



The EMPSL Standard

Newsletter of the Cornell University

Engineering ♦ Mathematics ♦ Physical Sciences
Libraries (EMPSL)

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<http://www.library.cornell.edu/EMPSL/empstandard/>

NSF FUNDS CORNELL DIGITAL LIBRARY COLLECTION OF MACHINE MODELS



Cornell University Library has been awarded a grant from the National Science Foundation (NSF) to create a digital collection of historical machine models for the National Science Digital Library (NSDL). This freely accessible online collection will provide

educators, students, researchers, and the general public with tools for exploring the mathematical motions of machines: the science of kinematics. The collection will be geared for educational use at the middle school, secondary, and university levels.

This project is a collaboration of librarians, professors of mathematics and mechanical engineering, and education specialists at Cornell. The project is under the direction of John M. Saylor, Director of the Engineering Library who is the Principal Investigator. Co-Principal Investigators are Professors David W. Henderson (Mathematics), Francis C. Moon (Mechanical Engineering) and Hod Lipson (Mechanical

Engineering and Computing and Information Science). Kizer Walker (EMPS Libraries) is the Project Manager.

The Kinematic Models for Design Digital Library (K-MODDL) will be a collection of digital images (still and moving) of rare 19th-century mechanical models that were designed to teach kinematic principles, as well as computer simulations of the models' movements, related full-text documents in digital form, and sample teaching modules that employ the models and simulations in the classroom at the undergraduate, high school, and middle school levels. The mechanisms that make up the core of the collection are model machine elements developed for research and teaching by German engineering professor Franz Reuleaux (1829-1905). Reuleaux was the founder of modern kinematics and a forerunner of modern design theory of machines. Cornell University holds 220 pieces, the most complete extant set of the Reuleaux mechanisms in the world. K-MODDL builds on a database of still images and descriptive records of the Reuleaux models, which has been developed with funding from Cornell University Library. *(continued on page 2)*

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KINEMATIC MODELS

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This collection will be incorporated into the NSF's National Science Digital Library (<http://nsdl.org>), which will promote its discovery and use by teachers, students, and researchers. These users will also be able to add to K-MODDL with annotations and links to related materials.

This two-year NSF award of \$725,088 is effective October 1, 2002. A website for the project will be announced in the very near future. ♦

Rising Cost of Journals Means Cancellations at Engineering Library

The Engineering Library budget for this fiscal year was increased by 1.2% – not enough to keep pace with the 5-7% jump in the cost of journals. Despite increases to Cornell Library's central database line and the monograph approval plan line that will greatly benefit engineering and computer science, the Engineering Library's Director, John Saylor, estimates he must cancel approximately \$100,000 from 2003 commitments, based on last year's expenditures and this year's available funding.

Roughly \$20,000 in reference material has already been cancelled and Saylor intends to move to an electronic-only subscription for Kluwer and Wiley journals and IEEE (Institute of Electrical and Electronics Engineers) journals and proceedings, for a further \$31,000 savings (see titles list at <http://reuleaux.cornell.edu/2003eonly/>). Saylor recently circulated a list of 111 journal titles (\$112,864.01 in 2002 costs) to all faculty and graduate students in the College of Engineering. From this list, 65 titles, which cost \$57,600 in 2002, have been identified for cancellation (see <http://reuleaux.cornell.edu/2003cancellations/>).

For background on the escalating cost of scholarly journals that is contributing to this budgetary crisis, please see an article by Ross Atkinson, CUL's Associate University Librarian for Collection Development, which describes in detail the current "Crisis in Scholarly Communications"

(<http://www.library.cornell.edu/colldev/StatementOnCrisis.htm>).

If you would like more information on the Engineering Library situation or if you have questions or comments, please contact John M. Saylor, 5-4134 or jms1@cornell.edu. ♦

New Service for Patrons

Borrow Direct

Cornell University Library has entered an agreement with Brown, Columbia, Dartmouth, University of Pennsylvania, Princeton, and Yale to allow patrons to "Borrow Direct" from any of the libraries. Materials available through this service are books and printed music.

