Using Scopus as a Research and Publishing Tool

Alexander van Servellen, Consultant
Elsevier Research Intelligence

Asian Institute of Technology Thailand, Bangkok
March 20, 2015
Agenda

- Introducing Scopus
- How Scopus supports the researcher
- What content is in Scopus
- Scopus for Search and Discovery
- Scopus for Evaluation and Analysis
Introducing Scopus

Scopus is the largest abstract and citation database of peer-reviewed research literature from around the world. It's the core data source of Elsevier Research Intelligence solutions, and used by academics, government researchers and corporate R&D professionals who need a comprehensive and efficient place to search, discover and analyze research.

- Over 21,900 titles from more than 5,000 international publishers and 105 different countries
- Over 54 million records, 23 million patents from 5 patent offices worldwide
- All content is vigorously vetted by an independent, 15-person, international board of experts called the Content Selection and Advisory Board (CSAB)
- More than 3,000 customers worldwide in all geographic regions
A researcher reads > 300 articles per year

Researchers spend an average 10 hours per week searching for and reading articles.

- A researcher typically reads six articles per week.
- Chemists read nine per week. Mathematicians read four articles per week.
- China-based researchers read one more than average per week (7 articles).
- After searching and reading for 10 hrs per week only 42% of the papers read are considered important.

…of which, 3.5 hours is spent searching for research articles and 5.5 hours reading.
- Researchers in Chemistry and Life Science spend longer than average searching for articles and chemists spend longer reading.
- Younger researchers spend > 4hrs a week searching.
- Researchers from China spend longer searching (six hours) and reading (nine hours) articles than any other country. n=4,225

42% regarded as ‘important’
To progress his/her research career, a researcher is faced with this simple fact:

In order to apply for grants, conduct novel research, summarize research findings, or write original research articles.

A researcher must **find**, **read**, and **cite** relevant research material.
Scopus can help researchers & students

- Find out what already exists in the global world of research output
- Determine how to differentiate research topics and find new ideas
- Decide what, where and with whom to partner or collaborate with
- Track impact of research; monitor global research trends
- Identify and analyze which journals to read or where to submit an article
- Help researchers manage their career through citation counts and the $h$-index
What content is in Scopus?
Scopus represents the World of Research

Scopus

The largest abstract and citation database of peer-reviewed literature.

53.3M records from 5000 publishers

- >21,000 journals
- Titles from 105 different countries world-wide
- 40 “local” languages covered
- 27 Thai Journals in Scopus
- More than 2,800 Gold Open Access journals
What content does Scopus include?

**JOURNALS**
- **21,912** peer-reviewed journals
- **367** trade journals
- Full metadata, abstracts and cited references (pre-1996)
- >2,800 fully Open Access titles
- Going back to 1823
- Funding data from acknowledgements

**CONFERENCES**
- **17k** events
- **5.5M** records (10%)
- Conf. expansion:
  - **1,000** conferences
  - **6,000** conf. events
  - **400k** conf. papers
  - **5M** citations
- Mainly Engineering and Physical Sciences

**BOOKS**
- **421** book series
- **28K** Volumes
  - **925K** items
- **29,917** books
  - **311K** items
- Books expansion:
  - **75K** books by 2015
  - Focus on Social Sciences and A&H

**PATENTS**
- **24M** patents from 5 major patent offices

**Physical Sciences**
- 6,600

**Health Sciences**
- 6,300

**Social Sciences**
- 6,350

**Life Sciences**
- 4,050
10 years after launch, leading research institutes and research organizations use Scopus and Scopus data

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</table>

150 funding bodies use Scopus data
World University Rankings use Scopus data

• Help showcase the distinctive strengths of research institutions
• Help students select their university, faculty to make career decisions and university leaders to discuss strategic priorities
• Help corporations guide investment decisions with respect to academic partnerships
Ratio of journals per Publisher in Scopus

- **Elsevier**: 10%
- **Springer**: 8%
- **Wiley-Blackwell**: 5%
- **Taylor & Francis**: 5%
- **SAGE**: 2%
- **Wolters Kluwer Health**: 1%
- **IEEE**: 1%
- **Oxford University Press**: 1%
- **InderScience Publishers**: 1%
- **Bentham Science**: 1%
- **Cambridge University Press**: 1%
- **Emerald**: 1%

Other: 60%

Source: Scopus title list (May 2014)
Comparison with Web of Science Core Collection

