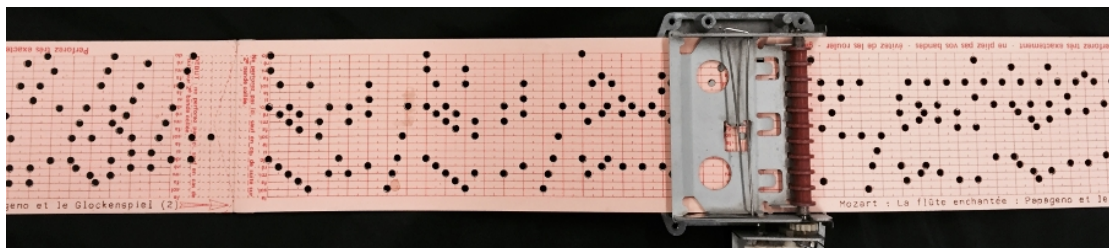

The Science Library. Informatics

– tips for Phd and master students and other readers –



The **University Library** subscribes to a lot of reference and fulltext databases, electronic journals, books, handbooks, dictionaries and reference works. Connected to the university network, you have access to it all.

In this folder we will introduce you to the most important areas and services we offer. You will find links to our services on our home page: <https://www.ub.uio.no/informatics>.¹ The library contains a large collection of books in informatics. If we do not have what you are looking for, we will order loan or copies from libraries all over the world. Your student card is also your library card.

1. The master thesis

How to write a thesis

In the library we have several books on how to compose and write a thesis, some titles: *How to write & publish a scientific paper*; *Writing for computer science*; *Academic writing for graduate students : essential tasks and skills*; *Writing successfully in science*; *How to write a thesis*; See shelf mark **A.3.2**.

Previous master theses / DUO

Many students prefer to take a look at previous master theses before they start working on their own. In the library we have paper copy theses from the period 1972-2006. You may borrow them. Many of the theses from 2007– are also available in electronic form via the **DUO-service** (<https://www.duo.uio.no/englishindex.html>). From this service you may also access theses in other disciplines. Paper copies may be borrowed from the Science library.

¹Reading this online **coloured texts** are links to the services mentioned. See p. 8.

Reference list in your thesis

On the library home page you will find a link to **Write and Cite** in the top menu. From that page you will see tips and instructions for different reference tools.

The library gives courses in the use of EndNote and BibLaTeX at the beginning of every term. Our homepage links to the notes from these courses. These may be used for self study. The notes may be found via **Tips for master students** on our home page. Extra courses will be given when several students ask for it.

2. Research literature

To know the previous research in your field is important when you start working on your thesis or report. Below you will find a short description of important text and reference sources within the informatics field. Please note that corresponding services are also available in the disciplines that border to informatics (see paragraph 4).

How to search

The databases listed below have possibilities that let you perform refined searches, but the syntax is different from service to service. It is therefore important to get acquainted with search techniques in the services you are using to ensure that you find all the relevant information and without too much noise. Some tips:

- use the established terminology of the service (if it exists) to ensure high recall (as many relevant documents as possible)
- use boolean search (AND, OR, NOT and more) to achieve precision and to avoid noise in the hit lists
- limit your search to distinct types of information: author, title, abstract, time span and language, genre (books, articles, video, etc.)

The databases have different scope and functionality. Some give links directly to the source, others include an UiO-button that checks access and helps you on.

In pure reference databases you may search within bibliographic information and abstracts of articles and papers from journals and conferences. In most cases the references will include links to the full text through various subscriptions.

2.1 Reference and citation databases

INSPEC is a pure reference database produced by IET (The Institution of Engineering and Technology). The database covers electronics, communication, com-

puter science, control technology and information technology. It contains references from 1898 and on. Every year around 700 000 references are added to the database. INSPEC is the most important literature database in physics and informatics. As the database covers ACM, IEEE and LNCS (see below), it is a natural starting point for your search.

Web of Science covers around 10 000 periodicals/journals back to the year 1900. Among these are 6 650 from the mathematics, informatics and science disciplines. The service also covers the social sciences and humanities.

In this database you will also find a citations network. If you find an interesting article, you may easily find later articles that cite the first article and vice versa.

Scopus. This service analyzes about 16 500 periodicals including citations and references back to 1996. More than 20 million records. The pre-1996 records do not include references. Scopus includes links to web pages that cite the articles.

