

GUJARAT TECHNOLOGICAL UNIVERSITY

Module 2: Patent Search Methodology

From Research to Revenue



Gujarat Technological University

Nr. Vishwakarma Government Engineering College

Nr. Visat Three Roads, Visat - Gandhinagar Highway

Chandkheda, Ahmedabad – 382424 - Gujarat

Phone: 079-23267500 Fax : 079-2630 1500

Email : info@gtu.ac.in, registrar@gtu.ac.in

Web : <http://www.gtu.ac.in>

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This content was prepared and copyrighted by **Dr. Manish A. Rachchh**, Associate Professor of GTU, Ahmedabad. He tries to acknowledge the references wherever possible. If some portion is not acknowledged then kindly consider that this is going to be used for “Fair Use” purpose only. Further, this material can be used by readers for “Fair Use” purpose only and should not be used for commercial purpose directly or indirectly. The author also duly acknowledges the support received from **Honb. Vice Chancellor Dr. Akshai Aggarwal Sir** and **Mr. Hiranmay Mahanta** in drafting this Module-2. For any clarification, suggestion or further assistance on content part, you can contact author on manish.rachchh@gtu.edu.in or contact on 9909961894.

Module-2-Patent Search Methodology

1. Overview & Importance of Patent Search
 2. Need of patent search
 3. Types of Patent Search
 4. Use of Patent Search
 5. Structure of Patent
 6. Tools for patent search
 7. Demonstration of different patent search tools
(Esp@cenet and IPO-database)
-

1. OVERVIEW & IMPORTANCE OF PATENT SEARCH

“Search” means to find out all relevant information related to invention and which is already existed before the date of invention. Major source of this information would be patent documents. Because study states that 75% information, which is available as patent documents, are never published elsewhere. Search of relevant information only in technical journals and non-technical literatures (by using www.sciencedirect.com or www.google.com as search engine respectively) will give us only 25% hits, which is regarded as “**Literature Search**”. Therefore, more refined and in-depth search of patent literature is needed, which is regarded as “**Patent Search**”.

Patent search in most systems of patent law constitutes all information that has been made available to the public in any form before a given date that might be relevant to a patent’s claims of originality. If an invention has been described in patent search, a patent on that invention is not valid.

Patent search is the process by which prior inventions or ideas are examined, with the goal being to find information that bears close similarity to a given patent or proposed invention.

The documents searched during a patent search may include granted Indian, U.S. and foreign patents, published patent applications, and non-patent literature, such as the Web, product literature, and scientific journals and databases.

Patent search may include:

- Previous patents

- Trade journal articles
- Publications (including data books and catalogs)
- Public discussions (conference and seminar)
- Trade shows
- Brochures
- Products, devices & equipments

Patent searches are generally performed to discover whether or not a particular invention is truly original or if, in fact, it has already been patented. The reasons for performing a patent search are many. The most obvious is to determine whether or not you can get a patent or if your invention has already been patented. Other reasons include:

- Understand competition
- Avoid patent infringement
- Write your patent application
- Learn more about your field of invention
- Save the cost of patenting process
- Getting a general idea of how an application and patent is structured to help in the preparation or your own application
- Learning more about a new field
- For market information
- Competitor tracking
- Technology tracking

2. NEED OF PATENT SEARCH

There are many possible reasons for need of a patent search. Some examples are:

- An inventor would like to make sure his invention is unique before he spends time and money to obtain a patent (this would be a Novelty search).
- A patent examiner at Patent Office carries out Patent search to check the relevant prior art, if any existed, and cite them on his First Examination Report (FER) to be sent to the applicant. Depending on the similarity between the prior-art cited and accused application, the Controller may reject the patent application for further proceedings or allow it with some amendments. (this would be Novelty Search)
- A company would like to produce a product, and although they do not wish to patent the product themselves, they want to make sure that they do not get sued by someone else that might have already patented the idea (this would be an Infringement search).
- Company A is making a product, and is being sued by Company B, which believes it holds a patent on the product, and Company A would like to prove that Company B's patent is invalid (this would be a Validity search).
- A researcher would like a comprehensive listing of the most recent patents in a certain field, to help guide his research (this would be a State-of-the-Art search).

