RANKING OF CROATIAN RESEARCHERS FROM SEVERAL DISCIPLINES USING GOOGLE SCHOLAR DATABASE

Gyula Mester*

Óbuda University, Doctoral School of Safety and Security Sciences, Budapest, Hungary

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ABSTRACT

Using the h-index and the total number of citations in (natural) sciences, techniques and humanities in this article the best 10 Croatian researchers is ranked. The list may be formed based on the h-index and the total number of citations, given in Web of Science, Scopus, Publish or Perish Program and Google Scholar. Data for the first 10 researchers are presented. Google Scholar is the most complete. Therefore, to define a single indicator, h-index calculated by Google Scholar may be a good and simple one. The author chooses the Google Scholar database as it is the broadest one.

KEY WORDS

ranking, Croatian researchers, Google Scholar, h-index, total number of citations

CLASSIFICATION

ACM: D.1.1. JEL: O31 PACS: 89.70.Hj

INTRODUCTION

Due to the requests in a variety of activities (for example, who will be proposed as a project leader) ranking researchers in different disciplines of science become very important in last decade. Ranking is possible on different criteria: number of published papers, number of citations, etc.

One of these measures is h-index which includes both the productivity and citation impact of the publications of a scientist. The index was suggested in 2005 by Jorge E. Hirsch [1]. h-index can be determined according to the different sources:

- Google Scholar,
- WOS (Web of Science),
- Scopus,
- Publish or Perish Program.

In this article the list of the 10 best researchers of Croatian researches is presented. List covers researchers from natural sciences, techniques and human sciences.

As a primary source Google Scholar [2] has been used [3-12]. The author chooses the Google Scholar database as it is the widest (see Table 1). Introduced by Google in 2004, Google Scholar has become a very popular alternative data source. Google Scholar is the most complete [13-16].

Therefore, to define a single indicator, h-index calculated by Google Scholar may be a good and simple one.

Ranking is possible to be based on h-index (primary) and total number of citations.

Table 1. Rate of citations in Scopus and Web of Science according to Google Scholar ones.

Discipline	Scopus citations as % of Google Scholar citations	Web of Science citations as % of Google Scholar citations
Humanities	11,5	7,0
Social Sciences	30	22,7
Engineering	57,6	45,7
Sciences	64,2	65,6
Life Sciences	70,5	66,8

The article is organized as follows:

- In Section 1, the Introduction is given,
- In Section 2, the Ranking list of Croatian researchers is considered,
- Conclusions are given in Section 3.

RANKING LIST OF CROATIAN RESEARCHERS

In the following text detail information about researchers on the list based on Google Scholar are presented,

List of 10 best Croatian researchers can be constructed based on different sources. The primary condition for ranking is the h-index and the total citation number of the publications.

No.	Researchers	h-index	Citations
1.	Ivica Puljak	114	70 062
2.	Nikola Godinovic	107	65 283
3.	Darko Mekterovic	90	49 004
4.	Mile Dželalija	82	44 648
5.	Nikola Poljak	80	19 176
6.	Sven Gotovac	62	18 271
7.	Linda Vickovic	62	15 387
8.	Eugen Mudnic	61	17 959
9.	Ozren Polašek	57	17 514
10.	Stipan Jonjic	52	8 523

Table 2. h-index and number of citations for Croatian researchers from extracted disciplines, from Google Scholar.

Researchers, from Google Scholar data, were ranked according h-index in decreasing order as a first criteria and then by the total number of citations (Table 2).

Based on the data of Google Scholar the list of the 10 best Croatian researchers is given in Figures 1-10. The primary condition for ranking is the h-index followed by the total citation number of the publications.

	Ivica Puljak	🗹 Fol		Google So	cholar	
	University of Split, Faculty of Elecrtical Engineering, Mechanical Naval High energy physics, Astroparticle physics, Instrumentation Verified email at fesb.hr	Engineering and		Citation indices	All	Q Since 2012
Title 1-20		Cited by	Year	Citations h-index	70062 114	62479 106

Figure 1. Ivica Puljak, h-index = 114, citations: 70 062 [17].

