
Searching Patent and Patent Related Information on Internet

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Abstract

The paper gives a brief account of worldwide patent and patent related information available through internet. It enlists the important web resources of various international/national bodies, commercial vendors and others providing either information/literature on the subject or patent document search itself. Each entry indicates its web addresses along with a brief description of site and type of information/literature hosted on it. It also highlights the importance of patent literature for R&D work and lists a number of key features of a patent document which makes it a unique source of information

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0. Introduction

21st century is marked with the fast changing information technology competitive world. In any industry, Research and Development activities are high priority areas and information is playing a vital role by providing the base for any R&D activity. In this context patent information is a vital source of information for any R&D work. Patents reveal solutions to technical problems. More than 80 percent of all technical knowledge is described in patents. To have a better understanding of this highly valuable source of information let us first understand what exactly a patent is. A patent is defined as a grant by the sovereign or state to an inventor or to his/ her assignee giving exclusive rights to make use, exercise and vend an invention for a limited period in exchange for disclosing it in a patent specification. The disclosure should be such that a person trained in the art (i.e. in that field or discipline /subject) should be able to reproduce the invention. When the patent is granted, the owner gets the right to exclude others from using the invention. In more simplified terms "a patent is a declaration from a government that an invention or process is new or innovative enough to be granted the exclusive right to manufacture or otherwise use the invention for a set period of time".

1. Significance of Patent Literature

To highlight the fact, that for any researcher, patent literature is a primary source of information, some salient features of this source of information are described below which make patent a unique source of information.

- ✍ A large percentage of technology disclosed in patents is never published in any other document.
- ✍ Patents contain complete details of the invention, including its method of working.
- ✍ Patents are easily accessible through use of International Patent Classification.
- ✍ Patents form one of the earliest publications of patented invention.
- ✍ Patent documentation forms a single storehouse of technological information, covering widest range of technical fields irrespective of level of sophistication of technology.
- ✍ Patents are presented in a standardized format. Once familiarity is gained, access to relevant information is easy.
- ✍ Provide state of the art on a specific micro field/subject/technology
- ✍ Indicator of advancement and direction of R&D in a specific subject field/technology

2. Importance of Patent Literature Searching

In recent years, there is a growing awareness about the importance of patent literature and patent literature searching has gained very high momentum due to the fact that

- ✍ R & D sector is facing a very tough competition on global basis. To survive in such a competitive world, the companies/organizations are required to spend a good amount of money on their R&D projects. As R&D itself is a very cost intensive, investor will certainly expect high returns also for his/her growth and survival. Patent searching on global basis becomes the first and foremost step while taking up any new R&D project to ascertain that the same product or process is not patented elsewhere. This saves considerable efforts, money and time in today's competitive world.
- ✍ Secondly, researcher/company/organization must get their invention/innovation patented in their names other wise someone else may take the benefits of their research findings by getting it patented in their names. Since the patent is granted only for novice, non-obvious and useful inventions, one cannot lose in investment just because of the ignorance or unawareness. One has to be up-to-date about what is the R&D status in a particular area.
- ✍ Patenting a process or product is also necessary, if one wants to use his/her invention research breakthroughs for future commercial exploitation and gain achievable profits out of it. Further applying for a patent also involves some expenditure which will go waste if one is denied grant of the patent by patent examiner/patent granting authorities if the patent on the same process/ product is already filed.

3. Patent and Related Information Resources on Internet

Thanks to internet technology, now days it is not a difficult job to search worldwide patent databases sitting at the internet terminal and get the desired information quickly.

Listed below are some of the important websites on patents and related issues. One can visit the appropriate site as per his/her information requirements.

3.1 World Trade organization (WTO) (<http://www.wto.org>)

This is the official site of the World Trade Organisation, which lists all important announcements/happenings in WTO, hosts awareness material on GATT and WTO and related topics. Site also provides access to statistics database and full text of publications like WTO Annual Report (published in the first half of each year), Dispute Settlement, Discussion papers etc. In addition to several subjects, it has a specific section on Intellectual Property Rights, where several relevant official documents on TRIPs agreement are also available. [<http://www.wto.org/wto/intellect/intellect.html>].

