# Finding Engineering Information

ENCS 282 - Fall 2019

Tim Walsh (Librarian for MIAE & CSE) tim.walsh@concordia.ca

Chloe Lei (Librarian for BCEE & ECE) chloe.lei@concordia.ca

Danielle Dennie (Librarian for CME) danielle.dennie@concordia.ca

## Today

- Library resources
- Finding the latest research
  - Document types
  - Searching for information resources
  - Getting access to information resources
- Standards, costs, and patents
- Citing
- Getting help

#### Slides: https://tinyurl.com/encs282-f19

# Library resources



#### library.concordia.ca



Concordia.ca / Library



### Engineering & Computer Science Subject Guide

- Links to **databases**, books, ebooks, data, standards, technical reports, etc.
- Handbooks, encyclopedias, and dictionaries
- Course and project guides
- Writing and citation guides (IEEE, Zotero)
- Librarian contact information

From library website: Help & How-To -> Subject & course guides -> Engineering & Computer Science

https://www.concordia.ca/library/guides/encs.html



#### Please contact your subject librarian listed science below for research assistance and library instruction, or if you'd like to recommend books to purchase Find information Course & project guides, tools How to write & cite Tim Walsh V Top databases (search for journal articles & more) Computer Science & Software Engineering Compendex (General engineering) · Aerospace and High Technology Mechanical, Industrial & Aerospace INSPEC (Electrical, computer & mechanical) SciFinder (Chemistry & related fields) Engineering · IEEE Xplore (Electrical & computer) · Scopus (Multidisciplinary) ACM Digital Library (Computer) · Web of Science (Multidisciplinary) Chloe Lei V · SPIE Digital Library (Optics, photonics, View all databases Building, Civil & Environmental nanotech, energy, +) Engineering Electrical & Computer Engineering Danielle Dennie ~ How to find **Chemical & Materials Engineering** Articles · Spectra, Properties, MSDS Related guides · Books & Ebooks · Standards, Patents & Trademarks · Exams (ENCS Exam Bank) Technical Reports > Chemistry · Geospatial data Theses · Prior Art Trade Journals Concordia University > Gina Cody School of Engineering and Computer Science Handbooks, encyclopedias, dictionaries Departments Aerospace Engineering Knovel > Building, Civil, and Environmental Engineering Knovel is a specialized tool for all engineering Building Engineering > Centre for Engineering in Society disciplines. It enables full text searching within · Chemical & Materials Engineering

## Finding the latest research



### What constitutes a scholarly source?

Your professors will expect that sources you cite in your work are **scholarly** sources. Scholarly sources are verified, typically through the **peer review** process. If a source is **peer reviewed** or **refereed**, it has been verified by peer scholars prior to publication.

Scholarly sources are typically published in venues such as **conference papers**, **journal articles** (in *traditional* or *open access* journals), and **books**.

Find out if a journal is peer-reviewed: https://ulrichsweb.serialssolutions.com/ More on peer review:

https://library.concordia.ca/help/finding/articles/peer-review.php

### Scholarly publication cycle



Image source: University of Winnipeg, https://library.uwinnipeg.ca/scholarly-communication/index.html

#### **Research/scholarly information**



### **Resources available via Concordia Library**

- Bibliographic databases (citations/abstracts)
  - <u>Compendex</u> ← General engineering; via Engineering Village
  - **INSPEC** ← Electrical, computer & mechanical; via Engineering Village
  - <u>Aerospace and High Technology</u> ← *Aerospace*
- Full text databases (full papers)
  - IEEE Xplore ← Electrical & computer
  - <u>ACM Digital Library</u> ← Computer

Always connect to these databases through the library website, especially when off-campus, to avoid paywalls and difficulties with accessing content!

### **Open access repositories**

- <u>arXiv</u> (Based at Cornell; widely-used open access repository for computer science, physics, math, etc.)
- <u>OSF Preprints</u> (pre-print repositories for many disciplines)
- <u>Federal Science Library</u> (Canadian and other documents or data)
- <u>Unpaywall</u> (Chrome/Firefox extension that will search a large database of 24m+ open access copies of paywalled scholarly articles)

Cornell University					We gratefully ac the Simons Foundation s
arXiv.org					Search or Article 3D Rick / Advenced.search/
Open access to 1,498,435 e-prints in Physics Subject search and browse: Physics	Nathematics, Computer Science, Quantitative Biolo		ical Engineering and Systems Scier	ce, and Economics	
14 Jan 2019: The annual update from the act 5 Sept 2018: arXiv looks to the future with mo See cumulative "What's New" pages. Read ro		ad			
Physics					
Condensed Mathie (cond-suit force, re- incluses, Decodered Systems and Neu- Content Restrictly and Classification (spin) Energy Physics - Experiment (Neu High Energy Physics - Theoremotions) (High Energy Physics - Theoremotions) (High Energy Physics - Theoremotions) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Section 2019) (Sec	reledy and insignatic Astrophysics. Earth and Pile (a apart) (a apart) (b	scale Physics, Other Condensed Matter, C note Dynamics, Elactly Solvable and Inleg ysics, Alomic and Malecular Clusters, Biol	Guardian Gases, Soft Condensed 1 grable Systems, Pattern Pormation	Anter: Statistical Mechanics, Strongly Corre and Solitons Classical Physics: Computational Physics, C	
Mathematics (math new, recent, searc includes (see detailed description). Ag General Topology, Geometric Topolog	braic Geometry; Algebraic Topology; Analysis of PD	eory: K-Theory and Homology, Logic, Mat			al Geometry, Dynamical Systems, Punctional Analysis, Gene erator Algebras, Optimization and Control: Probability, Guari
Computer Science					
Society, Cryptography and Security, D Human-Computer Interaction, Informati	cial Intelligence; Computation and Language; Comp a Structures and Algorithms; Databases; Digital Lib	aries, Discrete Mathematics; Distributed, P cience; Machine Learning; Mathematical S	Paralel, and Cluster Computing, Er Software, Nutlagent Systems, Mult	serging Technologies; Formal Languages an media: Networking and Internet Architecture	nd Game Theory: Computer Vision and Pattern Recognition, and Automata Theory: General Literature: Graphics; Hardwar e, Neural and Evolutionary Computing, Numerical Analysis; C
Quantitative Biology					
Quantitative Biology (q-bio new, recent includes (see detailed description): Bio	search) minimules: Cell Rehavior: Genomics: Molecular Netw	the Description and Contribute Other Oscilla	Itative Biology, Populations and Ev	auton Quantitative Methods: Subrelative P	Processes Toques and Omans

