The Library

Finding academic information:

Engineering

Database User Guide
Your guide to finding academic information for Engineering

This guide is designed to introduce you to electronic academic databases relevant to Mechanical Engineering and Electrical & Electronic Engineering.

Online databases contain large amounts of current academic information and are ideal for researching a topic. The information included is primarily journal articles, but also newspaper articles, theses, conference papers etc. Searching for information is easier using online databases than using printed material.

You should use academic databases rather than search engines such as Google because the material you will find is guaranteed to be reliable and of an acceptable academic standard. The databases contain many peer-reviewed journals, this is the top quality academic information, that you should be using for assignments rather than information from websites found via Google.

Which are the most useful databases for your subject?

There are a number of databases listed on the Mechanical Engineering and Electrical & Electronic Engineering subject web pages. All contain relevant information but some are more important than others.

**British Standards Online**
BSOL provides access to over 38,500 current, draft and historic British Standards, more than 16,000 of which are BSI adopted European and International standards.

**IEEE Xplore**
A large full-text database providing access to over 400 titles, including the IEEE Transactions, IEE Proceedings and other content from the IET. Some archive IEE content is also available. A wide-range of topics are covered.

**ProQuest Central**
This is a large multi-disciplinary academic database, which covers most aspects of engineering, technology and science.

**ScienceDirect**
This database provides access to full-text articles from over 2500 Elsevier Science journals in engineering, science and technology.

**SCOPUS**
Scopus is a large abstract and citation database. It is not subject specific, but includes a broad range of scientific, technical and engineering literature.

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Top Tip

Most online databases regularly update their interfaces, so the appearance of screens and steps to take may be slightly different to those in this guide, but the procedure for searching the databases will be essentially the same.
Getting started

Load the Library web pages: [https://www.bolton.ac.uk/library/](https://www.bolton.ac.uk/library/)

You should now navigate to the relevant subject guide.

The Subject Guides pages

After clicking on Subject Guides as shown above, select the guide most relevant to your course from the list. Subject Guides display information on relevant databases, internet resources, study skills and links to relevant help guides, as well as contact details for your subject librarian.

It is possible to access each individual database and search for information. However, the Library has a search engine called Discover@Bolton which allows you to search most databases and other online resources simultaneously via a single search screen.

Therefore, this guide will focus on using Discover@Bolton effectively. You can access Discover@Bolton via any subject guide or the Library homepage.

**Note:** Most of the more important databases listed in subject guides relevant to courses in Engineering (apart from British Standards Online) are available in Discover@Bolton.

**Top Tip**

If you use Discover@Bolton off campus, click on the red bar at the top of the screen to load the University of Bolton’s Electronic Resources login page and then enter your university username and password.
Discover@Bolton

Before you start your search think about the keywords you are going to search for. You should think about any related terms or synonyms you could try in case you don’t find anything suitable the first time. For further help with developing a search strategy, see the Discovering Information tutorial in the My Research Needs section of LEAP Online, which you can access from the Quick Links section on the Library homepage or any subject guide.

Finding a definition

It may be useful for you to define the terms included in your assignment in order to fully understand the topic you are researching. If you type a single keyword or phrase in the search box and run the search, a definition will appear on the right of the screen. Where available, this will be sourced from one of our reference databases, such as Credo Reference. However, if a definition isn’t available from these sources, Wikipedia will be used, but check with your tutor as to its acceptability as a quotable reference.

Basic searching

Discover@Bolton can be accessed from the Library homepage or from any Subject Guide page by clicking on the relevant link.

Type a keyword for the topic you are looking for in the Search box and then click on the Search button – these features will be different depending on which way you accessed Discover. 

Note: the image below shows how a basic search screen looks when accessed via a subject guide page.