3.2 World Intellectual Property Organisation (WIPO). (<http://www.wipo.int>)

This is an international body taking care of all forms of IPR documents and IPR related issues. Presently 181 countries are members of this international organization. Site gives detailed information regarding member states, budget, various treaties, conventions etc. The database of International Patent Applications contains all published PCT applications in all disciplines starting from 1978. Complete bibliographic, administrative and legal information, during international phase is provided. Patent drawings are also available. Approximately 600,000 images are available.

3.3 Patent Cooperation Treaty (PCT) Database (<http://www.wipo.int/pct/en>)

The database covers full-text of PCT (Patent Cooperation Treaty) published applications issued under the World Intellectual Property Organisation (WIPO). At present 181 member states participate in the PCT system. One PCT application may be valid in any of all 181 Designated States. India is also a member of this system. Database contains the first page data which includes bibliographic information, titles and abstracts (searchable in English or French), descriptions (specifications), claims (the majority of which are in English, but some may be in French, German or Spanish) and drawings of published PCT applications. The first page data of applications published each week in section I of the Gazette is added weekly to the database. The database currently contains data relating to applications published from January 1, 1997.

3.4 Intellectual Property Digital Library (IDPL) (<http://www.wipo.int/ipdl/en/>)

The Intellectual Property Digital Library (IPDL) web site provides access to various intellectual property data collections hosted by the World Intellectual Property Organisation (WIPO). These collections include PCT (Patents), Madrid (Trademarks), Hague (Industrial Designs), Article 6ter (State Emblems, Official Hallmarks, Emblems of Intergovernmental Organisations) and access to some other data collections like Health Heritage (Traditional Knowledge Test Database), JOPAL (Journal of Patent Associated Literature) also.

3.5 PCT Electronic Gazette (<http://www.wipo.int/pct/en/gazette/index.jsp>)

The PCT Electronic Gazette contains data relating to PCT international applications published as PCT pamphlets from January 1997, and where applicable, republished from April 1998. Bibliographic data, abstracts, drawings and images of PCT pamphlets are provided for all published and republished international application in the collection. For international applications published and/or republished since April 1998, the searchable text of claims and descriptions is also provided.

The bibliographic data, abstracts, drawing and images of the international applications published and republished each week are available from the collection on the international publication data. The searchable text of claims and descriptions of published international applications is available from the collection as soon as possible after international publication (generally 2 to 3 days after the publication of data.).

3.6 Madrid System for the International Registration of Marks (Madrid Express Database) (<http://www.wipo.int/madrid/en/>)

This system gives a trademark owner the possibility to have his/ her mark protected in several countries by simply filing one application with a single office, in one language, with one set of fees in one currency (Swiss francs). The Madrid System for the International Registration of Marks is applicable among the countries party to the Madrid Agreement. The Madrid Express database includes all international registrations that are currently in force or have expired within the past six months.

3.7 Hague System for the International Registration of Industrial Designs (Hague Express Database) (<http://wipo.int/hague/en/>)

The Hague System for the International Registration of Industrial Designs is applicable among the countries party to the Hague Agreement. This system gives the owner of an industrial design the possibility to have his/ her design protected in several countries by simply filing one application with the International

Bureau of WIPO, in one language, with one set of fees in one currency (Swiss francs). The Hague Express Database includes bibliographical data and, as far as international deposits governed exclusively or partly by the 1960 Act of the Hague Agreement are concerned, reproductions of industrial designs relating to international deposits that have been recorded in the International Register and published in the International Designs Bulletin as of issue no. 1/1999.

3.8 Article 6ter of the Paris Convention (<http://www.wipo.int/article6ter/en>)

Article 6ter of the Paris Convention for the Protection of Industrial Property (Paris Convention) is applicable to the States party to the Paris Convention as well as to all the Members of the World Trade Organisation (WTO), whether or not party to the said Convention through the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement).

The purpose of Article 6ter is to protect armorial bearings, flags, other State emblems, abbreviations and names of international intergovernmental organizations and of those States and Members identified above.

3.9 JOPAL (Journal of Patent Associated Literature) (<http://www.wipo.int/scit/en/jopal/jopal.htm>)

This database contains bibliographic details of articles published in leading scientific and technical periodicals from 1981 to May 2003.