#### Quantitative Finance

### **Google Scholar**

Set up "Library Links" to add Find it! @ Concordia button to Google Scholar

results: <u>https://library.concordia.ca/find/google-scholar.php</u>

=	Coordo Cabalan		
=	Google Scholar	electronic waste and (guiyu or guangdong)	
٠	Articles	About 1,390 results (0.08 sec)	
	Any time	[нтмь] Elevated blood lead levels of children in Guiyu, an electronic waste	[HTML] nih.gov
	Since 2019	recycling town in China	Full View
	Since 2018	X Huo, L Peng, X Xu, L Zheng, B Qiu, Z Qi Environmental Health, 2007 - ncbi.nlm.nih.gov	
	Since 2015	Keywords: children, China, environmental, e-waste, Guiyu, lead. Disposal of electronic waste,	
	Custom range	or <b>e-waste</b> , is an emerging Up to 80% of <b>e-waste</b> from the United States has seeped into Asia and Africa (Johnson 2006; Puckett et al. 2002; Schmidt 2002, 2006; SVTC 2001)	
	Sort by relevance	☆ ワワ Cited by 468 Related articles All 15 versions Web of Science: 265 ≫	
	Sort by date	Determination of polybrominated diphenyl ethers in soil and sediment from an	[PDF] hkbu.edu.hk
		electronic waste recycling facility	Find it @ Concordia
	✓ include patents	D Wang, Z Cai, G Jiang, A Leung, MH Wong, WK Wong - Chemosphere, 2005 - Elsevier	
	include citations	It has been reported that illegal and unsafe recycling operations of <b>electronic wastes</b> (e-wastes) have been conducted in the town of The other soil sample (Soil 2) was collected at a site for	
	Create alert	dumping and disposal of waste printer rollers [23 21.18 N, 116 21.66 E]. Both soil	
	Create alert	☆ 99 Cited by 254 Related articles All 12 versions Web of Science: 147	
		The recycling and disposal of electrical and electronic waste in China-	[PDF] academia.edu
		legislative and market responses	Find it @ Concordia
		C Hicks, R Dietmar, M Eugster - Environmental impact assessment review, 2005 - Elsevier	This is the control and
		in the electronics industry: a comparison of US and European approaches, Conference paper,	
		Electronics Goes Green 2004 The E-waste Processing Industry Needs Regulation on testing and materials substitution for six types of hazardous substances in electronic and electric	
		32 $37$ Cited by 419 Related articles All 11 versions Web of Science: 191	

# **Document types**

What are the types of green roofs on city buildings?

#### **Document types**

	ScienceD		SOLAR
ELSIVIER	Solar Energy HD (2)	0.4 40-70	wet about conductation
	the cities – A review ion technologies to fi comfort in urba		
	M. Sant	tamouria	
(in	g Bolding Deeronamontal Accounts, Physics		Atlens, Ground
		au 30 July 2012 July Miller Yoge Communi	
Abstract			
observed high ambient room population and amplify the opair and proposed. Among very promising, proceeding observe to be observed on the observed above to detection of the observed on situations maders using	s continues to increase because of the remains intensity the nonzy problem of particine problems. To consent-taken a particine problems. To consent-taken a methody high hear taken mitigarized p pibel in the convision of public measures methods to taken of public measures methods to considered the mea-	Colties, deteriorativa comfort con the phenomenon, insportant with a albedit of cities and the use of potential. This paper aims to pr had stables have been atalyzed, important data are available for	ultions, put in danger the valuesable ignition technologies have been devel vegetation – grant recells appear to be essent the state of the art on both the Moor of the resultable data art bases Moor al the resultable data art bases as the resulting experimental studies
observed high ambient temp populations and amplify the signal and proposal. Assess very promoting, provering a diverse technologies, when y diverse technologies, when y divers a photod inscreme of 0.1 K per 0.1 rms of the dite cool rooth are considered. I protoche upper between 0.1 relating insulation malies 1 5 K. Decalde attaches of m	renters insteady the energy problem of particles problems. To constructions them, subtanington saming in instease the related by this house to take an instance of particle in the city scale. Tractice of pathol messancia studiety including which the the otypical studies is considered, the map of a which the corresponding so-energing that the analysis of the exhing data shows to and 150 Kg and the immune of the study of sub- tions which the corresponding so-energy the datance and the conditions under which datance and the conditions under which	Collins, detailongues condict con- the phenomenon, important sum in a block of classification of the use of postmilal. This paper aires to pro- hall makine have hown antippost, reportant data use available for coold errars discusse of the aver contexts of the pask, amhieris kern pland here aspected depending on the the expected depending on they income value does they notice the average as	officies, put is darger the vulnershift ignitiss textbedreighs have based devit vegetation — gunas north support to house the states of the art on both the Most of the archibit data are bases and the mining experimental reader maps ambient temperature is done or permittent dones to 0.05 K. When only it of the average scheme architext ineo $1 \approx 0.2$ K. A. it comparison games work exhibits temperatures that are in the scheme scheme.
observad logi antičent torog operaziona na da antičet ha samjeli pla- opera na do proposeć. Anneg a drava technologije, when a p a sinterktim valike unig Witten a global sevene of de alb cool rando are considerali, lovining simulation statikov parature vanis between 0.1 reining simulation statikov Ne. Dozada anazijon al m atrice da la linas, die bas diste vanj. © 2012 Tlavise Lal. Alt rij	renters insteady the energy problem of particles problems. To constructions them, subtanington saming in instease the related by this house to take an instance of particle in the city scale. Tractice of pathol messancia studiety including which the the otypical studies is considered, the map of a which the corresponding so-energing that the analysis of the exhing data shows to and 150 Kg and the immune of the study of sub- tions which the corresponding so-energy the datance and the conditions under which datance and the conditions under which	Collins, detailongues condict con- the phenomenon, important sum in a block of classification of the use of postmilal. This paper aires to pro- hall makine have hown antippost, reportant data use available for coold errars discusse of the aver contexts of the pask, amhieris kern pland here aspected depending on the the expected depending on they income value does they notice the average as	defines, put is darger the vulnerable inguists textbackergists have base down't vegatation — gunan north support to house the states of the art north the Most of the available dates are bases and the westing experimental evalue range architect temperature is close to permitte its down to 0.0.5 K. When only e of the average solution antibient tem- tors $10.2$ K. At $z$ comparing pures used entities trapportunits theorem 0.1 as a traditional trapportunits.
- Alternative and a statistical and observations and a statistical and observations and a statistical and and a statistical and and a statistis and a sta	meanin standard for sample profession in the standard standard standard standard standard standards high how standard standards standard standards high how standard standards standard standards standard standards standards standards and standards standards standards standards and standards standards standards standards and standards standards standards standards and standards standar	(a)is, Antonests under our approximate and parameters are important as the parameters are important as the parameters are important. This parage areas to use an adjustication and the parameters are important and the parage areas to use and the constraint of the areas parameters of the parameters are important and the areas parameters are important as a strain or a strain o	defines, per la degra fer s'unders per sense a la degra fer s'unders a la degra sense a la degra de enciences, des las de grantes de la degra de de la degra de la degra de la degra de de de la degra de la degra de la degra de de la degra de la degra de la degra de de la degra de la degra de la degra de de la degra de la degra de la degra de de la degra de la degra dela de la dela de de la degra de la degra de la dela de de la dela de la dela de la dela de de la dela de la dela de la dela de de la dela de la dela dela dela dela del
Adversal topic and the topic of the topic o	meanin standard for sample profession in the standard standard standard standard standard standards high how standard standards standard standards high how standard standards standard standards standard standards standards standards and standards standards standards standards and standards standards standards standards and standards standards standards standards and standards standar	(a)is, Antonests under our approximate and parameters are important as the parameters are important as the parameters are important. This parage areas to use an adjustication and the parameters are important and the parage areas to use and the constraint of the areas parameters of the parameters are important and the areas parameters are important as a strain or a strain o	defining pair is during the voltexel liquin testimating the set based bed typication - genera could appear to the liquin testimating appearance of the set liquin testimating appearance of the set liquin testimating appearance of the set predicts of the set birth $K$ . When will be of the arcshilder set is the set predicts of the set $M$ of $K$ . When will be the $K$ . As the set of $K$ of the set the set $K$ and the set of the set $M$ of the set of the set of the set of the set of the set the set of the