**Scopus**
- ~24K titles
- >5,000 publishers
- Updated daily

**Web of Science**
- ~12K titles
- ~3,300 publishers
- Updated weekly

Scopus 24,169
Web of Science 12,491

Scopus 7,410 (+78%) WoS 4,188
Physical Sciences

Scopus 6,740 (+97%) WoS 3,415
Health Sciences

Scopus 4,436 (+50%) WoS 2,954
Life Sciences

Scopus 7,684 (+90%) WoS 4,016
Social Sciences

Source: Web of Science Real Facts, Web of Science title list and Scopus’ own data (April 2014)
Indexing funding data in Scopus

WHAT FUNDING DATA:
- Full name of the funding body, acronym and grant number captured from the acknowledgments section of the article.
- Making use of the FundRef ontology
- Forward flow only, started in July 2013

FUNDREF ONTOLOGY:
- Only funding bodies included in the FundRef ontology are captured
- Around 5,000 funding bodies originally included in FundRef
- When processing content for Scopus new funding body terms are identified as candidate terms
- As of January 2014 around 1,000 new candidate terms will be added to FundRef each month

In Scopus funding data can be searched using the following fields in Advanced Search:

FUND-SPONSOR | FUND-ACR | FUND-NO

For example, the advanced search term “FUND-SPONSOR(National Science Foundation)” will result in all articles that mention the National Science Foundation as the funding body in the acknowledgements.
Scopus for Search and Discovery
### Refine Your Search Results

**51,121 document results**
- View secondary documents
- View 1173 patent results
- FSGSM ACCT level link
- Analyze search results

### Download/Export/View cited by/Alert Setting

- Sort on: Date, Cited by, Relevance

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<td>2015</td>
<td>Energy Sources, Part B: Economics, Planning and Policy</td>
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Analysis and control of modular multilevel converters with integrated battery energy storage

IEEE Transactions on Power Electronics
Volume 30, Issue 1, January 2015, Article number 6883248, Pages 163-175

Abstract
Multilevel converters and battery energy storage systems are key components in present and future medium voltage networks, where an important integration of renewable energy sources takes place. The modular multilevel converter offers the capability of embedding such energy storage elements in a split manner, given the existence of several submodules operating at significantly lower voltages. This paper analyzes such a converter structure under different operating modes. In order to eliminate the low-frequency components of the submodule output currents, the latter are interfaced to the batteries by means of nonisolated dc/dc converters. Control algorithms are developed for the balancing of the battery state of charges and the respective gain limitations are established. Unbalanced grid conditions are also taken into account through the theory of symmetrical components and solutions are proposed. Finally, the development of a down-scaled prototype is described and experimental results are presented. © 1986-2012 IEEE.

Author keywords
Active power control; battery energy storage system (BESS); integrated split storage; modular multilevel converter; prototype; state of charge (SoC) balancing; symmetrical components
Set Search Alert
(Daily | Weekly | Bi-Weekly | Monthly)
Mendeley is a *reference manager* allowing you to manage, read, share, annotate and cite your research papers...

...and an *academic social network* with 3 million users to connect like-minded researchers & discover research trends and statistics.
Batch Download and Automatic Naming (up to 50 files per download) – Java Required

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<td>Integrated circuit and system design for renewable energy inverters</td>
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The importance and impact of fossil and renewable energy sources in Turkey on business and the economy.

Output: Print, E-mail or Create a Bibliography

Note: For a bibliography, only the first 2,000 documents will be exported.

Output Limits:
- Export (Citations only): 20,000
- Export: 2,000
- Bibliography: 2,000

Output Type: Select the desired output type for the 51,121 selected documents.

- Bibliography
- E-mail
- Print
- QuikBib

Bibliography: QuikBib
QuikBib allows you to generate a reference list (bibliography) from your selected documents in a variety of widely used output styles.

Format: HTML
Style: APA 6th - American Psychological

QuikBib Status: Bibliography Created in APA 6th - American Psychological style

Always check your references for accuracy. Click here for more information.

References:
Scopus for Evaluation and Analysis
Understand the Profile of any University

Asian Institute of Technology Thailand
Bangkok
Thailand
Affiliation ID: 60010105

Documents: 5,242
Authors: 2,077
Patent results: 4

Collaborating affiliations

Kasetsart University
University of Tokyo
Thammasat University
Mahidol University
Sirindhorn International Institute of Technology, Thammasat University

Documents
93
71
69
68
61

Engineering
Environmental Science
Computer Science
Agricultural and Biological Sciences
Earth and Planetary Sciences
Social Sciences
Energy
Business, Management and Accounting
Materials Science
Chemical Engineering
Other
Determine Publications per year

AF-ID ("Asian Institute of Technology Thailand" 60010105)

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## Citation Overview

This is a overview of citations for the documents you selected.

### 305 cited documents

Document h-index: 12

Scopus does not have complete citation information for articles published before 1996.

