

# **Framework for rapid in-house development of web applications for higher education institutions in Poland**

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# Agenda

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- What is USOS
- Designing software
- Designing tools
  - USOS API (Vila Real 2012)
  - Django USOS (Riga 2013)
- Screen-shots
- Conclusions

- **USOS** is a *student management information system* developed **in-house** for (about **40**) higher education institutions in Poland, owned by **MUCI** consortium.
- It consists of
  - Oracle database,
  - a desktop application developed in Oracle technology for the **university administration**,
  - a suite of web based applications, for handling admission, course registration, grades, student diploma theses, social aid, course surveys and many more, dedicated for **students and academic teachers**.

# USOS – designing for change

- The **general procedures** in all 40 HEI's using USOS are the same since they are regulated by law (the *Act on Higher Education* and accompanying regulations).
- **Specific procedures** may vary, being ruled by local terms of study.
- USOS tries to **adopt to local requirements**, but sometimes local solutions may be a better choice.
- Architecture of USOS applications and used technology should allow for **rapid development** of local software solutions and adjustments.
- Delivering **software**, but also **tools**.

# USOS API (Vila Real 2012)

- A set of **REST-full methods** giving access to the university data by the standard API.
- Plays a role of an **application server** which implements business logic and makes it available to other modules of the software system.
- Publicly available, may be used by any software vendor – <http://apps.usos.edu.pl/developers/api/>.
- Can be used to build **any type of application**, web based, mobile, or desktop, in almost any programming language. However the range of possibilities is **restricted by the API** designed by USOS developers.



- [Introduction](#)
- [Authorization](#)
- [Working with API](#)
  - [USOS API Installations](#)
  - [Basic rules](#)
  - [Datatypes](#)
  - [Vocabulary](#)
  - [Diagrams](#)
  - [Error handling](#)
- [Method Reference](#)
  - [apiref](#) Accessing API docs
  - [apisrv](#) API server data
  - [courses](#) Info on courses
  - [fac](#) Information on faculties
  - [geo](#) Geographical data
  - [local](#) Local modules
    - [clog](#) USOS changelogs
  - [mailing](#) Sending emails
  - [oauth](#) OAuth Authorization
  - [oraconn](#) Raw Oracle queries
  - [terms](#) Info on Academic Terms
  - [tt](#) Accessing activity timetables
  - [users](#) Accessing user info
- [Examples](#)
- [Contact us](#)

[Sign up for an API key](#)

## USOS API Reference

**USOS API** is a simple and fat-free REST protocol, which allows developers to access academic database. In case of this installation, you will be accessing **The University of Warsaw's** data, but there are [many other](#) institutions which use USOS API.

Basically, there are **three ways** to access USOS API:

- **Anonymously:** If you choose not to authenticate, you will be limited only to a subset (but still, fairly usable subset) of API methods. The main advantage of this solution is it's simplicity: just plain old simple HTTP requests.
- **With an API Key:** With one of those, you'll be able to **ask users to share their data** with you. Acquiring an API Key is easy, but you will also have to understand the Authorization stuff (we use a widely known OAuth standard, so there are many client libraries for you to find).
- **Administrative API Key:** This one is big. It might - for example - allow you to run any method as any user. You will need to [contact us](#) directly to get one, though!

USOS API Reference is a complete set of documentation needed in order to use the API.

- Read about our [Authorization model](#).
- Browse [available services](#) (we are still adding new ones!).
- Try some working [examples](#).

*Thanks for your interest!  
USOS API Team.*

# Django USOS

- USOS **web applications** were developed during the last 10 years in technologies like PHP, Smarty, JavaScript and Ajax.
- Designers of USOS decided to rewrite some of the older applications from scratch in a new architecture and technology.
- **Django** was chosen as the framework for the new software.
- While designing the **software architecture** functionalities which might be shared among various applications were recognized and gathered in a separate framework – **Django USOS**
- An option for applications which need **unlimited access** to the data, are **web-based** and do not need **flexibility of USOS API**

# Django USOS framework

- Written in **Python** and based itself on **Django framework**.
- Has direct access to USOS central Oracle database.
- Contains libraries, components and plug-ins delivering many **services** to the client applications.
- The list of **delivered services** contains:
  - Template which defines layout of pages and their constant elements (like title bar, left menu), the general appearance of the application and some elements of the graphic interface, like info boxes, message boxes, hints, icons.
  - Mechanism supporting different language versions of the application.



# Django USOS framework

- The list of **delivered services** (continued):
  - Mechanism supporting error handling.
  - Data models which transform Oracle tables into Django objects.
  - Authentication based on CAS.
  - Mechanism for defining user privileges.
  - Some useful extensions to Django template language.
  - Libraries for connecting to USOS API, building database queries, supporting caching, and system configuration.
  - Template of an administration module with interface for administrators delivering functions such as acquisition of user session and temporarily shutting down service.
  - Simple search mechanism and mailing service.
  - Mechanism for building software package and installing software at the server.

# Django USOS sample application

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Comes with an **application template**, which is ready to use when the new project is created. Such application is a bases for building other specific functionalities.

It takes **5 minutes** to get an application like the one demonstrated on the following screen shots ...



- SAMPLE APP
- PEOPLE
- U-MAIL

# Hello, sample\_app!

## Sample page.

Hello, sample\_app.  
Have a nice day.



