

Advanced Computer Networks

Selected Research Tips

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Fall 1401

Overview



- **Contents we discuss:**

- How to search a (research) topic?
- How to read a research paper?
- Major conferences and journals in computer networking

- **Notes:**

- ❖ Many skills in how to research are learned by experience and it there is not essentially a single and completely organized way. However, there are important basic tips.
- ❖ In the seminar course, we will be also got familiar with some related tips particularly for presentation.

How to search a (research) topic?

- In any research project, you usually start by searching about the topic.
- To reach the best result, it is essential to use appropriate search *keywords*.
- Keywords are a set of words you use in your search.
- For indicating the keywords, first of all you should know exactly what you are searching about. Thus you should use the important related words.

How to search a (research) topic?

- **Example:** A graduate student is interested to work in the topic of “**Placement of Services in Edge Computing**”.
- The student might use the set of keywords as: Placement + Service + Edge Computing (or “Edge Computing”).
- However, many students initially might not know specific topics to work on. So what should they do?
- A solution is to refer to the valid journal and conferences papers in the area of e.g. edge computing and investigate the emerging trends they are interested, and also reading good survey papers. (we’ll talk about this further.)

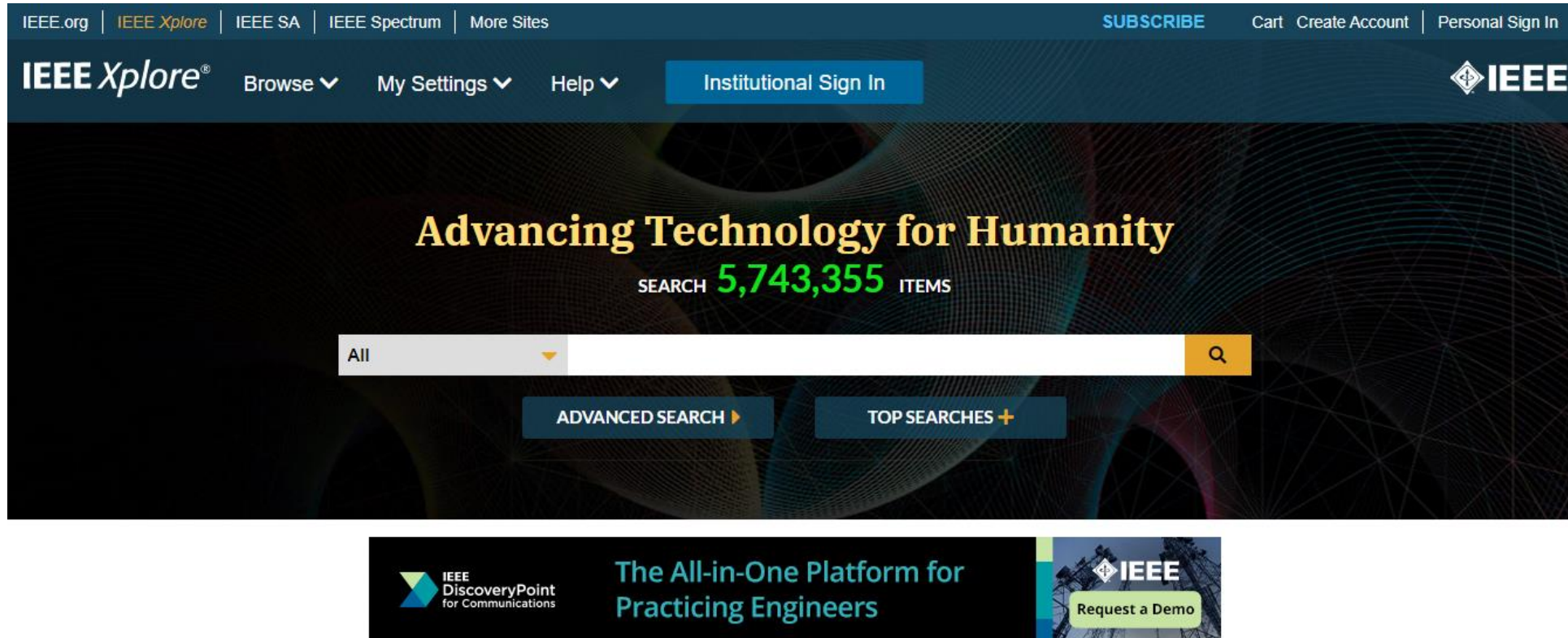
How to search a (research) topic?

- Note that if you are going to see some general discussion about your topic on the web, you might use the exact sentence/question you concern about.
- However, in a scientific search procedure you must use keywords as the related search engines works with them and the literature is classified accordingly.
- Examples of scientific search engines (useful in computer networking research):
 - IEEExplore: IEEE Journal and Conference Publications
 - Scencedirect: Elsevier publication
 - Google Scholar: Any scientific record found by Google on the Web

How to search a (research) topic?

- IEEExplore (<https://ieeexplore.ieee.org/Xplore/home.jsp>)

