

Gyula Mester

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

SHANGHAI WORLD RANK LIST OF THE REGION IN 2023

Abstract. In this paper the Academic Ranking of World Universities 2023 is considered. The publication of the Institute of Higher Education, Shanghai Jiao Tong University, Academic Ranking of World Universities 2023, ARWU 2023 is analyzed. In total, more than 2500 universities are ranked, and every August 15th the best 1000 are published. In this paper Shanghai World rank list of the top 10 universities in 2023 and the ranking of the universities of the region, are illustrated. ARWU uses six objective indicators and weights to rank world universities, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Clarivate Analytics, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index - Expanded and Social Sciences Citation Index, and per capita performance of a university. **Keywords:** Academic Ranking of World Universities, ARWU 2023, six objective indicators and weights for ARWU.

1. Introduction

The Academic Ranking of World Universities (ARWU) was first published in June 2003 by the Center for World-Class Universities (CWCU), Graduate School of Education of Shanghai Jiao Tong University, China, and updated on an annual basis [1]. Since 2009 the Academic Ranking of World Universities (ARWU) has been published and copyrighted by Shanghai Ranking Consultancy.

Shanghai Ranking Consultancy is a fully independent organization on higher education intelligence and not legally subordinated to any universities or government agencies.

ARWU considers every university that has any Nobel Laureates, Fields Medalists, Highly Cited Researchers, or papers published in Nature or Science. In addition, universities with a significant number of papers indexed by Science Citation Index-Expanded (SCIE) and Social Science Citation Index (SSCI) are also included. In total, more than 2500 universities are ranked, and every August 15th the best 1000 are published. It ranks the top 100 universities and presents the others (101-1000) in alphabetical order of 100 clusters [2-6].

In this paper Shanghai World rank list of the top 10 universities in 2023 and the ranking of the universities of the region, University of Belgrade, University of Zagreb, University of Ljubljana, Eotvos Lorand University, University of Szeged, Semmelweis University, Budapest University of Technology and Economics and University of Novi Sad are illustrated [1].

The paper is organized as follows:

Section 1: Introduction, in section 2 Indicators and Weights for ARWU is illustrated, in section 3 Shanghai World rank list of the top 10 universities in 2023 is presented, in section 4 Shanghai World rank list of the region in 2023 is presented, and conclusion is given in section 5.

2. Indicators and Weights for ARWU

ARWU uses six objective indicators to rank world universities, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Clarivate, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index Expanded™ and Social Sciences Citation Index™ in the Web of Science™, and per capita performance of a university, Table 1 [1].











Scores for each indicator are weighted as shown below to arrive at a final overall score for an institution.

Criteria	Indicator	Code	Weight
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10%
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20%
	Highly Cited Researchers	HiCi	20%
Research Output	Papers published in Nature and Science*	N&S	20%
	Papers indexed in Science Citation Index-Expanded and Social Science Citation Index	PUB	20%
Per Capita Performance	Per capita academic performance of an institution	PCP	10%

Table 1. Indicators and Weights for ARWU

3. Shanghai World rank list of the top 10 universities in 2023

Table 2 [1] presents the Shanghai World rank list of the top 10 universities in 2023 (15 August 2023). The Harvard University is the leader. The table shows that there are 8 universities in North America - USA and 2 universities in Europe: University of Cambridge, University of Oxford.

Academic Ranking of World Universities 1000 Institutions						
World Rank	Institution	Country/Region	National/Regional Rank	Total Score	Alumni	
1	 Harvard University		1	100.0	100.0	
2	 Stanford University		2	74.8	45.6	
3	 Massachusetts Institute of Technology (MIT)		3	69.1	72.5	
4	 University of Cambridge		1	67.9	78.9	
5	 University of California, Berkeley		4	63.4	65.8	











6		Princeton University		5	60.1	61.7
7		University of Oxford		2	59.5	49.9
8		Columbia University		6	55.3	58.5
9		California Institute of Technology		7	54.5	56.1
10		University of Chicago		8	53.8	56.6

Table 2. Shanghai World rank list of the top 20 universities in 2023 (15. August 2023)

4. Shanghai World rank list of the region in 2023

The ARWU 2023 ranking of the universities of the region, University of Belgrade, University of Novi Sad, University of Zagreb, University of Ljubljana, Eotvos Lorand University, University of Szeged, Semmelweis University and Budapest University of Technology and Economics are illustrated. Institutions within the same cluster range are listed alphabetically. The ARWU 2023 ranking of the University of Belgrade given in Figure 1 [1].

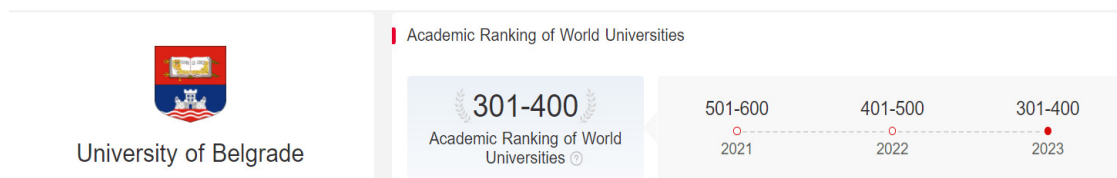


Figure 1. The ARWU 2023 ranking of the University of Belgrade, Serbia.

The ARWU 2023 ranking of the University of Zagreb given in Figure 2 [1].