# Login required

[back to previous page](#)



This page is only available to logged in users  
[Go to the Central Authentication Service](#)



- SHORT CUTS
- STATIC PAGES
- USERS
  - ▶ privileges
  - ▶ temporary accounts
- SENTRY LOGS

## Administration

### Super Admin Panel

#### USER MODE

<input type="text" value="user personal number (PESEL)"/>	<input type="button" value="START"/>
<input type="text" value="user OS_ID"/>	<input type="button" value="START"/>
<input type="text" value="name or last name"/>	<input type="button" value="START"/>

---

#### TECHNICAL BREAK

Start:	<input type="text" value="start date"/>
End:	<input type="text" value="end date"/>

---

#### STATUS OF USOS API

✓ Available (refresh)

#### ADMINISTRATIVE TASKS

- Refresh cache of organizational units



SHORT CUTS

STATIC PAGES

USERS

- ▶ privileges
- ▶ temporary accounts

SENTRY LOGS

## Managing static pages



The mechanism of static pages allows you to define static HTML documents, which will be available through left menu in section 'Information'.

File with the web page should contain HTML code that will appear as the content of the page. It should not contain tags `<html>`, `<head>` or `<body>`.

### ADD STATIC PAGE

name:

The name will be visible in page URL. The name also serves as the page identifier and must be different from other pages names. This field can only contain letters, digits, underscores and hyphens (it cannot contain accented characters).

Title:

Page:

The application will first try to display page in the language in which a user is viewing portal. If a page in the given language is not available, the page in default application language (Polish) will be displayed.

Pages and/or titles for alternative languages can be defined below (optional).

The application will interpret files as HTML documents. Code from the file will be nested in application layout.

Language: *English*

Title [en]:

Page [en]:



SHORT CUTS

STATIC PAGES

USERS

▶ privileges

▶ temporary accounts

SENTRY LOGS

## User privileges



Those with a CAS account can be given additional privileges that will allow them to perform some activities normally reserved only for the super-administrators of the application.

Privileges are granted on behalf of the organizational units of the university. A person with the privileges granted on behalf of the unit will be able to perform additional actions only for objects associated with this unit.

### Grant privileges to a person

Search for people:

### Filter the list of people

Unit:

Privileges:

Person:

### List of people with additional privileges

<input type="checkbox"/>	First name ▲▼ Last name ▲▼	E-mail	Phone number
<input type="checkbox"/>	Ewa397 Kowalska397	jmd@mimuw.edu.pl	44-00-111
<input type="checkbox"/>	Jan319 Kowalski319	kowalski319@usos.pl	44-00-111

Elements 1..2 of 2



SHORT CUTS

STATIC PAGES

USERS



- ▶ privileges
  - ▶ dr Ewa397 Kowalska397
  - ▶ temporary accounts

SENTRY LOGS

## dr Ewa397 Kowalska397

### Edit privileges

#### Personal information

First name:	Ewa397	
Last name:	Kowalska397	
E-mail:	jmd@mimuw.edu.pl  Send a message via U-MAIL	
USOSweb:	<a href="#">USOSweb page</a>	
Unit:	Faculty of Mathematics, Informatics, and Mechanics	
Personal number (PESEL):	61063039705	
Phone number:	44-00-111	
<input type="button" value="LOGIN AS THIS USER"/>		

#### Privileges

00000000	University of Warsaw
	Possibility to work in user mode
10000000	Faculty of Mathematics, Informatics, and Mechanics
	Possibility to work in user mode

#### Edit privileges

- [00000000] University of Warsaw in sub-units 
  - Possibility to work in user mode
- [04000000] Vice-rector for research and international relations
- [05000000] Vice-Rector for Student Affairs
- [10000000] Faculty of Mathematics, Informatics, and Mechanics in sub-units 
  - Possibility to work in user mode



## Privileges

00000000	University of Warsaw
	Possibility to work in user mode
10000000	Faculty of Mathematics, Informatics, and Mechanics
	Possibility to work in user mode

## Edit privileges

HIDE

- [00000000] University of Warsaw in sub-units 
  - Possibility to work in user mode
- [04000000] Vice-rector for research and international relations
- [05000000] Vice-Rector for Student Affairs
- [10000000] Faculty of Mathematics, Informatics, and Mechanics in sub-units 
  - Possibility to work in user mode
- [11000000] Faculty of Physics
- [12000000] Faculty of Chemistry
- [13000000] Faculty of Geology
- [14000000] Faculty of Biology
- [19000000] Faculty of Geography and Regional Studies
- [21000000] Faculty of Journalism and Political Science
- [22000000] Faculty of Law and Administration
- [23000000] Faculty of Education
- [24000000] Faculty of Economic Sciences
- [25000000] Faculty of Psychology
- [26000000] Faculty of Management
- [30000000] Faculty of Polish Studies
- [31000000] Faculty of History
- [32000000] Faculty of Applied Linguistics
- [33000000] Faculty of Modern Languages
- [34000000] Faculty of Applied Social Sciences and Resocialization
- [35000000] Faculty of Philosophy and Sociology
- [36000000] Faculty of Oriental Studies



SAMPLE APP

PEOPLE

U-MAIL

## Sending a message

### Message details

From:	Jan132799 Kowalski132799 <kowalski132799@usos.pl>
To:	0 recipients in total   <a href="#">show/hide</a> Type the individual addresses in the following lines or separated by commas <input type="text"/> <input type="checkbox"/> send a copy of this message to me also
Subject:	<input type="text"/>

### Content

Limit 15000, entered 0 characters

I want to receive a report with a summary of the send operation

[SAVE TO THE CLIPBOARD](#) [LOAD FROM THE CLIPBOARD](#) [SEND](#)


### Sending mail system status

✓ System is available ([check](#))




- SAMPLE APP
- PEOPLE**
- U-MAIL


## Search for people

 Search for people:

You can enter the beginning part of *name* or *last name* of the searched person.  
You will see a short list of the best matching results.

Status of the people quick search system

 System is available ([check](#))

 You are not logged. You can only search for staff members.

