



Literature Review: Conducting the Literature Search

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What we will be convering

- The literature review
- Tools for doing your literature search
 - Literature databases
 - RefWorks
- Search strategies
- Locating the information
- Getting help

The literature review

- “a literature review surveys scholarly articles, books and other sources (e.g. dissertations, conference proceedings) relevant to a particular issue, area of research, or theory, providing a description, summary, and critical evaluation of each work. The purpose of a literature review is to offer an overview of significant literature published on a topic.”
 - <http://library.concordia.ca/help/howto/litreview.php>
- Helpful sources for writing literature reviews:
 - <http://library.concordia.ca/research/subjects/techwriting/engineeringwriting.php>

Why do a literature review?

- To become more knowledgeable
- Demonstrate your knowledge
- Identify key researchers
- Identify key publications
- Identify key methodologies
- Identify holes in knowledge
- Identify keywords/subject vocabulary
- Helps to delimit the research problem
- Avoid areas already investigated

Justus J. Randolph. "A Guide to Writing the Dissertation Literature Review" *Practical Assessment, Research & Evaluation* 14.13, 2009.

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Table 1.1: Summary of experimental conditions employed in different studies.

Authors	Subject			Excitation			Reported Functions
	Number and gender	Body mass (kg)	Posture	Type	Level	Frequency Range(Hz)	
Coermann (1960)[22]	8 males	70-99	Standing, sitting with feet not supported, no backrest	Sine	0.1, 0.2 and 0.3g	1-20	DPMI and STHT
Vogt et al., (1969)[24]	10 males	79(mean)	Erect sitting, loosely restrained, feet supported, but not vibrated	Sine	0.5g with increased gravity of 1, 2 and 3g	2-15	DPMI, STHT
Suggs et al., (1970)[25]	11 males	58-90	Sitting upright with hands in lap, feet supported, no backrest	Sine	0.10g peak to peak	1.75-10	DPMI
Miwa (1974)[23]	5 males	50-76	Standing; kneeling; sitting erect and relaxed, feet not vibrated	Sine	0.1g r.m.s	3-200	DPMI
Griffin (1975)[26]	12 males	60-88	No backrest	Sine	$0.2-0.4 \text{ m s}^{-2}$ r.m.s	7-75	STHT
Cohen et al., (1977)[27]	6 males	55-82	Comfortable neutral sitting posture; Tractor non-cushioned seat; no backrest	Sine	0.69 m s^{-2} r.m.s	2.5-5	STHT
Mertens (1978)[28]	6 males 3 females	57-90	Upright sitting with feet not supported	Sine	0.4g r.m.s with increased gravity of 1, 2, 3 and 4g	2-20	DPMI STHT
Griffin et al., (1978)[29]	56 males 28 females 28 children	Not stated	Sitting, increasing height of footrest, no backrest	Sine	1 m s^{-2} r.m.s	4 and 16	STHT
Griffin et al., (1979)[30]	18 males 18 females	Not stated	Comfortable; upright; relaxed; stiff, Increasing height of footrest, no backrest	Sine	1 m s^{-2} r.m.s	1-100	STHT

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BOOKS

REVIEW OF THE LITERATURE

THESIS/ DISSERTATION

Wang, Wenping. "A Study of Force-Motion and Vibration Transmission Properties of Seated Body Under Vertical Vibration and Effects of Sitting Posture." Concordia University (Canada), 2007.

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23. Miwa, T., 1975. Mechanical impedance of human body in various postures. Industrial Health, 13, 1-22.

STANDARDS

**PEER
REVIEWED/
SCHOLARLY
JOURNAL
ARTICLES**

Tools for the Literature Search: Literature Databases

- Types

1. Bibliographic databases, providing citations and abstracts. Ex: **INSPEC & Compendex (Engineering Village)**

Li, Lin. "The Advances and Characteristics of High-Power Diode Laser Materials Processing." Optics and Lasers in Engineering 34.4-6 (2000): 231-53.