3.10 Health Heritage (Traditional Knowledge Test Database) (<http://www.wipo.int/ipdl/en/search/tkdl/search-struct.jsp>)

This compilation provides a test database of public domain traditional knowledge, which is made available on the WIPO web site at the request of the Indian Government. The test database is based on the "Health Heritage CD-ROM", which was compiled by the Council of Scientific Research (CSIR) of India. It contains documentation data of codified traditional knowledge, all of which is already in the public domain. It may be used as a trial product to test the perceived potential of traditional knowledge databases for improving the availability of disclosed traditional knowledge as searchable prior art. All the documentation data in the database were collected and compiled by the Indian CSIR and were provided to WIPO with a request to make the data available online.

3.11 US Patent and Trademark Office (USPTO) : Published Applications (<http://www.uspto.gov/appft/index.html>)

It is a Published Applications Database, which is covering U.S. applications published by the USPTO since March 2001. Coverage includes: (1) A1, publication of the patent application; (2) A2, second publication of the patent application; (3) A9, corrected patent application; (4) P1, publication of plant patent application

3.12 US Patent and Trademark Office (USPTO) : Issued Patents (<http://www.uspto.gov/patft/index.html>)

The USPTO Full-Text Database provides access to the full-text and full-page images of patents published by the USPTO since 1976. Database covers U.S. Utility Patents, Reissue Patents, Defensive Publications, Statutory Invention Registrations, Design and Plant Patents.

3.13 European Patent Office (EPO)

(<http://www.european-patent-office.org/espacenet/info/access.htm>)

The EPO grants European patents for the contracting states to the European Patent Convention (EPC). EPO provides access to European published applications and granted patents full-text. It gives full-text coverage of published applications from 1987, complete bibliographic information from 1978 to the present, and full-text and bibliographic information coverage of granted patents from 1991.

3.14 epoline (<http://www.epoline.org>)

epoline is the name given to the range of electronic products and services produced by the European Patent Office (EPO) for the intellectual property community. epoline provides secure and integrated means of electronic communication between patent applicants, their representatives, the EPO and the patent offices of the EPO's member states. It also provides for online filing, fee payment, file inspection and Register enquires etc.

3.15 espacenet Network: Europe's Network of Patent Databases

(<http://gb.espacenet.com/espacenet/gb/en>)

esp@net is a free service on the internet provided by the European Patent Organisation through the EPO and the national offices of its members states. It enable users to search for published patent applications in their original language from Great Britain, other European countries, the European Patent Office and WIPO(PCT). Network also provides access to published patent applications with an English abstract and title from worldwide-30 million documents and Japan.

3.16 EPIDOC-INPADOC Databases (<http://www.european-patent-office.org/inpadoc/general.htm>)

Ten different services (databases) are produced by EPO covering various facets of patent literature. Out of various services produced by EPO, Patent Family Service (PFS) and Patent Register Service (PRS), are the largest patent databases in the world in terms of both the countries and time-span covered. PFS deals with all patent documents applied in 65 patent offices worldwide, and the PRS deals with the legal status of patents (are they in force or not) in 22 patent offices. Respectively approximately 25,000 and 40,000 documents are added to the PFS and PRS databases each week. Various INPADOC databases listed below also indicate the type of treatment they give to subject.

3.17 EPIDOS-INPADOC Patent Family and Numerical List (PFS/INL)

A database which brings together patent publications with similar claims from a wide range of countries. The publications are sorted into "families, so that the user can find out in what countries a patent for a given invention has been applied of or granted. This makes it easier for companies to monitor the import and export strategies of their competitors and to determine the countries in which the invention is not protected and can therefore be freely used.

3.18 EPIDOS-INPADOC Patent Register Service (PRS)

The PRS is legal status database, which shows whether a particular patent is still valid or has expired. This facilitates the exploitation of inventions which are no longer protected and ensures that user do not pay unnecessary license fees for lapsed patents. All legal status changes, before and after grant, are listed.

3.19 EPIDOS-INPADOC Numerical Database (NDB)

This service is used to find the number of patents documents in a list arranged by date. The bibliographic data relating to each stage of publication can be reviewed at a glance.

3.20 EPIDOS-INPADOC Patent Classification Service (PCS)

The International Patent Classification (IPC) comprises around 60,000 technical subdivisions. The PCS lists patent documents according to their IPC classification, so that information about the state of the art in a specific area of technology is readily obtainable at any time.

3.21 EPIDOS-INPADOC Patent Application Service (PAS)

This enables users to find out about the activities of a specific applicant and thereby keep track of trends in research and development and see how the market is moving.

