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ADVISOR REVIEWS—STANDARD REVIEW

Engineering Village

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Composite Score: ★★★★

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Abstract

Engineering Village is a platform of indexing and abstracting databases in engineering and related fields. The platform has an easy to use quick searching interface and robust advanced search features. It is the main platform for Compendex, a database widely considered to be the most comprehensive database for engineering literature. Up to 11 other databases are available on the platform all of which provide complementary coverage to the core database of Compendex. Elsevier continues to provide enhancements to the platform to increase ease of use and discoverability of the engineering literature.

Pricing Options

Engineering Village is a subscription database platform available from Elsevier. Pricing varies depending on which databases are subscribed to on the platform, as well as institution size, research output, and geographic location. Customers should contact Engineering Village directly for individual pricing quotes.

Product Overview/Description

A total of 12 databases are currently available on the Engineering Village platform including Ei Compendex, Inspec, GEOBASE, Georef, EnCompassLIT, EnCompassPAT, USPTO Patents, EPO Patents, National Technical Information Service (NTIS), PaperChem, Chemical Business NewsBase (CBNB), and Chimica. The strength of Engineering Village is the ability to search across a variety of engineering content at once by selecting from among the databases in an institution's subscription.

Each database provides complementary coverage for an area of engineering content. Ei Compendex is the "flagship" database of Engineering Village. It is a highly comprehensive engineering database that includes close to 19 million records from 190 engineering disciplines from 1970 to the present. Compendex is also available on the Ovid platform (<http://ovid.com/site/catalog/databases/53.jsp#horizontalTab2>). The backfile is a separate database that includes 1.8 million more records from 1884-1969 and is only available on Engineering Village. Inspec is the next broadest database in coverage providing almost 16 million records since 1969 in the fields of physics, electrical engineering, electronics, mechanical and production engineering, communications, IT for business, and computing. The Inspec database is produced by The IET (Institution of Engineering and Technology) and is also available on the InspecDirect platform, Web of Science, EBSCOhost, Ovid SP, and ProQuest (<http://iet.libguides.com/index.php>). These two databases have some overlap, but combined provide a very broad coverage of the engineering literature and generally form the core of an Engineering Village subscription.

Up to 10 more databases can be added to the platform to enhance content in certain areas (two of the subscription options include two related databases, see EnCompass and Engineering Village Patents). If an institution has a separate subscription to Knovel, Elsevier's full text engineering e-books database, Knovel content can also be searched in Engineering Village. The additional databases cover the following content areas:

GEOBASE: Includes over 3 million records covering earth sciences, ecology, geology, human and physical geography, and environmental sciences from 1974 to the present. GEOBASE in Engineering Village also includes a mapping tool based on Google Maps technology.

GeoRef: Includes over 3.7 million records covering economic geology, geophysics, petrology, environmental geology, geochemistry, stratigraphy, hydrogeology, hydrology, structural geology, engineering geology and more. The coverage from North America includes 1666 to the present. The coverage for the rest of the world is from 1933 to the present. Engineering Village's mapping tool also works with GeoRef.

EnCompass: Combination of the EnCompassLIT and EnCompassPAT databases. EnCompassLIT includes over 1 million records covering petroleum refining, petrochemical, natural gas, and related energy industries from USA, Russia, China, Germany, Japan, and more. EnCompassPAT includes over 600,000 records for patents in the fields of petroleum refining, petrochemical, natural gas, and related energy industries from over 48 international patenting agencies.

Engineering Village Patents: Includes over 12.4 million United States Patent and Trademark Office (USPTO) records and over 4 million records from the European Union Patent Office (EPO). Provides linking to full text patent documents and patent and non-patent references.