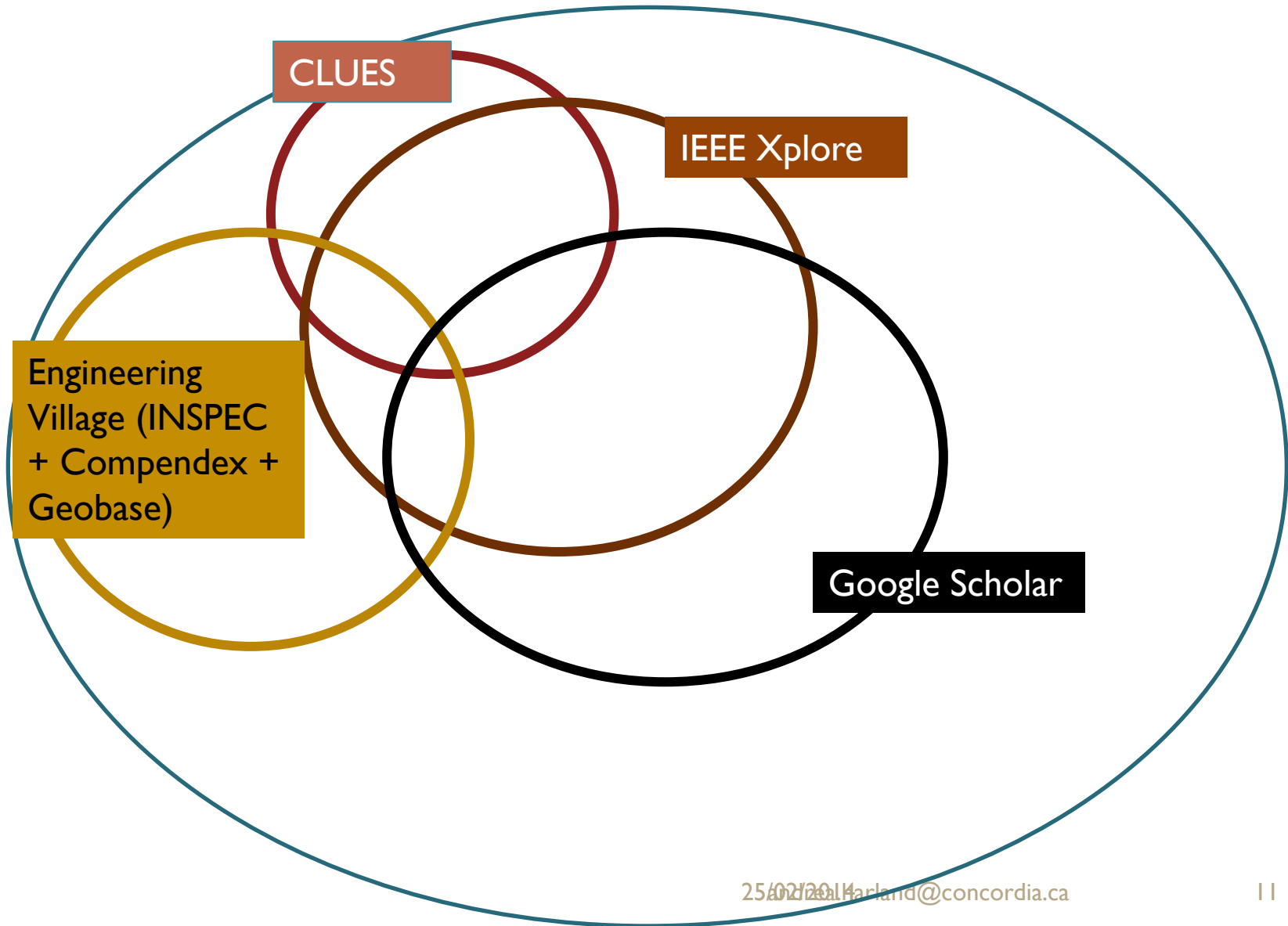
2. Format specific databases. Ex: **Proquest Dissertation & Theses**
3. Fulltext databases & publisher databases. Ex: **IEEE Xplore**

Tools for the Lit Search:

Literature Databases (cont'nd)