[SAMPLE APP](#)[PEOPLE](#)[U-MAIL](#)

## Search for people


 Search for people:

You can enter the beginning of the name  
You will see a short list of the results

Adrian <b>Kowalski</b>	Institute of English Studies
Adam <b>Kowalski</b>	Faculty of Law and Administration
Adam <b>Kowalski</b>	Institute of Social Prevention and Resocialization
Adam <b>Kowalski</b>	Faculty of Physics
Adam <b>Kowalski</b>	Faculty of Management

Number of hits: 6 lub więcej [Zaczynj wpisywać imię lub nazwisko by wyświetlić odpowiedź...](#)

### Status of the people quick search system

 System is available ([check](#))




SAMPLE APP

PEOPLE


U-MAIL

## Search for people




















 Search for people:

You can enter the beginning part of *name* or *last name* of the searched person.  
You will see a short list of the best matching results.

Status of the people quick search system

 System is available ([check](#))

Found many persons matching the given criteria. The following list contains 19 best results.  
If you are looking for a person not on this list, try to reformulate your query.  
You can also go to [table search mode](#).

1	<b>Andrzej Kowalski</b>	Institute of Ethnology and Cultural Anthropology	<a href="#">Person homepage</a> 
2	<b>Adrian Kowalski</b>	Institute of English Studies	<a href="#">Person homepage</a> 
3	<b>Aleksander Kowalski</b>	Faculty of Geography and Regional Studies	<a href="#">Person homepage</a> 
4	<b>Aleksander Kowalski</b>	Faculty of Law and Administration	<a href="#">Person homepage</a> 
5	<b>Aleksander Kowalski</b>	Faculty of Management	<a href="#">Person homepage</a> 
6	<b>Andrzej Kowalski</b>	Centre for Europe	<a href="#">Person homepage</a> 
7	<b>Adam Kowalski</b>	Faculty of Management	<a href="#">Person homepage</a> 
8	<b>Adam Kowalski</b>	Institute of Social Prevention and Resocialization	<a href="#">Person homepage</a> 
9	<b>Andrzej Kowalski</b>	Institute of History	<a href="#">Person homepage</a> 
10	<b>Antoni Kowalski</b>	Faculty of Chemistry	<a href="#">Person homepage</a> 
11	<b>Andrzej Kowalski</b>	Institute of Political Sciences	<a href="#">Person homepage</a> 
12	<b>Aleksander Kowalski</b>	Faculty of Law and Administration	<a href="#">Person homepage</a> 
13	<b>Adrian Kowalski</b>	Faculty of Geography and Regional Studies	<a href="#">Person homepage</a> 
14	<b>Arkadiusz Kowalski</b>	Faculty of Management	<a href="#">Person homepage</a> 
15	<b>Aleksander Kowalski</b>	Faculty of Mathematics, Informatics, and Mechanics	<a href="#">Person homepage</a> 
16	<b>Alexander Kowalski</b>	Faculty of Management	<a href="#">Person homepage</a> 
17	<b>Arkadiusz Kowalski</b>	Institute of Anthropocentric Linguistics and Culturology	<a href="#">Person homepage</a> 
18	<b>Adam Kowalski</b>	Faculty of Law and Administration	<a href="#">Person homepage</a> 
19	<b>Adam Kowalski</b>	Faculty of Physics	<a href="#">Person homepage</a> 




SAMPLE APP


PEOPLE





















U-MAIL

## Search for people (table mode)

 Search for people:

You can enter any part of *name* or *last name* of the searched person.  
 You will see the full list of results divided into pages.

 Currently you are using table-display mode. Search in this mode can last long.  
 If you're expecting a small number of results, go back to **quick search mode**.

First name ▲▼	Last name ▲▼	Unit	Options
Jan10	Kowalski10	Faculty of Mathematics, Informatics, and Mechanics	Person homepage 
Jan1000	Kowalski1000	Faculty of Mathematics, Informatics, and Mechanics	Person homepage 
Jan100000	Kowalski100000	Faculty of Journalism and Political Science	Person homepage 
Jan100003	Kowalski100003	Faculty of Journalism and Political Science	Person homepage 
Jan100005	Kowalski100005	Faculty of Journalism and Political Science	Person homepage 
Jan100007	Kowalski100007	Faculty of Journalism and Political Science	Person homepage 
Jan100010	Kowalski100010	Faculty of Journalism and Political Science	Person homepage 
Jan100013	Kowalski100013	Faculty of Law and Administration	Person homepage 
Jan100014	Kowalski100014	Institute of International Relations	Person homepage 
Jan100017	Kowalski100017	Institute of International Relations	Person homepage 
Jan100027	Kowalski100027	Faculty of Journalism and Political Science	Person homepage 
Jan100028	Kowalski100028	Institute of Polish Culture	Person homepage 
Jan100038	Kowalski100038	Institute of International Relations	Person homepage 
Jan100039	Kowalski100039	Faculty of Management	Person homepage 
Jan100043	Kowalski100043	Faculty of Management	Person homepage 
Jan100044	Kowalski100044	Institute of Applied Linguistics	Person homepage 
Jan100045	Kowalski100045	Faculty of Management	Person homepage 
Jan100046	Kowalski100046	Faculty of Journalism and Political Science	Person homepage 
Jan100047	Kowalski100047	Faculty of Management	Person homepage 
Jan100049	Kowalski100049	Faculty of Management	Person homepage 

# Apps based on Django USOS

- We tested Django USOS as the software framework on two applications:
  - **APD** (Archive of Diplomas for uploading and reviewing diploma theses) – screen shots follow
  - **USOSmail** (mailing service for groups of users defined in USOS, like students of a particular study program or students attending a particular course).