Basic Search

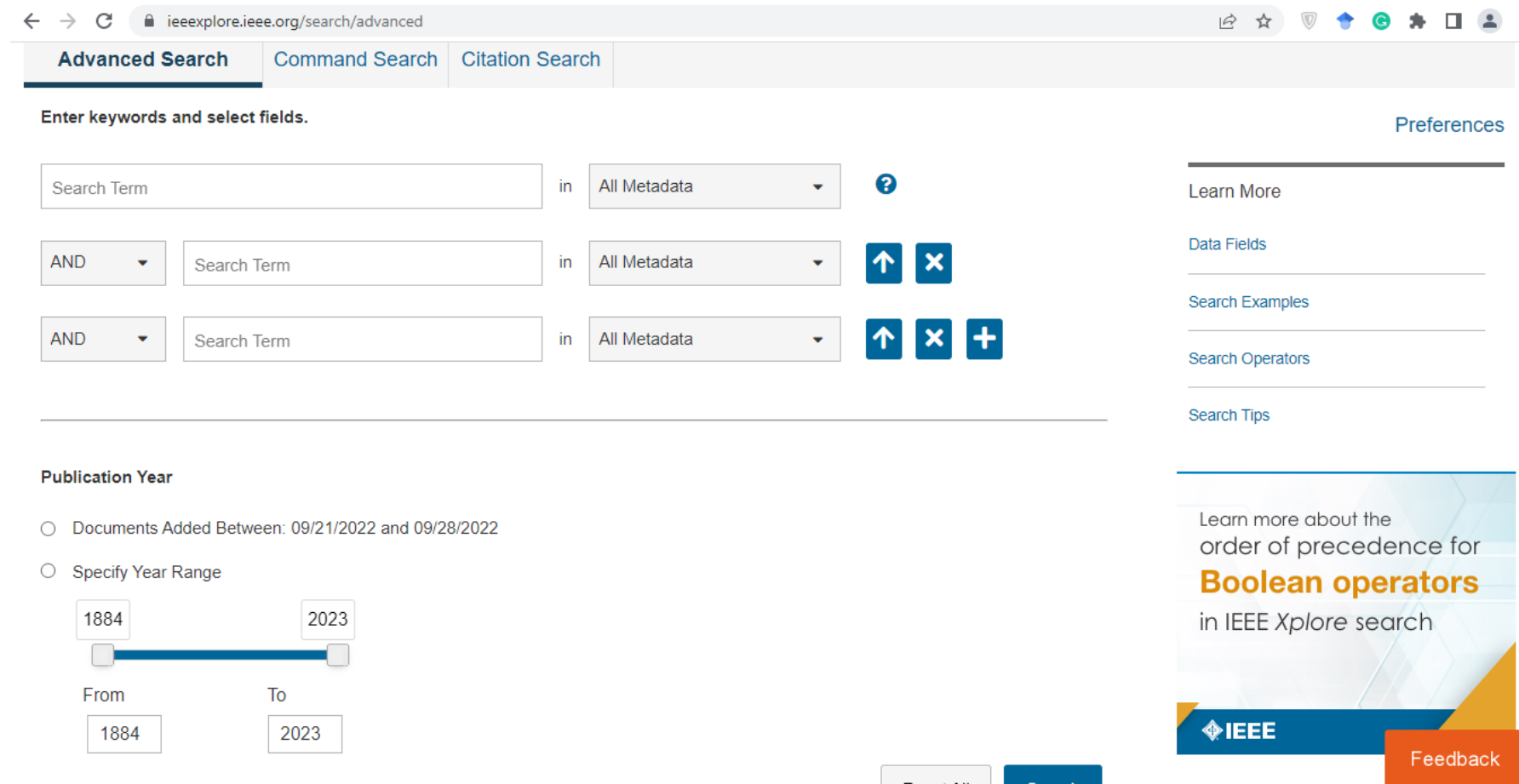


The screenshot shows the IEEE Xplore homepage. At the top, there is a navigation bar with links to IEEE.org, IEEE Xplore, IEEE SA, IEEE Spectrum, and More Sites. On the right, there are links for SUBSCRIBE, Cart, Create Account, and Personal Sign In. Below this, the IEEE Xplore logo is displayed along with links for Browse, My Settings, and Help, and a button for Institutional Sign In. The main banner features the text "Advancing Technology for Humanity" and "SEARCH 5,743,355 ITEMS". A search bar is present with a dropdown menu set to "All" and a search icon. Below the search bar are buttons for "ADVANCED SEARCH" and "TOP SEARCHES". At the bottom, there is a banner for "IEEE DiscoveryPoint for Communications" with the text "The All-in-One Platform for Practicing Engineers" and a "Request a Demo" button.

How to search a (research) topic?

- IEEExplore (<https://ieeexplore.ieee.org/search/advanced>)

Advanced Search



The screenshot shows the IEEExplore Advanced Search page. At the top, there are tabs for "Advanced Search", "Command Search", and "Citation Search". Below the tabs, there is a section titled "Enter keywords and select fields." with three search rows. Each row has a "Search Term" input field, a "in" label, and a dropdown menu set to "All Metadata". To the right of each row are buttons for adding, removing, and toggling the search term. Below the search rows, there is a "Publication Year" section with two radio buttons: "Documents Added Between: 09/21/2022 and 09/28/2022" and "Specify Year Range". The "Specify Year Range" option is selected, showing a range from 1884 to 2023. On the right side, there is a "Preferences" section with links for "Learn More", "Data Fields", "Search Examples", "Search Operators", and "Search Tips". At the bottom right, there is a banner for "Boolean operators" and a "Feedback" button.

How to search a (research) topic?



- Sciencedirect (<https://www.sciencedirect.com/>)

Basic Search

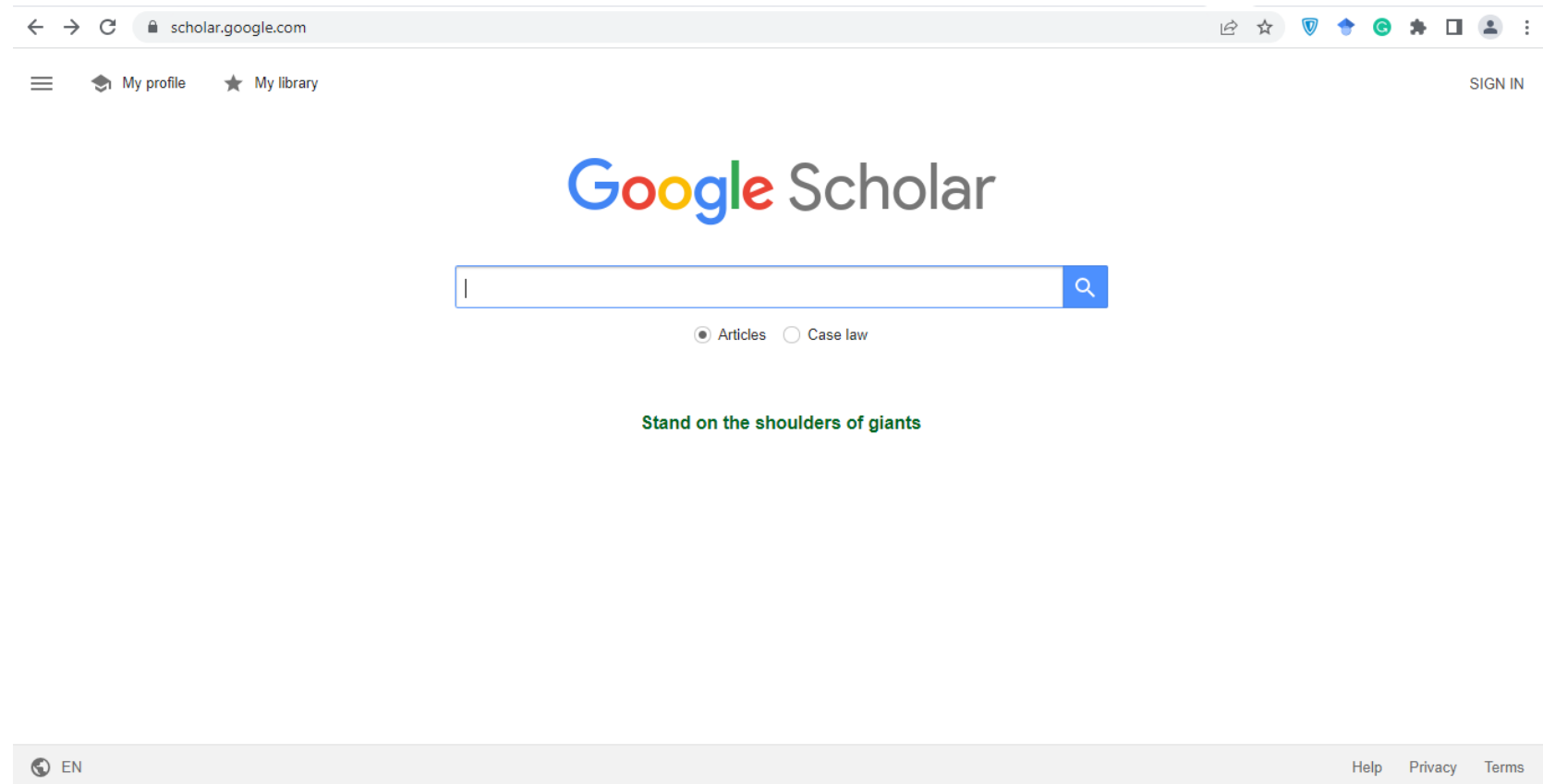
The screenshot shows the ScienceDirect website in a web browser. The address bar displays 'sciencedirect.com'. The ScienceDirect logo is on the left, and 'Journals & Books' is on the right. There are 'Register' and 'Sign in' buttons. The main search area has a heading 'Search for peer-reviewed journal articles and book chapters (including open access content)'. Below this are input fields for 'Keywords', 'Author name', 'Journal/book title', 'Volume', 'Issue', and 'Page'. A magnifying glass icon and the text 'Advanced search' are to the right of these fields. At the bottom, there is a large banner image of Earth from space. Overlaid on this banner is a dark box with white text: 'Elsevier journals offer the latest peer-reviewed research papers on climate change, biodiversity, renewable energy and other topics addressing our planet's climate emergency. Join us in working towards a sustainable future with our editorially independent report on creating a Net Zero future.' Below this text is a button that says 'Get the Net Zero report'.

