EFFECTIVE LITERATURE HUNTING

In order to undertake effective research, it is imperative to perform efficient “googling.” San Diego State University (SDSU) students have a lot of options at their disposal for researching journal papers, conference proceedings, and other material that can bolster their master’s and/or PhD theses and dissertations.

One of the first Web sites that a student will use during the research process is www.google.com. However, this Web site is not meant for obtaining research material. Google flaunts a companion Web site called Google Scholar (available at www.scholar.google.com). This is the premier location to search for scholarly literature. There are a few tips and tricks that you can use to obtain research literature with ease using Google Scholar.

Initial Settings

Before searching for material, some settings in Scholar Preferences are useful. Let’s take a look at these settings.

1. When you go to the Google Scholar Web site, click on Scholar Preferences.
2. The following settings are handy:
   a. Make sure the *Interface Language* is *English* (default).
   b. Set the *Search Language* specifically as English; use the *Recommended* option if you are looking for material in a language other than English.
   c. The *Library Links* option is dynamic and will change depending upon the Internet connection that you are using. For example, if you are using the SDSU Wireless/Ethernet connection, the shown options will be displayed.
   d. The *Number of Results* option varies and can be adjusted according to the user’s preference.
   e. The *Bibliographer Manager* is an extremely useful tool when collating the citations for making the *References* section for your thesis/dissertation. More information about this will be given later on in this write-up.
3. After selecting the above settings, click on the Save Preferences tab and exit.

**Accessing/Downloading Literature**

In this section, we will discuss the manner in which research literature can be downloaded from the Internet.

*Note: Depending on which Internet connection you are using, there are different approaches. But don’t worry—both these approaches will be explained herein.*

This section will become very simple to understand if we take an example.

Consider that you are looking for a particular paper entitled “Decomposition of the LPC excitation using the zinc basis functions.” You use the normal approach that you use during conventional Google searches: enter the title as-is in the search textbox and click Search. The following screen will appear.
Generally, the first option is always the most relevant one (however, in a few cases, it might not be the case—you might find it useful to browse through the available list of searches).

However, while beginning research, as is often the case, you need to search for esoteric material about which you might not have all the information. In such cases, you progress in a similar manner as done above. The Search textbox accepts all kinds of parameters such as author name(s), journal/conference names, and incomplete titles. It should be noted that the more information you provide in the Search field, more will be the number of relevant results provided. This search process can be streamlined using another option on the Google Scholar Web site called Advanced Scholar Search.
Clicking on this link will open up a specific-search link, as shown below:

The above link is useful if you have bits and pieces of information about the literature that you are looking for in your research.

Initially, it will be a bit frustrating to rummage through the material that Google Scholar throws at you for different searches, but rest assured—with enough practice, you will become a master at researching for material on the Internet.
Ease of Formulating Citations for References

During the Scholar Preferences set-up, ensure that you clicked on “Show Links to Import Citations into BibTeX” in the Bibliography Manager. This tool is indispensible when creating the References section for your thesis/dissertation.

Note: There are options available other than BibTeX in the dropdown menu with similar features, but for most of these options, you will need to download a file and open it in Notepad. From experience, I always prefer BibTeX for my citation requirements; however, the user is free to choose whichever Bibliography Manager tool(s) he wants to use.

When you save the preferences and look-up any material using Google Scholar, there will be a separate link shown for Import into BibTeX. For example, take a look at this:

On clicking this link, the following will be shown for all material that Google Scholar uses:

```
@conference{spencer1997msm,
  title={A statistical model for angle of arrival in indoor multipath propagation},
  author={Spencer, Q. and Rice, M. and Jeffs, B. and Jansen, M.},
  booktitle={IEEE Vehicular Technology Conference},
  volume={1},
  pages={1915--1919},
  year={1997},
  organization={INSTITUTE OF ELECTRICAL ENGINEERS INC (IEEE)}
}
```

This information is all that you will need to format your references according to the departmental style guide that you will be using. For example, the Department of Electrical and Computer Engineering uses the IEEE format; the IEEE style guide is available for free at

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http://www.ieee.org/portal/cms_docs_iportals/iportals/publications/authors/transjnl/style
manual.pdf.

Note: BibTeX apparently does not provide the month of publication for journal papers. This information is
available in the header on the first page of all files downloaded from the IEEE. It can also serve as a
verification point to confirm that you have all the correct information, which is also provided in most
headers of these PDF files.

Only for SDSU Students

When you are accessing the Internet using the SDSU Wireless connection, most
PDF links for accessing IEEE or other journal material will be available for free. Take a
look at the following self-explanatory example:
Bandlimited covert data communications using zinc waveforms

Ngo, K.S., LeDoux, J.L., Loeliger, P.
DEH Syst. Div., Motorola Inc., Schaumburg, IL, USA.

This paper appears in MILCOM 2002. Proceedings
Publication Date: 7-10 Oct. 2002
Volume: 2, Issue: 13
ISSN: 0892-0524
INSPEC Accession Number: 7760673
Current Version Published: 2002/10/25

Abstract
A covert data communications signal is generated with zinc waveforms, which are formed from a complete set of doubly orthogonal and basic functions. It is shown that the data signal is covert since it is not visible in the time-domain with a white and strictly bandlimited spectrum. The zinc data waveform is a pseudo-noise signal that can be compactly represented in a two-dimensional signal space, as a baseband phase-shift-keyed (PSK) signal. Two demodulation techniques are developed and simulated: error-rate performance prevented. Zinc waveforms are also employed as a spreading signal in a direct sequence spread spectrum (DSSS) communications system. The zinc DSSS signal is shown to be more covert than a standard binary pseudo-noise (PN) DSSS signal. The error rate performance is assessed for zinc DSSS systems, and compared to PN/DSSS systems. The zinc communications systems outperform the more conventional communications systems and afford significant covert signal transmission.

Index Terms

controlled indexing
bandlimited communication data communications demodulation error definition military communications phase shift keying signal representation spread spectrum communication wave noise

You will be logged-in as “San Diego State University” and the entire PDF file can be accessed by clicking on Full Text: PDF.

However, this is possible only when you are using any SDSU Wireless Internet connection. In case you want to access this particular page from another location anywhere in the world, you will have to use the following procedure.

1. Go to the Web site link http://infoguides.sdsu.edu/sub2.php?id=33&pg=1 and click on the journal that you want to access.
2. Thereafter, you will be taken to a page asking you to enter the following information: Last name, Red ID, and Library PIN. For accessing IEEE articles, the link to the page is https://infodome.sdsu.edu/cgi-bin/ezpiii.cgi?url=http://ieeexplore.ieee.org/search/advsearch.jsp.

3. After logging in, you will be taken to the concerned Web site (IEEE in this case). Then, you can continue searching for the required material using the available options.

Library Material

SDSU students have many options when it comes to checking out library material in the form of books and journal papers in hard copy. The Book Stacks in the Main Library houses most books needed by electrical engineering and computer science students.
However, in the uneventful case that SDSU does not have a book that you are looking for, you can do one of the following two things:

1. Go to the Reference Desk on the First Floor of the Dome Library and request for the required book to the Reference Desk person or make a request for SDSU to buy the book for use by SDSU students (free service for registered SDSU students).

2. You can use either the Circuit or Link+ sections on the Inter Library Loan Web site (http://illiad.sdsu.edu/illiad/about/index.html) to order the book from other California universities.
The author of this article, Vishal R. Jain, has been an engineering/technical editor at Cactus Communications Pvt. Ltd. for two years; he has completed his thesis under Dr. Ashkan Ashrafi and graduated from SDSU as a Master in Electrical Engineering, Spring 2009.