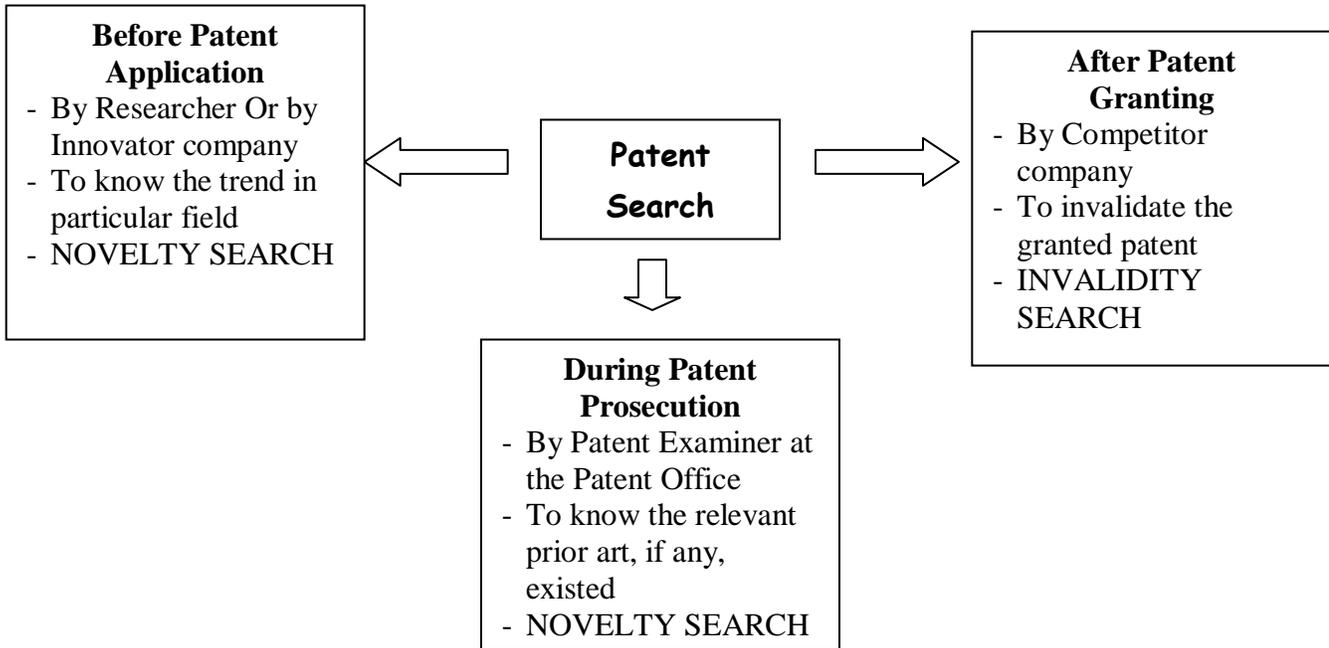


Fig: 1- Stages of Patent when Patent Search required

3. TYPES OF PATENT SEARCH

There are many different types of patent searches, including Novelty searches (also called Patentability searches), Infringement searches (also called Clearance, Freedom to Operate, or Right To Use searches), Validity searches (also called Invalidity, or Enforcement Readiness searches), and State of the Art searches (also called Collection searches). Each type of search has a different purpose, and demands a different search strategy.

- Novelty Search/ Patentability Search
- Validity Search
- Infringement Search
- Clearance Search
- State-of-the-art search
- Patent Landscape Search

1. Novelty Searches/ Patentability Search

The Novelty search, also referred to as a **Patentability search**, is the most common type of patent search. Novelty searches are conducted when an inventor has an invention which he is interested in patenting, and wishes to determine if anyone has previously invented anything similar or identical.

This search is to determine whether the subject, in concern, can be patentable, whether it is valid, whether it is original, and whether it is self-explanatory. Therefore, it is advisable that the patentability search should be conducted before the development of the invention.

