

# JOURNAL AND COUNTRY RANKINGS IN INSTRUMENTATION AND OCEAN ENGINEERING

**Adrià Martin Cantos**

Biblioteca de l'Escola Politècnica Superior d'Enginyeria de Vilanova i la Geltrú (Universitat Politècnica de Catalunya)  
 Rambla Exposició 37, 08800 Vilanova i la Geltrú, Spain  
 Tel: +34 93 896 78 09 e-mail: adria.martin-cantos@upc.edu

*Abstract - The purpose of this paper is to highlight scientific information resources that list journal and country rankings. These databases usually focus on the use of citation counts and number of publications to evaluate the interest, visibility and impact of research performance. The exposed resources are platforms that provide added value to authors improving their knowledge about research trends and also where to submit their papers.*

*Keywords - Journal rankings, Country rankings, Visibility, Citation analysis, Bibliometric evaluation, Journal performance*

## I. INTRODUCTION

This paper pretends to introduce the researchers and users of bibliographical databases to the journal and country rankings provided principally by two selected resources.

## II. EXPOSED RESOURCES

### Journal Citation Reports :

It's the most important ISI's analytical resource, using different metric tools like Impact Factor, Immediacy Index and Eigenfactor. Updated every year and covering data source from 1997, provides reports about almost 8.000 scientific journals previously indexed by *ISI Web of Knowledge*.



Fig. 1: Thomson Reuters JCR's logo

Research community members can evaluate and compare the impact and influence of these leading journals with different metric tools to decide, for instance where to publish his works and confirm the preferred journals status. JCR can show the most frequently cited journals, highest impact and largest journals in a field. In sum, serves to evaluate research output.

### SCImago :

Open access resource retrieving data source contained in the already mentioned Scopus database. It's a result of the collaboration between Scimago Research Group and Elsevier and using the Google PageRank algorithm analyzes rank and compares scientific journals and country status.



Fig. 2: SCImago's logo

Provides users indicators like Scimago Journal Rank (SJR) and author's h-index calculated with the PageRank of the journals indexed by Scopus. Like JCR it's updated yearly but covers information from 1999 to the previous current year due to its open access condition. To search for the very current year users must to consult Scopus database.

## III. JOURNAL RANKINGS BY JCR

Next are listed the ranking of the first ten journals with greater impact, according to ISI 2010 data, distributed by four relevant Martech subject categories by ISI criterion too:

### Category: Instruments & Instrumentation

Title	ISSN	Impact Factor	Quartile Rank
Laser physics letters	1612-2011	6.010	Q1
Applied spectroscopy reviews	0570-4928	3.686	Q1
Microfluidics and nanofluidics	1613-4982	3.504	Q1
IEEE Transactions on industrial electronics	0278-0046	3.439	Q1
Sensors and actuators b-chemical	0925-4005	3.368	Q1
Journal of instrumentation	1748-0221	3.148	Q1
Journal of synchrotron radiation	0909-0495	2.335	Q1
Journal of micromechanics and microengineering	0960-1317	2.276	Q1
Chemometrics and intelligent laboratory systems	0169-7439	2.222	Q1
Structural health monitoring-an international journal	1475-9217	2.115	Q1

### Category: Ocean Engineering

Title	ISSN	Impact Factor	Quartile Rank
Journal of atmospheric and oceanic technology	0739-0572	1.860	Q1
Coastal engineering	0378-3839	1.624	Q1
IEEE Journal of oceanic engineering	0364-9059	1.402	Q1
Ocean engineering	0029-8018	0.954	Q2
Applied ocean research	0141-1187	0.859	Q2
Marine technology society journal	0025-3324	0.739	Q2
Journal of waterway port coastal and ocean engineering-asc	0733-950x	0.603	Q2
International journal of offshore and polar engineering	1053-5381	0.529	Q3
Coastal engineering journal	0578-5634	0.472	Q3
Marine georesources & geotechnology	1064-119x	0.452	Q3

## IV. COUNTRY RANKINGS BY SCIMAGO

Next are listed the ranking of the first twenty countries with most publications, according to SCImago 2010 data, distributed by three relevant Martech subject categories by SCImago criterion too:

## V. CONCLUSIONS

First, considering the ISI criterion about the way to divide the thematic categories, we can observe that some journals appears in various classifications, but in a different position, identified by the quartile, in his category rank. ISI's Impact Factor provide relevant information to authors about the importance of every journal and gives they some indication for were to publish their works. Second, observing the country ranks authors can see which countries are leading de research in similar thematic areas classified by Scimago. Country rankings calculates H index combining published documents and citations received in this documents. Taking into account the chosen categories, authors can observe the rank position of their preferred countries. Focusing the case in the ranking of Spain we can see that this country is relatively well positioned in Instrumenta-