QUICK START

STATIC PAGES

FILES

- ▶ file types
- ▶ limits
- ▶ visibility

THESES

- ▶ settings

USERS

- ▶ permissions
- ▶ temporary accounts

SENTRY LOGS

## Administration of Theses Archive Super Admin Panel

USER MODE

<input type="text" value="user personal number (PESEL)"/>	<input type="button" value="START"/>
<input type="text" value="user OS_ID"/>	<input type="button" value="START"/>
<input type="text" value="name or last name"/>	<input type="button" value="START"/>
<input type="button" value="FINISH"/>	

TECHNICAL BREAK

Start:	<input type="text" value="start date"/>
End:	<input type="text" value="end date"/>
<input type="button" value="CANCEL"/> <input type="button" value="SET"/>	

ADMINISTRATIVE TASKS

- ▶ Refresh cache of organizational units
- ▶ Refresh cache of thesis catalogue

STATUS OF USOS API

✓ Available (refresh)

FILE TYPES

Extensions: tgz, pdf, zip,  
MIME types: image, application,

FILE LIMITS

The length of the description limit:	300 characters
Allowable size:	25.0 MB
The number of file sets limits:	BSc: 1, MSc: 1, PhD: 1





- QUICK START
- STATIC PAGES
- FILES
  - ▶ file types
  - ▶ limits
  - ▶ visibility
- THESES
  - ▶ settings
- USERS
  - ▶ permissions
  - ▶ temporary accounts
- SENTRY LOGS

## Acceptable types for thesis files


[back to main panel](#)

 You can set the allowed extensions and types for thesis files.

FILE EXTENSIONS		
Allowed	Extension	Action
<input checked="" type="checkbox"/>	*.tgz	delete
<input checked="" type="checkbox"/>	*.pdf	delete
<input checked="" type="checkbox"/>	*.zip	delete
<input type="checkbox"/>	*.doc	delete

 Add extension:

MIME TYPES		
Allowed	Type	Action
<input type="checkbox"/>	text	delete
<input checked="" type="checkbox"/>	image	delete
<input checked="" type="checkbox"/>	application	delete
<input type="checkbox"/>	video	delete
<input type="checkbox"/>	multipart	delete
<input type="checkbox"/>	model	delete
<input type="checkbox"/>	audio	delete
<input type="checkbox"/>	message	delete

 Add type:



QUICK START

U-MAIL

MY THESES

- ▶ bachelor and master
- ▶ supervisor
- ▶ reviewer
- ▶ committee member

MY TASKS

- ▶ bachelor and master
- ▶ write review

MY DIPLOMAS

MY REPORTS

## My theses and tasks



This page contains a preview of your theses (left column) and tasks (right column). The theses and tasks are grouped according to your role and type of activities to be done. Each preview contains a maximum of 3 theses with the latest date of submission. To see more theses, click the name of the role or task.

### Bachelor and master theses

<b>SUPERVISOR</b>	not submitted   2013   2012   2011   2010   2009   2008   2007   2006   2005   2004   2003   2002   2001
Correlation-based compression of the statistics generated by the distributed secondary storage system	
Simulation of a robot exploring an unknown environment	
Archive of Diploma Theses in new architecture	
show all	

<b>REVIEWER</b>	2012   2011   2010   2009   2008   2007   2006   2005   2004   2003   2002   2001
Low-power Wireless Networks for Mobile Applications	
Integrating Cooperative Scans in a column-oriented DBMS	
Just-in-time Compilation in Vectorized Query Execution	
show all	

<b>COMMITTEE MEMBER</b>	2011   2008
USOS: Reporting system for students grades	
Ankieter 2 - University Polling System	
An Internet system for managing tennis clubs	
show all	

### My tasks

<b>WRITE REVIEW</b>	
Correlation-based compression of the statistics generated by the distributed secondary storage system	

My home page in the catalogue

QUICK START

SEARCH

- ▶ quick
- ▶ advanced

THESES

- ▶ theses catalogue
- ▶ Correlation-based compression of the statistics generated by the distributed secondary storage system

PEOPLE

- ▶ search for people

# Correlation-based compression of the statistics generated by the distributed secondary storage system

## Master thesis

[back to previous page](#)

### Status



← CREATE NEW SET OF FILES AND FORWARD TO CORRECTION **i** **i** THIS IS READY FOR DEFENCE - END THESIS SERVICE PROCESS →

**i** If you know that all reviews are already stored in the Archive of Diploma Theses or remaining reviews will be delivered outside of the Archive of Diploma Theses, you can change the thesis status to *Ready for defence*, to end thesis service process in the Archive of Diploma Theses.

### Thesis information

Language of the thesis:	English [EN]
Title:	Correlation-based compression of the statistics generated by the distributed secondary storage system Kompresja statystyk poprzez wykrywanie korelacji w rozproszonym systemie pamięci masowej
Author:	Dominik Borowiec <small>Second cycle degree - magister - in informatics for study program DU-INF Date of defences: not given</small> Message to the authors
Thesis supervisor:	dr Janina Mincer-Daszkwicz
Seminar:	Distributed Systems
Erasmus code:	[11.3] Informatics, Computer Science
Organizational unit:	Faculty of Mathematics, Informatics, and Mechanics
Date of approval of the subject:	Sept. 18, 2012
Date of submission:	June 5, 2013
Abstract:	Distributed systems save large amounts of logs to enable delayed investigation of their behavior. One kind of such logs are statistics, which are sequences of frequently probed values of the measures built into the monitored system. The thesis proposes a new approach for compression of the statistics which are downloaded for analysis from customers of the NEC HYDRAsTOR system. The designed compressor uses numerical relationships between values of the samples of the statistics, discovered earlier by a special tool on the support's site, and some domain-knowledge about the format of files. Files compressed in this manner should be further compressed with a general-purpose compressor, like bzip2. Experiments on real data received from customers proved that the size of packages downloaded from customers can be decreased by about 50% when using the described approach in comparison with the usage of the bzip2 tool only. Systemy rozproszone zapisują znaczne ilości logów, co umożliwiła późniejszą analizę ich działania. Jednym z rodzajów logów są statystyki, będące ciągami często próbkowanych mierników wbudowanych w monitorowany system. Niniejsza praca prezentuje nowe podejście do kompresji statystyk pobieranych do analizy od klientów systemu NEC HYDRAsTOR. Zaprojektowany kompresor wykorzystuje zależności numeryczne pomiędzy próbkami statystyk a także wiedzę dziedzinową na temat formatu kompresowanych plików. Wspomniane zależności numeryczne są uprzednio wykrywane za pomocą specjalnego narzędzia uruchamianego na maszynach należących do firmy świadczącej wsparcie techniczne. Pliki kompresowane przy użyciu przedstawionego w pracy programu powinny być dodatkowo kompresowane za pomocą narzędzi ogólnego przeznaczenia, takich jak np. bzip2. Eksperymenty na prawdziwych danych otrzymanych od klientów dowiodły, że opisywane rozwiązanie pozwala na zmniejszenie o 50% rozmiarów plików pobieranych od klientów, w porównaniu do sytuacji, gdy pliki te kompresowane są jedynie za pomocą programu bzip2.



