

# Classification scheme OSNO used in institutional repositories at Western Balkan Universities

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In the frame of Tempus project "New library services at Western Balkan Universities" (2010-2013) institutional repositories were established at six universities in the region. University library "Svetozar Markovic" in Belgrade coordinated the project

In Serbia, institutional repositories were established at the universities of Belgrade, Kragujevac and Nis

In neighboring countries:

- Montenegro: institutional repository of the University of Podgorica
- Bosnia and Herzegovina: institutional repositories of the universities of Sarajevo and Tuzla

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After TEMPUS project was completed:

- institutional repository of the University of Banja Luka in Bosnia and Herzegovina (2016–2017)

Since the Institutional repository of the University of Belgrade has been designed for archiving digital objects in all fields of science, the need for single classification scheme has emerged.

Classification system OSNO (General Scheme of Scientific Fields) has been developed in University library "Svetozar Markovic" in Belgrade and incorporated in the institutional repositories in the region.

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According to Serbian library law, Universal decimal classification (UDC) is being used in cataloging of all library materials (currently version 2004)

UDC was not completely suitable due to some weaknesses.

Apart from UDC and single classification scheme which was formerly used in University library "Svetozar Markovic", in process of creating OSNO other classification systems were consulted:

- RVK (Regensburger Verbundklassifikation)
- ÖFOS (Österreichische Systematik der Wissenschaftszweige)

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- **RVK Regensburger Verbundklassifikation**

The Regensburger Verbundklassifikation (RVK) is a classification scheme for academic libraries... which is currently developed cooperatively by a network of 130 academic libraries and institutions in Germany, Austria, Italy and Switzerland. The University of Regensburg Library maintains the RVK as a tool for the organization of knowledge with regard to its technical and organisational requirements.

- **ÖFOS (Österreichische Systematik der Wissenschaftszweige)**

Austrian version of international UNESCO systematic FOS (Fields of Science and Technology) - ÖFOS (Österreichische Systematik der Wissenschaftszweige) was also consulted, especially in the field of biosciences, agriculture and related sciences.

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## UDC summary example

- **621** Mechanical engineering in general. Nuclear technology. Electrical engineering. Machinery
- **621.1** Heat engines in general. Generation, distribution and use of steam. Steam engines. Boilers
- **621.22** Hydraulic energy. Water power. Hydraulic machinery  
Including: Water wheels. Water turbines
- **621.3** Electrical engineering
- **621.4** Heat engines (except steam engines)
- **621.5** Pneumatic energy, machinery and tools. Refrigeration  
Including: Compression and rarefaction equipment. Wind power machines (wind turbines, windmills etc). Refrigeration technology. Production of low temperatures (cryogenics)

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## **RVK example**

- [ZG – ZS Technik](#)
- [ZG](#) Technik allgemein
- [ZH](#) Architektur  
Verw.: Architektur in künstlerischer Hinsicht s. [LH 67000](#) ff.
- [ZI](#) Bauingenieurwesen
- [ZK](#) Bergbau und Hüttenwesen
- [ZL](#) Maschinenbau  
Reg.: [Maschinenbau](#)
- [ZM](#) Werkstoffwissenschaften und Fertigungstechnik
- [ZN](#) Elektrotechnik, Elektronik, Nachrichtentechnik
- [ZO](#) Verkehr, Transport
- [ZP](#) Energietechnik
- [ZQ](#) Automatisierungstechnik, Mechatronik
- [ZS](#) Handwerk und Gewerbe. Verschiedene Technologien  
Verw.: Wirtschaftliche Aspekte s. QR

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engines are assigned in section [ZL 5000 - ZL 5950](#) (subclassification of mechanical engineering).