(12)	Unite Buist	d State	es Patent	(10) Patent ? (45) Date of		US 8,479,443 B2 Jul. 9, 2013
(54)		ROOF SYSTI RADABLE V	EM WITH EGETATION TRAY	5,315,786 A 5,946,854 A 6,666,823 B1	8/2003 N	taillemnin et al. fcDonough et al.
(75)	Inventor:	Richard J. I	Buist, Burlington (CA)	6,732,666 B2 6,862,842 B2	5/2004 L 3/2005 N	fischo
(73)	Assigner:	Bieroof Sys Ontario (CA	te <b>ns Inc.</b> , Burlington, )	7,334,376 B1 7,392,616 B1 7,596,996 B2* 7,726,071 B2*		
(*)	Notice:	patent is est	ry discloimer, the term of this tended or adjusted under 35 b) by 372 days.	7.958.669 B2*		asimaty et al
				OT	HER PUBL	ICATIONS .
(21)	Appl. No.:	12/988,	853	Live Reef Brochare	Provegetato	d Modular Graen Roof System
(22)	PCT Filed	Apr. 28	, 2009	Feb 2008		
86)	PCT No.:	PCT/C	A2009/000564	Primary Examiner	French T.I.	Bala
	§ 371 (c)(1 (2), (4) Dat		, 2010		ent or	Firm – Bereskin & Par
(87)	PCT Pab.2	No: WO20	19/132439			
100		Date: Nov. 5,		(57)	ABSTR	ACT
(65)		Prior Pul	lication Data			aring a portion of a roofin satmy for containing a grow
(40)	US 2011/0		Feb. 10, 2011	ing medium and ve	petation, a	permeable membrane, and
	Rel	lated U.S. An	plication Data	plumity of upward	ly extendin	hiodegradable bottom and g biodegradable walls about
(60)			No. 61/048.674, filed on Apr.	the perimeter of the	iodegradal	Ne bottom The biodegradabl
	29, 2008.	apportation	an offering of a more equilibrium of the	pass therethrough	the perme	erreceived within the tray ca able membrane is provide
(51)	Int. CL. A01G 9/02	6 9	2006.01)	to span the biodegr	adable bott	, and is sized and shaped so a om and configured to allow hile inhibiting the growing
(52)	U.S. CL USPC		47/65,9	medium from passi	ng therethr	ough The drainage board i
(58)	Field of Cl	lassification !		degradable bottom,	and has an	membrane opposite the bie upper surface for supportin
	See applica	ation file for c	omplete search history.	of edges The drains	ge board i	ring surrounded by a plurality is configured so that at least
(56)		Reference	es Cited	some of the water pa and received on the o	using throu trainage box	igh the permeable membran and will be drained away from
	U.	S. PATENT C	OCUMENTS	the truy.	5000 AB-000	NADAD COURTON AND IN COURSE
	3.919.163 A		Tendinning et al.			
	4.043.077 A		innehocker	50 C1	aines, 12 De	rawing Sheets







#### Why? Think about audience

(12)

(54)

(75) (73)

(\*)

(21)

(22) (86)

(87)

(65)

(60)

(51)

(52)

(58)

(56)

Sciencel		SOLAR
ELSEMER More Torque HD (2	9994; 482-793	www.abartic.com/acardialeser
Cooling the cities – A review mitigation technologies to f comfort in urba		
M. San	tamouria	
Group Building Environmental Accounts, Physics		thrus, Grunz
	iau 30 July 2012	
Communicated by Asia	ciak Miker Yop Coonani	
Abstract		
The temportune of either constants to behave beauter of the second	of alties, deteriorance control to ese- ting phenomenons, important want with the phenomenons, important want of potential. This paper aims to post- hald markins have how analysed. It important data are available for social mean discusse of the areas cocied mean discusse of the post- net of the posts embedded in the cocied mean discusse of the post- net of the posts embedded in the cocied mean discusse of the post- list of the posts embedded in the second of the posts and the second of the labels with a mean value due to the origination postantial of both.	Brinn, par is design the voluentile pinas unitanelingin here have devel- equation—gunat reach appear to be sent the state of the art on both the bloot of the available data art based is the existing experimental studies, age automatical temperature is done for eminant is done to (25 K. When only of the average tables arehibed temperature) of $2\pi$ K. Ai concerns given vol. theory trappications between 15 and distancing the approximated the def-

Academics: what are possible approaches? What has been researched?

