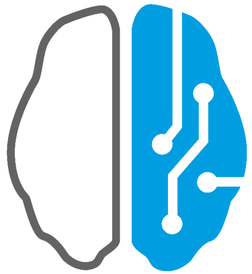


Intelligent
Embedded Systems

How to search for good papers?

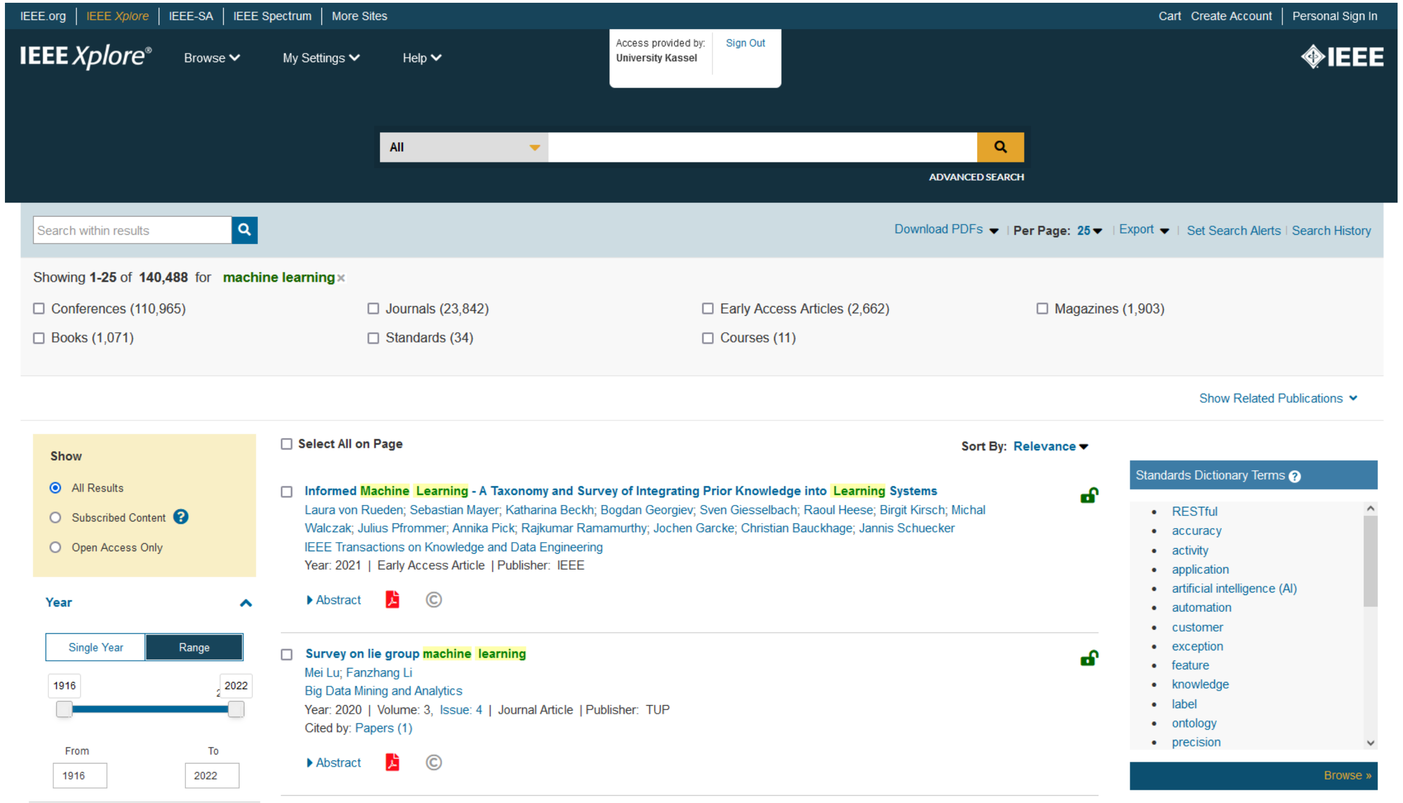
Where to find papers?

- Google / Google Scholar
- IEEE
- sciencedirect, researchgate,...

- **Access:** karla, arXiv

- **Konferenzen vs Journal (nature)**
  vs arXiv (open-source)
  - Main Track,
  - Workshop,
  - etc.)

- **Reviews** (single blind and double blind)



- arXiv: Papers deposited on this repository are pre-publication versions and authors can add a DOI to their pre-print version on arXiv after it has been published.

What is a survey?

Intelligent Embedded Systems

A paper that summarizes and organizes recent research results in a novel way that integrates and adds understanding to work in the field. A survey article assumes a general knowledge of the area; it emphasizes the classification of the existing literature, developing a perspective on the area, and evaluating trends

- Provide reader with a view of existing work that is well organized and comprehensive
- Not all details must be included, which one's should/shouldn't?
- State-of-the-art view
- Summarize the research on a particular topic
- Include your own commentary on the significance of the approach and the solutions presented in each paper

- Provide a critical assessment of the work that has been done
- Include a discussion on future research directions
- you should have a thorough and deep knowledge of the field that you are surveying
- This knowledge should be sufficient to be completely aware of the the main themes, directions, controversies, and results in that field.

