

User manual for searching defended PhD dissertations

1. Introduction

The information system of scientific activity called CRIS UNS (Current Research Information System of the University of Novi Sad) has been developed for the needs of the University of Novi Sad. Part of this system is a digital library of doctoral dissertations that fulfills the obligations defined by the Law on Higher Education in Article 30. The library is used by two universities:


1. University of Novi Sad
2. University Business Academy of Novi Sad.

Dissertations data in CRIS UNS software system are in accordance with the requirements prescribed by the University as well as in accordance with the requirements prescribed by standards in library and scientific research domain (MARC 21, Dublin Core, ETD-MS, CERIF). This compatibility with the worldwide accepted standards will ensure that the data from this system can be exported to and made publicly visible through the international library systems and networks repositories of scientific research results such as NDLTD (<http://www.ndltd.org/>), Open AIRE+ (<https://www.openaire.eu/>), DART Europe (<http://www.dart-europe.eu/basic-search.php>).

This user manual briefly describes basic steps for using the application for searching defended PhD dissertations. The web page for searching dissertations defended on the University of Novi Sad is available at the link <http://www.cris.uns.ac.rs/searchDissertations.jsf> and the web page for searching dissertations defended on the University Of Business Academy Of Novi Sad is available at the link <http://www.cris.uns.ac.rs/searchDissertationsPA.jsf>. User manual for both Universities is the same. Upcoming text describes user manual for University of Novi Sad.





Using of some of the following web browsers is recommended:

- Internet Explorer 8.x, installation version can be downloaded from this address <http://www.microsoft.com/windows/internet-explorer/worldwide-sites.aspx>,
- Mozilla Firefox 5.0.x, installation version can be downloaded from this address <http://www.mozilla.com/en-US/firefox/firefox.html>.

We hope that application does not have too many flaws. We apologize in advance for any mistakes in the application. If you notice a mistake, you have a claim, a complaint or any comment please send us an e-mail by selecting the item  in the right corner of the main menu of our application (cris@uns.ac.rs). Also, if you notice that information about some dissertation should be fixed, please let us know.

Thank you for using our application!
CRIS UNS development team

2. Header of application

Header (top) of the application for dissertations search is all time accessible and it is shown in **Figure 1**. In addition to the title (**Search of dissertations of University of Novi Sad**), there are options to change the user interface language (, ) , send e-mail () to CRIS system development team, and download this user manual ().

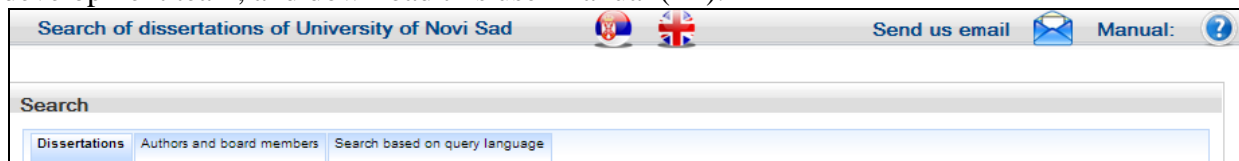






Figure 1. Header of application



User interface language can be changed by selecting one of the graphical symbols  (Serbian) or  (English).

A question or request a user can submit to the development team using the option  located in the right corner of the main application menu.

User manual can be downloaded by selecting the item  which is located in the far right corner of the main application menu.

Searching has three distinct modes which can be opened by selecting one of the following options *Dissertations*, *Authors and board members* and *Search based on query language* (**Figure 1**). These modes are described in the following sections.

3. Search of dissertations

By selecting the option *Dissertations* the form for making query for dissertations search is opened. Queries consist of operands that are separated by operators AND, OR or AND NOT shown in the left corner of the table in **Figure 2**. Each operand is defined by one row in the table. After opening a form for searching dissertations there are three operands that are connected by logical operator AND. Adding and deleting of operands is enabled by selection buttons  and  which are located in the right corner of the table in **Figure 2**.