QUICK START

SEARCH

- ▶ quick
- ▶ advanced

THESES

- ▶ theses catalogue
- ▶ Correlation-based compression of the statistics generated by the distributed secondary storage system
- ▶ draft of the review

PEOPLE

- ▶ search for people

## Draft of the review

Correlation-based compression of the statistics generated by the distributed secondary storage system

[back to thesis](#)

### Review data

Thesis title:	Correlation-based compression of the statistics generated by the distributed secondary storage system
Thesis author:	Dominik Borowiec
Keywords:	lossless compression, correlation, logs analysis, data mining, distributed systems
Set of questions:	[0000-STANDARD] A standard set of questions at the University of Warsaw
Reviewer:	dr Janina Mincer-Daszkiewicz
Version of the thesis:	1

### Files attached to the reviewed thesis version

**152005\_masters\_thesis.pdf:** Master's Thesis.  
 size: 1.1 MB | language: English [EN] | submitted on 2013-06-02 by Dominik Borowiec  
 Version of the thesis: 1

### Content of the review



Review is not yet ready for approval:  
 There are no answers to questions: 1, 2, 3, 4, 5, 6, 7, 8, 9  
 No grade selected

<b>i</b>	<a href="#">COPY...</a> <a href="#">EDIT ANSWERS</a>	<a href="#">APPROVE REVIEW</a> <a href="#">CLEAR DRAFT</a>
1.	<b>Is the content of the thesis consistent with the title?</b>	
	<i>no answer is given</i>	
2.	<b>Evaluation of the thesis layout, division of contents, order of the chapters, completeness of the arguments etc.</b>	
	<i>no answer is given</i>	
3.	<b>Factual evaluation</b>	
	<i>no answer is given</i>	
4.	<b>Does the thesis constitute a new approach, and to what extent?</b>	
	<i>no answer is given</i>	
5.	<b>Characteristics of the choice and usage of sources</b>	
	<i>no answer is given</i>	
6.	<b>Evaluation of the formal aspect of the thesis (correctness of language, mastery in technique of writing, table of contents, footnotes)</b>	
	<i>no answer is given</i>	
7.	<b>The way in which the thesis is used (publication, sharing with institutions, courses)</b>	

# EVA (EVALuation)

- In **January** 2013 authorities of the Faculty of Mathematics, Informatics, and Mechanics asked for the new application which would support **staff evaluation**.
- **EVA (EVALuation)** server was installed **in a day**, giving the basic functionality delivered by Django USOS.
- The main functionality required from the dean was ready **in a month** (one full time programmer).
- **In a month and a half** after final tests the service was delivered to the end users.
- The evaluation supported by EVA run in **April-May**, final reports were printed in **June**.
- This has been a real test of Django USOS as the framework supporting the **RAD approach**.

[MAIN PAGE](#)[CONTACT](#)

---

# Ewaluacja Nauczycieli Akademickich

---

Szanowni Państwo,

Witam na stronach aplikacji EVA, wspomagającej proces dokonywania ocen okresowych pracowników Wydziału MIM UW.

Mam nadzieję, że dzięki wspomaganiu przez ten system oceny będą przebiegały sprawniej i wygodniej dla wszystkich osób w nie zaangażowanych.

Osoby oceniane, opiniujące i oceniające proszę o zalogowanie się do aplikacji i wypełnienie odpowiednich pozycji kwestionariusza oceny.

Z poważaniem,

Dziekan Wydziału MIM UW.

---



SHORT CUTS

STATIC PAGES

USERS

- ▶ privileges
- ▶ temporary accounts

SENTRY LOGS

## Administration Super Admin Panel

USER MODE

<input type="text" value="user personal number (PESEL)"/>	<input type="button" value="START"/>
<input type="text" value="user OS_ID"/>	<input type="button" value="START"/>
<input type="text" value="name or last name"/>	<input type="button" value="START"/>

TECHNICAL BREAK

Start:	<input type="text" value="start date"/>
End:	<input type="text" value="end date"/>

STATUS OF USOS API

✓ Available (refresh)

ADMINISTRATIVE TASKS

Refresh cache of organizational units

SHORT CUTS

STATIC PAGES

USERS

▶ privileges

▶ temporary accounts

SENTRY LOGS

## Managing static pages



The mechanism of static pages allows you to define static HTML documents, which will be available through left menu in section 'Information'.

File with the web page should contain HTML code that will appear as the content of the page. It should not contain tags <html>, <head> or <body>.

### ADD STATIC PAGE

name:

The name will be visible in page URL. The name also serves as the page identifier and must be different from other pages names. This field can only contain letters, digits, underscores and hyphens (it cannot contain accented characters).

Title:

Page:

The application will first try to display page in the language in which a user is viewing portal. If a page in the given language is not available, the page in default application language (Polish) will be displayed.

Pages and/or titles for alternative languages can be defined below (optional).

The application will interpret files as HTML documents. Code from the file will be nested in application layout.