Unite Buist	d States Patent	(10) Patent No.: US 8,479,443 B2 (45) Date of Patent: Jul. 9, 2013		
	ROOF SYSTEM WITH RADABLE VEGETATION TRAY	5,946,854 A 9,1999 6,666,823 B1 8,2003	Smith et al. Guillemain et al. McDonough et al.	
Inventor:	Richard J. Buist, Burlington (CA)	6,732,666 B2 5/2004 6,862,842 B2 3/2005	Mischo	
Assigner:	Bioroof Systems Inc., Burlington, Ontario (CA)	7,392,616 B1 7,2008 7,596,906 B2* 10,2009 7,726,071 B2* 6,2010	Gold 47.65.9 Carpenter 47.65.9	
Notice:	Subject to any disclosimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 372 days.	(Con	Casimaty et al 47/101F inued)	
Appl. No.:	12/988.853	OTHER PUT	ILICATIONS	
PCT Filed		Live Roof Brochare Prevegets Feb. 2008	ted Modular Graen Reef System,	
PCTNo.:	PCT/CA2009/001564	Primary Examiner - Frank T	T De Le	
§ 371 (c)(1 (2), (4) Da		(74) Attorney Agent, or LLP/SEN.CL.R., s.r.l.		
PCT Pub.	No.: WO2009/132439	1.00 C		
PCT Pub.	Date: Nov. 5, 2009	(57) ABST	RACT	
	Prior Publication Data	surface with vegetation, include	vering a portion of a roofing les a tray for containing a grow-	
US 2011/0	030274 A1 Feb. 10, 2011		a permeable membrane, and a a hisdegradable bottom and a	
Re	lated U.S. Application Data	plurality of upwardly extend	ing biodegradable walls about able bottom The biodegradable	
Provisiona 29, 2008,	application No. 61/048,674, filed on Apr.	bottom is configured so that we pass therethrough. The perm	sterreceived within the tray can eable membrane is provided	
Int. CL A01G 9/05 U.S. CL	(2006.01)	to span the biodegradable be water to pass therethrough	m, and is sized and shaped so as stom and configured to allow while inhibiting the growing	
USPC	47/65.9		trough The drainage board is in membrane opposite the bio-	
USPC	axilication Search 47/1.01 F, 65.9 ation file for complete search history.	degradable bottom, and has a the biodegradable bottom and of edges The drainage board	n upper surface for supporting being surrounded by a plurality is configured so that at least ough the permeable membrane	
	References Cited		oard will be drained away from	
	S. PATENT DOCUMENTS	the state		
3,919,163 A 4,043,077 A	11/1975 Cloudianing et al. #1977 Stonehocker	50 Claims, 12	Drawing Sheets	



Market: What has been patented and/or marketed? What is industry doing?

Society: What is being discussed in media? (popular and/or within trades)

# Searching for information resources

What are the types of green roofs on city buildings?



About 315,000,000 results (0.88 seconds)

#### Introduction to types of green roofs on buildings in cities - Livingroofs.org https://livingroofs.org/introduction-types-green-roof/ •

The planning, implementation and maintenance of all these types is covered in the UK Green roof Code of Practice. ... In the UK there are three sub-categories: Extensive sedum. Extensive biodiverse.

#### Images for What are the types of green roofs on city ...



More images for What are the types of green roofs on city buildings?

Report images

#### What are the different types of green roofs? - BCIT Commons https://commons.bcit.ca/greenroof/fag/what-are-the-different-types-of-green-roofs/ •

Extensive Green Roofs – designed for environmental solutions ... growing medium. low-maintenance ground-cover plants. ideal for large flat-roof buildings and apartments. ... Chicago City Hall: Light weight soils at 4, 6 and 18 inches in depth.

#### Green roof - Wikipedia

#### https://en.wikipedia.org/wiki/Green\_roof -

A green roof or living roof is a roof of a building that is partially or completely covered with ... A concentration of green roofs in an urban area can even reduce the city's average temperatures during the summer, .... Some existing buildings cannot be retrofitted with certain kinds of green roof because of the weight load of the ...

People also ask	
How thick does a green roof need to be?	~
What is a green roof system?	~
Are green roofs good for the environment?	~
How do green roofs work?	~
	Foodbook

#### Why don't all public buildings have green roofs ... - The Nature of Cities https://www.thenatureofcities.com/.../why-dont-all-public-buildings-have-green-roofs-... •

Aug 12, 2015 - Or all large private buildings (e.g. businesses)? Would this be a good ..... Green roofs need an Apple type OS or a MS Windows OS to make ...

