At some point you have to move from theory to practical application when developing a new technology, or improving upon an older one. It’s important to become aware of the state of an industry or market for what you’re working on, and Salmon Library has the tools for that! While listed as a business database, the engineer should be aware of Frost & Sullivan’s database. This resource provides market and industry data to inform a global perspective for a given product idea or application. With a brand new layout in 2014, you can browse industries such as Aerospace & Defense or Energy Systems, or technologies by categories like microelectronics or materials & coatings. There are handy categories as well to allow customization in finding just industry research versus press releases, or for finding forecasts based on country. Be informed about the global application potential of your work!

Outside the Box: Frost & Sullivan

Contact your librarian with questions or comments about your resources! To see a complete listing of Engineering databases, check out our LibGuide at: http://libguides.uah.edu/databases/engineering.

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IEEE
With thousands of titles at your disposal, IEEE Xplore and IEEE Standards should definitely be a part of your research strategy in electrical engineering. There are thousands of articles and proceedings at your disposal, as well as numerous Standards. A toolbar at the top allows you to jump between the primary Xplore interface for all content, and one devoted to searching just these Standards. In addition to searching, you can simply browse by topic, like Transportation, Power & Energy, Communication, and more. Also, these Standards indicate whether or not they are active, withdrawn, or superseded. Back in the Xplore interface, search results can be further customized by author, publication year, and topic. HTML previews of an article allow you to view several tabs at the abstract level, enriching your research experience by providing easy-to-browse tabs for figures, keywords, multimedia, and more!

Quick Tip: When using the Journal Citation Reports database, select “Science Edition,” search by “subject category,” then “engineering” category. The results can be sorted by total cites or impact ratings, granting insights into leading journals in the field!

Did you know…?
Salmon Library provides full text access to 36 titles from the American Society of Civil Engineers, such as the Journal of Structural Engineering, one of the field’s oldest and most respected periodicals!
Salmon Library provides access to a few thousand titles from ScienceDirect. This is a key resource for our Engineering program, as we have over 900 titles under the Physical Sciences and Engineering category alone that offer full text, as well as hundreds of abstracts. While our subscription is robust, take advantage of their Open Access collections as well! The database’s homepage has a link near the bottom left that will take you to a directory of open access content which can also be browsed by subject area.

Another great feature is ScienceDirect’s Top 25 Hottest Articles, located near the center of the page. This is a quick way to see a listing of some of the most relevant and highly cited content in a given year. Limit by Engineering to get a top 25 list which you can sort by year all the way back to 2004. In many cases, you can even view the most read articles from a particular journal. Elsevier uses data from a sister database, Scopus, to indicate how many times a given article has been cited. You can see that information under each article on this list, granting insights into an article’s practical applications over time. As a bonus, there is an easy “Blog this” button on each article listed, providing an embedded link to copy and paste this article’s data into a web application or program.

**Did you know...?**

The Industrial & Engineering Chemistry Research journal was cited 43,808 times in 2013, according to Journal Citation Reports.

**Hint:** We have this journal! Check it out!

**OneSearch : Make It Work For You!**

Ah, OneSearch...that “search everything right now” solution! Well, it can be a boon or a burden depending on how you use it. While this is a tool for discovering what offerings Salmon Library has on a subject across various databases, formats, and publishers, it can be overwhelming. It’s probably not the best place to search for a term like engineering, unless you want around 22 million hits ranging from an encyclopedic entry for genetic engineering to a marketing report for global engineering services from 2012, with lots in between.

The rule of thumb for OneSearch? Use that limiter bar on the left, always! OneSearch works best when you cast that “search net” wide on a topic, such as structural analysis engineering. Sure, you may get 1.6 million results, but maybe you just want conference proceedings we have full text for at UAH right now. There are categories buried under “Source Type” on the left. Click what you want, and you’ll be down to hundreds, then dozens in no time. It’s all about narrowing down! We may still not have what you need, but we’ll try and get it for you if we can!

Salmon Library has access to dozens of journals available from the American Society for Mechanical Engineers. A tab-delineated interface on the ASME homepage will have most of these listed to browse through, as well as a nice Topic Collections tab to offer a quick way to track up-to-the-minute content on issues relevant to you, such as robotics and mechatronics, fluids engineering, or defense industry applications. Many of these articles contain several figures and references scattered throughout the full text, and there is a tool set available to export these into a Powerpoint slide set if you so choose. Full text is segmented into easy to navigate sections within an article, so getting directly to a literature review or conclusions from a technical brief is a breeze!

Covering well over 120 years of core engineering literature, the Compendex platform is a collection of bibliographic citations from thousands of engineering journals and conference proceedings. The website for this database has had a few “quality of life” upgrades over the past year, such as more prominent options to download to your PC or upload to a cloud setting, for example. Short for “Computerized Engineering Index,” this database has over 13 million records, with about 1 million new records added each year from over 190 disciplines in engineering! Several unique search limiters are present, such as Ei (Engineering Index) codes and headings. The Thesaurus Search is quite useful in determining the best terminology to use, such as searching for aerodynamics, then selecting terms such as aeroacoustics or aerodynamic stall ing for more focused results. While a standard limiter for “document types” exists for selecting journals versus dissertations, for example, another limiter for “treatment type” empowers your search to find content of a historical, experimental, or theoretical nature as well!