This document outlines the research techniques and resources best suited to find articles for your IS 369 assignments.

#### Resources

All the resources discussed are listed on the <u>Information Systems/Business</u> <u>Technology/Entrepreneurship research guide</u> - all the resources are useful, the ones best suited for this class are:

#### Databases we went over in class:

<u>IEEE Xplore</u> (professional organization/publisher & article database site, all full text)

<u>ACM Digital Library</u> (professional organization/publisher & article database site, all full text)

<u>Computer and Applied Science Complete</u> (also called CASC- article database from many publishers, some full text)

## Another helpful database found in the subject guide:

<u>Web of Science</u> (citation analysis tool, no full text, provides links) <u>ScienceDirect</u> (full text science journals)

#### **Discussion**

These resources are some of the major resources available to you. IEEE publishes over 200 individual titles in the related disciplines, ACM another 50, so you can happily search just within those two if you so choose. CASC includes articles from both those publishers and others, and provides additional tools to limit your search before performing it to make your results conform to the assignment.

#### Searching IEEE and ACM

The IEEE and ACM basic searches look similar:





In the IEEE search, choose **Journals & Magazines** from the dropdown, in ACM just search - in both, use keywords or phrase searches (in quotes). All results should be full text.

#### Discussion

Both databases return results in standard citation format. To decide whether an article qualifies for the assignment, you can tell some of it from the citation.

## Example:

S. Liu and J. Gaudiot, "Autonomous vehicles lite self-driving technologies should start small, go slow," in *IEEE Spectrum*, vol. 57, no. 3, pp. 36-49, March 2020, doi: 10.1109/MSPEC.2020.9014458.

In any citation you should be able to see date of publication and page numbers (do the math to see length). The other two questions require more to see whether it's from a peer reviewed journal and if it includes research and/or methodology.

In this instance, *IEEE Spectrum* includes both peer reviewed and popular articles. Peer review can be checked in <u>Ulrich's Periodical Directory</u> and the abstract should discuss research and methodology. For this article, neither is evident in the abstract and opening the article you see it has no bibliography. It is a popular article, not a research paper.

ACM states it "publishes more than 50 peer reviewed journals" so any article from journals on this list will satisfy that requirement.

## Alternative searching 1: Computers and Applied Sciences Complete (CASC)

CASC is an article database that includes articles from nearly 2,200 different sources from many different publishers. It is an EBSCO (that's the vendor) database and includes a variety of search tools that make finding appropriate articles easier.

The CASC search screen looks like all EBSCO search screens, the important part is in the limiters below the search boxes. Using the **Search Options**, scroll down and set the limiters to only return items that are peer reviewed, published in the last five years, and longer than ten pages. Choose Full Text if you only want to see full text articles, it is not the default.

Limit your results	
Full Text	References Available
Scholarly (Peer Reviewed) Journals	Published Date
	January Year: 2016 — December Year: 2020
Publication	Publication Type
	Academic Journal
-	Periodical
	Reference Book Trade Publication
Document Type	Number of Pages
All	greater than ✓ 10
Abstract	
Article	Cover Story
Book	*

The articles in your results list should fit all the criteria outlined, read the abstracts to determine whether the necessary methodology and research is present. Articles selected can be emailed, downloaded, or saved (if you create an ebsco account) with the appropriate citation style.

# Additional tool we did not go over in class, but still useful: Alternative Searching 2: Web of Science

Web of Science is a tool that uses citation counts to track emerging topics, identify seminal works / authors, and rate the influence of journals in their specific fields. It is useful for surveying a large sample of the literature from most STEM disciplines, a fair sampling from the social sciences, and a rather small sample of titles from the arts and humanities. If the assignment was to find the most influential articles on a topic, this is where you could search. It will likely prove useful in later classes.

The search screen looks the others, use keywords or phrases:

Select a database Web of Science Core Collection	•	
Basic Search Author Search Cited Reference Search	Advanced Search	
"autonomous vehicles"	Topic	Search Search tips
		+ Add row   Reset
Timespan		
All years (1900 - 2020) ▼		

the results list will default to ordering by **Date** (newest to oldest). **Times Cited** will put the highly cited articles at the top.



Citations are linked to full text when available, Click on **Find It** to access.

## Citation help:

Visit <u>lib.guides.umbc.edu/citing</u> and click **APA Style** on the left side of the page. Link to the <u>style guide</u>

# **Summing Up**

This document will be available to you for the rest of the semester. If you need additional help, you can make an <u>online research appointment</u>.

# Link to library session slides:

https://docs.google.com/presentation/d/1ZlwTDmy8vs7lbmcnLqSqmpTu9EHyVSh53srSGLcgnYc/edit#slide=id.q853034354b\_0\_24723