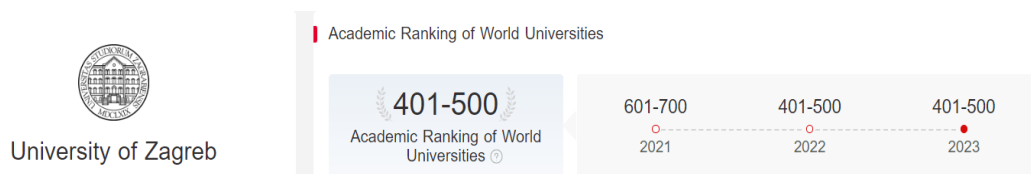


Figure 2. The ARWU 2023 ranking of the University of Zagreb, Croatia.

The ARWU 2023 ranking of the Eotvos Lorand University given in Figure 3 [1].

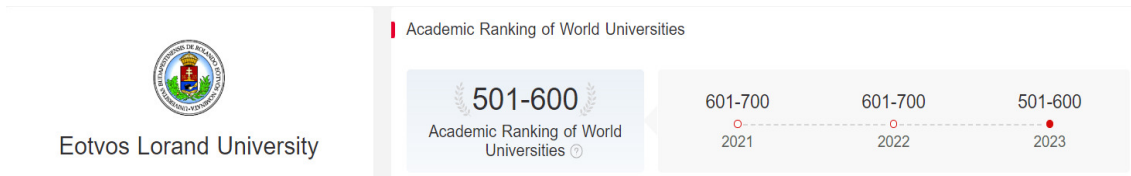


Figure .3. The ARWU 2023 ranking of the Eotvos Lorand University, Hungary.

The ARWU 2023 ranking of the University of Ljubljana given in Figure 4 [1].

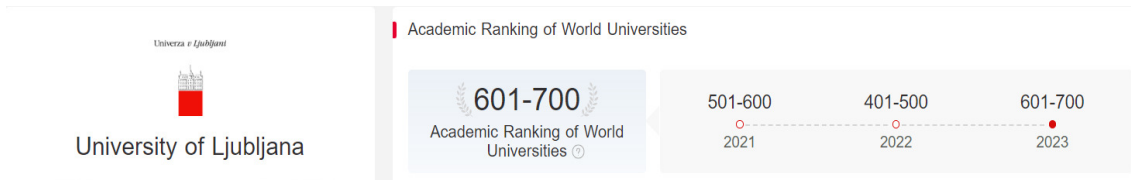


Figure 4. The ARWU 2023 ranking of the University of Ljubljana, Slovenia.

The ARWU 2023 ranking of the Semmelweis University given in Figure 5 [1].



Figure 5. The ARWU 2023 ranking of the Semmelweis University, Hungary

The ARWU 2023 ranking of the University of Szeged given in Figure 6 [1].

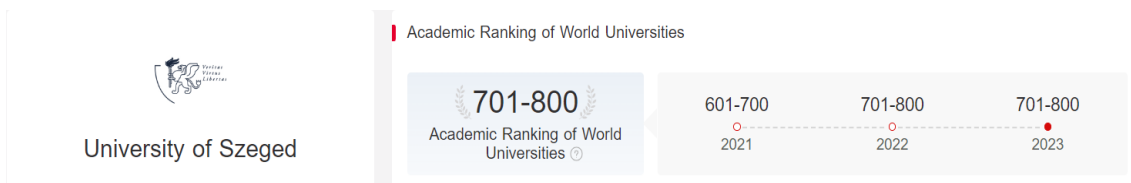


Figure 6. The ARWU 2023 ranking of the University of Szeged, Hungary

The ARWU 2023 ranking of the Budapest University of Technology and Economics given in Figure 7 [1].

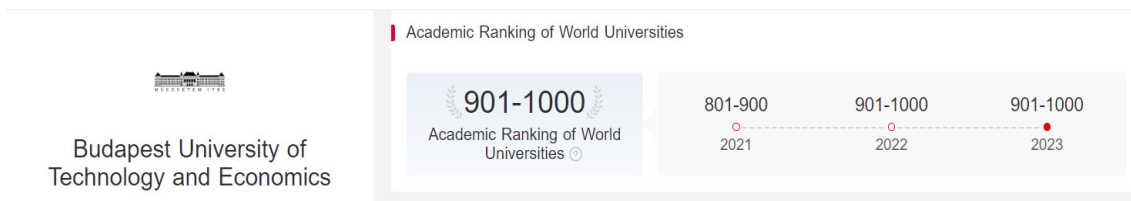


Figure 7. The ARWU 2023 ranking of the Budapest University of Technology and Economics, Hungary

The ARWU 2023 ranking of the University of Novi Sad given in Figure 8 [1].

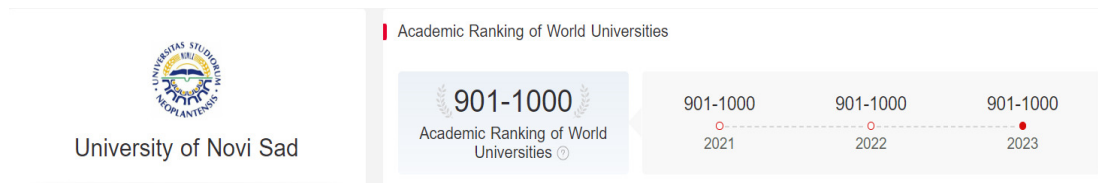


Figure 8. The ARWU 2023 ranking of the University of Novi Sad, Serbia.

5. Conclusions

In this paper the Academic Ranking of World Universities ARWU 2023 is considered. The publication of the Institute of Higher Education, Shanghai Jiao Tong University, Academic Ranking of World Universities 2023, ARWU 2023 is analyzed. In total, more than 2500 universities are ranked, and every August 15th the best 1000 are published. The Harvard University is the leader.

ARWU uses six objective indicators and weights to rank world universities, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Clarivate Analytics, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index - Expanded and Social Sciences Citation Index, and per capita performance of a university.

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drmestergyula@gmail.com