Borrow Direct is different from CUL's interlibrary loan service. Materials are delivered sooner, usually within four working days. And unlike traditional interlibrary loan, Borrow Direct provides patrons access to items that are held by Cornell, but charged out, as well as items that are not part of the Cornell collections. If an item is unavailable at Cornell, you can log into Borrow Direct using your Cornell ID number and search the online catalogs of our partners. If the item is available at any of our six partners, you can use the Borrow Direct system.

The loan period for Borrow Direct items is 30 days; materials are not renewable.

For more information connect to Borrow Direct. It is located in the Services section of the new Gateway to Cornell University Library: <http://library.cornell.edu/>. ♦

New Journal in Materials Science

Cornell University Library subscribes to Nature Publishing Group's new journal in the physical sciences, *Nature Materials*, "a monthly multi-disciplinary journal aimed at bringing together cutting-edge research across the entire spectrum of materials science and engineering." Volume 1, number 1 of *Nature Materials* is accessible electronically through the Library catalog.

emani

Electronic Mathematical Archiving Network Initiative

An international collaboration to support and coordinate the long-term preservation and open accessibility of mathematical publications in digital form.

Cornell University Library continues to explore new areas for collaboration with scholarly publishers. EMANI is a joint project of major international academic libraries – Cornell, the State and University Library Göttingen (Germany), Tsinghua Library (Beijing), Orsay Mathematical Library (Paris) – and the German scientific publisher Springer-Verlag, along with the European Mathematical Society’s Electronic Library of Mathematics (ELibM).

In July, Cornell University Library hosted representatives of the EMANI partner organizations in Ithaca for a fruitful and congenial planning meeting. EMANI applies libraries’ growing expertise in archiving, preserving, and providing access to digital materials to the task of managing Springer’s growing digital backfiles in mathematics. The result promises to be an archive and online dissemination system for math materials that is responsive to needs of academic libraries and the scholarly communities they serve. Springer is playing a leadership role in involving librarians and scholars in the long-range strategic planning for its electronic publishing processes. In the future, EMANI may expand to include other scientific disciplines and other publishers. ♦

uPortal.Cornell

A new service on the Cornell landscape – uPortal.Cornell – offers users a manageable, “pocket-sized” version of the larger Cornell web presence. Members of the Cornell community can customize their individual views of the site, so that only the most useful content is displayed.

Various segments of the Cornell community – the Library, for instance – have written content for uPortal in the form of channels. Channels are organized on uPortal.Cornell pages and displayed

to the user. Users can delete, add or alter the appearance and placement of channels to suit their needs or tastes. Cornell’s implementation relies on the user’s NetID to match the customizations with the viewer. If Sidecar is installed, it will handle authentication; if not, CUWebLogin handles the credentials. The “staff” page of uPortal.Cornell includes a Bear Access channel that invokes all of the Bear Access Runway services from within the browser. Future developments could include additional channels and new tabs (pages) based on user affiliation. CIT intends to offer classes on writing channels for uPortal in the coming year.



Cornell Information Technologies

Try out uPortal.Cornell at <http://uportal.cornell.edu/> and have your NetID and password handy. You’ll be ready to explore Cornell, your way. ♦

ACCElErated reservations

ACCEL – the Academic Computing Center in the Engineering Library – has instituted a new web-based scheduling system for room and equipment reservations that is already providing faster turnaround time when faculty and staff reserve a classroom. Room requests are now typically reviewed within 24 hours and confirmed with the requestor. To use the new system, click “Reserve a Room” at the ACCEL homepage (<http://www.accel.cornell.edu>). A schedule of when each room is available is posted at the site.