For multiple words or a phrase use speech marks, eg “engine oil”

Top Tip

You can use ? to replace letters within words, eg, organi?ation will search for organization and organisation. You can also use * to search for words with the same root e.g., engine* will search for engineers, engineered, engineering etc.
Narrowing your search

If your search has produced a lot of results, you will need to narrow it down. One way of doing this is by adding another keyword(s) to your original search term. You can combine 2 or more terms by using AND, OR, and NOT.

Known as **Boolean Logic**, it is used by most electronic sources of information.

**AND** narrows the search by finding articles that contain both terms.

**OR** broadens the search by finding articles that contain either or both terms.

**NOT** narrows the search by finding articles that contain one term but not the other.

You can also refine a search by using the filter options to the left of your search results. These allow you to limit results to include ‘full text’ and ‘peer reviewed’ articles only, as well as limit by ‘item type’, ‘subject’, ‘publication date’ and ‘language’.

Peer-reviewed scholarly journals provide the highest quality academic information so you may wish to start with these results before looking at magazines, trade publications, etc.
Note: After you have refined your search an option to clear filters is displayed at the top of the screen. Click this before you run another search – unless you wish to keep the same filter options.
If you later want to delete an individual filter, click on the cross at the side of it.

Advanced searching

Advanced searching gives you more search options and removes the need to type AND, OR etc. Click on the Advanced search icon at the top of the screen. This is useful if a basic search produced too many results. Select filters of your choice, such as Author, Content type, Subject, Language, Date Range or Full Text Articles only to give a smaller more relevant set of results.

The screen below shows available search fields and selections made in order to retrieve a smaller set of relevant results.
Looking at your search results

The results will show a mixture of different types of resource, such as ebooks, journal articles, newspaper articles theses etc. The type of resource is shown under the title and author/publication details.

To see the abstract (summary of an article), plus additional details about the record, click on Preview. To see related articles, click on Related Articles.

To look at the full text of a record, click on the Title or Full Text Online. You may be prompted to log in with your university username and password at this point.

Note: If Citation Online is shown, the full text of an article may not be available via the Library’s subscriptions. Read the article’s abstract to decide if the article is relevant to your research. If you think it is, you can order the article for free online via the Library’s Inter-Library Loan service. Click on Citation Online and on the next screen click on the button Request via Inter-Library loan. On the next screen, login to your Library account and submit your ILL request. However, there may be plenty of other relevant full text journals available for your research so explore these before applying for an Inter-Library Loan.

Top Tip

You can sort your results by date of publication or relevance by clicking on at the top of the results screen.

If you click on , you will be presented with a list of citation options, select Harvard. You can then either email or copy and paste records into your list of references or bibliography. Note: there are many variations of Harvard so make sure it is the one required by your tutor. You may need to amend the citation once you have copied it into your Word document.
Saving selected search results

Before you can export, print, or email a record or multiple records, you must first save selected results to a ‘folder’.

To do this, click on the folder icon at the right of the record. You will then notice that results appear in a folder at the top of the screen.

To open and view the contents of a folder, click on the folder icon at the top right of the screen.

To delete a record from a folder, click on the delete icon at the side of it. To close a folder and return to your results, click on Back to results at the top right of the screen.

Printing and emailing selected results

Once you have records in a folder, you have the option to print, email or export them.

Click on the folder icon and then choose whether you want to print, email or export them by clicking on the relevant option to the right.

Note: Contents of a folder are retained temporarily only, when you exit the database or after an extended period of inactivity (20mins) they will be cleared. You can permanently save items by creating a ProQuest RefWorks* account – see overleaf.
*This is not the same version of RefWorks as you can access from the Databases A-Z list, but a simplified version. If you already have a RefWorks account, you will not be able to access this account via Discover@Bolton RefWorks.

**ProQuest RefWorks**

Creating a ProQuest account allows you to store all your saved items permanently and to manage and organize your documents effectively. To create an account, click on the menu icon at the top right of the screen. At the drop down box, click on RefWorks Log In. On the next screen, click on No account-sign up here.

Enter your university email address – not a personal email - and choose your own password. Once you have created your account, when you click on the folder icon of a record it will be permanently stored in your RefWorks account.

