

Engineering Village – database guide

Developing your search strategy (1):

- Identify your key concepts (search terms)
- For each key concept think of alternatives (e.g. synonyms, related terms, broader/narrow terms)
- Combine terms using Boolean logic (**AND**, **OR**)

Combining terms:

- turbulent flow (system assumes an **AND** between words) - finds items containing both turbulent and flow
- turbulent **AND** flow – as above
- earthquake **OR** seismic – finds items containing any of the words: earthquake, seismic
- steel **NEAR**/6 column – finds items where the words steel and column are within 6 words of each other

Example search topic: finite element analysis of turbulent flow in pipes

Key concepts: **finite element**, **turbulence**, **pipes**

This search finds items which contain: the phrase **finite element** or one of the acronyms **FEA**, **FEM**, **PLUS** (AND) any word beginning with **turbulen** (e.g. **turbulence**, **turbulent**), **PLUS** (AND) the word **pipes** and any simple single/plural variations

Personal Account

Register to:

- Save records/searches
- Create alerts

The screenshot shows the Engineering Village search interface with several annotations in red callout boxes:

- Search history to view/edit/save previous searches**: Points to the 'Search' button in the top navigation bar.
- Help**: Points to the question mark icon in the top navigation bar.
- Sign in to personal account**: Points to the 'Login' button in the top navigation bar.
- Use quotes to search for a phrase**: Points to the search input field containing the phrase "finite element" or fea or fem.
- Use * to search for a word beginning with...**: Points to the search input field containing the wildcard term turbulen*.
- Will find singular/plural e.g. pipe, pipes**: Points to the search input field containing the term pipes.
- Add more search boxes**: Points to the '+ Add search field' button.
- Select databases**: Points to the 'Databases' dropdown menu.
- Allows search terms to be limited to e.g. title, author**: Points to the 'All fields' dropdown menu.
- A subject search**: Points to the 'All fields' dropdown menu.

The interface includes a top navigation bar with the Engineering Village logo, a search bar, and links for 'Create account' and 'Login'. The main search area features a 'Quick search' section with a search input field and a 'Search' button. Below the search input field, there are three search criteria: 'All fields' (selected), 'AND' (selected), and 'All fields' (selected). The search criteria are combined using 'AND' logic. The search input field contains the phrase "finite element" or fea or fem, the wildcard term turbulen*, and the term pipes. The search results are displayed in a table with columns for 'Databases', 'Date', 'Treatment', 'Discipline', 'Sort by', 'Autostemming', and 'Browse'. The 'Databases' column shows checkboxes for 'All', 'Compendex', 'Inspec', and 'Knovel'. The 'Date' column shows a dropdown menu. The 'Treatment' column shows a dropdown menu. The 'Discipline' column shows a dropdown menu. The 'Sort by' column shows a dropdown menu. The 'Autostemming' column shows a dropdown menu. The 'Browse' column shows a dropdown menu.

Developing your search strategy (2):

- Review results – scan item titles, read summaries/abstracts to determine relevance/worth reading full text
- Change/refine search to improve search results if necessary
- Use **Search History** to view/edit/save previous searches and to create alerts

Refining your search (some options):

- Add/omit search terms to widen/narrow search
- Limit some search terms to title or index terms field
- Consider using: phrase searching, field searching (e.g. limit to title), truncation operator (*), proximity operator (**NEAR/n**)

Search Results:

The screenshot shows a search results page with 416 records found. The page includes a search bar, a list of results, and a refine panel on the left. Annotations highlight various features:

- No of records found:** 416 records found
- Create alert:** Button to create an alert for the search.
- Save search:** Button to save the search.
- Download selected records to e.g. Refworks etc:** Button to download selected records.
- Edit the search in the boxes above:** Button to edit the search.
- Change order of results e.g. to pub date:** Button to change the order of results.
- Click to see summary, keywords etc:** Button to view the summary and keywords of a record.
- Click to select record(s):** Button to select one or more records.
- Click to see if Imperial has full text of journal article:** Button to check if the full text is available.
- Refine panel to narrow search results:** Panel to refine the search results by database, author, etc.
- Click to go to article webpage (full text access if Imperial has subscription):** Button to go to the full text of the article.

The search results list includes the following records:

- Coupled FEM simulation of turbulent flow and temperature in insulated pipes**
Kaceniauskas, A. (Vilnius Gediminas Tech. Univ., Vilnius, Lithuania); Cesniene, J. Source: *Mechanika*, v 61, n 5, p 32-7, 2006
Database: Inspec
Detailed Show preview Find at Imperial
- Coupled FEM simulation of turbulent flow and temperature in insulated pipes**
Kaceniauskas, A. (Vilnius Gediminas Technical University, Sauletekio 11, 10223 Vilnius, Lithuania); Cesniene, J. Source: *Mechanika*, v 61, n 5, p 32-37, 2006
Database: Compendex
Detailed Show preview Cited by in Scopus (1) Find at Imperial
- Study of the quantitative assessment method for high-cycle thermal fatigue crack growth in a fluid mixing based on the coupled CFD-FEM method and the rainflow counting method**
Zhang, Y. (Sch. of Mech. & Electr. Eng., Beijing Univ. of Chem. Technol., Beijing, China); Lu, T. Source: *Nuclear Engineering and Design*, v 309, p 175-96, 1 Dec. 2016
Database: Inspec
Detailed Show preview Cited by in Scopus (1) Full text Find at Imperial
- Modelling turbulence-induced vibration of pipes with a spectral method**
Birgersson, F. (Aeronaut. & Vehicle Eng., KTH, Stockholm, Sweden); Finnved, G. Source: *Journal of Sound and Vibration*, v 278, n 4-5, p 749-72, 22 Dec. 2004
Database: Inspec
Detailed Show preview Cited by in Scopus (15) Full text Find at Imperial