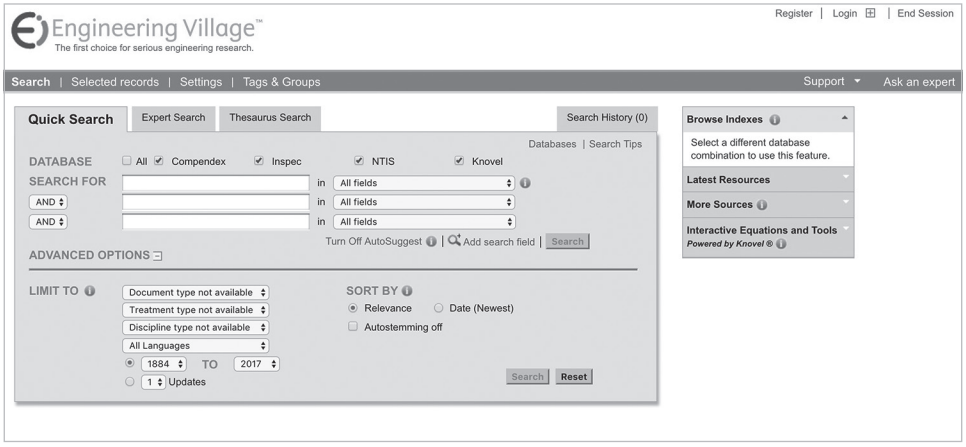
National Technical Information Service (NTIS): Includes over 2.5 million records for technical reports from government agencies worldwide from 1899 to the present.

PaperChem: Includes over 660,000 records of pulp and paper industry literature from 1967 to the present.

Chemical Business NewsBase (CBNB): Includes over 1.6 million records covering trade journals, newspapers, company newsletters, company reports, market reports, press releases, and more for the chemical engineering industry.

Chimica: Includes over 3.8 million records covering international literature in chemistry and chemical engineering from 1970 to the present.

FIGURE 1 Engineering Village Quick Search Screen



User Interface/ Navigation/Searching

Engineering Village has three search options: Quick Search, Expert Search, and Thesaurus Search. Users can select from among the databases in an institution's subscription using check boxes at the top of both Quick Search and Expert Search. The Databases link to the upper right of the checkboxes provides a brief description of the content of the databases available.

The Quick Search interface provides three boxes for fielded searching (see Figure 1). Fields can be selected from drop-down menus to the right of the search box. The fields available for searching include only those fields in common across all selected databases. If many databases are selected fewer fields will be available for searching. A small green "i" icon next to the drop down menu links out to the help pages section on search fields by database listing which fields are available for each database. Using the default All Fields option will search across all the fields available in each database. Drop-down boxes to the left of the search box allow for Boolean AND, NOT, and OR connections between the three search fields. Additional search fields can be added as needed.

When entering a search term in a Quick Search field, the AutoSuggest function provides a list of possible matches in alphabetical order based on the Ei Compendex Thesaurus. AutoSuggest can be turned off via a link just below the column of search boxes. In addition to AutoSuggest, search terms used in Quick Search also includes autostemming. Autostemming does not stem terms entered with quotation marks, braces, or terms searched on the author field. Autostemming can be turned off in the Advanced Options section. Sophisticated users can employ advanced searching syntax such as wildcards, truncation, and proximity operators in the Quick Search box. Exact phrases are denoted with quotation marks or braces.

Depending on the database selected, the Browse Index box to the right of the search box can be used to find the exact form of a term in a database's index. Common indexes are author, author affiliation, controlled term, and source title, but can include very specific indexes such as IPC Code, Inventor, or Assignee for databases that include these indexes. Each index is an alphabetical list with a search box. Selecting an item in the list populates the exact form into the search box and changes the search field in the drop-down menu.

Pre-search limits and sort default options are found in the Advanced Options section below the search boxes by clicking on the plus icon. Limit options available include document, treatment, discipline, language, date, and update. As with search fields, limits are a compromise of those available in the databases selected. The discipline type is only available for the Inspec database. Date range and database updates are common across all databases. Pre-search sort options are relevance or date (Newest).

Expert Search offers a single enlarged search box in which a detailed text based search query can be entered using advanced searching syntax, indexed terms, and an expanded list of search fields. The expanded list of search fields allows deeper and more directed searching that really leverages the specific indexing of each database. For example, a few of the databases available provide an index to increase precision in numeric or chemical searching such as the Numeric index in Inspec and Compendex, the Chemical Index in Inspec, and the CAS Registry Number in CBNB, Chimica, and EnCompass. As with Quick Search, the fields available for searching depend on the database(s) selected. If multiple databases are selected, initials indicate which fields are available for each database. Creating a text based query may present a bit of a learning curve for some users, but the tool offers the ability to create a highly refined and robust query.