To access your account at any time, click on the folder icon at the top of the screen.

You can create folders to organize your results by using My Folders. You can also share resources with other people using the Sharing function, which allows you to email them direct from RefWorks.

It is possible to select resources to create an exportable bibliography or reference list. Select relevant results and click on , then select Create Bibliography. Select a style, such as Harvard. You can then copy and paste your results into your assignment.

**Note:** you may need to edit each entry so that it fits the Bolton Harvard style.

There are many other functions, which you can explore by clicking on the help button.
Top Tip
If you need help using Discover@Bolton, click on the HELP button at the top of the screen.

Scopus

If you want to do a comprehensive literature search, such as for a dissertation, you should use the Scopus abstracting and indexing database, which reviews a wide range of literature, both in print and electronic format. You can access this via the recommended databases on your subject guide or via the A – Z list on the Databases guide.

Searching

The default search is Document search, which you can use to look for information on a topic. The default search field option is article title, abstract, keywords, but you can use the dropdown arrow to select the field(s) you want to search.

If you want to search simultaneously in different fields, click on + to add another row to your query. To begin searching, enter a keyword or phrase in the search box and then click on the Search button.

You can use Limits to refine your search by restricting it to a particular type of document or date.
Top Tip

Use the **Authors** feature to search for information about a particular author. The **Affiliations** search is useful if you know that a particular institution has a good reputation in your subject area.

**Viewing results**

Results are shown in brief format, which gives the title of the article, author(s), date, source title and number of citations. Click on the article title hyperlink and a new screen will load with information about the abstract, references and keywords for the article.

If you have too many results, you can add another search term in the **Search within results** box to narrow them down or refine them by limiting to or excluding fields on the left hand side of your results screen. Use the downward arrow, which will appear to the right of any field which is not expanded to view the refinement options.

Scopus is an abstracting and indexing service, but references may be available from one of the Library’s electronic journal suppliers, in which case there will be a **View at Publisher** link below the citation. In some cases, the Library’s subscription may not cover all of the content on the publishers’ websites. This is often indicated by an invitation to purchase the article.

You can also click on **Link to Full Text** to find out if the article you require is one included in the Library’s subscription. Follow the links in the pop-up window to navigate to the full text. If you need further help with this look at the Guide to Article Linker crib sheet. [https://www.bolton.ac.uk/ArticleLinker](https://www.bolton.ac.uk/ArticleLinker)
If the reference isn’t available electronically, click on the Library catalogue link in the pop up window to see if it is available in print format. If it isn’t, you can order the article via the Inter-Library Loans Service. Requests are submitted online and you need to log in to your library account to submit a request.

**Saving, downloading and printing results**

To save any of your results, click in the **check box** to the left of the article title. You can now add your marked results to a saved list, which can be referred to at any time later by clicking on **Lists** on the Scopus toolbar at the top of the screen.

**Note:** in order to save records in a list you must first register and create an account in Scopus.

You can also print or email your selection of results or create a bibliography in a citation style of your choice, by clicking on the appropriate option above your list of marked results. You can also save selected results as a PDF document.

**Note:** always check any electronically-generated reference list against the format outlined in LEAP Online.

You can also export marked references directly to bibliographical management software such as RefWorks or save files in formats compatible with other software. Once you have selected an option, Scopus will default to your chosen export option to save you extra clicks.

**Top Tip**

For additional help searching Scopus, there is a Help button on the top toolbar which links to a detailed help section including online tutorials.
Finally …

This guide is only an introduction to electronic databases. Other resources are available via your subject page which can help you with your research. Many of them have crib sheets, which explain how to use them, and, although all electronic resources have different interfaces, the search principles are the same.

If you require further help searching databases please contact your librarian, Steve Crimes:

Tel: 01204 903093
Email: s.crimes@bolton.ac.uk

If you require immediate help during Library opening hours:

Tel: 01024 903232
Email: subjecthelp@bolton.ac.uk

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