---

### Citation overview

Date range: 2011 to 2015

Exclude self citations of all authors

Exclude Citations from books

Edit the data for this graph and the citation table below.

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Extract Publication Data

Choose your default reference manager or file type:

- Save to Mendeley
- RefWorks direct export

Choose the information to export:

Choose the information you want to export to the reference manager or file.

Specify fields to be exported

- Citation information
  - Author(s)
  - Document title
  - Year
  - EID
  - Source title
  - Volume, Issue, Pages
  - Citation count
  - Source and Document Type

- Bibliographical information
  - Affiliations
  - Serial identifiers (e.g. ISSN)
  - DOI
  - PubMed ID
  - Publisher
  - Editor(s)
  - Language of Original Document
  - Correspondence Address
  - Abbreviated Source Title

- Abstract and Keywords
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  - Author Keywords
  - Index Keywords

- Funding Details
  - Number
  - Acronym
  - Sponsor

- References

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View Author Profiles

Ongsakul, Weerakorn
Asian Institute of Technology Thailand, Bangkok, Thailand
Author ID: 7004479828

Documents: 136
Citations: 1062 total citations by 925 documents
h-index: 15

Co-authors: 88
Subject area: Energy, Engineering

- Analyze author output
- View citation overview
- View h-graph
- Follow this Author
- Get citation alerts
- Add to ORCID
- Request author detail corrections

Graph showing the number of documents and citations from 2005 to 2015.
Analyse

Documents by source

- Proceedings of ... (8.8%)
- AIP Conference ... (6.6%)
- Electric Power ... (5.1%)
- European Transactions ... (4.4%)
- Proceedings of ... (4.4%)
- Electric Power ... (3.7%)
- IEEE Transactions ... (3.7%)
- International Transactions ... (3.7%)
- International Journal ... (3.7%)
- Proceedings of ... (2.9%)

Other (52.9%)
Analyse

Documents by type

- Article (44.1%)
- Conference... (54.4%)
- Editorial (0.7%)
- Book Chapter (0.7%)
Analyse

Documents by year
Documents by subject area

- Energy (42.2%)
- Engineering (39.6%)
- Computer Science (5.2%)
- Physics and Astronomy (4.7%)
- Social Sciences (2.1%)
- Materials Science (1.6%)
- Mathematics (1.6%)
- Business, Management (1.0%)
- Arts and Humanities (0.5%)
- Decision Sciences (0.5%)
- Other (1.0%)
Determine H-Index

This author's $h$-index is 15

The $h$-index is based upon the number of documents and number of citations.
Citation analysis

Citations by year

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Ongsakul, Weerakorn
Asian Institute of Technology Thailand, Bangkok, Thailand
Author ID: 7004479828
# Identify co-authors

Analyze author output

Ongsakul, Weerakorn  
Asian Institute of Technology Thailand, Bangkok, Thailand  
Author ID: 7004479828

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Analyze Journals

Water Science and Technology

Formerly known as: Progress in Water Technology

Subject Area: Environmental Science: Environmental Engineering
Environmental Science: Water Science and Technology

Publisher: IWA Publishing

ISSN: 0273-1223

Scopus Coverage Years: 1970, from 1980 to 2014

Journal Metrics

Scopus Journal Metrics offer the value of context with their citation measuring tools. The metrics below allow for direct comparison of journals, independent of their subject classification. To learn more, visit: www.journalmetrics.com.

SJR (SCImago Journal Rank) (2013): 0.600
IPP (Impact per Publication) (2013): 1.238
SNIP (Source Normalized Impact per Paper) (2013): 0.717

Compare with other journals
Compare Journals

Source normalized impact per paper by year

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<th>SNIP</th>
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<th>Documents</th>
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<th>% Reviews</th>
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- Water Science and Technology
- Advances in Water Resources
- Journal of Water Resources Planning and Management – ASCE
Compare Journals

Source documents by year

- Water Science and Technology
- Advances in Science and Technology of Water Resources
- Advances in Water Resources
- Journal of Water Resources Planning and Management – ASCE
Welcome to Journal Metrics from Elsevier

The academic community has long been demanding more transparency, choice and accuracy in journal assessment. Elsevier now provides three alternative, transparent and accurate views of the true citation impact a journal makes:

- Source Normalized Impact per Paper (SNIP)
- The Impact per Publication (IPP)
- SCImago Journal Rank (SJR)

The three different impact metrics are all based on methodologies developed by external bibliometricians and use Scopus as the data source. Scopus is the largest citation database of peer-reviewed literature and features tools to track, analyze and visualize research output. Via this website, the three journal metrics are provided free of charge.
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Questions - Discussion
Thank you!