Language: *English*

Title [en]:

Page [en]:

ADD

### STATIC PAGES

Order	name	Title	Language versions	Visibility	Flags	Actions	Welcome page
	home	Main Page	Polish English				WELCOME
	contact	Contact	Polish English				CONTACT

Pages can be hidden, publicly visible lub visible only for logged in. If a page is a welcome page or a contact page, then it must be publicly visible. If the page is a technical break page, then it must be hidden.

If the name of the language is highlighted in green, then it means, that the application detects the page for that language. If the page for the language is missing, but page in application default language is available, it will be used. Otherwise a 404 error will be generated.

You can click the name of the language to preview the page in the given language.



[SHORT CUTS](#)[STATIC PAGES](#)[USERS](#)

- ▶ privileges
- ▶ Ewa387
- Kowalska387
- ▶ temporary accounts

[SENTRY LOGS](#)

## Ewa387 Kowalska387

### Edit privileges

[⊕ back to previous page](#)

### Personal information

First name:	Ewa387	
Last name:	Kowalska387	
E-mail:	<a href="mailto:kowalska387@usos.pl">kowalska387@usos.pl</a> <a href="#">Send a message via U-MAIL</a>	
USOSweb:	<a href="#">USOSweb page</a>	
Person unit:	<a href="#">Faculty of Mathematics, Informatics, and Mechanics</a>	
Phone number:	44-00-111	
Room:	Office room no 2150 Budynek Dydaktyczny - Wydział Matematyki, Informatyki i Mechaniki - Kampus Ochota	
<a href="#">LOGIN AS THIS USER</a>		

### Privileges

10000000	<a href="#">Faculty of Mathematics, Informatics, and Mechanics</a> <i>and in sub-units</i>	<a href="#">remove</a>
	<a href="#">Dodawanie opiniodawców ocenianych osób</a>	<a href="#">remove</a>
	<a href="#">Koordynowanie przebiegiem oceny okresowej</a>	<a href="#">remove</a>
		<a href="#">delete all</a>

### Add privileges

Unit:	<input type="text" value="[00000000] University of Warsaw"/>	<input type="checkbox"/> in sub-units
Privileges:	<input type="checkbox"/> Possibility to work in user mode <input type="checkbox"/> Koordynowanie przebiegiem oceny okresowej <input type="checkbox"/> Dodawanie opiniodawców ocenianych osób <input type="checkbox"/> Wgląd w dane ocenianych osób	
<a href="#">SAVE</a>		



EWALUACJE

OPINIODAWCY

## Ewaluacje

### Zarządzanie ewaluacjami

→ [Stwórz nową ewaluację](#)

#### Lista ewaluacji

#	Unit ▲▼	Cykl dydaktyczny ▲▼	Data rozpoczęcia ▲▼	Data zakończenia ▲▼	Oceny ▲▼	Options
1	Faculty of Physics	Academic year 2013/14	2013-02-01 00:00:00	2013-02-28 00:00:00	<b>1 / 3</b>	<a href="#">Szczegóły</a> ↗ <a href="#">Lista osób</a> ↗



## Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

### Lista ocenianych osób

[Wróć do listy ewaluacji](#)

**Dodaj pracownika**

**i** Search for people:

**Oceniani pracownicy**

#	Person ▲▼	Unit ▲▼	Stanowisko ▲▼	Zatrudniono	Raport osiągnięć ▲▼	Opinie ▲▼	Oceniający ▲▼	Ocena ▲▼	Options
1	dr Jan24988 Kowalski24988	11010000	Assistant Professor	2008-03-01	<b>WYPEŁNIONY</b>	1 / 2	0 / 5	<b>WYSTAWIONA</b>	Szczegóły ↕
2	dr hab. Jan2986 Kowalski2986	11010000	Assistant Professor	1999-09-30	<b>NIEWYPEŁNIONY</b>	0 / 0	0 / 5	<b>NIEWYSTAWIONA</b>	Szczegóły ↕
3	prof. dr hab. Jan3029 Kowalski3029	11020000	Associate Professor	2006-10-15	<b>NIEWYPEŁNIONY</b>	0 / 0	0 / 5	<b>NIEWYSTAWIONA</b>	Szczegóły ↕



EWALUACJE  
 ► Ewaluacja w  
 jednostce Faculty of  
 Physics w cyklu  
 Academic year  
 2013/14

OPINIODAWCY

## Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

### Lista ocenianych osób

[Wróć do listy ewaluacji](#)

#### Dodaj pracownika



Search for people:



#### Oceniani pracownicy

#	Person ▲▼	Unit ▲▼	Stanowisko ▲▼	Zatrudniono	Raport osiągnięć ▲▼	Opinie ▲▼	Oceniający ▲▼	Ocena ▲▼	Options
1	dr Jan24988 Kowalski24988	11010000	Assistant Professor	2008-03-01	<b>WYPEŁNIONY</b>	1 / 2	0 / 5	<b>WYSTAWIONA</b>	<a href="#">Szczegóły</a>
2	dr hab. Jan2986 Kowalski2986	11010000	Assistant Professor	1999-09-30	<b>NIEWYPEŁNIONY</b>	0 / 0	0 / 5	<b>NIEWYSTAWIONA</b>	<a href="#">Szczegóły</a>
3	prof. dr hab. Jan3029 Kowalski3029	11020000	Associate Professor	2006-10-15	<b>WYPEŁNIONY</b>	1 / 2	0 / 5	<b>WYSTAWIONA</b>	<a href="#">Szczegóły</a>



SHORT CUTS

**MOJE OCENY  
OKRESOWE**

## Ewaluacja nauczyciela akademickiego

prof. dr hab. Jan3029 Kowalski3029

### Moje oceny okresowe

#	Cykl dydaktyczny ▲▼	Jednostka zatrudnienia ▲▼	Data zakończenia ▲▼	Raport osiągnięć ▲▼	Ocena ▲▼	Options
1	Academic year 2013/14	Faculty of Physics	2013-02-28 00:00:00	<b>WYPEŁNIONY</b>	<b>WYSTAWIONA</b>	<a href="#">Szczegóły</a> <a href="#">Raport</a> <a href="#">Wyniki ankiet</a>