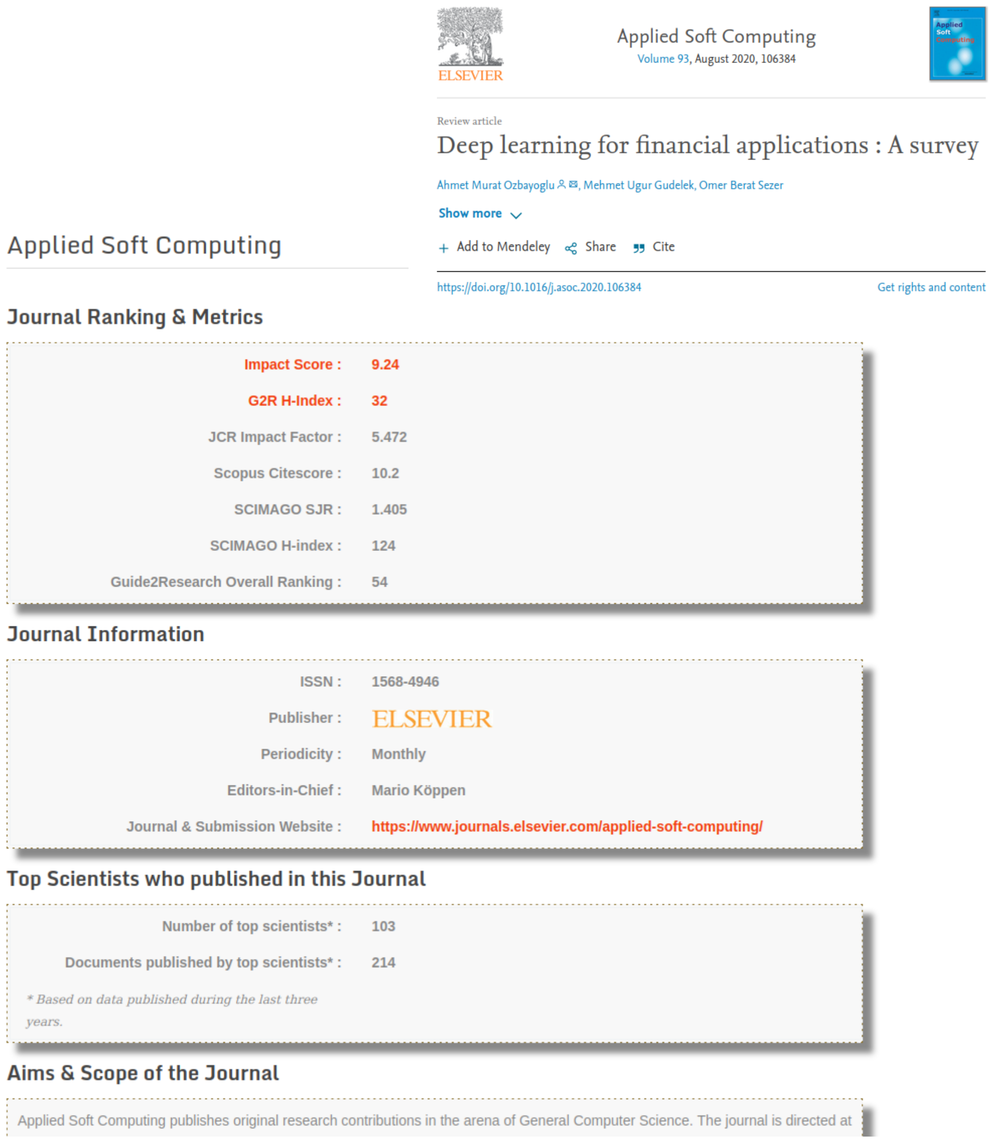
Tips for Google scholar

A major problem of both approaches is that it is very time-consuming to find out high-quality articles based on the found articles or their references and related work. This is especially true for articles that were published after the present article.

- For a better specification of the search with Google and Google scholar use: http://www.googleguide.com/favorite_notation.html
- from Paper search for recent publications with "Cited by:..." and "Search in articles with citations" possible
- search via author profile for his similar publications

What is a good paper?

- The **impact factor (IF)** of an academic journal is a scientometric index calculated by Clarivate that reflects the yearly mean number of citations of articles published in the last two years. [1]
- The **SCImago Journal Rank (SJR)** indicator is a measure of the scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where the citations come from. [2]
- The **h-index** is an author-level metric that measures both the productivity and citation impact of the publications, initially used for an individual scientist or scholar. [3]



[1] https://en.wikipedia.org/wiki/Impact_factor

[2] https://en.wikipedia.org/wiki/SCImago_Journal_Rank

[3] https://en.wikipedia.org/wiki/H-index

Research Cycle

1. Set an overall scope and collect papers
2. Based on initial readings (Abstract, Introduction and Conclusion) think about an organization scheme of your topic
    - inclusion/exclusion criteria for the paper
3. Start reading (skimming) and organizing your collection using your scheme
    - which ones are most important?
    - which ones do not fit?
4. After gaining a significant amount of knowledge: Set the scope in detail
    - redefine some kind of research question
5. Adjust your scheme, use basic literature/videos/websites to fill your knowledge gaps

- Take notes and classify your papers
- You cannot cover everything
- Which concepts appear frequently and why? Who used them? What are the differences of the findings? What are the open questions?
- Compile implications of your research

Tips

- Use a bibliography software (zotero, mendeley, citavi)!
- Connected Paper: https://www.connectedpapers.com/
- https://dblp.org/ ← department publications?
- Use references to find more references!
- learn the field, use the words, use the established structures!