- Types (continued):
 4. Citation databases.
Ex: Web of Science & Scopus
 5. Search engines. Ex: Google Scholar
 6. Location specific databases. Ex: CLUES
(Concordia Libraries' online catalogue),
WorldCat

Research/scholarly information



How to find and access databases

- Library homepage
 - <http://library.concordia.ca>
- Subject guides
 - http://library.concordia.ca/#browseSubject_tab
- The Internet
 - <http://scholar.google.ca/>
 - <http://guides.library.cornell.edu/orie>
- Talk to a subject librarian

Search Strategies

- You need to choose a topic for your research
- Write a concise research question
- Identify important terms, concepts, keywords to create your search strategy
- Example:
“What are the effects of mass transportation on global climate change?”
Key concepts?
- Nice guide:
<http://libguides.asu.edu/content.php?pid=35423&sid=2167283>

Search Strategies Cont'nd

DATABASE ☐ All ☒ Compendex ☒ Inspec ☒ GEOBASE

SEARCH FOR What are the effects of mass transportation o in All fields

AND in All fields

AND in All fields

3 results

search field | Search

DATABASE ☐ All ☒ Compendex ☒ Inspec ☒ GEOBASE

SEARCH FOR TOPIC1 or synonyms x in All fields

AND TOPIC2 or synonyms in All fields

AND in All fields

Turn Off AutoSuggest | Add search field | Search

DATABASE ☐ All ☒ Compendex ☒ Inspec ☒ GEOBASE

SEARCH FOR mass transportation in All fields

AND global warming or climate change x

AND

2,209 results

Turn Off A

Tools for the Lit Search: RefWorks

RefWorks

Call Number RD 73 S785S87 2011eb

Author [Rosen, Jacob](#)

Title **Surgical Robotics** [electronic resource] : Systems Applications and Visions / edited by Jacob Rosen, Blake Hannaford, Richard M. Satava

Publisher Boston, MA : Springer Science+Business Media, LLC, 2011

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Modular autonomous robotics platform for educational use

Lumsden, James¹; Ortega-Sanchez, Cesar¹ 

Source: *IEEE Region 10 Annual International Conference, Proceedings/TENCON 2010 - 2010 IEEE Region 10 Conference*; ISBN-13: 9781424488904; DOI: 10.1109/TENCON.2010.5686047; **Article number:** 5686047; **Conference:** 2010 IEEE Region 10 Conference, TENCON 2010, November 21, 2010 - November 24, 2010; **Sponsor:** IEEE Fukuoka Section, IEEE Region 10; **Publisher:** Institute of Electrical and Electronics Engineers Inc.

Author affiliation:

¹ Electrical and Computer Engineering, Curtin University, Perth, Australia

Abstract:

Robotics is a field that continues to grow as robots become common in environments as varied as households and the battlefield. This paper presents a low cost robotics development platform using commercial off-the-shelf parts for educational and academic use. It is a direct response to the high cost and limited functionality of existing platforms. A navigation and obstacle-avoidance Fuzzy Controller is provided to accelerate the typical development process for a mobile robot. The fundamental aim is to facilitate future robotics projects by producing an inexpensive, modular and highly accessible platform that improves upon existing commercial offerings. ©2010 IEEE (36 refs)

Main heading: Robots

Controlled terms: Education - Navigation systems - Robotics

Uncontrolled terms: Autonomous navigation - Autonomous robotics - Commercial off the shelves - Development platform - Direct response - Educational robotics - Educational use - Fuzzy controllers - High costs - Low costs - Obstacle avoidance - Typical development

Classification Code: 434.4 Waterway Navigation - 716.3 Radio Systems and Equipment - 731.5 Robotics - 901.2 Education

Database: Compendex

References

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Robotic Advances in Aerospace Manufacturing.

Authors: [Presher, Al](#)

Source: *Design News*. Apr2013, Vol. 68 Issue 4, p42-47. 4p.