3.22 EPIDOS-INPADOC Patent Applicant Priorities (PAP)

A service listing patent documents by priority date under the name of each applicant, enabling users to monitor development in patent families.

3.23 EPIDOS-INPADOC Patent Inventor Service (PIS)

This service lists patents by the name of the inventor, whose research activities can thus be monitored. It offers an easy way of collecting specialist technical literature by a particular author.

3.24 EPIDOS-INPADOC Patent Gazette (IPG)

This is an international gazette enabling users to monitor the patent publications of over 50 countries and organization. Documents are listed by patent number, applicant and inventor. Published on a weekly basis, the IPG contains details of all the documents processed in the previous seven days.

3.25 EPIDOS-INPADOC Watch

Through the WATCH system users can monitor the updates to the EPIDOS-INPADOC database and PRS- carried out once a week. Lists showing changes in patent families and legal status are dispatched to clients automatically.

3.26 EPIDOS-INPADOC CAPRI system

This database contains over 14.4 million patent documents reclassified according to the IPC, together with 4.4 million documents from Japan and 625,000 from the former Soviet Union. The collection extends to 1920 and beyond.

3.27 The UK Patent Office (<http://www.patent.gov.uk/>)

The office is responsible for intellectual property (Copyright, Designs, Patents and Trade Marks) in the UK. Site also provides information on other IPR related issues.

3.28 Japan Patent Office (JPO) (http://www.jpo.go.jp/torikumi_e/head.htm)

Provides access to Patent Abstract of Japan (JAPIO). Also gives information & other news regarding patents.

3.29 Thomson Derwent- Derwent World Patents Index(DWPI)
(<http://thomsonderwent.com/products/patentresearch/dwpi>)

Derwent World Patents Index is the most comprehensive database of patent documents published in the world. The database currently contains 13 million patent records.

3.30 Thomson Derwent- Derwent World Patents Index First View (DWPIFirstView)
(<http://thomsonderwent.com/products/patentresearch/dwpifv/>)

This is a new, fast-alerting companion file to Derwent World Patents Index(DWPI). DWPI First View contains previews of the latest published documents in advance of their inclusion in DWPI. This file contains bibliographic data for all new patent documents, along with original titles, abstracts, technical drawing images, and English-language abstracts for patents from China, Japan, Korea, Taiwan and Russia.

3.31 Delphion Database (<http://www2.delphion.com>)

Provides access to world's top patent collections, like the USPTO, EPO, WIPO PCT and INPADOC. Search results may be downloaded using a variety of services(options) given.

3.32 Questel.Orbit (<http://questel.orbit.com>)

This service lets you conduct highly sophisticated searches on the most extensive collection of patent databases, each from the world's major patenting authorities and information providers. This is a fee based commercial service. Questel-orbit also offer a offline patent search known as Questel PATService.

3.33 National Informatics Centre(NIC), New Delhi (<http://patinfo.nic.in/new2.html>)

Intellectual Property & Know How Informatics (patent) Division of National Informatics Centre, Department of Information Technology, CGO Complex New Delhi, India provides patent search service through a number of international patent databases.

3.34 Patent Information System(PIS) Nagpur (<http://www.patentoffice.nic.in/ipr/pis/pis.htm>)

Government of India, Ministry of Commerce and Industry, Department of Industrial Policy established Patent Information system [PIS] at Nagpur in the year 1980 in order to obtain and maintain a comprehensive collection of patent and patent related information on world wide basis and provide access to this collection through services. Full text of Patent Documentation available at PIS includes patents from almost all major patenting authorities.

3.35 Indian Patent Searchable Database: Patent Facilitating Centre
(<http://www.indianpatents.org.in/db/db.htm>)

Patent Facilitating Centre (PFC) of Technology Information, Forecasting And Assessment Council (TIFAC), in addition to its CD version, is now providing access to Indian Patent Database on internet also.

To sum up, patent is an excellent source of primary information for researchers but is still an under utilized source which needs to be appreciated more. Above listing of web sites is not an exhaustive one, this is only a small portion of enormous wealth of information available on net on the topic. There are many more web sites providing information on the subject. To start with, one can visit any appropriate site listed above and can go in deep to explore further useful links or new links be explored as per one's information needs.

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