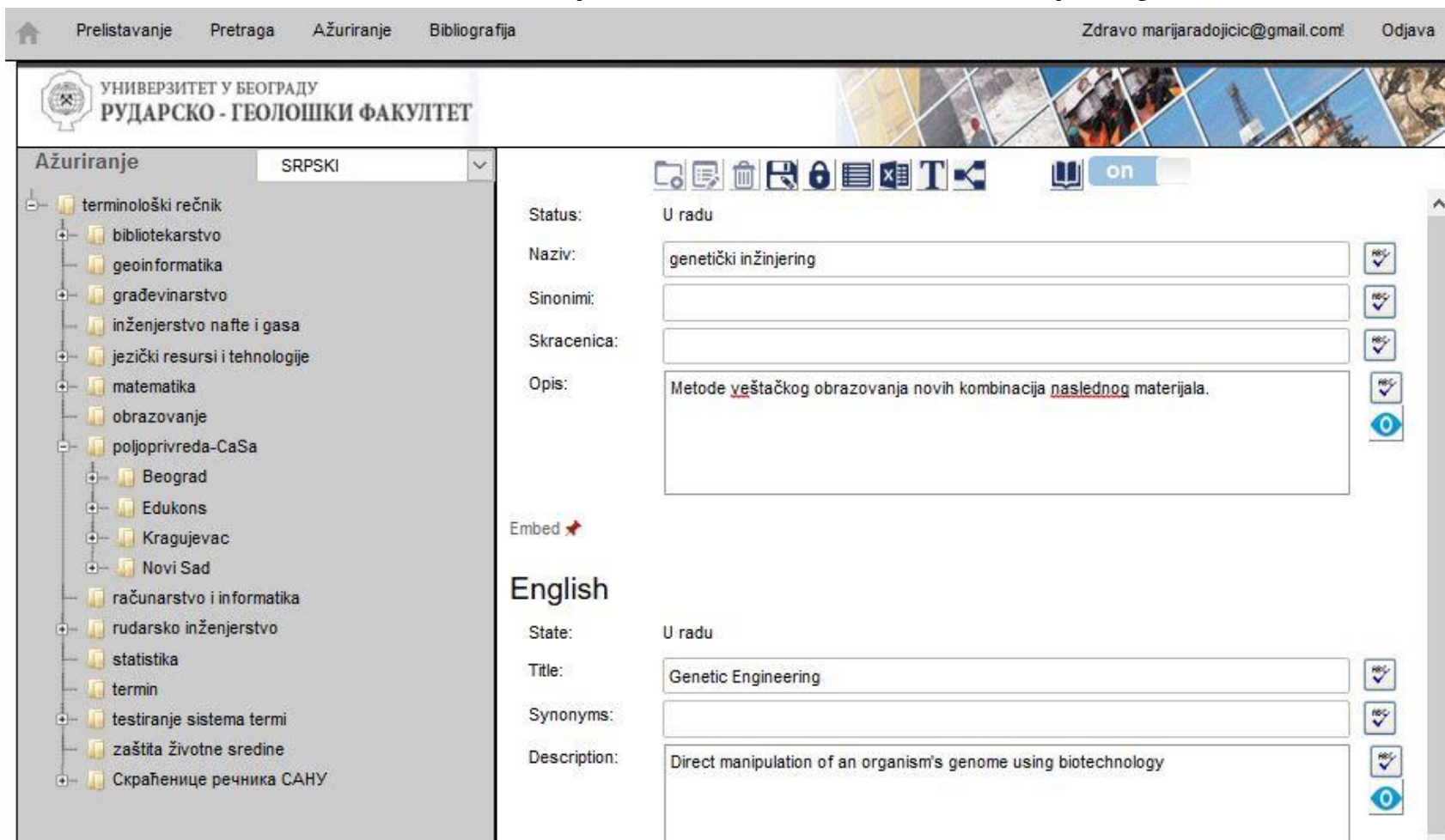
Search terms... Search



The importance of terminological resources for specific domains in electronic format is growing with the rapidly expanding availability of various texts on the web. Terminological

- The importance of terminological resources in electronic format is growing with the rapidly expanding availability of various texts on the web
- Terminological resources are important for many applications
- Machine translation systems and cross-language information retrieval emphasize the need for bilingual and multilingual terminological resources.
- Terminological resources also have a strong educational impact: proper terminology related to that domain both in their mother tongue, and in other languages.
- Hence the need to integrate terminological resources in e-format into the e-learning environment.