- [ZL 3000 - ZL 3180](#) Maschinenbau allgemein
- [ZL 3200 - ZL 3268](#) Maschinenkonstruktion
- [ZL 3300 - ZL 3700](#) Betrieb, Sicherheit, Wartung und Reparatur von Maschinen
- [ZL 3750 - ZL 3800](#) Tribologie  
Reg.: [Tribologie](#)
- [ZL 3900 - ZL 3950](#) Behälter
- [ZL 4000 - ZL 4700](#) Maschinenelemente
- [ZL 5000 - ZL 5950](#) **Kraft- und Arbeitsmaschinen**
- [ZL 6000 - ZL 6400](#) Werkzeugmaschinen
- [ZL 7100 - ZL 7800](#) Spezielle Arbeitsmaschinen  
Bem.: Heizungs-, Lüftungs- und Klimatechnik s. [Zl 8600](#) ff. Landwirtschaftliche Maschinen, Landtechnik s. [ZD 7000](#) ff.



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## ÖFOS example

### TECHNISCHE WISSENSCHAFTEN

- 201 Bauwesen
- 202 Elektrotechnik, Elektronik, Informationstechnik
- 203 Maschinenbau
- 204 Chemische Verfahrenstechnik
- 205 Werkstofftechnik
- 206 Medizintechnik
- 207 Umweltingenieurwesen, Angewandte Geowissenschaften
- 208 Umweltbiotechnologie
- 209 Industrielle Biotechnologie
- 210 Nanotechnologie
- 211 Andere Technische Wissenschaften

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3401	<b>Mašinstvo</b>	
340100		Enciklopedije. Leksikoni. Rečnici. Bibliografije
340101		Biografije
340102		Istorija mašinstva
340103		Metodika nastave. Udžbenici
340104		Mašinske konstrukcije
340104A		Tribologija. Maziva
340105		Mašinski elementi
340106		Mašine, alatke
340107		Obrada materijala
340107A		Plastična obrada
340107B		Obrada rezanjem
340107C		Termička obrada
340107D		Metalurgija praha. Sinterovanje
340107E		Zaštitne prevlake
340108		Termotehnika. Motori. Hidraulika
340108A		Parne mašine. Parni kotlovi
340108B		Motori sa unutrašnjim sagorevanjem
340108C		Vodne turbine. Hidraulične mašine
340109		Privredno mašinstvo
340109A		Pneumatski uređaji. Kompresori. Rashladna tehnika
340109B		Transportni uređaji. Mašine za zemljane radove
340110		Mehatronika
340111		Ostala pitanja
3402	<b>Elektrotehnika</b>	

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in OSNO field of electrical engineering is ordered after mechanical engineering, but the sequence of subclassification of mechanical engineering resembles the one in UDC. There are similar examples in other fields of science.

Classification system OSNO has been incorporated in institutional repositories of universities in neighboring countries:

- University of Podgorica in Montenegro
- universities of Sarajevo, Tuzla and Banja Luka in Bosnia and Herzegovina.

Some slight changes in language are included and some subclasses are introduced for local needs.

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- Classification scheme OSNO has over 1700 classes and subclasses. At the time of writing, 4056 objects in institutional repository of the University of Belgrade PHAIDRA BG were indexed by OSNO.
- In PHAIDRA in the region objects can be classified using EuroVoc or OSNO. EuroVoc is a multilingual, multidisciplinary thesaurus covering the activities of the EU. It contains terms in 23 EU languages, but it doesn't completely meet the needs of institutional repository of the universities. Classification scheme OSNO is mandatory for scientific objects because it enables comprehensive information retrieval.

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information retrieval system using specific scientific area as a search criterion from a drop down menu.

The screenshot displays the PHAIDRA (Digitalni Reponizijum Univerziteta u Beogradu) search results page. The interface includes a search bar with fields for 'Korisnik-ID' and 'Lozinka', and a 'Prijava' button. The search results are categorized under 'Rezultati pretraživanja (6 pogodaka)'. The main search criteria are displayed as follows:

- Osnovno pretraživanje:** Klasifikacija. Klasifikacije (klase, podklase). Izvor odgovara "OFOS 2002 - Inženjerstvo, Tehnika..."
- Primenjene klasifikacije:**
  - OSNO - Opšta sistematizacija naučnih oblasti
  - 34: Inženjerstvo. Tehnika uopšte
  - 3401: Mašinstvo
  - 340108: Termotehnika. Motori. Hidraulika
  - 340108A: Parne mašine. Parni kotlovi