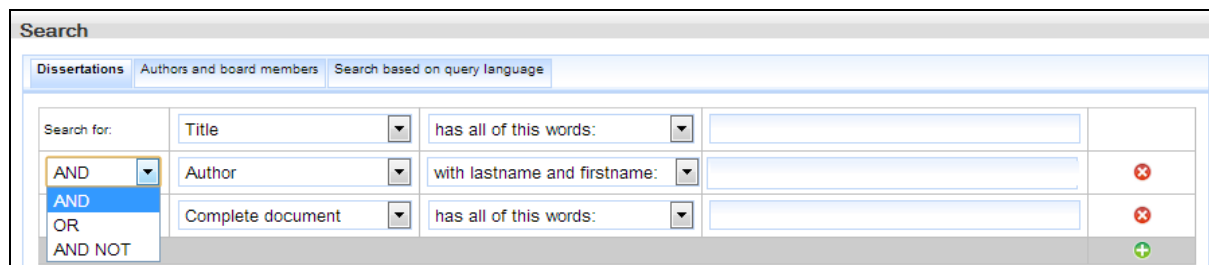
The image shows the search form for dissertations. It has a title bar "Search" and three tabs: "Dissertations", "Authors and board members", and "Search based on query language". Below the tabs is a table with three rows and four columns. The first column is "Search for:", the second column is a dropdown menu, the third column is a text input field, and the fourth column is a button. The first row has "Title" in the dropdown, "has all of this words:" in the text field, and a button with a plus icon. The second row has "Author" in the dropdown, "with lastname and firstname:" in the text field, and a button with a minus icon. The third row has "Complete document" in the dropdown, "has all of this words:" in the text field, and a button with a minus icon. On the left side of the table, there is a column for logical operators with a dropdown menu showing "AND", "AND", "OR", and "AND NOT".

Figure 2. Mode for making queries for searching dissertations

The user can select the field name for searching by choosing an option from the list (**Figure 3**).

Search

Dissertations Authors and board members Search based on query language

Search for: **Title** has all of this words:

AND **Complete document** with lastname and firstname:

AND **Title** has all of this words:

Abstract

Keywords

Author

Advisor

Committee chairman

Committee member

Limit to: to **Present**

Affiliation

- ☐ Faculty of Technical Sciences at Novi Sad, University of Novi Sad
- ☐ Faculty of Sciences at Novi Sad, University of Novi Sad
- ☐ Faculty of Philosophy at Novi Sad, University of Novi Sad
- ☐ Faculty of Agriculture at Novi Sad, University of Novi Sad
- ☐ Faculty of Law at Novi Sad, University of Novi Sad
- ☐ Faculty of Technology at Novi Sad, University of Novi Sad
- ☐ Faculty of Economics at Subotica, University of Novi Sad
- ☐ Faculty of Medicine at Novi Sad, University of Novi Sad
- ☐ Academy of Arts at Novi Sad, University of Novi Sad
- ☐ Faculty of Civil Engineering at Subotica, University of Novi Sad
- ☐ Mihajlo Pupin Technical Faculty at Zrenjanin, University of Novi Sad
- ☐ Faculty of Sport and Physical Education at Novi Sad, University of Novi Sad
- ☐ Faculty of Education at Sombor, University of Novi Sad
- ☐ Teachers' Training Faculty in Hungarian at Subotica, University of Novi Sad
- ☐ Association of Centres for Interdisciplinary and Multidisciplinary Studies and Research, University of Novi Sad

Search

Figure 3. Fields names

The fields *Complete document; Title, abstract, keywords; Title; Abstract; Keywords* enable four types of words superposition as it is shown in **Figure 4**, the default value is *has all of this words*.