How to search a (research) topic?



- Google Scholar (<https://scholar.google.com/>)

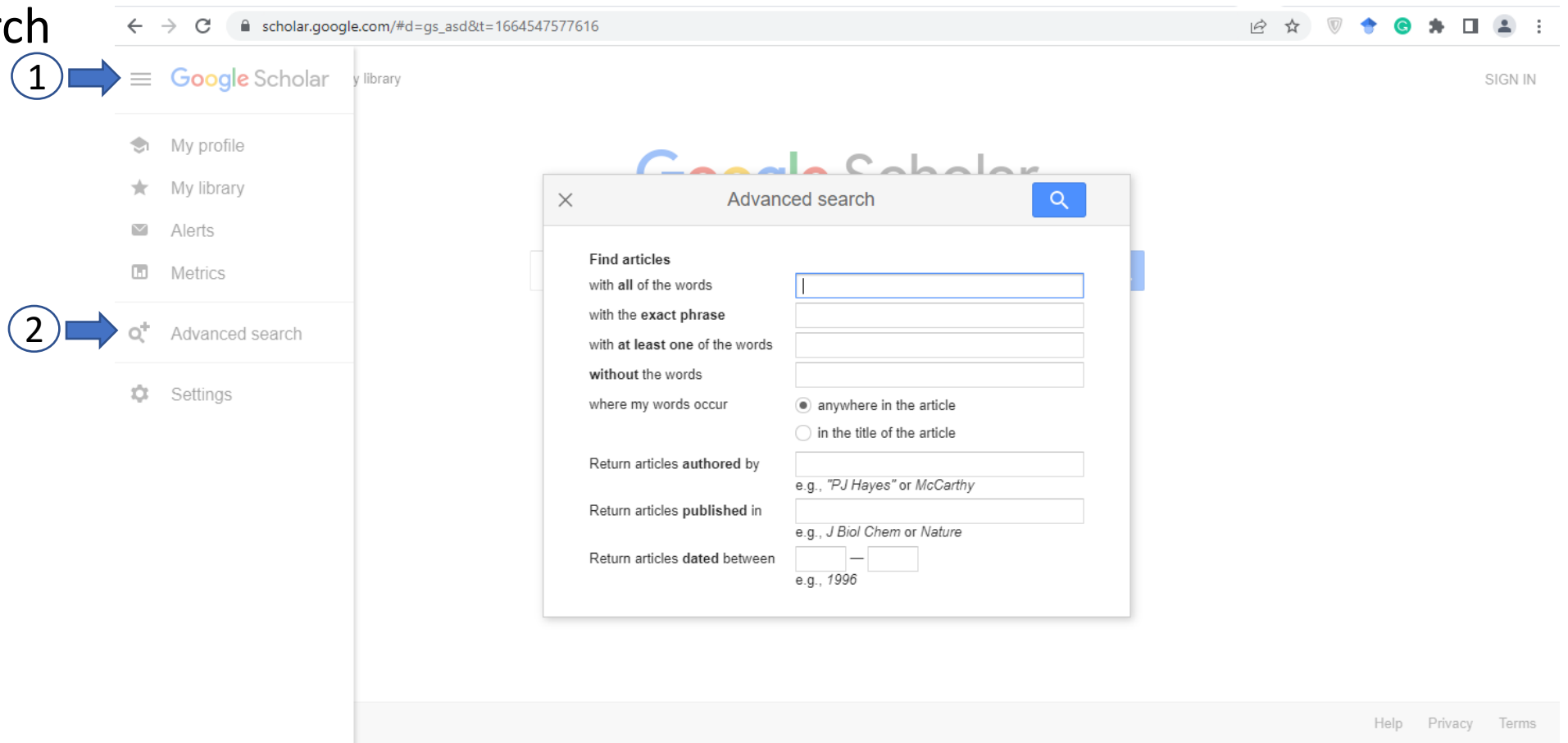
Basic Search



How to search a (research) topic?

- Google Scholar (<https://scholar.google.com/>)