≡	Google Scholar	What are the types of green roofs on city buildings?	
٠	Articles	About 97,300 results (0.33 sec)	
	Any time	The role of extensive green roofs in sustainable development	[PDF] ashspublications.org
	Since 2018	KL Getter, DB Rowe - HortScience, 2006 - hortsci.ashspublications.org	Find it @ Concordia
	Since 2017	But the amount of shading is highly dependent on the <b>types</b> of plants chosen, because when strongly fertilized (Jauch, 1993), although the author did not indicate <b>what</b> is considered depth	
	Since 2014 Custom range	influences rate of substrate coverage and plant growth regardless of species Durhman et	
	Custom range	☆ ワワ Cited by 650 Related articles All 9 versions Web of Science: 259	
	Sort by relevance	[PDF] Space for urban wildlife: designing green roofs as habitats in Switzerland	[PDF] urbanhabitats.org
	Sort by date	S Brenneisen - Urban habitats, 2006 - urbanhabitats.org	
		typical flora and fauna. Figure 2 shows some of the habitat <b>types</b> associated with the area, which layer of gravel (Figure 4). Water drainage is thus often limited on the Wollishofen <b>roofs</b> ,	
	✓ include patents	and what species that are extremely sun and drought tolerant	
	include citations	☆ 99 Cited by 332 Related articles All 5 versions 約	
	Create alert	Green roofs in temperate climates and in the hot-humid tropics-far beyond the	[PDF] researchgate.net
		aesthetics	Find it @ Concordia
		M Köhler, M Schmidt, F Wilhelm Grimme Environmental, 2002 - emeraldinsight.com	9
		This <b>type</b> of <b>roof</b> proved to be very durable and until recently almost totally free of maintenance Different <b>types</b> of Sedum and different <b>types</b> of moss grow on a 7cm layer of substrate of the	
		evaporating water and second, as soon as the cavity water is evaporated (what effects the	
		☆ 99 Cited by 180 Related articles All 6 versions	
		Adapting cities for climate change: the role of the green infrastructure	[PDF] jstor.org
		SE Gill, JF Handley, AR Ennos, S Pauleit - Built environment, 2007 - ingentaconnect.com	Find it @ Concordia
		The three types of residential area have different surface covers from each other (figure 3). In	0
		Additionally, soil type is very important (figure 9). Faster infiltrating soils, such as sandy soils Tree species which are less sensitive to drought can be chosen from temperate zones, such	
		☆ 切 Cited by 1174 Related articles All 15 versions	
		Green roofs as urban ecosystems: ecological structures, functions, and services	[HTML] oup.com
		E Oberndorfer, <u>J Lundholm</u> , B Bass, <u>RR Coffman</u> , 2007 - academic.oup.com	Full View
		Advanced Search. Article Navigation. Close mobile search navigation Article navigation. Issue	
		Cover. Volume 57. Issue 10. November 2007. Article Contents. Abstract. History of green roofs. Green-roof vegetation. Ecosystem services provided by green roofs.	
		☆ 切り Cited by 975 Related articles All 20 versions Web of Science: 418 総	
		[нтмь] Investigation of green roof thermal performance in temperate climate: A	[HTML] sciencedirect.com
		case study of an experimental <b>building</b> in Florianópolis <b>city</b> , Southern Brazil	
		<u>S Parizotto, R Lamberts</u> - Energy and buildings, 2011 - Elsevier	Find it @ Concordia
		On the other hand, the heat flux data gathered in the different roof types seem to be a more	
		Comparison between heat fluxes across each roof type is shown in Fig The cooler temperatures	



What are the types of green roofs on city buildings?

Submit

Advanced Search

To begin using CLUES, enter search terms in the box.

For specific searches, try "Search Options (with tips)" in the blue bar.



Quick Search in:	search All fields		🗸 for 🕅	What are the types o	f green roofs on city bui	dings?		Q
	All fields				Turn of	AutoSuggest   + A	ld search field   Res	
Databas	es 🌱 🛛 Date 🜱	Language 🗸	Document ty	pe 🌱 🦷 Sort by 🗅	Browse indexes Y	Autostemming ~	Discipline 🗡	Treatment 🛩
	Compendex	Inspec	GEOBA		hat are the types of gree	n roofs on city huilding	s) WN All fields)	٩
NOTO	Suns w	ic ioun	u in Compendes	x for 1004-2010; ((W	nat are the types of gree	n roots on city building	sr) win All fields)	
			NO F		ES FOL	IND		
ut of "pp	millio	n indov					000 100	engineerii
	. IT IILIU	INGEN	CUIECC			in its att	033 190	Chymleen

### Finding key concepts and synonyms

What are the types of green roofs on city buildings?

Concepts

Green roofs

Buildings

#### Synonyms

Living roofs OR vegetated roofs

Offices OR highrises



# Why synonyms?

Authors, publishers, and cataloguers may use different terms to describe the same concept!



#### Simple

Concept 1 AND Concept 2

Concept 1 AND Synonym 2

=	Google Scholar	buildings AND living roofs	
٠	Articles	About 234,000 results (0.09 sec)	
	Any time	реоку Planting green <b>roofs</b> and <b>living</b> walls	
	Since 2018	N Dunnett, N Kingsbury - 2008 - library.wur.nl	
	Since 2017	Green roofs and walls reduce pollution and run-off, and also help insulate and reduce the	
	Since 2014	maintenance needs of buildings. Planting Green Roofs and Living Walls discusses the practical	
	Custom range	techniques required to make planting on <b>roofs</b> and walls a reality ☆ 99 Cited by 966 Related articles All 6 versions &	
	Sort by relevance	[нтмь] Urban reconciliation ecology: the potential of living roofs and walls	[HTML] sciencedirect.com
	Sort by date	RA Francis, J Lorimer - Journal of environmental management, 2011 - Elsevier	Find it @ Concordia
	✓ include patents	Living roofs (see Table 1 for clarification of terminology) are usually constructed on pre-existing roofs, though many new <b>buildings</b> incorporate them into their design. They usually consist of	
	✓ include citations	(1) a root resistant membrane that runs over the surface of the roof material to prevent ☆ 99 Cited by 251 Related articles All 10 versions Web of Science: 128	
		2 99 Cited by 251 Related anicles All to versions web of Science. 126	
	Create alert	(Por) Mitigating New York City's heat island with urban forestry, living roofs, and light surfaces	[PDF] semanticscholar.org
		C Rosenzweig, <u>W Solecki</u> A report to the New, 2006 - pdfs.semanticscholar.org	
		location, they may have less of an impact on energy demand than tree planting, due to lack of	
		shading on sides of buildings Roof-to-High Albedo (light roofs) Light Surfaces 5) Light	
		Surfaces/Impervious-to-High Albedo (light surfaces) Living Roofs 6) Living Roofs/Roof-to-Grass	
		☆ 99 Cited by 235 Related articles All 11 versions ≫	
		Green roofs as urban ecosystems: ecological structures, functions, and services	[HTML] oup.com
		E Oberndorfer, J Lundholm, B Bass, RR Coffman, 2007 - academic.oup.com	Full View
		Advanced Search. Article Navigation. Close mobile search navigation Article navigation. Issue Cover. Volume 57. Issue 10. November 2007. Article Contents. Abstract. History of green <b>roofs</b> .	
		Green-roof vegetation. Ecosystem services provided by green roofs. ☆ 99 Cited by 975 Related articles All 20 versions Web of Science: 418 ≫	
		A bb cited by 575 Related ancies Air 20 relations web of ocience. 410 VV	
		Living roofs and brownfield wildlife: towards a fluid biogeography of UK nature	[PDF] academia.edu
		conservation	Find it @ Concordia
		J Lorimer - Environment and Planning A, 2008 - journals.sagepub.com Developers have been persuaded to provide environmental mitigation on new buildings by	
		constructing living roofs for black Many of these roof spaces may never actually be inhabited by	
		the bird, due to their small size and altitude, which makes nesting unlikely (Gedge	
		☆ 99 Cited by 61 Related articles All 7 versions Web of Science: 30	
		[HTML] Green <b>roofs</b> as a tool for solving the rainwater runoff problem in the	[HTML] sciencedirect.com
		urbanized 21st century?	Find it @ Concordia
		J Mentens, <u>D Raes, M Hermy</u> - Landscape and urban planning, 2006 - Elsevier Green <b>roofs</b> may also have an impact on the heat island effect of urban areas through al., 2002)	
		Green <b>roots</b> may also have an impact on the neat island effect of urban areas through al., 2002) and may reduce the energy cost for cooling and/or heating of <b>buildings</b> (Takakura et al humidity	
		compared to that in the surrounding areas, is considered to reduce the <b>living</b> quality in	
		☆ 99 Cited by 864 Related articles All 25 versions Web of Science: 330	

