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

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.

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)

- **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.

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)

RVK example

- ZG – ZS **Technik**

- ZG Technik allgemein

- ZH Architektur
  Verw.:Architektur in künstlerischer Hinsicht s. LH 67000 ff.

- ZI Bauingenieurwesen

- ZKBergbau und Hüttenwesen

- ZLMaschinenbau
  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

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. ZI 8600 ff. Landwirtschaftliche Maschinen, Landtechnik s. ZD 7000 ff.

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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INFORUM 2018

3401	**Mašinstvo**		
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	**Elektrotehnika**		

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.

- 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.

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

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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

Object with topic "history of Montenegro" in institutional repository of University in Podgorica

- 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.

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 sheme, 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.

THANK YOU

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