Advanced Search



1 → Google Scholar library

2 → Advanced search

Settings

Advanced search

Find articles

with **all** of the words

with the **exact phrase**

with **at least one** of the words

without the words

where my words occur

☒ anywhere in the article

☐ in the title of the article

Return articles **authored by**

e.g., "PJ Hayes" or McCarthy

Return articles **published in**

e.g., J Biol Chem or Nature

Return articles **dated between**

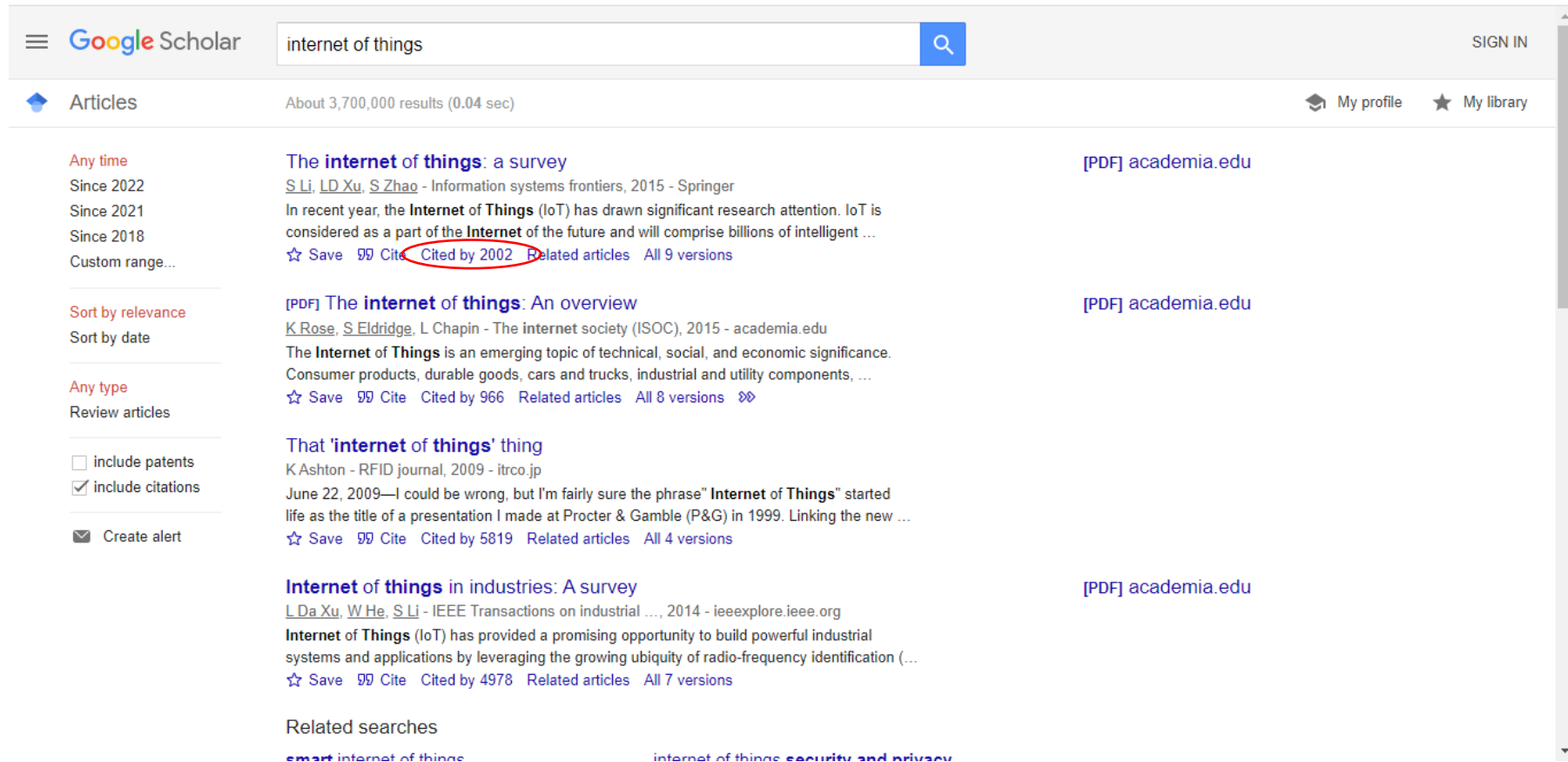
e.g., 1996

Help Privacy Terms

How to search a (research) topic?

- Google Scholar (<https://scholar.google.com/>)

Citations



The screenshot shows the Google Scholar search results for the query "internet of things". The search bar at the top shows the query and a magnifying glass icon. Below the search bar, the results are displayed in a list. The first result is "The internet of things: a survey" by S. Li, L. D. Xu, and S. Zhao, published in "Information systems frontiers" in 2015. The abstract mentions that the Internet of Things (IoT) has drawn significant research attention and is considered a part of the Internet of the future. The citation count is 2002, which is circled in red. The second result is "[PDF] The internet of things: An overview" by K. Rose, S. Eldridge, and L. Chapin, published in "The internet society (ISOC)" in 2015. The abstract mentions that the Internet of Things is an emerging topic of technical, social, and economic significance. The citation count is 966. The third result is "That 'internet of things' thing" by K. Ashton, published in "RFID journal" in 2009. The abstract mentions that the phrase "Internet of Things" started life as the title of a presentation made at Procter & Gamble (P&G) in 1999. The citation count is 5819. The fourth result is "Internet of things in industries: A survey" by L. Da Xu, W. He, and S. Li, published in "IEEE Transactions on industrial ..." in 2014. The abstract mentions that the Internet of Things (IoT) has provided a promising opportunity to build powerful industrial systems and applications by leveraging the growing ubiquity of radio-frequency identification (RFID). The citation count is 4978. The left sidebar contains filters for "Any time", "Sort by relevance", "Any type", and checkboxes for "include patents" and "include citations". The bottom of the page shows "Related searches" for "smart internet of things" and "internet of things security and privacy".

How to search a (research) topic?

- **Citation of a paper:** Number of times a paper has been used as a reference in other papers.
- High number of citation might be a sign of a good paper. However, there are other factors, such as
 - where (in which journal/conference) the paper has been published,
 - the number of high-quality papers in the citations,
 - the ratio of self-citations,
 - the position of the paper in practice,
 - ...
- **Note:** A good way to find main and basic papers in a research topic is mining the references of the papers in the topic to reach the ones that first initiated the topic.

How to read a research paper?

- Different types of papers: **(not limited to these but the most important ones)**

- ☐ **Research papers:**

- Most papers lay in this category. This type of papers study a specific research problem and introduce novel methods (analytical/experimental) to tackle the problem. They show that their methods are superior to the other previously proposed one in terms of different criteria.

- ☐ **Survey papers:**

- This type of papers presents a comprehensive review of a specific research topic. They usually introduce the related concepts, categorize the papers in this topic, and discuss the potential research gaps.

- ☐ **Demo papers:**

- Introducing the experimental testbed for implementing a method or system. These are usually short papers (around 2 pages).

- Research papers: Example



On Fair Rule Caching in Software Defined Radio Access Networks

Seyed Hamed Rastegar^{ID}, *Student Member, IEEE*, Aliazam Abbasfar^{ID}, *Senior Member, IEEE*,
and Vahid Shah-Mansouri, *Member, IEEE*

Abstract—In software defined radio access networks, base stations (BSs) operate according to commands received from a centralized controller. To avoid asking the controller frequently, BSs store these commands as rules in flow tables with limited size. This limitation necessitates fetching rules of some users from the controller causing longer processing delays. In this letter, **we formulate** the fair allocation of flow table spaces to the users within a cell as a mixed integer linear program which is an NP-hard problem. Nonetheless, **we propose** an optimal low-complexity solution. Finally, **we show superior performance** of this strategy versus other possible schemes.

Index Terms—5G, SDN, radio access networks, rule caching,

Such problem also needs to be addressed for future SDN-enabled wireless networks as 5G is going to support Internet of Things (IoT) with massive number of connected devices [9]. In this regard, [10] in SDN-enabled mobile access networks and [11] for an integrated cellular and IoT network, suggest predictive algorithms for placing the rules of mobile users in flow tables. Also, efficient schemes to reduce flow table utilization are proposed in [12] and [13] for SDN-based Internet of Vehicles (IoV) and wireless data centers, respectively.

This limited flow table space forces the network equipment to fetch the rules of some incoming packets from the controller which introduces delay. Consequently, low latency

- Survey papers: Example



Smartphone App Usage Analysis: Datasets, Methods, and Applications

Tong Li^{ID}, *Member, IEEE*, Tong Xia, Huandong Wang^{ID}, *Member, IEEE*, Zhen Tu^{ID},
Sasu Tarkoma^{ID}, *Senior Member, IEEE*, Zhu Han^{ID}, *Fellow, IEEE*, and Pan Hui^{ID}, *Fellow, IEEE*

Abstract—As smartphones have become indispensable personal devices, the number of smartphone users has increased dramatically over the last decade. These personal devices, which are supported by a variety of smartphone apps, allow people to access Internet services in a convenient and ubiquitous manner. App developers and service providers can collect fine-grained app usage traces, revealing connections between users, apps, and smartphones. **We present a comprehensive review of the most recent research on smartphone app usage analysis in this survey. Our survey summarizes advanced technologies and key patterns in smartphone app usage behaviors, all of which have significant implications for all relevant stakeholders, including academia and industry. We begin by describing four data collection methods:**

Index Terms—Smartphone device, mobile app, app usage, behavior analysis, data mining.