Nikola Godinovic	🖾 Follow 👻	Google So	cholar	
University of Split Verified email at fesb.hr		Citation indices	All	Q Since 2012
		Citations	65283	58629
		h-index	107	101

Figure 2. Nikola Godinovic, h-index = 107, citations: 65 283 [18].

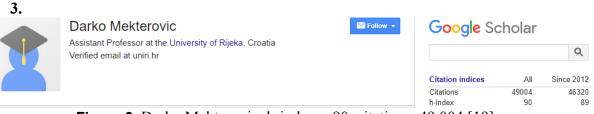


Figure 3. Darko Mekterovic, h-index = 90, citations: 49 004 [19].

4.	Mile Dželalija	Fo	low 👻	Google So	cholar	
	Professor of Physics, University of Split, Faculty of Science, un Highenergy Physics, Applied Physics, Computational Physics, Frameworks Verified email at pmfst.hr			Citation indices	All	Q Since 2012
Title 1–20		Cited by	Year	Citations h-index	44648 82	36084 71

Figure 4. Mile Dželalija, h-index = 82, citations: 44 648 [20].

1

2

5				
	Nikola Poljak	Google So	cholar	
	Assistant professor, University of Zagreb, Prirodoslovno-matematički fakultet, Fizički odsjek			Q
	High energy physics Verified email at phy.hr			
	venied entail at phy.in	Citation indices Citations	All 19176	Since 2012 15138
		h-index	80	71
6.	Figure 5. Nikola Poljak, h-index = 80, citations: 19	9 176 [21].		
	Sven Gotovac	Google So	cholar	
E	Professor electrical engineering, University of Split Parallel computing, Computer architecture, Operating systems Verified email at fesb.hr - Homepage			Q
0		Citation indices	All	Since 2012
		Citations	18271	15856
		h-index	62	62
	Linda Vickovic Assistant professor, University of Split Complex data storage systems simulation and optimization	Google So	cholar	Q
	Verified email at fesb.hr			
		Citation indices	All	Since 2012
	Figure 7. Linda Vickovic, h-index = 62, citations:	Citations h-index 15 387 [23].	15387 62	14289 62
8.	Eugen Mudnic	h-index	62	
8.		^{h-index} 15 387 [23].	62	
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8.	Eugen Mudnic University of Split, FESB Computer science, Informational systems, DE simultaion	h-index 15 387 [23]. Google Sc <u>Citation indices</u> Citations	62 cholar All 17959	62 Q Since 2012 15746
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	Eugen Mudnic Image: Follow ▼ University of Split, FESB Computer science, Informational systems, DE simultaion No verified email Figure 8. Eugen Mudnic, h-index = 61, citations: 1 Ozren Polašek University of Split School of Medicine unist.hr Genetics, public health, biobanking	h-index 15 387 [23]. Google Sc Citations h-index 7 959 [24]. Google Sc Citation indices Citation indices Citations	62 cholar Ali 17959 61 cholar Ali 17514	62 Since 2012 15746 61 Since 2012 Since 2012 14963
	Eugen Mudnic Image: Test State	h-index 15 387 [23]. Google Sc Citations h-index 7 959 [24]. Google Sc Citations h-index 7 514 [25].	62 cholar All 17959 61 cholar All 17514 57	62 Since 2012 15746 61 Since 2012 Since 2012 14963
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Figure 10. Stipan Jonjic, h-index = 52, citations: 8 523 [26].

CONCLUSIONS

List of best 10 reseachers in natural sciences, techniques and humanities, of Croatia is presented, The ranking is made based primary on h-index and total citation number based on the database in Google Scholar, Researches ranked first by h-index in decreasing order and then by the total number of citations,

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