Search

Dissertations Authors and board members Search based on query language

Search for: **Title** has all of this words:

AND **Author** has all of this words:

AND **Complete document** has this exact phrase:

has at least one these words:

has none of this words:

Limit to: to **Present**

Published from **All years** to **Present**

Affiliation

- ☐ Faculty of Technical Sciences at Novi Sad, University of Novi Sad
- ☐ Faculty of Sciences at Novi Sad, University of Novi Sad
- ☐ Faculty of Philosophy at Novi Sad, University of Novi Sad
- ☐ Faculty of Agriculture at Novi Sad, University of Novi Sad
- ☐ Faculty of Law at Novi Sad, University of Novi Sad
- ☐ Faculty of Technology at Novi Sad, University of Novi Sad
- ☐ Faculty of Economics at Subotica, University of Novi Sad
- ☐ Faculty of Medicine at Novi Sad, University of Novi Sad
- ☐ Academy of Arts at Novi Sad, University of Novi Sad
- ☐ Faculty of Civil Engineering at Subotica, University of Novi Sad
- ☐ Mihajlo Pupin Technical Faculty at Zrenjanin, University of Novi Sad
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Search

Figure 4. Superposition of words for field **Title**

By selecting the field **Author** from the drop-down list of fields names system offers words superposition **with lastname and firstname**. After a typing of couple of letters in input fields, regardless of whether the characters are in Cyrillic or Latin alphabets, the system offers drop-down list of researchers which names start with entered letters. **Figure 5** shows offered help by system after entering the lastname Surla. The same kind of help is available when user chooses one of the following fields *Advisor*, *Committee chairman*, *Committee member*.

The screenshot shows a search interface with a tab labeled 'Dissertations'. Below the tab are three search criteria rows. The first row has 'Title' selected in the 'Search for:' dropdown, 'has all of this words:' in the operator dropdown, and an empty text input. The second row has 'Author' selected in the 'Search for:' dropdown, 'with lastname and firstname:' in the operator dropdown, and a text input containing 'Surla'. A dropdown menu is open below the 'Surla' input, showing a list of researchers: 'Surla Katarina; Сурла Катари́на', 'Surla Dušan; Сурла Душан; Surla Dusan', and 'Dimić Surla Bojana; Димић Сурла Бојана; Dimić Bojana; Димић Бојана'. The third row has 'Complete document' selected in the 'Search for:' dropdown, 'has all of this words:' in the operator dropdown, and an empty text input.

Figure 5. Drop-down list of researchers after entering lastname Surla

Figure 6 shows an example of setting up a more complex query that has two operands. This query searches dissertations which titles contain words information systems and moreover which texts contain words software architecture.

The screenshot shows the same search interface as Figure 5. The first row has 'Title' selected in the 'Search for:' dropdown, 'has all of this words:' in the operator dropdown, and a text input containing 'information systems'. The second row has 'Author' selected in the 'Search for:' dropdown, 'with lastname and firstnane:' in the operator dropdown, and an empty text input. The third row has 'Complete document' selected in the 'Search for:' dropdown, 'has all of this words:' in the operator dropdown, and a text input containing 'software architecture'. There are red 'X' icons in the rightmost column of the second and third rows, and a green '+' icon in the rightmost column of the first row.

Figure 6. An example of a more complex query

The user can filter results by time period, by the institution where the dissertations are defended and by gained degree. If the user wants to search for dissertation only in specific period of time, the user can require it by entering or selecting the year from the drop-down list. Also, filtering can be done by institutions of the University of Novi Sad where the dissertations are defended. After selecting some institution, a list of all degree that can be gained by defending dissertation on that institution is shown.

Figure 7 shows a filtering of list of dissertations that have affiliation Faculty of Technical Sciences at Novi Sad, University of Novi Sad, which gained degree is Doctor of Technical Sciences, and which are published from 2005 to 2010.