#### Advanced

Concept 1 OR Synonym

AND Concept 2 OR Synonym

AND Concept 3 OR Synonym

	living OR vegetate	✓ for green OR	All fields	Search in: All field
×		✓ for roofs	All fields	AND 🔽 All field
<b>X</b> Q	OR offices OR highrises	✓ for buildings	All fields	AND 🔽 All field
	Turn off A			
utoSuggest   + Add search field   Reset form	Sort by Y Browse indexes Y	Document type 🗡	> Date ∽ Language ∽	Databases ^ Da
utoSuggest   🕂 Add search field   Reset forn	Casher V Danas Indanas V	Document type 🗡	Date ∽ Language ∽	Databases ^ Da

#### Search tip: truncations!

roof = roof

roofs = roofs (not roof!)

#### roof\* = roof OR roofs OR roofing

Engineeri	ng Village	Search 🗸	Results 🗸 🖜	Alerts <sup>®</sup> Selected recor	ds <sup>●</sup> More ∨	②∨ ፹∨	Create acc
Quick search:	All fields	✓ for green OR living OR vegetat	*				
AND 🔽	All fields	✓ for roof*				>	<
AND 🔽	All fields	✓ for building* OR office* OR hi	ghrise*			>	۷ ۹
					Turn off AutoSuggest	+ Add search field	Reset form
Databases ^ D	ate 🌱 🛛 Language 🌱 🔹 Document type 👻 Sort by	✓ Browse indexes ✓ Autostemming ✓	Discipline 🗡	Treatment 💙			

1883 records found in Compendex for 1884-2019: ((((green OR living OR vegetat\*) WN All fields) AND ((roof\*) WN All fields)) AND ((building\* OR office\* OR highrise\*) WN All fields))

🗘 Alert 💾 Save 🔊 RSS

#### Search tip: quotation marks!

living roof = living OR roof
"living roof" = exact match only

Engineer	ing Village		Search $\checkmark$	Results v <sup>2</sup>	Alerts <sup>0</sup> Selected	l records <sup>0</sup> More 🗸	⑦~ 盒	✓ Create accord	ount Sign in
Quick search:	All fields	✓ for "liv	ving roof"					Q	
						Turn off AutoSug	gest   🕂 Add search	h field   Reset form	
Databases ^ E	Date 🌱 🛛 Language 🌱	Document type Y Sort by Y Browse i	indexes Y Autostemming Y	Discipline	Treatment Y				
14 records	5 found in Compendex for	r 1884-2019: (("living roof") WN All fields)							l of l page
🗘 Alert 💾 Save 🖥	RSS						Sor	rt by: Relevance	
Refine	<<	□· ⊠₿⊻~						Display: 25	results per page
Numeric filter	~	1. Unsaturated 1D Hydrologica	I Process and Modeling c	of Living Roof M	edia during Steady P	tainfall			
By category	Download all 🛓 🔨	Liu, R.F. (Department of Civil and En Resources Congress 2014: Water With							
Limit to Exclude		Without Borders - Proceedings of the 2 Database: Compendex	2014 World Environmental and Wa			5		5	
		Document type: Conference article Detailed Show preview V Cited		Findit @Concordia					
Add a term									
Document type	0lo 🛎 🔨	2. Thermal properties of living Ondimu, Stephen N. (Bio-Instrumer			0	ntal Sciences, Osaka Prefectu	re University, 1-1, Gak	kuen-cho. Sakai City. Os	aka 599-8531.
Journal article	(11) (3)	Japan); Murase, Haruhiko Source: A				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,	
<u> </u>		Database: Compendex Document type: Journal article (JA	()						
Author	0lo 🛎 🔨	Detailed Show preview $\vee$ Cited	by in Scopus (10) Findit@Concor	rdia					

# Let's practice



#### Exercise 1: Concepts and their Synonyms

How can drones be used to survey vegetated areas?

# tinyurl.com/encs282-concepts

### Exercise 2: Searching Compendex

How can drones be used to survey vegetated areas?

tinyurl.com/encs282-db

### Getting access to resources



#### I found an article I want in (e.g.) Compendex. How do I get access to the full text?

- 1. Look for **Full text** or **PDF** button, if one exists.
- 2. Look for **Find it @ Concordia** button
- 3. Request a copy through Interlibrary Loan (COLOMBO)
- 4. Ask a Librarian if you need help!





#### You are looking for:

**Heavy metal contamination from electronic waste recycling at Guiyu, southeastern China** Guo, Yan. Journal of Environmental Quality v. 38 no. 4 p. 1617 Year: 2009

#### Click on the link(s) below to get the article:

<u>ProQuest Central</u>

#### 😂 Check the library catalogue:

Search for the Journal in the library catalogue (by ISSN 00472425)

#### More options:

Get the publication from Concordia's collection through Inter-Campus & Article Delivery

<u>Get the publication through another library using Interlibrary Loan</u>

Ask a Librarian

Search the library catalogue

What is "Find it! @ Concordia"?