The new reservation system is being expanded to provide immediate confirmation of reservations for anybody wishing to borrow a laptop or digital camera. The equipment loan procedure is still under development, due to the arrival of new equipment – including ten new IBM ThinkPads, and several new digital still and video cameras. The process is underway to create Voyager item records for all of the new items. Once this step is completed, equipment reservations can be just a few mouse clicks away.

Engineering Library Workshops

All workshops will take place in ACCEL (Academic Computing Center in the Engineering Library), 1st floor Carpenter Hall, Blue Room. Please register with instructor, Jill Powell, jhp1@cornell.edu.

HTML Intro: Create Your Own Web Page
Tuesday, October 22, 2002 3:35 pm - 5 pm
Using Netscape Composer you will design a web page with graphics, lists, links, and tables in our hands-on facility. We will also teach hypertext markup language (HTML) so you can edit raw code and use other HTML editing programs.

Endnote Intro: Organizing Your References
Tuesday, November 12, 2002 3:35 pm - 5 pm
Recommended for those looking for a way to organize references for research papers and theses. Covers the basic features of using Endnote, including importing records electronically from the library catalog, journal articles databases, links to Internet pages, and the preparation of bibliographies using publisher-defined output styles.

Endnote Advanced: Problem Solving and Customization
Tuesday, November 19, 2002 3:35 pm - 5 pm
Covers advanced features, including using customized publisher manuscript templates, "cite while you write" with Microsoft Word, customization of reference types and output styles, and exporting your references to a web page.



EMPSL People

Beginning October 1, **John Saylor**, director of the Engineering and Computer Science Library, will take a two-year leave from his administrative responsibilities to work on the National Science Digital Library Project funded by NSF. John will continue to develop the E&CS Library collections while serving as Director of Collection Development for Core Integration at NSDL. John is a co-PI on the NSDL Core Integration project.

Annette Birsall, E&CS Library access services supervisor, is leaving her position to pursue professional opportunities. We will miss her.

Jill Powell, EMPSL reference and instruction coordinator, taught three sections of Engineering 150.

Leah Solla, chemistry librarian, attended the annual meeting of the American Chemical Society in Boston where she presented "Building Digital Archives for Scientific Information." Leah is chair-elect of the Education Committee of ACS's Division of Chemical Information.

Jill Powell and **Leah Solla** participated in a library-sponsored bioinformatics workshop. Leah also participated in a workshop sponsored by the Computational Biology Service Unit of the Cornell Theory Center.

Marybeth Michelson-Thiery, E&CS Library access services assistant, attended a workshop on the care and repair of books.

Kizer Walker, digital projects librarian; **Steve Rockey**, director of the Mathematics Library; and **Jean Poland**, associate university librarian for EMPS participated in meetings of two mathematics digitization projects. Electronic Mathematical Archiving Network Initiative (EMANI) met at Cornell and the NSF funded Digital Mathematics Library planning discussions were held in Washington, D.C.

John Saylor, **Jill Powell** and **Kizer Walker** each facilitated a discussion section for first-year students on *Frankenstein* as part of Cornell's New Student Book Project.

How to Contact Us

Engineering and Computer Science Library
255-5933 Fax: 255-0278

Reserve Requests: engrcirc@cornell.edu
Reference & Photocopy Requests: engrref@cornell.edu
Suggestions for Purchase: jms1@cornell.edu
Web: <http://www.engl.lib.cornell.edu/>

Mathematics Library 255-5076 Fax: 254-5023

Reference, Reserve & Photocopy Requests:
mathlib@cornell.edu
Sun station users: library@math.cornell.edu
Suggestions for Purchase: swr1@cornell.edu
Web: <http://www.math.cornell.edu/~library/>

Physical Sciences Library 255-4016 Fax: 255-5288

Reserve & Photocopy Requests: pslcirc@cornell.edu
Reference: pslref@cornell.edu
Suggestions for Purchase: pslref@cornell.edu
Web: <http://www.library.cornell.edu/psl/>