Below the search criteria, there are four search results, each represented by a pencil icon and a title:

- [Numerička simulacija krize ključanja u...](#)
- [Prilog modeliranju prostorne...](#)
- [Моделирање процеса одсумпоравања гасова...](#)
- [Detekcija i izolacija otkaza u...](#)

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Comparison between subclasses of subdivision of History in OSNO -*History of European states and peoples* in institutional repositories in Belgrade and Podgorica:

	PHAIDRA BG		PHAIDRA ME
14	Istorijske nauke	14	Istorijske nauke
1415	Istorija pojedinih Evropskih država i naroda	1415	Istorija pojedinih Evropskih država i naroda
141500	Vizantija	141500	Crna Gora
141501	Balkan	141501	Balkan
141502	Istorija Slovena	141502	Istorija Slovena
141503	Istorija južnoslovenskih naroda	141503	Istorija Srba
141504	Jugoslavija	141504	Jugoslavija
141505	Srbija	141505	Srbija
		141506	Istorija Crnogoraca

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Object with topic “history of Montenegro” in institutional repository of University in Podgorica

The screenshot displays the PHAIDRA search interface. At the top, the PHAIDRA logo and the University of Crna Gora (UCG) logo are visible. The search results section shows one result for the topic "history of Montenegro". The search filters are set to "OSNO - Opšta sistematizacija naučnih oblasti" and "14: Istorijske nauke". The search results are displayed in a table with columns for "OSNO", "Opšta sistematizacija naučnih oblasti", "14: Istorijske nauke", "1415: Istorija pojedinih evropskih država i naroda", and "141500: Crna Gora". A link to "Intelektualci i vlast u Crnoj Gori..." is visible below the search results.

PHAIDRA Korisnik-ID:  Lozinka:  Prijava Pomoć Srpski

**Prelistavanje**  
Osnovno pretraživanje  
Sva polja  
Kreni

**Napredno pretraživanje**  
E-Teze

**Rezultati pretraživanja**  
Detalji o:522

Rezultati pretraživanja (1 pogodaka)


Osnovno pretraživanje: Klasifikacija.Klasifikacije ( klase, podklase).Izvor odgovara "OFOS 2002 - Istorijske nauke -..."

Izmeniti pretraživanje

Primjenjene klasifikacije

OSNO - Opšta sistematizacija naučnih oblasti 14: Istorijske nauke  
1415: Istorija pojedinih evropskih država i naroda 141500: Crna Gora

Aktualizujte rezultat pretraživanja...

  
**Intelektualci i vlast u Crnoj Gori...**

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Impresum | Kontakti | Servisna stranica | Uslovi korišćenja  
Univerzitet Crne Gore | Cetinjska 2 | 81000 Podgorica | Tel.: +382 20 414 200 | Web: http://www.ucg.ac.me

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- OSNO has also been incorporated in Phaidra of University in Sarajevo, but at the time of writing the database was not available due to some technical problems. In institutional repository of University of Banja Luka OSNO is being used for classification of master thesis, though not in substantial number.
- Based on aforementioned observations, it can be concluded that OSNO is used to the full extent in institutional repository of the University of Belgrade for uploading doctoral dissertations. It is also considerably in use in University of Nis. In University library in Podgorica majority of doctoral dissertations are classified by OSNO.



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At the moment librarians are uploading documents into institutional repositories, but number of self-archived objects is very small. A general scheme of sciences and scientific areas presented in natural language has been developed in order to make entry of contents descriptions of scientific documents easier for users. OSNO is user-oriented scheme, designed upon the notion that it will be used not only by librarians, but by researchers as well. Since institutional repositories are becoming important part of scientific research, hopefully self-archiving will increase and OSNO will be used in greater extent in the future.

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**THANK YOU**

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