

# Beyond JEE:

## Finding publication venues to get your message to the ‘right’ audience

### Amy S. Van Epps

*Purdue University Libraries, West Lafayette, IN*

## Introduction

This poster presents potential journals for publication venues appropriate for engineering education research.

The slow dissemination of engineering education research into practice articulated by Borrego et al <sup>2</sup> and the insular publishing practices of the discipline identified by Wankat <sup>3–6</sup> support the need for researchers to get the word out more broadly within engineering disciplines and STEM education in general. The lists presented will give additional ideas to researchers on venues that may be appropriate for their research to reach a wider audience of practitioners and other educational researchers.

Creating a trusted list of publication venues is an important task for a newly recognized field. Such a list benefits researchers looking for publication venues and the librarians who need to develop and maintain collections for these researchers<sup>1</sup>. An additional benefit can be the use of such a list as one method of justifying what are the quality or top tier publications in a discipline for promotion and tenure committees<sup>7,8</sup>.

## Methods

The initial list of resources for analysis came from the publication venues list that is part of the Engineering Education Community Resource ([http://engineeringeducationlist.pbworks.com/w/page/27578912/Engineering Education Community Resource](http://engineeringeducationlist.pbworks.com/w/page/27578912/Engineering%20Education%20Community%20Resource)) created and maintained by ASEE student division and Center for Engineering Learning and Teaching (CELT), a total of 82 journals.

Information on impact factor from ISI, SJR rank, h-index from Google Scholar, peer review status, copyright and open access practices, indexing, and subject information were gathered when possible and used to generate ranked lists.

## References

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- SCImago SJR — SCImago Journal & Country Rank. (2007) at <<http://www.scimagojr.com>>

## Impact Measures

### ISI Impact Factor

The list of the top 15 publications sorted by impact factor is presented below.

Title	ISI rank
Learning & Instruction	3.732
Journal of Engineering Education	1.569
Research in Science Education	1.342
Research in Engineering Design	1.243
International Journal of Science Education	1.232
Engineering Studies	1.048
IEEE Transactions on Education	1.021
The Internet and Higher Education	1.015
Design Studies	0.969
Higher Education Research & Development	0.901
Journal of Science Education and Technology	0.865
Assessment & Evaluation in Higher Education	0.841
Biochemistry and Molecular Biology Education	0.84
Teaching in Higher Education	0.757
Journal of Chemical Education	0.739

### SJR (SciMago Science Journal Ranking)

The SJR indicator was developed by SCImago from the Google PageRank™ algorithm and accounts for both citation quantity and quality<sup>9</sup>.

Title	SJR rank
Journal of Research in Science Teaching (JRST)	3.122
Learning & Instruction	2.582
Computers and Education	1.933
Journal of Engineering Education	1.358
International Journal of Science Education	1.27
Active Learning in Higher Education (Institute for Learning and Teaching)	1.245
Research in Science Education	1.031
The Internet and Higher Education	0.899
Assessment & Evaluation in Higher Education	0.869
Engineering Studies	0.839
Research in Engineering Design	0.744
Design Studies	0.732
IEEE Transactions on Education	0.73
Teaching in Higher Education	0.702
Journal of Science Education and Technology	0.67

### H-index (*Publish or Perish* application)

The h-index can be calculated for journals, similar to how it is calculated for individual researchers, and is gathered from Google Scholar using the *Publish or Perish* application.

Title	h-index (PoP)
Journal of Research in Science Teaching (JRST)	37
International Journal of Science Education	27
The Internet and Higher Education	26
Assessment & Evaluation in Higher Education	24
Higher Education Research & Development	22
Design Studies	20
Teaching in Higher Education	20
Journal of Science Education and Technology	20
Research in Science Education	19
European Journal of Engineering Education (EJEE)	17
International Journal of Sustainability in Higher Education	16
Change: The Magazine of Higher Learning	16
College Teaching	16
Active Learning in Higher Education (Institute for Learning and Teaching)	15
Cambridge Journal of Education	15

## Indexing and OA

Several databases for each subject area were included in the evaluation. Given the interdisciplinary nature of Scopus, its inclusion in the indexing list helps bridge the education and engineering worlds.

Title	Compendex	ERIC	Education Full-text	Web of Knowledge	Scopus	INSPEC	Prof. Dev. Coll.	Total
Computers and Education	x	x	x	x	x	x		6
The Internet and Higher Education	x	x	x	x	x	x		6
Journal of Chemical Education		x	x	x	x	x	x	6
IEEE Transactions on Education	x	x		x	x	x		5
Journal of Research in Science Teaching (JRST)	x	x	x	x	x			5
International Journal of Electrical Engineering Education (IJEE)	x			x	x	x	x	5
Journal of Biological Education	x	x	x	x	x		x	5
International Journal of Science Education		x	x	x	x	x		5
Computer Science Education			x	x	x	x	x	5
Journal of Engineering Education	x		x	x	x			4
Design Studies	x			x	x	x		4
International Journal of Engineering Education (IJEE)	x			x	x	x		4
Biochemistry and Molecular Biology Education		x	x	x	x			4
Journal of Environmental Education		x	x	x	x			4
Assessment & Evaluation in Higher Education		x		x	x		x	4
Cambridge Journal of Education		x		x	x	x		4
Innovative Higher Education		x	x		x		x	4
Learning & Instruction		x	x	x	x			4
Teaching in Higher Education		x		x	x		x	4
Higher Education Research & Development		x		x	x		x	4

24 of the titles are open access publications, meaning the articles are available online at no fee for any researcher interested in the journal. The list of open access titles, sorted by h-index, is presented below.