#### You are looking for:

**E-waste environmental contamination and public health effects in Guiyu, southeast China** Ban, Hao. *E-Waste: Management, Types and Challenges* v. no. p. 109 Year: 2012

#### Check the library catalogue:

<u>Search for the item in the library catalogue</u> (by title *E-Waste: Management, Types and Challenges*)

#### Interlibrary Loan:

Get the publication through another library using Interlibrary Loan (COLOMBO) COLOMBO login help

#### More options:

Get the publication from Concordia's collection through Inter-Campus & Article Delivery

Get the publication through another library using Interlibrary Loan

Ask a Librarian

Search the library catalogue

What is "Find it! @ Concordia"?

### Standards, costs, and patents



#### Building Construction Costs with RSMeans Data



#### 07 33 Natural Roof Coverings

	33 63 - Vegetated Roofing		Daily	Labor-	11-5	2012 Bare Costs			Total	Total Incl 0&P	
07 33	63.10 Green Roof Systems	Crew	Output	Hours	Unit	Material	Labor Equipment		10101	Incl U&P	
0010	GREEN ROOF SYSTEMS		THE P								
0020	Soil mixture for green roof 30% sond, 55% gravel, 15% soil	G	-			100					1.00
0100	Hoist and spread soil mixture 4 inch depth up to five stories tall roof	G	B-13B	4000	.014	S.F.	.25	.53	.28	1.06	1.38
0150	6 inch depth	G	28	2667	.021		.37	.80	.41	1.58	2.08
0200	8 inch depth	G		2000	.028		.50	1.07	.55	2.12	2.79
0250	10 inch depth	G		1600	.035		.62	1.33	.69	2.64	3.49
0300	12 inch depth	G		1335	.042		.75	1.60	.82	3.17	4.17
0310	Alt. man-made soil mix, hoist & spread, 4" deep up to 5 stories tall roof	G	w.	4000	.014	*	1.50	.53	.28	2.31	2.76
0350	Mobilization 55 ton crone to site	G	1 Eghv	3.60	2.222	Ea.		106		106	160
0355	Hoisting cast to five stories per day (Avg. 28 picks per day)	G	B-13B	1	56	Day		2,125	1,100	3,225	4,450
0360	Mobilization or demobilization, 100 ton crane to site driver & escort	G	A-3E	2.50	6.400	Eo.		266	55.50	321.50	460
0365	Hoisting cast six to ten stories per day (Avg. 21 picks per day)	G	B-13C	1	56	Day		2,125	1,625	3,750	5,050
0370	Hoist and spread soil mixture 4 inch depth six to ten stories tall roof	G		4000	.014	S.F.	.25	.53	.41	1.19	1.53
0375	6 inch depth	G		2667	.021		.37	.80	.61	1.78	2.30
0380	8 inch depth	G		2000	.028		.50	1.07	.81	2.38	3.08
0385	10 inch depth	G		1600	.035		.62	1.33	1.02	2.97	3.85
0390	12 inch depth	G	+	1335	.042	+	.75	1.60	1.22	3.57	4.60
0400	Green roof edging treated lumber 4" x 4" no hoisting included	G	2 Carp	400	.040	L.F.	.82	1.76		2.58	3.61
0410	4" x 6"	G	1 The	400	.040	13 3	2.11	1.76		3.87	5.05
0420	4" x 8"	G		360	.044	13	4.32	1.96		6.28	7.80
0430	4" x 6" double stacked	G		300	.053		4.21	2.35		6.56	8.25
0500	Green raof edging redwood lumber 4" x 4" no hoisting included	G		400	.040		6.40	1.76		8.16	9.75
0510	4" x 6"	G		400	.040		11.20	1.76		12.96	15
0520	4" x 8"	G		360	.044		20.50	1.96		22.46	25.50
0530	4" x 6" double stacked	G	-	300	.053		22.50	2.35		24.85	28
0550	Roof membrane and root barrier, not including insulation:	G					1				
0560	Fluid applied rubber membrane, reinforced, 215 mil thick	G	G-5	350	.114	S.F.	.26	3.88	.51	4.65	7.35
0570	Root barrier	G	2 Rofc	775	.021	1	.70	.17		1.47	2.06
0580	Moisture retention barrier and reservoir	G	"	900	.018	1	2.70	.67		3.37	4.08
0600	Planting sedum, light soil, potted, 2-1/4" diameter, two per S.F.	G	1 Clab	420	.019		5	.67		5.67	6.55
0610	one per S.F.	G	"	840	.010		2.50	.33		2.83	3.26
0630	Planting sedum mat per S.F. including shipping (4000 S.F. min)	G	4 Clob	4000	.008		6	.28		6.28	7.05
0640	Installation sedum mat system (no soil required) per S.F. (4000 S.F. min)	G	N	4000	800.	-	8.35	.28	STATE IN	8.63	9.65
0645	Note: pricing of sedum mats shipped in full truck loads (4000-5000 S.F.)	G									

### **Finding standards**

- Webster Library, 2nd floor
- <u>Non-circulating</u> you can't check them out, so you will have to scan the pages you need in the Library
- Canadian, American, and international standards (CSA, ASTM, ANSI, ISO, ASCE, etc.)
- <u>ENCS Subject Guide: Standards, patents</u> <u>& trademarks</u>



### Patents

- Google Patents
- <u>Canadian Patent</u>
   <u>Database</u>
- <u>US Patent and Trademark</u> Office