## SHORT CUTS

MOJE OCENY  
OKRESOWE

► Ewaluacja w  
jednostce Faculty of  
Physics w cyklu  
Academic year  
2013/14

## Moja ocena okresowa

Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

[Wróć do listy ocen okresowych](#)

→ [Przejdź do raportu osiągnięć](#)

→ [Przejdź do wyników ankiet](#)

 [Pobierz raport osiągnięć jako PDF](#)

 [Pobierz opinie i wyniki ankiet jako PDF](#)

### Szczegóły ewaluacji

Unit:	Faculty of Physics
Cykl dydaktyczny:	Academic year 2013/14
Komisja oceniająca:	Wydziałowa Komisja Oceniająca no 51064 - Faculty of Physics
Kwestionariusz raportu:	Standardowy kwestionariusz dla UW
Okres trwania ewaluacji:	from: 2013-02-01 00:00:00 to: 2013-02-28 00:00:00
Okres zbierania wyników ankiet:	początek: academic year 2005/06 koniec: academic year 2013/14

### Szczegóły zatrudnienia

Jednostka zatrudnienia:	Institute of Theoretical Physics Department of Theory of Particles and Elementary Interactions
Tytuł zawodowy/naukowy:	professor
Stanowisko:	Associate Professor
Grupa zatrudnienia:	naukowo - dydaktyczni, nauczyciel
Forma zatrudnienia:	mianowanie na czas nieokreślony
Wymiar etatu:	pełny
Pensum uczelniane:	210 godzin
Okres trwania umowy:	from: 2010-02-01 to: 2012-03-30
Uwagi:	Z HMS 17/05/2012 14:06:17

### Skład oceniajacy

## Szczegóły zatrudnienia

Jednostka zatrudnienia:	Institute of Theoretical Physics Department of Theory of Particles and Elementary Interactions
Tytuł zawodowy/naukowy:	professor
Stanowisko:	Associate Professor
Grupa zatrudnienia:	naukowo - dydaktyczni, nauczyciel
Forma zatrudnienia:	mianowanie na czas nieokreślony
Wymiar etatu:	pełny
Pensum uczelniane:	210 godzin
Okres trwania umowy:	from: 2010-02-01 to: 2012-03-30
Uwagi:	Z HMS 17/05/2012 14:06:17

## Skład oceniający

Przewodniczący:	<i>not given</i>
Członkowie:	<i>not given</i>

## Opinie

1.	Jan132799 Kowalski132799	<b>NIEWYSTAWIONA</b>
2.	Ewa387 Kowalska387	<b>WYSTAWIONA</b>

## Raport osiągnięć i wyniki ankiet

Raport osiągnięć:	<b>WYPEŁNIONY</b>
Komentarz do wyników ankiet:	<i>not given</i>

## Szczegóły oceny

Data oceny:	2013-06-11
Ocena komisji oceniającej:	<b>POZYTYWNA</b>
Uzasadnienie oceny:	All is right.



EWALUACJE  
 ▶ Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14  
 ▶ Ocena pracownika prof. dr hab. Jan3029 Kowalski3029


OPINIODAWCY

## prof. dr hab. Jan3029 Kowalski3029

### Ocena pracownika


[Wróć do listy osób](#)

- [Zmień skład oceniający](#)
- [Wybierz opiniodawców](#)
- [Wprowadź wyniki oceny](#)
- [Drukuj arkusz oceny okresowej](#)

 [Pobierz opinie i wyniki ankiet jako PDF](#)

[USUŃ PRACOWNIKA Z EWALUACJI](#)

### Dane pracownika

First name:	Jan3029	
Last name:	Kowalski3029	
E-mail:	<a href="mailto:kowalski3029@usos.pl">kowalski3029@usos.pl</a>	
USOSweb:	<a href="#">USOSweb page</a>	
Person unit:	Faculty of Physics	
Phone number:	44-00-111	
Room:	Office room no N232 Budynek Dydaktyczny - Wydział Fizyki - Śródmieście	
<a href="#">LOGIN AS THIS USER</a>		

### Szczegóły zatrudnienia

Jednostka zatrudnienia:	<a href="#">Institute of Theoretical Physics</a> Department of Theory of Particles and Elementary Interactions
Tytuł zawodowy/naukowy:	professor
Stanowisko:	Associate Professor
Grupa zatrudnienia:	naukowo - dydaktyczni, nauczyciel





EWALUACJE

OPINIODAWCY

## Opiniodawcy

Wybór opiniodawców dla ocenianych pracowników

Oceniani pracownicy

#	Person ▲▼	Jednostka zatrudnienia ▲▼	Stanowisko ▲▼	Opiniodawcy ▲▼	Options
1	dr Jan24988 Kowalski24988	Institute of Experimental Physics	Assistant Professor	<b>2</b>	<a href="#">Wybierz opiniodawców</a> ↗
2	dr hab. Jan2986 Kowalski2986	Institute of Experimental Physics	Assistant Professor	<b>0</b>	<a href="#">Wybierz opiniodawców</a> ↗
3	prof. dr hab. Jan3029 Kowalski3029	Institute of Theoretical Physics	Associate Professor	<b>0</b>	<a href="#">Wybierz opiniodawców</a> ↗