Limit to:

Published from to

Affiliation

- ☒ Faculty of Technical Sciences at Novi Sad, University of Novi Sad
 - ☒ Doctor of Technical Sciences
 - ☐ Doctor of Technical Sciences in the field of Mechatronics
 - ☐ Doctor of Technical Sciences in the field of Architecture and Urbanism
 - ☐ Doctor of Technical Sciences in the field of Electrical and Computer Engineering
 - ☐ Doctor of Technical Sciences in the field of Civil Engineering
 - ☐ Doctor of Technical Sciences in the field of Traffic Engineering
 - ☐ Doctor of Technical Sciences in the field of Graphic Engineering and Design
 - ☐ Doctor of Technical Science in the field of Mechanical Engineering
 - ☐ Doctor of Technical Sciences in the field of Industrial Engineering and Engineering Management
 - ☐ Doctor of Technical Sciences in the field of Engineering and Environmental Protection
- + ☐ Faculty of Sciences at Novi Sad, University of Novi Sad
- + ☐ Faculty of Philosophy at Novi Sad, University of Novi Sad
- + ☐ Faculty of Agriculture at Novi Sad, University of Novi Sad
- + ☐ Faculty of Law at Novi Sad, University of Novi Sad
- + ☐ Faculty of Technology at Novi Sad, University of Novi Sad
- + ☐ Faculty of Economics at Subotica, University of Novi Sad
- + ☐ Faculty of Medicine at Novi Sad, University of Novi Sad
- + ☐ Academy of Arts at Novi Sad, University of Novi Sad
- + ☐ Faculty of Civil Engineering at Subotica, University of Novi Sad
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- + ☐ Faculty of Sport and Physical Education at Novi Sad, University of Novi Sad
- + ☐ Faculty of Education at Sombor, University of Novi Sad
- + ☐ Teachers' Training Faculty in Hungarian at Subotica, University of Novi Sad
- + ☐ Association of Centres for Interdisciplinary and Multidisciplinary Studies and Research, University of Novi Sad

Figure 7. Filtering results

After pressing the button *Search* the system sends a query to the server and then displays the results list.

4. Search by authors and board members

By selecting the option *Authors and board members* the form for making queries for searching authors and board members is opened (**Figure 8**).

Search

Name

- Surla Dušan; Сурла Душан; Surla Dusan
- Surla Katarina; Сурла Катарина
- Dimiđ Surla Bojana; Димиђ Сурла Бојана; Dimiđ Bojana; Димиђ Бојана

Figure 8. Mode for making queries for searching authors and board members

The user can enter the firstname and lastname by entering it from keyboard, or as previously described (text below **Figure 4**) choosing a researcher from drop-down list offered by the system. Both ways open a table with a list of authors/board members. If the user entered lastname using keyboard and pressed the **Search** button the list of authors and board members with that lastname is shown (**Figure 9**).

Search

Name:

List of Authors

Authors and board members	Dissertations	Advisor	Committee chairman	Committee member
Author First name: Dušan Last name: Surla Position: Profesor emeritus Chair/Department: Katedra za informacione tehnologije i sisteme, Departman za matematiku i informatiku Affiliation: Faculty of Sciences at Novi Sad, University of Novi Sad	show	show	show	show
Author First name: Katarina Last name: Surla Chair/Department: Katedra za numeričku matematiku, Departman za matematiku i informatiku Affiliation: Faculty of Sciences at Novi Sad, University of Novi Sad	show	-	-	show
Author First name: Bojana Last name: Dimić Surla Position: Docent Chair/Department: Katedra za informacione tehnologije i sisteme, Departman za matematiku i informatiku Affiliation: Faculty of Sciences at Novi Sad, University of Novi Sad	show	-	-	-

Figure 9. List of authors with lastname Surla

If the user has selected authors from the drop-down list (**Figure 8**) Surla Dušan, the system displays information about that author (**Figure 10**). Table in **Figure 10** contains basic information and some additional data such as: *Dissertations*, *Advisor*, *Committee chairman* and *Committee member*. Option *show* in column *Dissertations* shows list of dissertations written by Dušan Surla. Other columns options show list of dissertations where Dušan Surla was advisor, committee chairman or committee member, respectively.

