

CUSTOMER SPOTLIGHT

Engineering Village™

Queensland University of Technology (QUT)

‘Deep Searching’ Skills Boost Employment Options for STEM Graduates



“Employers seek to recruit graduates who are well-credentialed lifelong learners,” [Graham Dawson](#), Liaison Librarian to the Science and Engineering Faculty, [Queensland University of Technology \(QUT\)](#) in Brisbane, advises his students. To demonstrate that they are skilled and capable lifelong learners he advises them to “showcase your capstone project”, and “talk about how you went about solving that problem task” – in fact he feels this is useful advice regardless of whether they’re new graduate engineers, or those looking to move up to a supervisory or managerial role, or perhaps switching focus to a different facet of engineering practice.



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Most students start researching for their capstone project (the equivalent of an honours thesis) with a simple web search and perhaps a search of the library catalogue, Dawson says. But that will not be sufficient or prove satisfactory for those seeking to properly background their research by doing a thorough, systematic survey of the literature. Even when a web search yields an ‘overwhelming’ amount of information, much of it will be ‘false hits’ – irrelevant, basically, unusable. “For example, a construction engineering student needing to research building better brick and block masonry walls, if searching for ‘bricks and mortar’ on the web or in a library catalogue, will get a lot of irrelevant stuff on Internet retailing,” he says.

As a preferred alternative, he advises students to use a specialist, subscribed database such as Compendex, the most complete engineering database available, on the Engineering Village platform. “Once they get into that database, and see the precision information retrieval options available to them, they quickly realize the benefits and advantages.”

Engineering Village literature databases allow users to discover virtually all the quality peer-reviewed literature on a particular STEM topic, with discovery aided by assigned controlled vocabulary and standard classification of papers into the most appropriate topic arrangement. “You might start out with a few educated guesswork keywords, but soon you are refining your search result by controlled subject heading, class, publication type, year and so forth,” Dawson says. Once accustomed to the database structure, many researchers prefer the precision

of first clarifying the most appropriate preferred, authorized term in the subject Thesaurus then copying that term into an Engineering Village database search.

Engineering Village also displays useful histograms that show users the predominant type literature in their search result – journal article, conference paper or monograph. This search results analysis also offers quick views of centres of excellence (based on author affiliation) or of high-value source publications that contain a lot of papers on a particular topic. “Engineering Village helps our advanced students locate their community of scholars”, he says.

Dawson acknowledges that raising awareness among students, in particular, about targeted subscription databases and how to use them is often a challenge. But as noted earlier, having that knowledge will not only enable them to do better projects; it will also enable them to bring those skills to the workforce, demonstrating the ability to dig deeply to solve problems.

In terms of graduate students undertaking research, QUT Library runs a course, [Advanced Information Retrieval Skills \(AIRS\)](#) that is compulsory for higher degree research students. “This is a 10 module online course or four face-to-face workshops that include sophisticated systematic literature discovery techniques,” Dawson explains.

“STEM students undertaking the AIRS course often discover that databases hosted on the Engineering Village platform add great value to their literature search and discovery.”

Advanced Engineering Information Retrieval – AAEE Workshop Highlights

In his workshop at the [2016 Australasian Association for Engineering Education \(AAEE\) Conference](#) in Coffs Harbour, NSW, Dawson highlighted some of the key components of Ei Compendex (Engineering Village Compendex) and demonstrated to engineering educators how it enables students, faculty and researchers to work more quickly, efficiently and accurately, while gaining deep knowledge about their field and projects.

Ei Compendex Content

This indexing and abstracting service provides a holistic and global view of peer-reviewed and other publications, with over 20 million records from 77 countries across all major engineering disciplines. Every record is carefully selected and indexed using the Engineering Index Thesaurus to ensure discovery and retrieval of reliable and relevant engineering-specific literature.

Content sources (and counting)

- 2,200 publishers
- 3,615 journals
- 11 trade magazines
- 95,790 conference proceedings
- 78 book series
- Articles in press from 1,369 journals
- 119,273 ProQuest Dissertations

Content size (and counting)

- 20 million records >1970
- 11.6 million journal articles
- 6.9 million conference papers
- 27,000 records added weekly
- 1.78 million records from 1884-1969 (Ei Backfile)

*Count as from December 2016

**Made available via The IET's Inspec database

Journal Coverage

Major peer-reviewed journals from all major commercial, society and university publishing houses.

Conference Coverage

Conferences often publish first time data on new engineering research and are increasingly used as a primary channel for serious engineering communication. Ei Compendex includes more than 7 million conference papers published.

Ei Compendex Capabilities

Search & Retrieval

- Search a single database such as Compendex or across multiple databases simultaneously (with deduplication)
- Choose Quick or Expert Search options, both of which allow you to save and combine searches
- Refine results by search codes, document type, year, author, affiliation or controlled vocabulary subject term, language, IPC code** and classification
- Group results according to data facets to prioritize and eliminate the need to filter through long lists of results
- Link to full-text articles using CrossRef / Digital Object Identifier (DOI) links.

Thesauri

The thesauri in Engineering Village comprise the controlled vocabulary used to index articles in the Compendex, Inspec, GeoRef, GEOBASE and EnCompass databases. Controlled vocabulary standardizes the way articles are indexed, enabling consistent and precise search and retrieval.

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Mapping Tool

Engineering Village’s mapping tool uses Google map technology to plot geographical locations from GeoRef and GEOBASE search results on a digital map, providing additional context.

Email Alerts

Follow your topic of interest, author, company or university for any conference, journal, dissertation or trade magazine covering 77 countries on a weekly basis.

Save Searches

Always keep your most important searches. This will allow you to retrieve information later, whenever you need it.

Ask an Expert

Get answers to “how-to” questions through the Engineering Village “Ask an Expert” service, which is customized for every institution. You can reach out to engineers (Ask an Engineer), your institution’s librarian, (Ask a Librarian) or one of an Engineering Village product specialist.

Interoperability with Scopus

If you use both Engineering Village and Scopus, you can automatically link from a record in Engineering Village to the relevant record in Scopus. Conversely, you can link from Scopus to Engineering Village.

Integration Tools

Provide one-click access from your LibGuides to Engineering Village using Engineering Village Search Widgets. Deeper integration options are also available via the Engineering Village API.

In Product Training

- Online help
- Getting Started program
- Learn & Support
- Tutorials

For more information,
please visit Blog.EngineeringVillage.com