SHORT CUTS

MOJE OCENY  
OKRESOWE

WYSTAWIANIE OPINII

## Wystawianie opinii pracownikom

Ewa387 Kowalska387

## Wystawiane opinie

#	Person ▲	Jednostka zatrudnienia ▲▼	Stanowisko ▲▼	Ewaluacja ▲▼	Raport osiągnięć ▲▼	Status opinii ▲▼	Options
1	dr Jan24988 Kowalski24988	Institute of Experimental Physics	Assistant Professor	Academic year 2013/14	<b>WYPEŁNIONY</b>	<b>WYSTAWIONA</b>	Pokaż ↕
2	prof. dr hab. Jan3029 Kowalski3029	Institute of Theoretical Physics	Associate Professor	Academic year 2013/14	<b>WYPEŁNIONY</b>	<b>WYSTAWIONA</b>	Pokaż ↕



SHORT CUTS

MOJE OCENY  
OKRESOWE

WYSTAWIANIE OPINII

- ▶ [Opinia o pracowniku prof. dr hab. Jan3029 Kowalski3029](#)

## Opinia o pracowniku

### prof. dr hab. Jan3029 Kowalski3029

[✚ Wróć do listy wystawianych opinii](#)

### Dane pracownika

First name:	Jan3029	
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USOSweb:	USOSweb page	
Person unit:	Faculty of Physics	
Phone number:	44-00-111	
Room:	Office room no N232 Budynek Dydaktyczny - Wydział Fizyki - Śródmieście	


[Pobierz raport osiągnięć jako PDF](#)

### Opinia

[ZATWIERDŹ OPINIĘ](#)
[EDIT](#)

Ok.



SHORT CUTS

MOJE OCENY  
OKRESOWE

- ▶ Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14
- ▶ raport osiągnięć
- ▶ edycja pytania

# Raport osiągnięć naukowych, dydaktycznych i organizacyjnych

## Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

[Wróć do raportu](#)

### Edycja pytania

#### I. Działalność naukowa

##### 3. Udział w badaniach naukowych (rola ocenianego w badaniach, wartość grantu):

###### a) projekty badawcze MNiSW

Entered 0 characters

[ZAPISZ I WRÓĆ DO RAPORTU](#)[SAVE CHANGES](#)[← ZAPISZ I WRÓĆ DO POPRZEDNIEGO PYTANIA](#)[ZAPISZ I PRZEJDZ DO NASTĘPNEGO PYTANIA →](#)



## SHORT CUTS

MOJE OCENY  
OKRESOWE

- ▶ Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14
- ▶ raport osiągnięć

## Raport osiągnięć naukowych, dydaktycznych i organizacyjnych

### Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

[Wróć do szczegółów oceny okresowej](#)

#### Podgląd raportu

[→ Rozpocznij wypełnianie raportu](#)

ZATWIERDZ ODPOWIEDZI

pobierz jako PDF

#### I. Działalność naukowa

1. Publikacje naukowe (z uwzględnieniem rangi wydawnictw i czasopism, w których się ukazały); proszę umieścić listę publikacji za okres od ostatniej oceny; proszę podać przy każdej pozycji aktualny współczynnik Impact Factor czasopisma (jeżeli ma tu zastosowanie), współczynnik liczby cytowań (jeżeli ma zastosowanie).

*nie udzielono odpowiedzi*



2. Patenty i wdrożenia, projekty programistyczne.

*nie udzielono odpowiedzi*



3. Udział w badaniach naukowych (rola ocenianego w badaniach, wartość grantu):

- a) projekty badawcze MNiSW

*nie udzielono odpowiedzi*



- b) badania własne (BW)

*nie udzielono odpowiedzi*



- c) projekty (granty) finansowane z subwencji fundacji (np. FNP)

*nie udzielono odpowiedzi*



- d) projekty (granty) finansowane ze środków zagranicznych (np. programy ramowe UE)

*nie udzielono odpowiedzi*



- e) informacja o złożonych wnioskach o finansowanie projektów badawczych

*nie udzielono odpowiedzi*



- f) inne (jakie?)

*nie udzielono odpowiedzi*





SHORT CUTS

MOJE OCENY  
OKRESOWE

- ▶ Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14
- ▶ **wyniki ankiet**

## Wyniki ankiet studenckich

### Ewaluacja w jednostce Faculty of Physics w cyklu Academic year 2013/14

[✚ Wróć do szczegółów oceny okresowej](#)

### Wyniki ankiet

[→ Wystaw komentarz do wyników](#)

**i** Wyniki z okresu od: **academic year 2005/06** to: **academic year 2013/14**

**pobierz jako PDF**

Cykl dydaktyczny	Typ pytania	Liczba odpowiedzi	Średnia wartość
Summer semester 2011/12	2011L Skala od 0 do 5	20	3.90
Winter semester 2011/12	2011Z Skala od 0 do 5	59	4.24
	Skala od 1 do 5	3	2.33
Academic year 2010/11	2010 Skala od 0 do 5	8	2.50
Summer semester 2010/11	2010L Skala od 0 do 5	44	4.39
Winter semester 2010/2011	2010Z Skala od 0 do 5	18	3.72
	Skala od 1 do 5	12	4.50
Academic year 2009/10	2009 Skala od 0 do 5	11	3.82
Summer semester 2009/10	2009L Skala od 0 do 5	264	3.68
	Skala od 1 do 7	29	3.52
Summer semester 2008/09	2008L Skala od 0 do 5	11	4.82
Winter semester 2008/09	2008Z Skala od 0 do 5	30	2.77
Summer semester 2007/08	Skala od 0 do 2	1	1
	2007L Skala od 0 do 4	2	3
Summer semester 2006/07	Skala od 0 do 5	5	4.80
	2006L Skala od 0 do 4	3	3.67
	Skala od 0 do 5	21	4.24

# Conclusions

- USOS team delivers not only ready to use **applications**, but also **tools**, which can be used for rapid development of software for HEIs using USOS , either **in-house** or with the help of **independent suppliers**.
- Django USOS framework delivers functionalities needed in many web applications based on USOS Oracle database.
- **APD, USOSmail** and **EVA** are examples of its usability.
- Other examples coming from independent developers are expected soon (work in progress).

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- All programming work was done by **Łukasz**.