intute

best of the web

Internet resources for

computing

intute : **science, engineering & technology**

www.intute.ac.uk/scienceandtechnology/

The best of the Web

Welcome to this guide to the best of the Web for Computing.

In these pages you will find a selection of some of the most useful websites for students, lecturers and researchers of Computer Science.

The selection is by no means exhaustive, but it should give you a flavour of the range of resources available on the Internet for education and research.

Supporting your Internet research

For those interested in exploring the wider Web, we offer free Internet search and training services for further and higher education via *Intute* – details of these can be found at the end of the guide.

Contents

Intute

This booklet is brought to you by *Intute*, a free Internet service providing you with access to the very best Web resources for education and research, evaluated and selected by a network of subject specialists.

www.intute.ac.uk

Expert advice

Intute services are developed in collaboration with staff from over seventy universities, colleges and research institutions across the UK – pooling expertise to share nationally.

Your guide for this booklet is:

intute : science, engineering & technology

– based at Heriot-Watt University and the University of Manchester.

Intute is funded by the Joint Information Systems Committee (JISC).

Contact:
www.intute.ac.uk/feedback.html

Note: Intute was formerly known as the Resource Discovery Network (RDN). Intute: Science, Engineering & Technology comprises the former RDN hubs, EEVL, PSIgate and GEsource.

A PDF copy of this booklet can be downloaded from:
www.intute.ac.uk/scienceandtechnology/support.html

Learning and teaching

Centre for Educational Technology Interoperability Standards (CETIS)
http://www.cetis.ac.uk/

CETIS represents UK higher and further education institutions on international learning technology standards initiatives. The site has details of special interest groups, a number of briefings about different standards and specifications, hosts an email list for the discussion of interoperability standards, and a number of UK HE/FE specific application profiles.

CSS Zen Garden
http://www.csszengarden.com/

This resource provides illustrative examples of how cascading style sheets (CSS) might be applied within Web pages. Offers sample HTML files, as well as CSS code files, which download directly into Dreamweaver or other Web design packages.

http://www.csszengarden.com/

European Computer Driving Licence
http://www.ecdl.co.uk/

The European Computer Driving Licence (ECDL) is an internationally recognised qualification which enables people to demonstrate their competence in computer skills. This website has information about the ECDL for individuals and organisations including an example syllabus, lists of accredited test centres, and approved courseware providers and materials.

The Higher Education Academy for Information and Computer Sciences
http://www.ics.heacademy.ac.uk/

The HE Academy promotes high quality learning and teaching in HE through the development and transfer of good practices. The HEA for Information and Computer Sciences website provides teaching materials, publications, book reviews, news, events, and links to educational resources and materials.

MERLOT Information Technology Portal
http://taste.merlot.org/portal/information_technology/

An international consortium, MERLOT is a free resource offering online learning materials, peer reviews, learning assignments, and user comments, and sample assignments. MERLOT is a free resource for faculty and students of higher education.

MIT OpenCourseWare: Electrical Engineering and Computer Science
http://ocw.mit.edu/OcwWeb/Electrical-Engineering-and-Computer-Science/index.htm

This site is part of MIT OCW, which provides free, searchable access to MIT's course materials. Individual course pages include a syllabus, lecture notes, assignments, required reading lists, exam papers, links to related resources, tools and projects as appropriate.

Netskills at the University of Newcastle
http://www.netskills.ac.uk/

Netskills, based at the University of Newcastle, is a training agency providing courses and support materials on how to make effective use of the Internet and Intranet technologies for teaching and learning, research, and administration.

Tutorials at W3C
http://www.w3.org/2002/03/tutorials

This site provides a collection of tutorials and course materials for most of the Web technologies developed by the World Wide Web Consortium (W3C).

World Lecture Hall – Computer Science
http://web.austin.utexas.edu/wlh/results.cfm?from=browse&count=1&DescriptorId=23

This site provides a list of computer science courses from various institutions, with a short description of each course. Results can be sorted by syllabus, course notes, course title, date and format (video, audio).