The Thesaurus Search is an interface for constructing a search using the controlled vocabulary for a specific database. Thesaurus searching can only be performed in one database at a time and is only available for Compendex, Inspec, GeoRef, GEOBASE, EnCompassPAT, and EnCompassLIT. Thesaurus Search options are Search, Exact Term, or Browse. Using Exact Term will also show broader, related, and narrow terms. Selecting the check box next to a term will add it to the search, clicking on a hyperlinked term will display the Exact Term page. Pre-search limiters are available to the left of the search box. Basic Boolean operators and pre-search sorting preference is available to the right.

Results lists display basic citation information and the database the citation is from if an institution has subscriptions to both Engineering Village and Scopus, "cited by" counts will show up for Compendex and Inspec records (see Figure 2). The title links to the abstract and additional links are available for detailed view of the full record. As indicated by the precision available in the expert search fields, the level of indexing for many of the databases in Engineering Village is quite detailed providing valuable information about the relevance and retrieval of an item of interest.

Several advanced refining options are also available after a search has been run. A list of facets to the left of the search results provide options to limited to or exclude from several facets including Controlled Vocabulary, Database, Author, Classification Code, Country, Document Type, Language, and Year. Each facet includes article number counts next to the term and the option to display a graph of the top 10 facet options. Additional terms can also be added to the search using a search box at the top and bottom of the facets list.

Engineering Village recently added a very high powered new post search option to Compendex and Inspec called the Numeric Filter. Numeric values are represented in a variety of ways in the engineer-

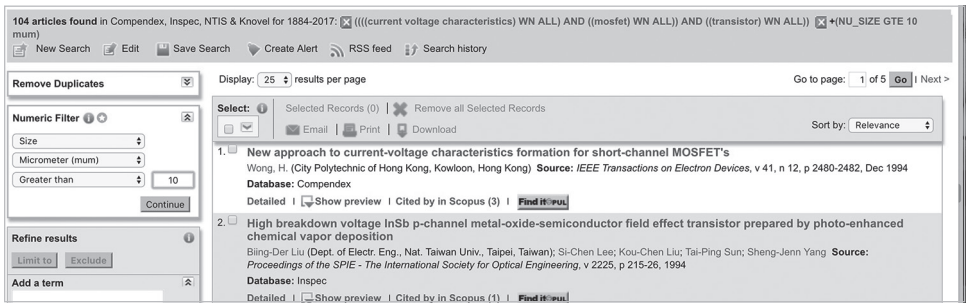


FIGURE 2 Engineering Village Search Results

ing literature, such as scientific notation, as a range, or written out numerically. To make searching more complicated, different units may be used such as Kelvin, Celsius, or Fahrenheit. The Numeric Filter uses an algorithm on indexed numeric data to standardize numeric values and units allowing users to filter to a specific value or range without having to convert and account for varied formatting in the literature. The Numeric Filter is made up of drop down menus for data type, unit, and operator. Data types include properties including but not limited to Age, Energy, Frequency Time, and Voltage. The units available to search on depend on the value entered for the data type. For example if Size is chosen as the data type, users can select from among a variety of metric or imperial measurement units. The operators include equals, greater than, greater or equal, less than, less than or equal, and range. This easy to use filter saves on having to account for all possible variations within search terms.

Search histories are available on a tab next to the search options. Selected records can also be e-mailed, printed, or downloaded to a location like Mendeley or Google Drive, or saved in a variety of formats for use in citation management software. An individual account is required to save a search or create an e-mail or RSS feed. Individual accounts also offer the ability to configure personalized search settings. Help pages are available for specific functions throughout a search through a little green letter "i" icon. A menu marked support also links out to contact, video tutorials, and a blog. The Ask an expert link provides a way to contact an engineer in a specific field, a product specialist, or a librarian. The librarian link can be configured to a send e-mails to a specific librarian or e-mail at the subscribing institution. Engineering Village complies with U.S. Section 508 Guidelines for Web Accessibility and W3C Web Content Accessibility Guidelines.