CaSa's terms-cooperation between projects







The screenshot displays the CaSa website interface. At the top, there is a navigation bar with links: Prelistavanje, Pretraga, Ažuriranje, Bibliografija, and a user profile section for Zdravo marijaradojicic@gmail.com with an Odjava link. Below the navigation bar is a header for the University of Belgrade, Faculty of Agriculture, Rudarsko-Geološki Fakultet. The main content area is divided into two sections: 'Ažuriranje' (SRPSKI) and 'English'. The 'Ažuriranje' section shows a tree view of categories, with 'poljoprivreda-CaSa' selected. The 'English' section shows a term entry for 'Genetic Engineering' with a description: 'Direct manipulation of an organism's genome using biotechnology'. The 'SRPSKI' section shows a term entry for 'genetički inženjering' with a description: 'Metode veštačkog obrazovanja novih kombinacija naslednog materijala.' The interface includes various icons for editing, deleting, and saving, as well as a search bar and a language toggle.

CaSa's terms-cooperation between projects



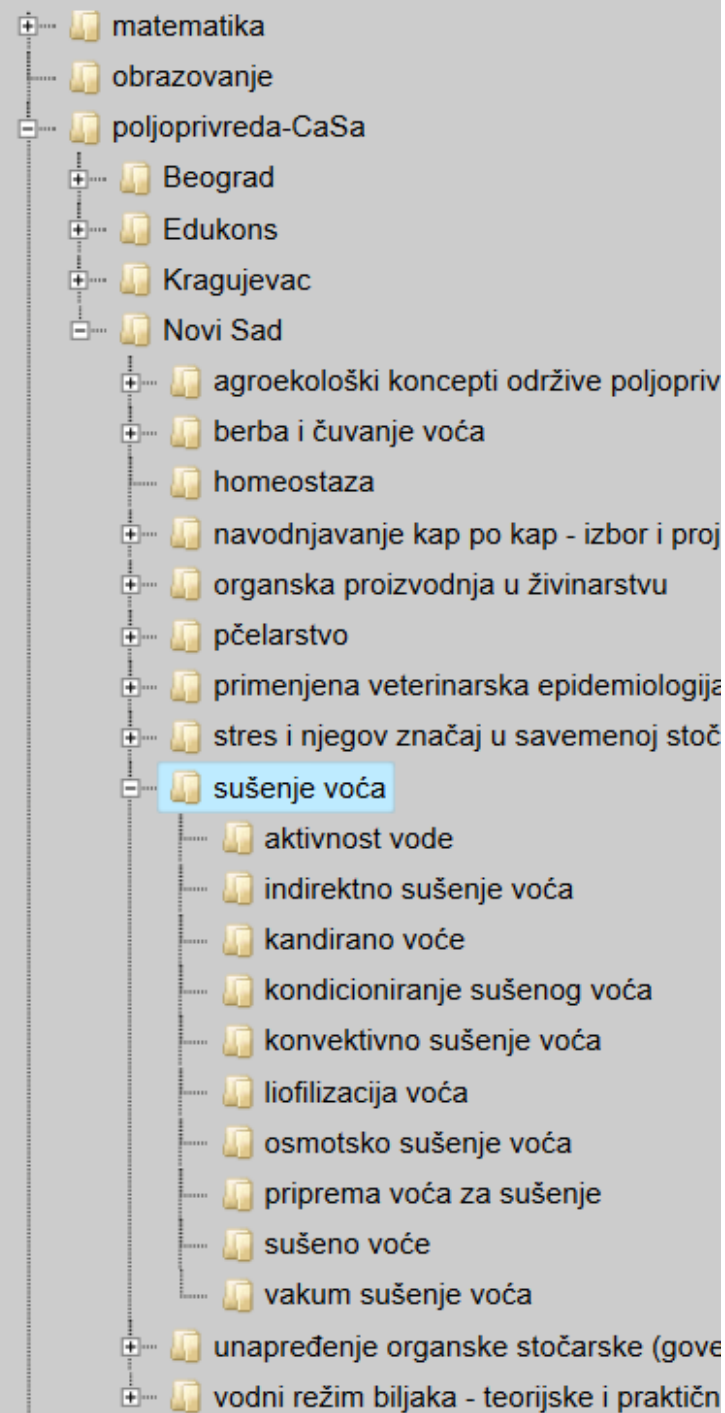
The screenshot shows the website interface for the CaSa terminology project. At the top, there is a navigation bar with links for 'Prelistavanje', 'Pretraga', 'Ažuriranje', and 'Bibliografija'. The user is logged in as 'Korisnik: marijaradojic' and the language is set to 'Odjava'. The main header features the logo of the University of Belgrade and the Faculty of Mining and Geology, along with the text 'УНИВЕРЗИТЕТ У БЕОГРАДУ РУДАРСКО - ГЕОЛОШКИ ФАКУЛТЕТ'. A sidebar on the left shows a tree view of categories, with 'poljoprivreda-CaSa' selected. The main content area displays the title 'terminološki rečnik poljoprivreda-CaSa' and the definition 'Poljoprivreda'. Below the definition, there are buttons for 'Embed', 'Biblisha', 'Nara', and 'Detalino'. At the bottom of the interface, there is another navigation bar with links for 'Prelistavanje', 'Pretraga', 'Ažuriranje', 'Bibliografija', and 'Import iz excela'.