Reference materials

Free Online Dictionary of Computing
http://foldoc.org/

A searchable dictionary containing 13000+ definitions. Entries are cross-referenced to each other and to related resources elsewhere on the Web.

Glossary Tech
http://www.glossary-tech.com/

This is an alphabetically listed glossary of acronyms and abbreviations used in the computer industry. The complete list can be downloaded in a single file.

Sharpened Glossary
http://www.sharpened.net/glossary/

This is an online dictionary of computer terms with definitions listed alphabetically. A term of the day is highlighted, as are recently added terms. Additional information is linked to where appropriate. This includes short articles and external websites.

TechDictionary.com
http://www.techdictionary.com/

TechDictionary.com is a searchable online dictionary covering computer, Internet and telecommunications terms and acronyms. There are also lists of filename extensions, HTML tags, and domain name suffixes.

Journals and magazines

*Over one hundred full text e-journals are included in the Computing section of the **Intute: Science, Engineering and Technology** Internet Catalogue. Some require a subscription, or allow you to buy articles online. Freely available e-journals and magazines include:*

Classic Computer Magazine Archive
http://www.atarimagazines.com/

The Classic Computer Magazine Archive aims to make information from old computer magazines available on the Web. Magazines include "Antic", "STart", "Creative Computing", "Hi-Res", "Compute!" and "Compute!'s Gazette".

Data Science Journal
http://www.datasciencejournal.org/

Full-text articles from this peer-reviewed electronic journal publishing papers on the management of data and databases in science and technology can be found here in PDF format. An archive of back issues is also available, as is a list of forthcoming papers. It is published by the Committee on Data for Science and Technology (CODATA) of the International Council for Science (ICSU).

http://www.atarimagazines.com/

IBM Systems Journal
http://www.research.ibm.com/journal/sj/

A quarterly, peer-reviewed technical publication for readers who are interested in advances in software, systems, and architecture in information science and the computer industry. Book reviews and related links are included with some issues.

Journal of Digital Information (JODI)
http://jodi.tamu.edu/

JoDI is an electronic-only peer-reviewed research journal on the management, presentation and uses of information in digital environments. JoDI is supported by the Texas A&M University Libraries.

The Journal of Information, Law and Technology
http://www2.warwick.ac.uk/go/jilt

This journal is published by the Electronic Law Journals Project at the University of Warwick, and contains peer reviewed and non-refereed articles, commentaries, work in progress articles, book and IT reviews, conference reports and papers covering a range of topics relating to IT law and applications.

Research

Intute: Computing also points to freely available databases of papers and technical reports and e-print repositories.

Association for Computing Machinery Online Guide to Computing Literature
http://portal.acm.org/guide.cfm

The Guide is published by the Association for Computing Machinery and is a collection of abstracts of work and bibliographic citations to computing literature from 1985 forwards, with links from bibliographic citations to full text or source locations where known. The bibliographic database can be searched and browsed, and includes books, journals, proceedings and theses. It is a subscription service; however abstracts are available to non subscribers.

Citeseer
http://citeseer.ist.psu.edu/

CiteSeer is a scientific literature digital library and search engine that focuses primarily on the literature in computer and information science. It is currently hosted at Penn State's School of Information Sciences and Technology.

Computer Science Bibliography
http://www.informatik.uni-trier.de/~ley/db/

The DBLP server provides bibliographic information on major computer science journals and proceedings, focusing on database systems and logic programming and also other fields in computer science. The server indexes more than 725,000 articles and contains several thousand links to homepages of computer scientists.

Computing Research Repository
http://arxiv.org/corr/

The Computing Research Repository (CoRR) is sponsored by the ACM, the arXiv.org e-Print archive, NCSTRL (Networked Computer Science Technical Reference Library), and AAAI. CoRR allows researchers to search, browse and download papers through its online repository. CoRR is available to all members of the community at no charge. Subjects covered include artificial intelligence, computational complexity, security, networking, programming languages, robotics, software engineering, and many others.