Google Patents	Q							
SEARCH TERMS	About 2,278,124 results ordered by relevance + grouped by classification + 10 results / page + Download (CSV)							
bicycle × + Synonym								
+ Search term or CPC	Y10T74/20256 <sup>?</sup> Steering and controls assemblies							
SEARCH FIELDS	Hand control device for speed change gear mechanism of a bicycle							
Before priority YYYY-MM-DD	Grant US2653427A - Takuo Ishida - Takuo Ishida     Priority 1969-07.31 - Filing 1969-10.17 - Grant 1972-01-11 - Publication 1972-01-11     A hand control device for the speed change gear mechanism of a bicycle comprising a drive means							
+ Assignee	mounted rotatably around a handle rod in the proximity of the grip of this rod, a driven means being rotatable along with the movement of said							
MORE A	→ Search within classification Y10T74/20256 (455,624 results)							
After filing YYYY-MM-DD	A63B22/0002 <sup>2</sup>							
+ Inventor	Exercising apparatus specially adapted for conditioning the cardio- vascular system, for training agility or co-ordination of movements							
+ Patent office	involving an exercising of arms							
+ Language	Bicycle exerciser with interconnected hand and foot pedals Grant US3572699A • Harry B Nies • Harry B Nies							
+ Filing status	Priority 1965-05:21 - Filing 1965-05:21 - Grant 1971-03:30 - Publication 1971-03:30							
+ Patent type	$\mathbb{Z}_{\mathcal{M}}$ assembly carried in place of the handlebars.							
+ Citing patent	→ Search within classification A63822/0002 (227,812 results)							
+ CPC	Hydraulic <b>bicycle</b> brake system							
	Grant US3554334A • Keizo Shimano • Keizo Shimano Priority 1968-06-17 • Filing 1969-01-03 • Grant 1971-01-12 • Publication 1971-01-12 A hydraulic bicycle brake system comprising a master cylinder having dual chambers and dual pistone associated respectively therewith with each operating in sequence the rear and front wheels							

# Citing

### Citing: General information

See ENCS Subject Guide for information on citing and IEEE citation style

#### What do you need to cite?

- Any text you quote from another document, website, book, etc.
- Paraphrasing someone's words or ideas
- Images, graphs, etc.

#### What do you not need to cite?

• Common knowledge, facts, events, dates, concepts

# Citing: Avoiding plagiarism

- It is always better to err on the side of caution and to **cite the source of any information** you use in your writing.
- **Use quotations** and include a citation whenever you use another author's exact words (even if it comes from the internet!)
- **Be careful when paraphrasing** it is not enough to change only a few words here or there. Either rewrite an idea in your own words (and cite the source!) or use a direct quotation.

Guide: What is plagiarism?

### **Citing: Creating a bibliography**

.

# zotero

 Zotero can help you keep track of your sources and will create your bibliographies for you in IEEE (or APA/Chicago/etc.) style

		10 8.				
	Create Citation/Bibliography	×				
📄 Downregulat	Citation Style:		019-05-15,			
<ul> <li>E-waste envir</li> <li>Environments</li> <li>Evidence of e</li> <li>Export of toxi</li> </ul>	Chicago Manual of Style 16th edition (note) Chicago Manual of Style 17th edition (author-date) Chicago Manual of Style 17th edition (full note) Chicago Manual of Style 17th edition (note) Elsevier - Harvard (with titles)		019-05-15,			
<ul> <li>Heavy metal (</li> <li>Heavy metal (</li> <li>High levels of</li> <li>Occurrence o</li> </ul>	IEEE Modern Humanities Research Association 3rd edition Modern Language Association 8th edition Nature Vancouver Manage Styles.		s n Collection ıh			
PBDEs and D Policy on E-W Policy E-W Policy E-W	Language: English (US)		y from Items			
<ul> <li>Polybrominat</li> <li>Source identi</li> </ul>	<ul> <li>Citations</li> <li>Bibliography</li> </ul>	om Items om Source Folder				
Spatial distrib The hazard of	Output Method: • Save as RTF · Save as HTML		nts >			
Using Pb Isot			ns >			
	Cancel OK					

#### Zotero gives you this

File	Home	Insert	Design	Layout	References	Mailings	Review	View	Zotero	ACROBAT	♀ Tell me	Joshua C	A Share
Paste	в А-	<i>I</i> <u>U</u> -	abe x <sub>2</sub> x <sup>2</sup>	• 9 • A A			× - 2	•   ¶	AaBbCc	1 No Spa	cI AaBbC	Editing	
Clipboard			Font		15	Parag		15		Styles	· 14 · 1 · 15 · 1	5	^
						ţ	Reference	5					
0 - 1 - 0 - 1 - 2 - 1 - 0 - 1 - 0 - 1 - 7 - 1 - 7 - 1 - 7	<ul> <li>[1] L. Floridi and J. W. Sanders, "On the morality of artificial agents," <i>Minds and Machines</i>, vol. 14, (3), pp. 349-379, 2004.</li> <li>[2] R. W. Gehl and M. Bakardjieva, <i>Socialbots and their Friends :Digital Media and the Automation of Sociality</i>. New York: Routledge, Taylor &amp; Francis Group, 2017.</li> <li>[3] P. H. Kahn <i>et al</i>, "Social and moral relationships with robotic others?" in 2004, pp. 545-550.</li> <li>[4] L. M. Pereira, A. Saptawijaya and SpringerLink, <i>Programming Machine Ethics</i>. Switzerland; 4: Springer, 2016; 2016olume 26.</li> <li>[5] R. Sparrow, "The march of the robot dogs," <i>Ethics and Information Technology</i>, vol. 4, (4), pp. 305-18, 2002.</li> </ul>												
Page 1 of 1	1 102 -	vords E	inglish (Uni	ted States	W						R		+ 100%
	0.000		and the second second					_		Contra Contra		1.5	

### Zotero setup

1) Register <u>https://www.zotero.org</u>

2) Start the desktop application & go to the **Tools** menu

3) Check that the Browser Connector for Chrome is installed

4) Check that the Add-on for Microsoft Word is installed

Help: <u>lib-citation@concordia.ca</u> <u>https://www.zotero.org/support/</u>

# **Getting help**



## **Getting help**

• In person at the Ask Us! desk (Webster) or Reference desk (Vanier)



### **Questions?**



Created by Takao Umehara from Noun Project

#### Want to download these slides? Go to the **Engineering & CS subject guide**

MyConcordia Cspace Webmail Directories Hours A-Z Maps



Concordia.ca / Library / Subject & course guides / Engineering & computer science

#### Engineering & computer science

Find information Course & pro

Course & project guides, tools

How to write & cite

#### Course & project guides

- Capstone & other design classes
- · Co-op students, work term report
- ENCS 282: Technical Writing & Communication & presentation slides 12
- ENCS 6041: Creativity, Innovation and Critical Thinking
- ENCS 6721: Technical Writing and Research Methods for Scientists and Engineers & presentation slides 72
- ENCS 6931: Industrial Experience Work Term
- · ENGR 392: Impact of Technology on Society
- ENGR 417/6421: Resources for Aviation Law
- GPLL 231: GradProSkills Library Skills and Resources
- MECH 311: Manufacturing Processes
- MIE PhD Seminar 🗾