I. INTRODUCTION

PEOPLE can now use their smartphone apps to access a variety of Internet services, including instant messaging (e.g., WhatsApp, WeChat), online socializing (e.g., Twitter, Weibo), electronic commerce (e.g., Amazon, Taobao), and online payment (e.g., PayPal, Alipay). These services have

- Survey papers: Example

Resource Allocation in NFV: A Comprehensive Survey

Juliver Gil Herrera and Juan Felipe Botero

Abstract—Network functions virtualization (NFV) is a new network architecture framework where network functions that traditionally used dedicated hardware (middleboxes or network appliances) are now implemented in software that runs on top of general purpose hardware such as high volume servers. NFV emerges as an initiative from the industry (network operators, carriers, and manufacturers) in order to increase the deployment flexibility and integration of new network services with increased agility within operator's networks and to obtain significant reductions in operating expenditures and capital expenditures. NFV promotes virtualizing network functions such as transcoders, firewalls, and load balancers, among others, which were carried out by specialized hardware devices and migrating them to software-based appliances. One of the main challenges for the deployment

OPEX	Operating Expenditures
OSS	Operations Support System
SDN	Software Defined Networking
SLA	Service Level Agreement
SN	Substrate Network
TSP	Telecom Service Provider
VM	Virtual Machine
VNF	Virtual Network Function
VNF-FG	Virtual Network Function Forwarding Graph
VNF-FGE	VNF Forwarding Graph Embedding
VNFR	Virtual Network Functions Request
VNFs-CC	VNFs Chain composition

- Demo papers: Example

Ruling Out IoT Devices in LoRaWAN

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Abstract—LoRaWAN is certainly one of the most widely used LPWAN protocol. The LoRaWAN 1.1 specification aims at fixing some serious security vulnerabilities in the 1.0 specification, however there still exist critical points that may affect the IoT security. In this demo, we show an attack that can affect LoRaWAN 1.0 and 1.1 networks, which hijacks the downlink path from the Network Server to an End Device, ruling out the target device from the network. The attack exploits the deduplication procedure and the gateway selection during a downlink scheduling by the Network Server, which is in general implementation-dependent. The attack scheme has been proven to be easy to implement, not requiring physical layer-specific operations such as signal jamming, and could target many LoRaWAN devices at once. **We demonstrate** this attack and its effects by blocking a device under our control by receiving any downlink communication.

Index Terms—LoRaWAN, Security, Denial of Service, Replay

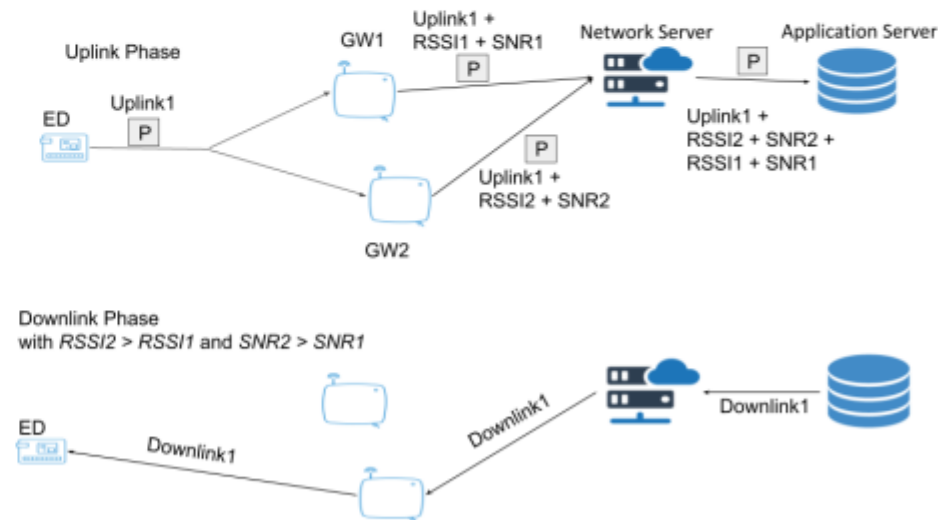


Fig. 1. LoRaWAN Architecture with an uplink, deduplication phase and the following downlink selection

How to read a research paper?

- An important usual task of a researcher is to read papers.
- The aim of reading a paper might be
 - a paper reading assignment (which you will do in this course!),
 - to keep current in the field,
 - to review as a referee,
 - to make a literature review for initiating a research,
 -
- Researchers devote a vast portion of their time reading papers. Thus if they do not read paper in the right way, they will waste a lot of time.
- Therefore, it is of great importance to do this efficiently.

How to read a research paper?

- Some general tips:
 - First of all read the **title** of the paper carefully.
 - Reading the **abstract** always is necessary in reading a paper. It gives you a short but efficient view of the whole paper.
 - After reading the abstract, you might decide to continue reading the paper or not (in the case you are not required to read the paper as a task).
 - **Introduction** section (always section II of the paper, it might have other names such as Motivation) usually discusses the necessity of doing this research in detail and review the related literature. (Some papers have a separate section for Related Works and the literature.)
 - In general the aim of the Introduction is to sketch why this research has been done and explain what the paper has been done and list the key contributions.

How to read a research paper?

- Some general tips:
 - Reading the **introduction** will give you a comprehensive overview of the general research topic. Thus it is often useful to read the introduction and it helps you learn more.
 - However, the best result would be obtained when the reader has a background knowledge of the field and introduction in some papers might not be useful for the general audience.
 - Although the names of the Sections (other than Abstract and Introduction) in various papers are different, the general structure of papers in the same research field are very similar.

How to read a research paper?

- For papers in the field of engineering, after Introduction, the sections are as follows:
 - ❖ Some papers might include some preliminary knowledge requirements for the reader.
 - ❖ The problem under study of the paper explain in a section. The section might state the problem in text or with mathematical equations and also system model as figure(s).
 - ❖ The method the authors propose to solve the problem and discussed challenge.
 - ❖ The experimental/numerical evaluations which verify the performance of the proposed method.

How to read a research paper?

- A more detailed discussion on how to read a paper: (Read this paper)

Keshav, Srinivasan. "How to read a paper." *ACM SIGCOMM Computer Communication Review* 37, no. 3 (2007): 83-84.

How to Read a Paper

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ABSTRACT

Researchers spend a great deal of time reading research papers. However, this skill is rarely taught, leading to much wasted effort. This article outlines a practical and efficient *three-pass method* for reading research papers. I also describe how to use this method to do a literature survey.

Categories and Subject Descriptors: A.1 [Introductory and Survey]

General Terms: Documentation.

Keywords: Paper, Reading, Hints.