Poljoprivreda-CaSa Agriculture

Termin:	 poljoprivreda-CaSa  agriculture
Definica:	 Poljoprivreda
Nadređeni koncept: :	 terminološki rečnik
Podređeni koncept:	Novi Sad Edukons Beograd Kragujevac

CaSa's terms in Termi cooperation between projects

- 4 Universities
 - Belgrade, Novi Sad, Kragujevac, Educons
- ~34 excel files imported
- ~400 terms from the course
 - Serbian+English
 - Term+Definition
 - Bibliography
- ❖ Terms verification in progress



UNIVERZITET U BEOGRADU
 RUDARSKO - GEOLOŠKI FAKULTET

Prelistavanje SRPSKI

- terminološki rečnik
 - bibliotekarstvo
 - jezički resursi i tehnologije
 - matematika
 - poljoprivreda-CaSa
 - Novi Sad
 - sušenje voća
 - sušeno voće**
 - rudarsko inženjerstvo
 - testiranje sistema termi

terminološki rečnik
 ↳ poljoprivreda-CaSa
 ↳ Novi Sad
 ↳ sušenje voća
 ↳ **sušeno voće**

Definicija: Voće kome je veštačkim putem snižena vlažnost do vrednosti potrebne za bezbedno čuvanje u ambijentalnim uslovima

Bibliografija: 1. Jangam, S.V; Law, C.L; Mujumdar, A.S (2010): *Drying of Foods, Vegetables and Fruits. Volume 1*, ISBN: 978-981-08-6759-1, Published in Sigapur.

Eng: **Dry fruit**

Embed

Eksterne slike

terminological dictionary
 ↳ drying fruit
 ↳ **Dry fruit**

Definition: Fruits which artificially reduced the moisture content required for safe storage under ambient conditions.

Embed

Photo gallery

JRLs

1. Wiki How (Wiki How)

DSpace CaSA NaRA

Search

All of CaSA NaRA Dry fruit Go

Show Advanced Filters

BROWSE

- All of CaSA NaRA
- Communities & Collections

Sušeno voće Dry fruit

Termin:	sušeno voće Dry fruit
Definica:	Voće kome je veštačkim putem snižena vlažnost do vrednosti potrebne za bezbedno čuvanje u ambijentalnim uslovima
	Fruits which artificially reduced the moisture content required for safe storage under ambient conditions.
Nadređeni koncept:	sušenje voća Novi Sad poljoprivreda-CaSa terminološki rečnik
Bibliografija:	Jangam, S.V; Law, C.L; Mujumdar, A.S (2010): <i>Drying of Foods, Vegetables and Fruits. Volume 1</i> , ISBN: 978-981-08-6759-1, Published in Sigapur., ,

Eksterne fotografije:

Linkovi:
 1 Wiki How (Wiki How)

- Tanovic, Brankica (9)
- Delbasic, Goran (8)
- Grahovac, Mila (8)
- Hrustic, Jovana (8)

Novi Sad, Faculty of Agriculture
 Novi Sadu, Poljoprivredni fakultet

Bilingual search in TERMI

Home Prelistavanje Pretraga Ažuriranje Bibliografija Import iz excela Korisnik: marjaradojic Odjava  

Pretraga

geometrija

Sadrži

Srpski

Engleski

geometrija

geometrija (Geometrija je grana matematike koja se bavi proučavanjem i odnosom geometrijskih objekata. Naziv geometrija potiče od 2 grčke reči gea (zemlja) i metri (meriti).)

Nadređeni: [geometrija](#)> [matematika](#)> [terminološki rečnik](#)


Podređeni: [tangenta](#)

geometry (The branch of mathematics concerned with the properties, relationships, and measurement of points, lines, curves, and surfaces.)