CogPrints Electronic Archive: Computer Science
http://cogprints.org/view/subjects/comp.html

This is an electronic archive containing self-archived pre-refereed preprints and published papers that are pertinent to the study of computer science. Areas covered include artificial intelligence, complexity theory, human computer interaction, machine learning, neural nets, and robotics.

Machine Translation Archive
http://www.mt-archive.info/

This electronic repository (and bibliography) of articles, books, and papers in the field of machine translation and computer-based translation technology is compiled by John Hutchins of the European Association for Machine Translation on behalf of the International Association for Machine Translation. Links to personal websites of researchers and authors are also included.

New Zealand Digital Library Project: Computer Science Technical Reports
http://www.nzdl.org/fast-cgi-bin/library?a=p&p=about&c=cstr

The New Zealand Digital Library Project provides an index to several substantial full text collections. The Computer Science Technical Reports collection provides access to over 45,000 research papers culled from the archives of nearly 300 university and research institutions around the world.

Networked Computer Science Technical Reference Library
http://www.ncstrl.org/

NCSTRL provides a collection of computer science technical reports from academic departments and research laboratories. It is possible to search the collection by keywords or browse reports by institution. Most reports have abstracts and many are available full text.

E-print Network: Research Communication for Scientists and Engineers
http://www.osti.gov/eprints/

The E-print Network provides access to electronic scientific or technical documents including preprints, scholarly papers, and technical communications available from diverse sites. It is developed by the U.S. Department of Energy (DOE) Office of Scientific and Technical Information (OSTI).

Organisations and societies

*Many computing societies and institutions are included in the Computing section of the **Intute: Science, Engineering and Technology** Internet Catalogue. The following is a selection of a few of the largest associations.*

British Computer Society
http://www.bcs.org/

This site gives information about the society and its activities in the field of computers and information systems. Publications and events are listed and there is information on professional development, exams, and courses offered by the society. Links to specialist groups are given along with industry and society news, and careers information.

Institution of Engineering and Technology
http://www.theiet.org/

IET aims to serve the global community engaged in engineering and technology, providing knowledge networks and professional forums, publications, reports, and details of events and training on their website.

National Computing Centre
http://www.ncc.co.uk/

NCC is an IT membership organisation serving corporate, vendor and government communities. The website provides its members with details of best practice and technical guidelines, details of standards and special reports.

IET Engineering Communities: Computing and Control
http://www.iee.org/oncomms/sector/computing/

Computing and Control is part of the IET Engineering Communities which aims to bring engineering and IT professionals together to discuss issues. They are open to non-members as well as members of the IET. The site includes news headlines as well as full text papers in PDF format. There is an online library and a discussion forum. Details of events and a careers service are provided.

British Standards Institution
http://www.bsi-global.com/

The site has information about the work of the BSI including standards information, third party certification, certification of management systems, best practice, and product quality assurance.

UK Computing Research Committee
http://www.ukcrc.org.uk/

UKCRC is an expert panel of the Institution of Engineering and Technology and the British Computer Society for computing research in the UK. The website provides reports, a list of members, information about ongoing initiatives, an events listing, and links to executive committee reports, white papers, and consultation responses are also available.

Association for Computing Machinery
http://www.acm.org/

ACM is an educational and scientific computing society. Their website provides information about its extensive activities, publications, and services in the field of information technology. Links are given to special interest groups, details of educational initiatives, and events and conferences.

American Association for Artificial Intelligence
http://www.aaai.org/

AAAI is a non-profit scientific society which aims to increase public understanding of artificial intelligence (AI), improve the teaching and training of AI practitioners. Details of publications and forthcoming symposia and workshops are available on the site.