Journal of Online Learning and Teaching
Journal of Chemical Education
International Journal of Teaching and Learning in Higher Education (IJTLHE)
Engineering Education: Journal of the Higher Education Academy Engineering Practical Assessment, Research, and Evaluation
Interdisciplinary Journal of Problem Based Learning
International Journal of Continuing Engineering Education and Life-Long Learning (IJCEELL)
Journal of Scholarship of Teaching and Learning
Journal of Agricultural Education
Journal of STEM Education: Innovations and Research (JSTEM)
Journal of University Teaching & Learning
Journal of Natural Resources and Life Sciences Education
The Online Journal for Global Engineering Education (OJGEE)
International Journal of Collaborative Engineering (IJCE)
International Journal of Gender, Science and Technology
Journal of Effective Teaching
International Journal of Engineering Pedagogy (IJEP)
Journal of Pre-College Engineering Education Research (J-PEER)
Journal of Technical Education and Training
International Journal of Engineering, Social Justice and Peace
International Journal for the Scholarship of Teaching & Learning
American Journal of Engineering Education (AJEE)
Journal of Applications and Practices in Engineering Education
Multi: The Journal of Diversity and Plurality in Design

## Results

The overall ranking scheme was created by giving a point to a title for being present in the top 15 of either the ISI or SJR, in the top 15 for h-index, is open access, and is indexed in at least 4 databases. The top 20 publications from the overall ranked list, sorted by total of the rankings then by SJR are presented.

Title	ISI rank	SJR rank	h-index (PoP)	OA	Indexing locations	Total of rankings
Journal of Research in Science Teaching (JRST)	0	*3.122	*37	N	5	3
International Journal of Science Education	*1.232	*1.27	*27	N	5	3
The Internet and Higher Education	*1.015	*0.899	*26	N	6	3
Assessment & Evaluation in Higher Education	*0.841	*0.869	*24	N	4	3
Design Studies	*0.969	*0.732	*20	N	4	3
Teaching in Higher Education	*0.757	*0.702	*20	N	4	3
Higher Education Research & Development	*0.901	0.607	*22	N	4	3
Learning & Instruction	*3.732	*2.582	2	N	4	2
Computers and Education	0	*1.933	5	N	6	2
Journal of Engineering Education	*1.569	*1.358	12	N	4	2
Active Learning in Higher Education (Institute for Learning and Teaching)	0	*1.245	*15	N	3	2
Research in Science Education	*1.342	*1.031	*19	N	3	2
IEEE Transactions on Education	*1.021	*0.73	*3	N	5	2
Journal of Science Education and Technology	*0.865	*0.67	*20	N	3	2
Cambridge Journal of Education	0	0.541	*15	N	4	2
Journal of Chemical Education	*0.739	0.304	14	N	6	2
Biochemistry and Molecular Biology Education	*0.84	0.288	8	N	4	2
Engineering Studies	*1.048	*0.839	7	N	3	1
Research in Engineering Design	*1.243	*0.744	14	N	3	1
European Journal of Engineering Education (EJEE)	0	0.601	*17	N	3	1

Engineering education specific journals in the analysis

Title	h-index (PoP)	Total of rankings
Journal of Engineering Education	12	2
IEEE Transactions on Education	3	2
European Journal of Engineering Education (EJEE)	17	1
International Journal of Engineering Education (IJEE)	12	1
Engineering Education: Journal of the Higher Education Academy Engineering	10	1
International Journal of Continuing Engineering Education and Life-Long Learning (IJCEELL)	8	1
Engineering Studies	7	1
The Online Journal for Global Engineering Education (OJGEE)	5	1
International Journal of Collaborative Engineering (IJCE)	4	1
International Journal of Engineering Pedagogy (IJEP)	2	1
Journal of Pre-College Engineering Education Research (J-PEER)	2	1
American Journal of Engineering Education (AJEE)	1	1
International Journal of Engineering, Social Justice and Peace	1	1
Journal of Applications and Practices in Engineering Education	1	1
Advances in Engineering Education (AEE)	10	
International Journal of Service Learning in Engineering (IJSLE)	5	
Australasian Journal of Engineering Education (also Global Journal of Engineering Education)	4	
World Transactions on Engineering and Technology Education (WTE&TE)	4	
Global Journal of Engineering Education (GJEE)	2	

## Future Considerations

The engineering education field still needs a perceptions study of top publications in the field. In addition, a future study that includes conference papers needs to be conducted.