Search

Name:

List of Authors

Authors and board members	Dissertations	Advisor	Committee chairman	Committee member
Author First name: Dušan Last name: Surla Position: Profesor emeritus Chair/Department: Katedra za informacione tehnologije i sisteme, Departman za matematiku i informatiku Affiliation: Faculty of Sciences at Novi Sad, University of Novi Sad	show	show	show	show

Figure 10. Researcher Surla Dušan

5. Search based on the Lucene query language

By opening the mode *Search based on query language* the form for writing *Lucene* query is opened. Syntax for Lucene query language is available on address

http://lucene.apache.org/core/old_versioned_docs/versions/2_9_1/queryparsersyntax.html. List of available fields for searching are located on the right side of the form. **Figure 11** shows the query written in Lucene query language that retrieves the same results as query created in **Figure 6**.

Search

Dissertations Authors and board members Search based on query language

Manual for using Lucene query language can be found [here](#). List of available fields is shown in the table below.

Lucene query language searching

+TI:information~0.7 +TI:systems~0.7 +FT:software~0.7 +FT: architecture~0.7

Search

FT	Complete document
TAK	Title, Abstract, Keywords
TI	Title
AB	Abstract
KW	Keywords
AU	Author
AD	Advisor
CC	Committee chairman
CM	Committee member
PY	Publication year
IN	Institution
DA	Name of author degree

Figure 11. Search based on query language

After pressing the button *Search* the system sends a query to the server and then displays the results list.

6. Search results

Search results are available in form that is shown in **Figure 12**.

Search results

Number of results is 2

	БОБЕРИЋ, Д. (2010) <i>System for retrieval of bibliographic records</i> . (PhD dissertation), Faculty of Sciences at Novi Sad
	TEŠENĐIĆ, D. (2010) <i>Circulation system for direct consortial borrowing</i> . (PhD dissertation), Faculty of Sciences at Novi Sad

Figure12. Search results

The default view of result contains basic information about the dissertation using Harvard style.

By clicking on the button a window with modes *Additional data*, *MARC 21*, *Dublin Core*, *ETD MS* and *Electronic version* is opened. Mode *Additional data* offers additional information about dissertation (**Figure 13**). The window with the additional information can be closed by clicking on the button for the second time.

Search results

Number of results is 2

i БОБЕРИЋ, Д. (2010) *System for retrieval of bibliographic records*. (PhD dissertation), Faculty of Sciences at Novi Sad

Additional data	MARC 21	Dublin Core	ETD MS	Electronic version
<p>БОБЕРИЋ, Д. (2010) <i>System for retrieval of bibliographic records</i>. (PhD dissertation), Faculty of Sciences at Novi Sad</p> <p>Author data: First name: Danijela Last name: Boberić-Krstićev</p> <p>Dissertation data: Defended on: 02/07/2010 Advisor: dr Dušan Surla, Prirodno-matematički fakultet u Novom Sadu Board members: dr Miloš Radiović, Prirodno-matematički fakultet u Novom Sadu dr Zora Konjović, Fakultet tehničkih nauka u Novom Sadu dr Branko Milosavljević, Fakultet tehničkih nauka u Novom Sadu dr Dušan Surla, Prirodno-matematički fakultet u Novom Sadu</p>				

Figure 13. Additional data

The next three modes of the window contain information about the dissertation in some of widely adopted library standards. **MARC 21** mode offers display of dissertation in the MARC 21 standard (<http://www.loc.gov/marc/bibliographic/>), **Dublin Core** mode offers display of dissertation in the Dublin Core standard (<http://dublincore.org/documents/dces/>), **ETD MS** mode offers display of dissertation in ETD MS standard (<http://www.ndltd.org/standards/metadata/etd-ms-v1.00-rev2.html>). The last mode **Electronic version** shown in **Figure 13** enables sending a request to the University library (CBUNS@uns.ac.rs) for obtaining electronic version of dissertation.