Free Text Keywords: Compendex | Inspec | Abstracting and Indexing | Engineering | Patents | Geology | Technical Reports

Primary Category: Science, Technology, Computers, Engineering (including Environment)

Secondary Categories: Multidisciplinary (or interdisciplinary)

Type of product being reviewed: Abstracting & Indexing

Target Audience: Undergraduate (including community colleges); Graduate/Faculty/Researcher

Access: Subscription

Critical Evaluation

Engineering Village includes both an easy to use basic search interface and a very robust advanced search. The platform does a good job of providing a single interface to search across multiple engineering databases at once while attempting to also allow users to leverage most the intricacies of the separate indexes and thesauri when searching in individual or related databases. Access to these intricacies is primarily provided through the Expert Search, which has a fairly high learning curve especially for users not familiar with text based search queries. The Search Tips in the help pages give basic information on using the operators, formatting syntax, and information about the field codes. However, they do not provide much information about using some of the more complicated field codes. Lutishoor Salisbury noted the lack of a browsable index for the Chemical indexing and Numeric indexing fields in a 2008 comparison of Inspec on Engineering Village and InspecDirect (Salisbury 2008). Since then Engineering Village has developed detailed help pages for Numeric index searching in the expert search as well as the Numeric Filter which greatly simplifies use of the Numeric index. There is still little extra information on using other field codes such as Inspec's Chemical Index. Additional information can be found on the Institution of Engineering and Technology guide for Inspec on Engineering Village. It would be helpful if Engineering Village linked out to information produced directly from a non-Elsevier database when available.

Compendex and Inspec are widely considered to be the best indexing and abstracting databases for engineering literature. In the introduction to Using the Engineering Literature Bonnie Osif names Compendex as a resource that is "critical to the field" (Osif 2011). Their combined breadth, depth, international coverage, and historic content is not available elsewhere. Similarly, the other databases available on Engineering Village represent specific unique areas of engineering.

Competitive Products

Engineering Village is the main platform for Compendex and the Compendex Backfile. The other databases available through Engineering Village are also available on other platforms or directly from the source such as with U.S. Patents or the National Technical Information Service (NTIS). A comparison of alternative platforms for each database is beyond the scope of this review. The primary benefit of subscribing to multiple databases on the Engineering Village platform is the ability to add more engineering information to a search in Compendex. In addition, the platform and search interface are designed specifically for engineering information and provide better discoverability beyond a simple keyword search. Engineering Village has added several really great search enhancements in the last couple of years such as autosuggest, visibility of Scopus citation counts, co-searching in Knovel for subscribers, and the numeric filter and they continue to look for ways to enhance the product.

Engineering Village Review Scores Composite: ★★★★

The maximum number of stars in each category is 5.

Content: ★★★★ 1/2

The core databases on Engineering Village Compendex and Inspec are the most comprehensive databases for engineering literature. Additional content can be added depending an institutions research needs for related fields in Engineering.

User Interface/Searchability: ★★★★

Searchability ranges from easy to very complex. Valuable enhancements are continually being made to improve the user interface and searchability.

Pricing: N/A

Pricing varies depending on content included in subscription, institution size, research output, and geographic location. Customers should contact Elsevier for price quotes.

Purchase/Contract Options: ★★★★

Contracts allow for unlimited use within an institution and remote access. Walk-in users can be negotiated.

Purchase & Contract Provisions

Engineering Village is COUNTER and SUSHI compliant. Number of users and length of access are not restricted. Remote access and/or walk in access can be negotiated in the contract. Licenses are negotiated with Engineering Village.

Authentication

Engineering Village offers site wide authentication by IP address. OpenAthens and institutional logins are also available. Users from institutions that use either IP authentication or institutional login can set up "Remote access" to log in when outside an institution or IP range. This option requires an individual user account and e-mail verification.

Author's References

Cusker, Jeremy. 2013. "Elsevier Compendex and Google Scholar: A Quantitative Comparison of Two Resources for Engineering Research and an Update to Prior Comparisons." *The Journal of Academic Librarianship* 39 (3): 241–43. doi:10.1016/j.acalib.2013.02.001.

Meier, John J., and Thomas W. Conkling. 2008. "Google Scholar's Coverage of the Engineering Literature: An Empirical Study." *The Journal of Academic Librarianship* 34 (3): 196–201. doi:10.1016/j.acalib.2008.03.002.

Osif, Bonnie. 2011. "Introduction." In Using the Engineering Literature, Second Edition, 1–6. *CRC Press*. doi:10.1201/b11072-2.

Salisbury, Lutishoor. 2008. "Inspec on InspecDirect and on Engineering Village." *Charleston Advisor* 9 (4): 5–11. <http://charleston.publisher.ingentaconnect.com/search/article?option1=tka&va'lue1=inspec&operator9=AND&option9=publications&value9=charleston&freetype=unlimited&sortDescending=true&sortField=default&pageSize=10&index=1>

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