1. INTRODUCTION

4. Glance over the references, mentally ticking off the ones you've already read

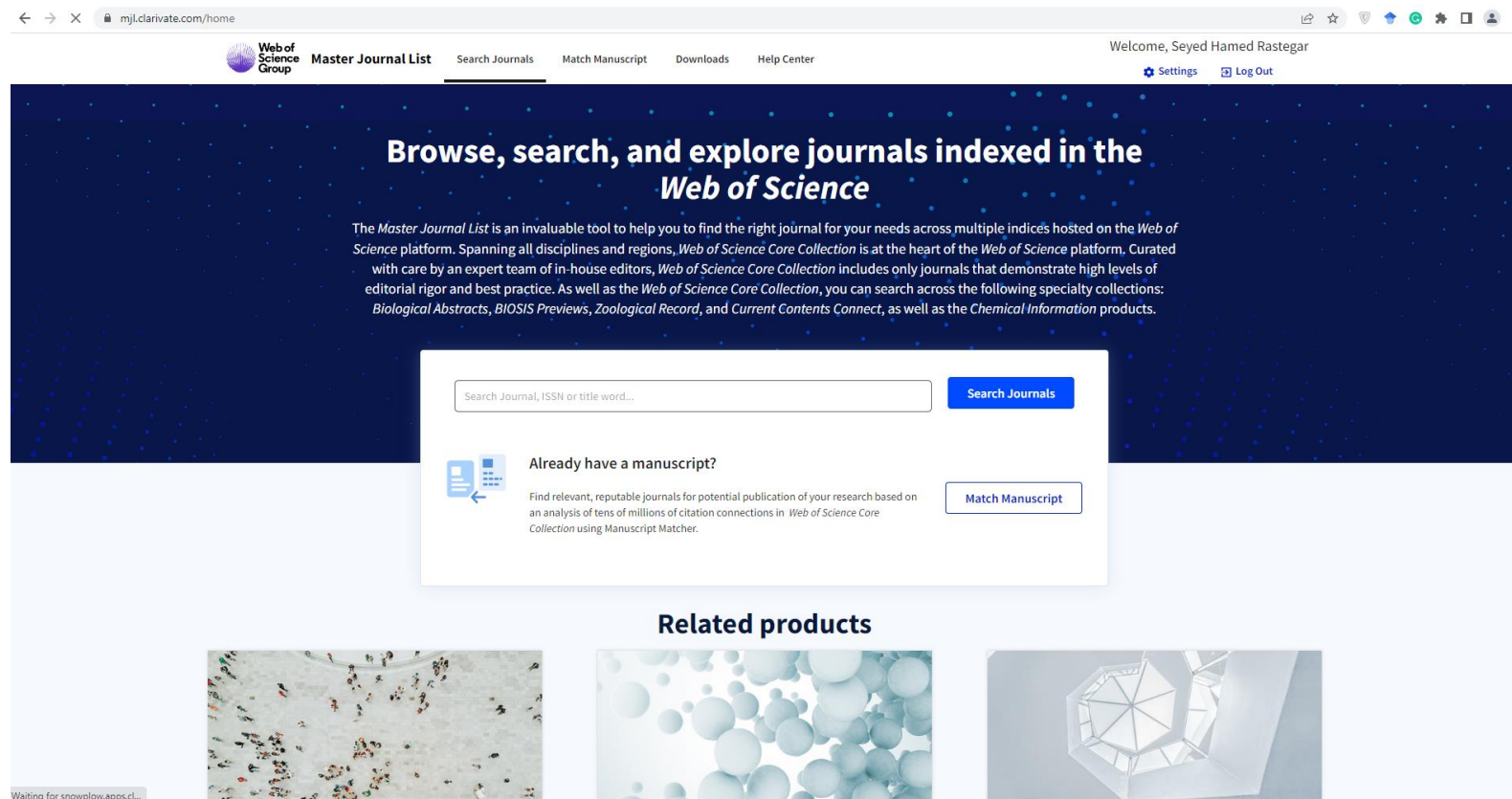
At the end of the first pass, you should be able to answer the *five Cs*:

1. *Category*: What type of paper is this? A measurement paper? An analysis of an existing system? A description of a research prototype?
2. *Context*: Which other papers is it related to? Which theoretical bases were used to analyze the problem?
3. *Correctness*: Do the assumptions appear to be valid?

Major conferences and journals in computer networking



Web of Science Master Journal List (<https://mjl.clarivate.com/home>)



Major conferences and journals in computer networking



Web of Science (WoS) Journal Ranking

- WoS assign an index named Impact Factor (IF) to each journal.
- In any given year, the **two-year journal impact factor** is the **ratio** between
 - **The numerator:** the number of citations received in that year for publications in that journal that were published in the two preceding years
 - **The denominator:** the total number of "citable items" published in that journal during the two preceding years.
- WoS rank the journal based on their impact factors. Also, it categorized journals in its list as Q1, Q2, Q3, Q4. A Q_i journal, belongs to the i th quartile of the journals when sort them in descending order of impact factors.

Major conferences and journals in computer networking



SJR (SCImago Journal Rank): <https://www.scimagojr.com/journalrank.php>

The screenshot displays the SCImago Journal & Country Rank website. At the top, there's a search bar and navigation tabs. A modal window titled 'Listed Companies Information' is open, showing 'Global Market Insights' and an 'OPEN' button. Below the modal, there are filters for subject areas, categories, regions, types, and years. A table lists the top journals, including 'Ca-A Cancer Journal for Clinicians', 'Nature Reviews Molecular Cell Biology', and 'Quarterly Journal of Economics'.

Title	Type	↓ SJR	H index	Total Docs. (2021)	Total Docs. (3years)	Total Refs. (2021)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2021)	
1 Ca-A Cancer Journal for Clinicians	journal	56.204 Q1	182	41	121	4006	17959	78	186.75	97.71	🇺🇸
2 Nature Reviews Molecular Cell Biology	journal	33.213 Q1	452	111	338	9025	13797	161	38.55	81.31	🇬🇧
3 Quarterly Journal of Economics	journal	31.348 Q1	272	48	111	3406	2241	110	16.30	70.96	🇬🇧

Major conferences and journals in computer networking



SJR (SCImago Journal Rank)

- The 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.
- Similarly, here Q1-Q4 journals are defined based on their Quartiles in SJR ordering.

Computer Science

Computer Networks and Communications

All regions / countries

All types

2021

☐ Only Open Access Journals

☐ Only SciELO Journals

☐ Only WoS Journals

Display journals with at least 0

Citable Docs. (3years)