Computing Research Association
http://www.cra.org/

CRA is an association of more than 200 North American academic departments of computer science, computer engineering, and related fields; laboratories and centres in industry, government, and academia engaging in basic computing research; and affiliated professional societies. Their website includes information about events, jobs, projects, and publications. The site also contains a government affairs section with advocacy and policy analysis for the computing research community, surveys, a newsletter, a computing research policy blog, and links to related sites.

IEEE Computer Society
http://www.computer.org/

IEEE Computer Society is an organization of computer professionals. Their website provides details of publications, conferences and events, career development and education and community forums.

IEEE Communications Society
http://www.comsoc.org/

This is a society of industry professionals with a common interest in all communications technologies. The site holds information about their publications, conferences, and educational programs.

International Neural Network Society
http://www.inns.org/

INNS is an organization for individuals interested in a theoretical and computational understanding of the brain and applying that knowledge to develop new and more effective forms of machine intelligence. The site includes announcements of international meetings and conferences on neural networks and links to the websites of the INNS Special Interest Groups (SIGs). A membership directory is also provided.

World Wide Web Consortium
http://www.w3.org/

W3C is an international consortium which develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential. W3C is divided into activities. Each technology belongs to an activity, and each activity has a homepage with links to related specifications, tutorials, technical reports, recommendations, mailing lists, and news.

Programming and software

Ada World
http://www.adaworld.com/

Background information, tutorials, free books, and code snippets are available from this Ada programming language-related website.

Freshmeat
http://freshmeat.net/

Freshmeat maintains the Web's largest index of Unix and cross-platform software. Descriptions, download links and product release information for thousands of software applications are given.

FSF/UNESCO Free Software Directory
http://directory.fsf.org/

This is a directory of free software that runs under free operating systems, particularly the GNU operating system and its GNU/Linux variants. Licenses are verified for every program listed in this directory.

Java.sun.com
http://java.sun.com/

A Sun Microsystems, Inc. site containing articles, code samples, tutorials, courses, and technical information covering all aspects of Java products and technologies including downloads, FAQs, releases notes, and specifications.

Linux Online
http://www.linux.org/

This site has news items, general information, and details of upcoming events information. There are also FAQs, How-Tos, and free Linux courses.

PHP: Hypertext Preprocessor
http://uk.php.net/

This website provides downloads of the latest versions of PHP and offers access to manuals, FAQs, mailing lists, user groups, and links to related sites containing further information and example PHP scripts.

SourceForge.net
http://www.sourceforge.net

SourceForge.net is owned by OSTG, Inc (Open Source Technology Group) and provides free hosting to Open Source software development projects. The site offers news, articles, downloadable resources such as software applications and development tools, community forums, and detailed information on all the projects listed.

JISC National Mirror Service
http://www.mirror.ac.uk/

This service provides the UK academic community with high-speed, highly available mirrors of free software resources that originate on remote sites from around the world. Mirrors can be browsed by subject category or platform and keyword searching is available.

XML.com
http://www.xml.com/

XML.com, produced by O'Reilly & Associates, Inc, is a resource for XML and XSLT developers. The site includes general information, articles, tutorials, news, weblogs, standard documentation, and an annotated XML specification.

Other interesting sites

Charles Babbage Institute
http://www.cbi.umn.edu/

The Charles Babbage Institute (CBI) is a research centre at the University of Minnesota, USA. It specialises in the study and preservation of the history of information technology and processing. The site includes details of archive collections, and links to organisations and publications related to the history of computing. A CBI newsletter is provided. There are some online exhibits with articles and illustrations.

Computer History Museum
http://www.computerhistory.org/

A history museum dedicated to the preservation and celebration of computing. The website focuses exclusively on the history of computing, featuring online exhibits and articles covering over fifty years of computing history.