Document Type: Article

Subject Terms: ***ROBOTICS**
*INDUSTRIAL robots
*COMPUTER vision

Company/Entity: [FANUC Robotics America Inc.](#)

People: [BLANCHETTE, Chris -- Interviews](#)

Abstract: The article reports that in an interview with the national manager of **robotics** company Fuji Automatic Numerical Controls (FANUC) **Robotics** America, Chris Blanchette declared that a major development with **robotic** systems is the addition of new robot elements to support advanced manufacturing needs. The elements include high accuracy tools using secondary encoders, **robotic** mechanical arms that are rigid, and interfaces to vision systems to get data and create a more adaptive process.

ISSN: 0011-9407

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legged robot

Scholar About 40,900 results (0.07 sec)

Articles [Design, control, and energetics of an electrically actuated legged robot](#)

Case law [P Gregorio, M Ahmadi, M Buehler - Systems, Man, and ..., 1997 - ieeexplore.ieee.org](#)

Any time Abstract To study the design, control and energetics of autonomous dynamically stable **legged** machines we have built a planar one-**legged robot**, the ARL Monopod. Its top running speed of 4.3 km/h (1.2 m/s) makes it the fastest electrically actuated **legged robot** ...

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Accessing RefWorks

- <http://library.concordia.ca/help/howto/refworks.php>

The screenshot shows the Concordia University Libraries website. At the top, there's a navigation bar with "Concordia University" and "Libraries". Below this is a banner image of a library interior. To the right of the banner is a search box with a "Keyword" input field, a "Search" button, and a "Login to MyCLUES" button. Below the banner are several navigation tabs: "Find books, articles...", "Research Guides by Subject", "Help & Instruction", "Using the Library", and "About the Libraries". On the right side of the banner, there's a "Need help? ASK a Librarian" button. Below the banner, there's a breadcrumb trail: "You are here: [library home](#) ► [help & instruction](#) ► [library 'how to' guides](#) ► [refworks](#)". To the right of the breadcrumb trail are links for "Hours", "A-Z Index", and "Quick Links >>". Below the breadcrumb trail is a "Print" button. The main content area has a "RefWorks" logo. On the left side of the main content area, there's a "On this page" section with links: "What is RefWorks?", "What is RefMobile?", "Help", "Write-N-Cite", "Transferring to (or from) other software", "What happens when I graduate?", and "What is the Group Code?". Below these links is a "See also" section with a link: "Export/Import Instructions for Databases and CLUES". On the right side of the main content area, there's a "WHAT IS REFWORKS?" section. It starts with a paragraph: "RefWorks is a Web-based tool that allows you to:". Below this paragraph is a list of bullet points: "manage and organize the bibliographic references you find in library catalogues, databases, and on the web", "prepare a bibliography or reference list automatically", and "insert and automatically format in-text citations and a bibliography into a paper using Microsoft Word". Below the "WHAT IS REFWORKS?" section is a "WHAT IS REFMOBILE?" section. It starts with a paragraph: "RefMobile (<http://refworks.scholarsportal.info/mobile>) gives you access to your references in RefWorks from your smart phone, mobile phone or PDA. To access RefMobile, you will require:". Below this paragraph is a list of bullet points: "Your 'Log-in Name'" and "Your 'Password'".

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- insert and automatically format in-text citations and a bibliography into a paper using Microsoft Word

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RefMobile (<http://refworks.scholarsportal.info/mobile>) gives you access to your references in RefWorks from your smart phone, mobile phone or PDA. To access RefMobile, you will require:

- Your 'Log-in Name'
- Your 'Password'

Your turn

Topic: flexible forming of sheet metal using lasers

1. Find concepts
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3. Try searching Web of Science
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- Check CLUES: <http://clues.concordia.ca/>
 - Journal title
 - Conference title
 - Book title

Todd, Litman. “Bicycling and transportation demand management”. *Transportation Research Record* 1441 (1994): 134-140.

Locating your sources

- What to do if Concordia doesn't have what you want and you can't find it on the Web?
 - CREPUQ card
<http://library.concordia.ca/services/circulation/crepuq.html>
 - Interlibrary Loans (Colombo)
<http://library.concordia.ca/research/ill/>

Getting help

- Library website
- Subject guides
- Ask a Librarian services
- Me: andrea.harland@concordia.ca