Apply

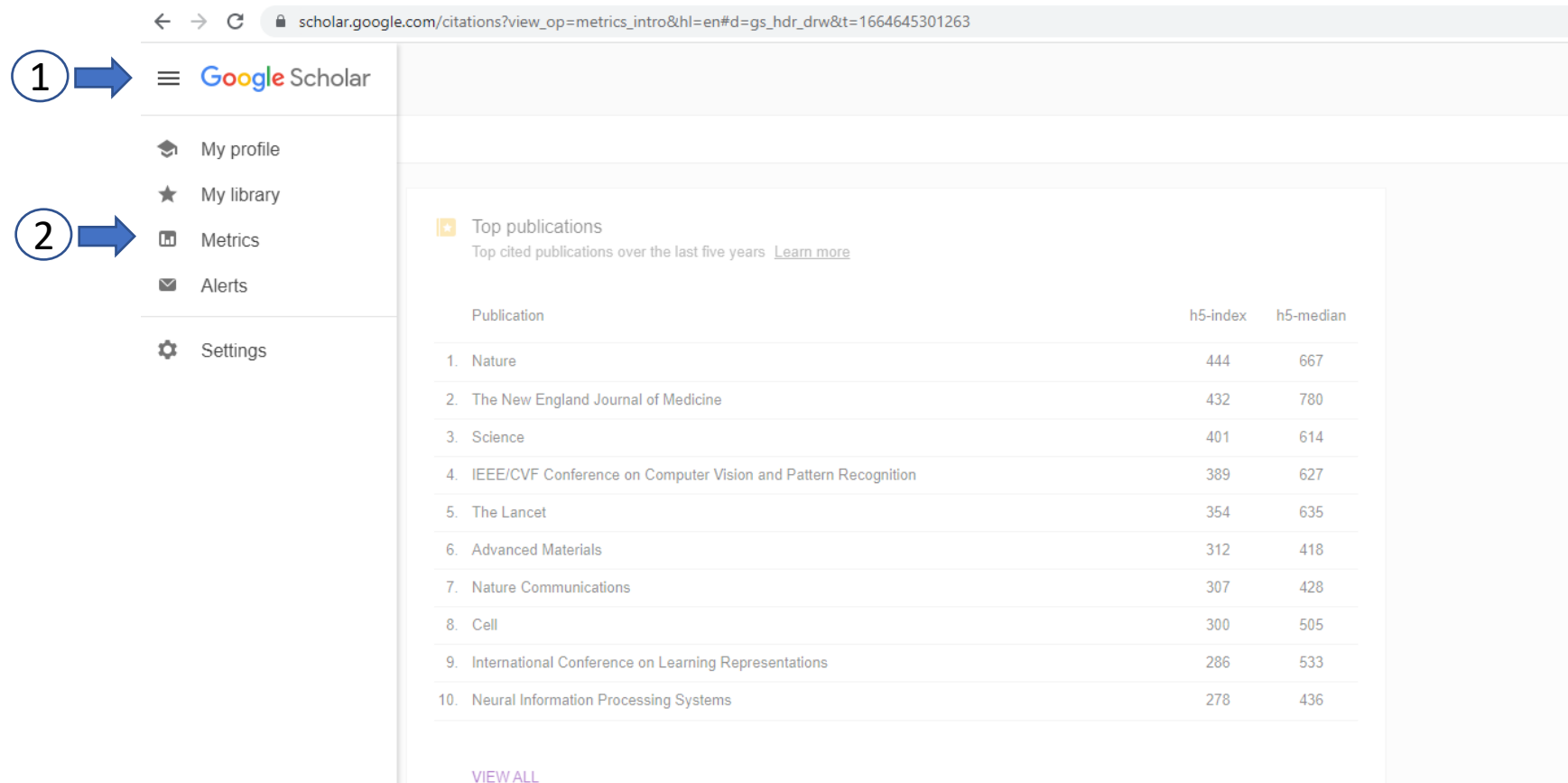
Download data

1 - 50 of 351

Title	Type	↓ SJR	H index	Total Docs. (2021)	Total Docs. (3years)	Total Refs. (2021)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2021)	
1 IEEE Journal on Selected Areas in Communications	journal	6.320 Q1	242	265	637	12221	8562	612	14.24	46.12	
2 IEEE Communications Magazine	journal	5.147 Q1	260	234	804	2797	8835	684	9.00	11.95	
3 IEEE Network	journal	5.053 Q1	135	263	557	3713	6966	531	11.29	14.12	
4 Nature Machine Intelligence	journal	4.602 Q1	26	155	132	6072	1799	78	13.63	39.17	
5 International Journal of Information Management	journal	4.584 Q1	132	166	504	16896	10690	496	21.35	101.78	
6 IEEE Transactions on Neural Networks and Learning Systems	journal	4.222 Q1	221	1317	1358	23530	15011	1349	10.47	17.87	
7 Internet and Higher Education	journal	3.906 Q1	99	28	68	1991	875	68	10.80	71.11	
8 IEEE Internet of Things Journal	journal	3.848 Q1	119	1959	2373	62326	27738	2328	10.98	31.82	

How to search a (research) topic?

- Google Scholar Metrics (<https://scholar.google.com>)



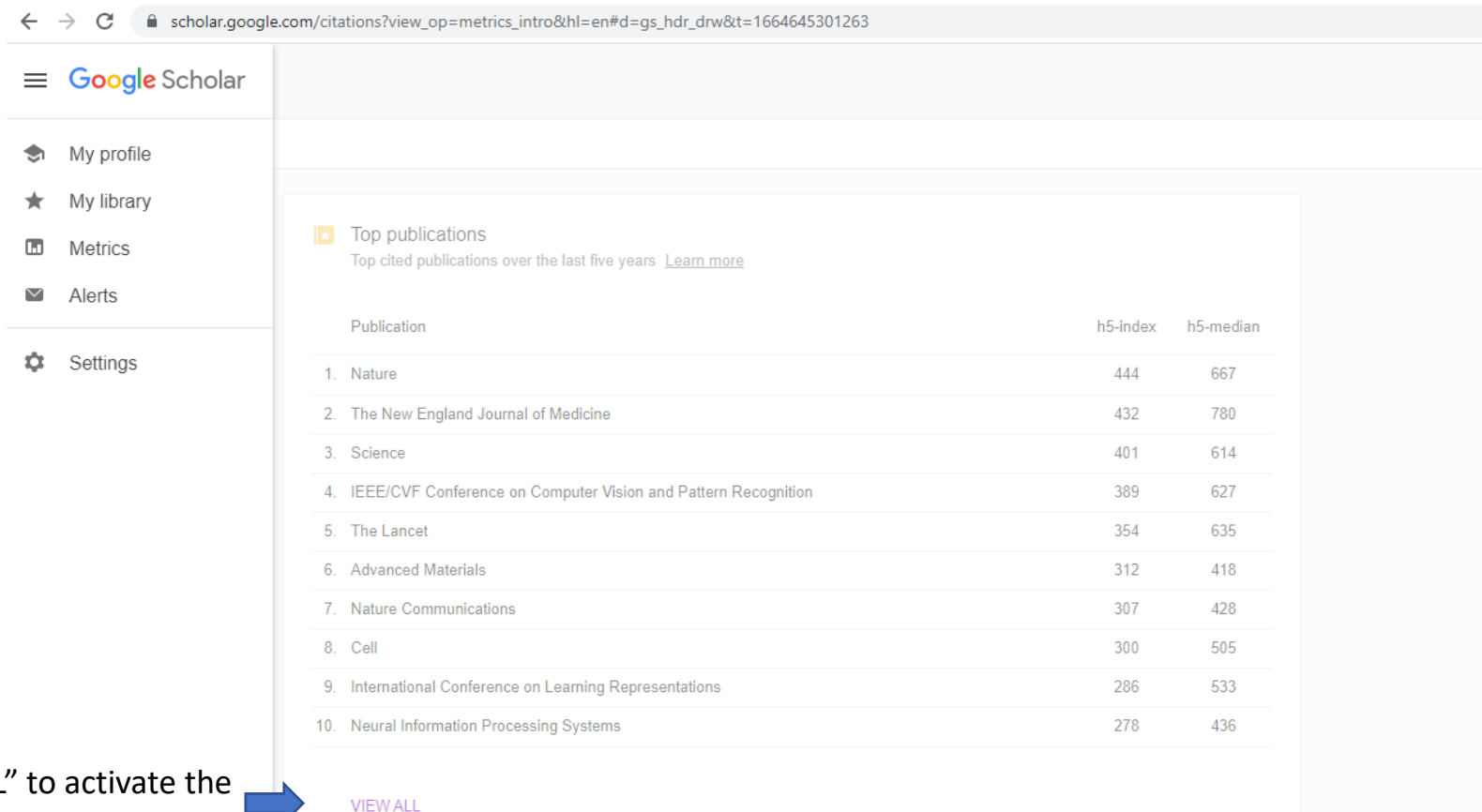
The screenshot shows the Google Scholar Metrics page. A blue arrow labeled '1' points to the Google Scholar logo in the top left. Another blue arrow labeled '2' points to the 'Metrics' option in the left sidebar. The main content area displays 'Top publications' with a table of the top 10 cited publications over the last five years.

Publication	h5-index	h5-median
1. Nature	444	667
2. The New England Journal of Medicine	432	780
3. Science	401	614
4. IEEE/CVF Conference on Computer Vision and Pattern Recognition	389	627
5. The Lancet	354	635
6. Advanced Materials	312	418
7. Nature Communications	307	428
8. Cell	300	505
9. International Conference on Learning Representations	286	533
10. Neural Information Processing Systems	278	436

[VIEW ALL](#)

How to search a (research) topic?