The History of Computing Project
http://www.thocp.net/

This site offers a detailed timeline on the history of computers. Sections include biographies of computing pioneers, and links to further information about the hardware, software, and companies that are mentioned in the timeline. There is also a glossary, articles, and links to other websites. The project is run by the History of Computing Foundation – a non-profit organisation dedicated to the history of computing.

HCI Bibliography
http://hcibib.org/

This is an online bibliographic database on Human-Computer Interaction (HCI) with links to recommended reading lists, developer resources, news, and details of conferences and workshops. There are also links to sites and documents about the history of HCI.

Museum of HP Calculators
http://www.hpmuseum.org/

The Museum of HP Calculators displays and describes Hewlett-Packard calculators introduced from 1968 to 1986, as well as calculating machines and slide rules. It features descriptions, photos, sections for buying and selling HP calculators, an HP timeline, collecting information and a software library.

SustainIT
http://www.sustainit.org/

Provided here is information about the research, projects, services, and activities of this initiative of the charity UK CEED (UK Centre for Economic and Environmental Development) in information and communication technologies (ICTs) and sustainable development. Resources include publications, news articles, case studies, policy advice and guidelines, and online tools.

TechDis
http://www.techdis.ac.uk/

Publications, a database of information and products available to assist disabled students and staff, articles, and guides are provided here by this educational advisory service in the fields of accessibility and inclusion. News, details of workshops and other events, and downloads are also provided. TechDis is a JISC-funded service (Joint Information Systems Committee).

Technical Advisory Service for Images
http://www.tasi.ac.uk/

The Technical Advisory Service for Images is a JISC funded service set up to provide advice and guidance to the UK's Further and Higher Education community on using digital images and managing digitisation projects. The site offers advisory documents on digital imaging issues, organised by category, a list of related books, papers and journals, a review of image search engines, FAQs, a glossary, and links to commercial companies and other organisations.

http://www.turingarchive.org/

Turing Digital Archive
http://www.turingarchive.org/

This searchable archive contains digital scans of Alan Turing's documents held in the archive in Kings College Cambridge, containing mainly unpublished personal papers and photographs of Alan Turing from 1923–1972.

WWW Virtual Library: Computing and Computer Science
http://vlib.org/Computing

A long-established index to numerous computing resources, including university departments, associations, publications, and research groups.

Discover the best of the Web using Intute

The Internet can be a powerful tool for learning, teaching and research, offering a huge range of resources and services. However, finding relevant information online can be a daunting task, and issues of trust, quality and poor search skills are very real and significant concerns – particularly in education and research contexts.

Intute exists to help students, teachers, researchers and librarians make sense of the Web by providing access to the very best Internet resources for education and research, selected and evaluated by a network of subject specialists.

intute : science, engineering & technology

- The **Internet catalogue** provides access to thousands of high-quality Internet resources, selected and described by subject specialists, and covers all key areas of computing.

- The **Virtual Training Suite** offers free Internet training with a set of "teach-yourself" online tutorials, designed to help students develop their Internet research skills.

- Free **support materials** for universities and colleges, such as flyers, posters, leaflets and presentations as well as a range of "best of the Web" subject booklets.

- **Recommended subject services** – such as **The World Guide** comprising guides to over 270 countries, interactive maps, thousands of satellite images, etc.; **Ejournal Search Engine (EESE)** with access to over 250 freely available full-text ejournals in engineering, mathematics and computing; the **Spotlight Magazine** providing a growing database of unique articles on current topics in science; and thematic **Timelines** containing dozens of key events which have shaped the world as we know it, together with suggested *Intute* searches for further research.

Getting involved with Intute

- Sign up for a personal **MyIntute** account, which provides weekly email updates of recently reviewed websites and allows you to save resources of interest.

- **Working with Intute**. Join our community of users of online resources by suggesting sites for the database or embedding *Intute* services in your own websites and Virtual Learning Environments using our sophisticated **MyIntute Include** services.

www.intute.ac.uk

Contact: www.intute.ac.uk/feedback.html