Hyperonyms: [geometry](#)> [mathematics](#)> [terminological dictionary](#)

Hyponyms: [tangent line](#)

LaTeX formulas in TERMI



off

Naziv: ABC ✓

Sinonimi: ABC ✓

Skracenica: ABC ✓

Opis: ABC ✓

Neka je funkcija $f(x)$ neprekidna sa svim svojim izvodima do n -tog reda, zaključno sa $(n + 1)$ -vim izvodom u nekoj okolini U tačke c . Ako $x \in U$ i $p \in \mathbb{N}$, onda važi formula:

$$f(x) = f(c) + f'(c)(x - c) + \frac{f''(c)}{2!}(x - c)^2 + \dots + \frac{f^{(n)}(c)}{n!}(x - c)^n + R_n(x)$$

$$R_n(x) = \left(\frac{x - c}{x - \xi}\right)^n \frac{(x - \xi)^{n+1}}{p \cdot n!} f^{(n+1)}(\xi),$$

za neko ξ koje je između c i x . Navedena formula se naziva Tejlorovom formulom u Šlemilih-Rošovom ostatku.

Linking terms from courses to Termi

Rešenje

Jednačine tangenti koje su paralelne zadatoj pravoj su oblika

$$y = 2x +$$

*Tangenta je prava koja u datoj tački
dodiruje krivu. [...]*

Uslov dodira za kružnicu i pravu je

$$r^2(k^2 + 1) = n^2.$$

$$5(4 + 1) = n^2$$

$$n = \pm 5$$

$$2x - y \pm 5 = 0$$

Linking terms from courses to Termi

tangenta - lična karta termina

<i>tangenta</i>	
Naziv:	tangenta
Opis:	Tangenta je prava koja u datoj tački dodiruje krivu.
Naziv(Eng):	tangent line
Opis(Eng):	Tangent line to a plane curve at a given point is the straight line that touches the curve at that point
Nadređeni koncepti:	geometrija matematika terminološki rečnik
Bibliografija:	The Crooked Made Straight: Roberval and Newton on Tangents, Wolfson, Paul R, 2001

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Conclusion

By implementing and promoting the use of modern learning platforms such as edX, BAEKTEL should help raise the quality of education, while at the same time, by analyzing the usage data, improve the process of teaching in general

We expect that the network developed within this project will continue to develop after project termination featuring a wide range of materials on various topics

Institutions that are not project partners are invited to join us in exploring educational platforms and in creating Open Educational Resources within the BAEKTEL project

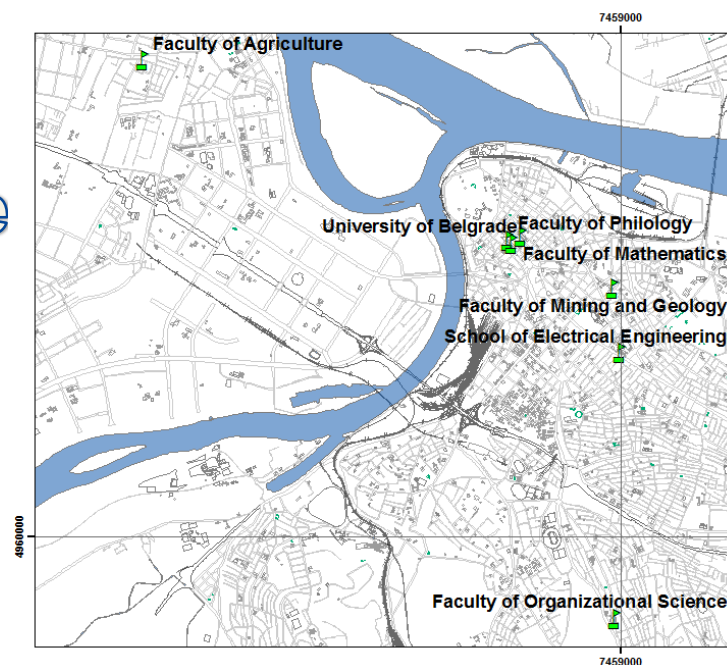


BAEKTEL

Blending academic and entrepreneurial knowledge
in technology enhanced learning



- Thank you for your attention
- Grazie per la vostra attenzione
- Vă mulțumesc pentru atenție
- Hvala za vašo pozornost
- Hvala na pažnji
- Хвала на пажњи



<http://termi.rgf.bg.ac.rs/>

<http://edx.baektel.eu/>

<http://www.baektel.eu/>

Contact: marija.radojicic@rgf.bg.ac.rs