Google Scholar (<http://scholar.google.com/>) has links to citation lists in its hit lists. Non-English literature is included. The citations do not necessarily link to peer reviewed documents resulting in some noise.

CiteSeerX (<http://citeseerx.ist.psu.edu/>) is a database that contains informatics and information science peer reviewed literature. Citation lists are sorted according to frequency of citation.

2.2 Electronic text sources

The databases mentioned below are also reference databases, but in addition you have access to the full text of the references (articles, papers and so on).

The subscriptions to these databases are some times limited to a certain number of simultaneous users. If the database asks for username and password, it means one of two: 1) that the user limit is reached and you will have to wait; or 2) that you are not connected to the university network. Please remember to log out of these databases when you have finished your search, other people might be waiting.

If you follow the “Google path” to the texts you might not get access. If you experience this, try using a path starting from the library home page.

IEEE Xplore covers publications of Institute of Electrical and Electronics Engineers (IEEE) and Institution of Engineering and Technology (IET). The service now contains more than 3.7 million documents from 1988 and onwards. Some journals and conferences are even covered back to the beginning of the 1950’s.

ACM digital library is the text archive of Association for Computing Machinery. You will find the full text of all journal articles and conference papers published by

ACM from the start (1958) and onwards. In addition ACM covers other computer science sources.

Springer. UBO subscribes to e-books from this publisher. You will find a link to the Springer site on our homepage.

Lecture Notes in Computer Science (LNCS) is a series of books and conference proceedings from Springer (about 9 200). LNCS has several subseries, among them: Lecture notes in artificial intelligence and Lecture notes in bioinformatics. The service covers most books back to volume 1 (1973).

Springer also publishes **other book series related to computer science**.

Select “Computer science” in the left margin of the Springer site, and limit to “Reference work”. You will get a list of encyclopedias and handbooks and may refine further. If you are reading this online you may use **this link**.

2.3 Electronic journals and databases

Starting from the library home page you may search for databases, e-journals and e-books by selecting the relevant links. You may use this service to check whether you have electronic access to a journal or not; and to find databases in disciplines suiting your needs. Look for the links **E-tidsskrifter** og **Databases**.

2.4 Alerts

Several databases provide a service that alerts you when a new journal issue is published, new hits from a specific search appear in a database or new citations of a certain article or document.



3. Supporting literature – handbooks, manuals and encyclopedias

The library has several handbooks covering special themes in informatics, e.g.:

- *Handbook of file formats*,
- *Embedded systems handbook*,
- *Handbook of graph theory*,
- *Handbook of computer animation*,
- *Handbook of face recognition*
- *Handbook of multibiometrics*

to mention a few of several hundreds.

If you are looking for short introductions to a special informatics subject, we have several encyclopedias:

- *Encyclopedia of computer science*,
- *Encyclopedia of information systems*,
- *Encyclopedia of data warehousing and mining*
- *Encyclopedia of optimization*
- *Encyclopedia of computers and computer history*

...and many more. Some of these are also available online. An entry in an encyclopedia will usually guide you to the basic works of the subject.

The library also has general dictionaries, encyclopedias, collections of quotations, atlases and more.

4. Databases in other disciplines

In this folder we have focused on informatics databases and services. Information technology is an aspect of nearly every other field and if you want your literature search to be complete, you should also inspect databases of other disciplines, like (name of database in parenthesis):

- mathematics (**MathSciNet**),
- psychology (**PsycInfo**),
- medicine (**Pubmed**),
- bioinformatics (**BIOSIS**),
- pedagogics (**Eric**)

A categorized overview may be found through drop down menus via Databases on the library homepage

5. Library catalogues

By choosing *Oria* under search services on our home page you will access the union catalogue of the Norwegian university and college libraries. Using the link *Get it* in the hit lists you may check whether The Informatics Library holds the document and whether it is on loan or not.

In addition to catalogue search, you may use the service to order loan or copies, to see what you have borrowed and to renew your loans (of local items). To do this, you must log in using Feide and your UiO username and password.

6. The Informatics library

The library is a branch of the **Science Library** and is located on the ground floor in Ole-Johan Dahl house.

We have several public computers (Linux and Windows) and working areas with a varying degree of noise. We are in the process of getting some MACs as well.

We also have a room to be used by two or more persons coworking (white board included).

At the library entrance you will find relaxing chairs and daily newspapers, journals and magazines and even a chess board.



Welcome to the library!

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the QR code to link to a version with active hyperlinks:



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