- Google Scholar Metrics (<https://scholar.google.com>)



The screenshot shows the Google Scholar Metrics page. The left sidebar contains navigation links: My profile, My library, Metrics, Alerts, and Settings. The main content area is titled "Top publications" and lists the top cited publications over the last five years. The table below shows the top 10 publications with their h5-index and h5-median values.

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1. Nature	444	667
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7. Nature Communications	307	428
8. Cell	300	505
9. International Conference on Learning Representations	286	533
10. Neural Information Processing Systems	278	436

At the bottom of the table, there is a "VIEW ALL" link. A blue arrow points to this link with the text "Push 'VIEW ALL' to activate the categories button".

Push "VIEW ALL" to activate the categories button

How to search a (research) topic?

- Google Scholar Metrics (<https://scholar.google.com>)

← → ↻ scholar.google.com/citations?view_op=top_venues&hl=en

Google Scholar

Top publications

categories button → Categories English

Publication	h5-index	h5-median
1. Nature	444	667
2. The New England Journal of Medicine	432	780
3. Science	401	614
4. IEEE/CVF Conference on Computer Vision and Pattern Recognition	389	627
5. The Lancet	354	635
6. Advanced Materials	312	418
7. Nature Communications	307	428
8. Cell	300	505
9. International Conference on Learning Representations	286	533
10. Neural Information Processing Systems	278	436
11. JAMA	267	425
12. Chemical Reviews	265	444
13. Proceedings of the National Academy of Sciences	256	364
14. Angewandte Chemie	245	332
15. Chemical Society Reviews	244	386
16. Journal of the American Chemical Society	242	344
17. IEEE/CVF International Conference on Computer Vision	239	415
18. Nucleic Acids Research	238	550
19. International Conference on Machine Learning	237	421

How to search a (research) topic?

- Google Scholar Metrics
- Pushing Categories button, then choosing Engineering & Computer Science, and then pushing Subcategories

← → ↻ scholar.google.com/citations?view_op=top_venues&hl=en&vq=eng

Google Scholar

Top publications

Categories > Engineering & Computer Science > Subcategories ▾

Subcategories	Median
Databases & Information Systems	
Educational Technology	
Engineering & Computer Science (general)	27
Environmental & Geological Engineering	18
Evolutionary Computation	33
Food Science & Technology	36
Fuzzy Systems	15
Game Theory and Decision Science	21
Human Computer Interaction	24
Library & Information Science	00
Manufacturing & Machinery	77
Materials Engineering	73
Mechanical Engineering	30
Medical Informatics	90
Metallurgy	03
Microelectronics & Electronic Packaging	46
Mining & Mineral Resources	21
Multimedia	35
Nanotechnology	
Ocean & Marine Engineering	
Oil, Petroleum & Natural Gas	
Operations Research	
Plasma & Fusion	
Power Engineering	
Quality & Reliability	
Radar, Positioning & Navigation	
Remote Sensing	
Robotics	
Signal Processing	
Software Systems	
Structural Engineering	
Sustainable Energy	
Technology Law	
Textile Engineering	
Theoretical Computer Science	
Transportation	
Water Supply & Treatment	
Wood Science & Technology	

17.	Chemical engineering journal	181	224
18.	AAAI Conference on Artificial Intelligence	180	296
19.	Journal of Materials Chemistry A	178	220

Major conferences and journals in computer networking



Google Scholar Metrics

- **H5-index:** the largest number h such that h articles published in [the past 5 years] have at least h citations each
- **H5-median:** it is based on H5-index, but instead **measures the median (or middle) value of citations for the h number of citations**. A journal with an H5-index of 60 and H5-median of 75 means that, of the 60 articles with 60 or more citations, the median of those citation values is 75.

← → ↻ scholar.google.com/citations?view_op=top_venues&hl=en&vq=eng_computernetworkswirelesscommunication

Google Scholar

Top publications

Categories > Engineering & Computer Science > Computer Networks & Wireless Communication

	Publication	h5-index	h5-median
1.	IEEE Communications Surveys & Tutorials	159	304
2.	IEEE Communications Magazine	130	212
3.	IEEE Transactions on Vehicular Technology	128	189
4.	IEEE Transactions on Wireless Communications	118	189
5.	IEEE Journal on Selected Areas in Communications	107	180
6.	IEEE Transactions on Communications	103	144
7.	IEEE Wireless Communications	93	162
8.	Journal of Network and Computer Applications	90	147
9.	IEEE Network	86	117
10.	IEEE Communications Letters	81	104
11.	IEEE Transactions on Mobile Computing	79	103
12.	Computer networks	77	116
13.	IEEE Wireless Communications Letters	76	109

Major conferences and journals in computer networking



scholar.google.com/citations?view_op=top_venues&hl=en&vq=eng_computingsystems

Google Scholar

Top publications

Categories > Engineering & Computer Science > Computing Systems

Publication	h5-index	h5-median
1. IEEE Internet of Things Journal	144	212
2. Future Generation Computer Systems	133	197
3. USENIX Symposium on Networked Systems Design and Implementation	65	117
4. IEEE Transactions on Services Computing	64	99
5. The Journal of Supercomputing	62	83
6. IEEE Transactions on Parallel and Distributed Systems	61	86
7. International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)	60	104
8. Cluster Computing	59	83
9. USENIX Annual Technical Conference	58	90
10. International Symposium on Computer Architecture (ISCA)	57	87
11. Journal of Parallel and Distributed Computing	54	86
12. IEEE/ACM International Symposium on Microarchitecture	53	81
13. IEEE Transactions on Cloud Computing	52	80

Major conferences and journals in computer networking



- **Journals:** (Not limited to)

- ❖ IEEE

- IEEE/ACM Transactions on Networking (TON)
- IEEE Transactions on Network and Service Management (TNSM)
- IEEE Networking Letter
- IEEE Network Magazine
- IEEE Transactions on Network Science and Engineering (TNSE)
- IEEE Journal on Selected Areas in Communications (JSAC)
- IEEE Internet of Things Journal (IoT-J)
- IEEE Transactions on Computers (TC)
- IEEE Transactions on Communications (TCOM)

- Find out more journals on IEEE Publication Recommender

Major conferences and journals in computer networking



- **Journals:** (Not limited to)

- ❖ Elsevier

- Computer Networks (ComNet)
- Journal of Network and Computer Applications (JNCA)
- Computer Communications (ComCom)
- Future Generation Computer Systems (FGCS)

- ❖ Journals by ACM (Association for Computing Machinery)

- Proceedings of the ACM on Networking
- ACM Transactions on Sensor Networks
- See for a complete list: <https://dl.acm.org/journals>

Major conferences and journals in computer networking



- **Conferences:** (Not limited to)
 - IEEE International Conference on Computer Communications (INFOCOM)
 - Conferences by ACM SIGCOMM (Special Interest Group on Data Communications)
 - The annual SIGCOMM Conference, the flagship conference
 - SIG-sponsored or co-sponsored conferences and workshops: CoNEXT, IMC, Hotnets, Sensys, ICN, ANCS, SOSR and ANRW
 - Conferences and workshops [in cooperation with SIGCOMM](#)
 - ACM MobiCom (International Conference On Mobile Computing And Networking conference)
 - International Conference on Network and Service Management (CNSM)
 - IEEE Global Communication Conference (Globecom)
 - IEEE International Conference on Communications (ICC)

Assignment



- Find a good journal paper in your interested field of research and state its key points in one page. (DO NOT COPY the abstract)
- Due date: 1 Aban 1401