The purpose of this search is to determine whether a prior patent (or prior technology) exists. The inventor can search useful prior data in preparing for patent application. The search of invention ideas or prior technology in relation to patents already applied can enable the application decision after confirming the possibility of acquiring the rights, and is the most fundamental utilization method to widen and strengthen rights acquisition by enabling the adjustment of the claim.

Novelty searches generally have no date constraints on the patent search. In other words, if you find prior art that reads on the invention, it does not matter whether the prior art is from yesterday or 100 years ago – it is relevant. The reason for this lack of date constraints has to do with patent law: Anything that has already been disclosed to the public, in any manner, at any time, cannot be patented.

What to be searched in a Patentability Search?

- Full text specification and claims of granted patents and published patents from all major patent offices of the world (World wide database)

- Technical publications (like journals) and non-technical publications (like product brochures)

2. Validity Searches

The idea behind a validity search is that the Patent Office may have issued the patent (or allowed specific claims contained in the patent) in error. Examiners are pretty good at what they do, but they are not infallible and they are often operating under severe time constraints. They may have missed a relevant piece of prior art, and this resulted in them granting a patent with claims that never should have been allowed.

The situation with a Validity search is often that a company has made a product that infringes upon another company's patent, and they are being sued as a result. One way to win an Infringement case is to invalidate the patent in question. If a patent search can locate prior art that reads on the claims of the patent in question, those claims will be struck from the patent. The patent owner then loses his legal right to sue over products that would infringe on those claims.

Whereas a written description of the invention forms the basis of a novelty search, validity searches are done on existing patents, and that patent will serve as the disclosure.

What to be searched in a Validity Search?

- Search is mainly focused on the claims of granted patents and published patents from all major patent offices of the world (World wide database)
- Technical publications (like journals) and non-technical publications (like product brochures)
- All these prior art search should be carried out for documents having priority earlier to that of the date of filing (or date of priority, whichever is earlier) of patent in question. In short, any thing published before the date of filing of patent in question.

3. Infringement Searches

It is used to determine whether an enforceable patent claims the same subject matter as your concept or unpatented invention. Accordingly, the document set for these searches consists of only unexpired patents only.

Patent Infringement search is needed prior to making, using or selling a product or service in the market, when you might suspect the evidence of patented technology. Some time it is also conducted prior to drafting claims in your own patent applications.

What to be searched in an Infringement Search?

- Normally only searching of patents is required. Non-patent literature is normally not necessary, since the issue is whether or not the client would infringe an enforceable patent claims.
- Here patent search is further limited by searching it in the database of particular country, wherein the case of infringement is happened or will going to be happened. The reason is that patent having “territorial rights”, so patent enforced in one county will not protect your right in another country.
- Only in-force patents are of concern, so we have to limit Patent search by selecting date range of the last 20 years.
- Careful reading of the Claims of each relevant patent is very essential. Remember, it is the Claims, not the descriptions found elsewhere in a patent, which determine what it would take to infringe that patent.

4. Clearance Search

It is also called “Right-to-Use Searches” or “Freedom-to-Operate Searches”. Clearance searches are used to determine whether a party has “clearance” to make, use and sell an inventive concept. Clearance is established when a patent has not been infringed or has otherwise expired.

It is needed prior to bringing a product to market. It encompasses all features of an “Infringement Search” as well as broader than Infringement search. Because in case of Infringement search, search is limited to particular country while in case of Clearance search, search is carried out for relevant patents enforce around the world (using world wide database). It also helps to decide whether the inventive concept can be used all over the world without any allegations of infringement or there is need for licensing.

What to be searched in a Clearance Search?

- It is considered to be combination of Patentability Search + Infringement search
- Full text specification and claims of granted patents and published patents from all major patent offices of the world (World wide database), with special emphasis on enforceable patent claims.
- Search of Expired patents, technical publications (like journals) and non-technical publications (like product brochures) are also to be carried out to learn what exist in public domain and, therefore, is free to use.

5.State-of-the-art searches

The term “State-of-the-Art Search” often means different things to different people. Therefore, if you are a professional patent searcher it is crucial to understand what the client is asking for before beginning this type of search (as it is with any search, but perhaps more so here).

Generally, a State-of-the-Art Search is designed to quickly allow scientists and product development teams to determine the direction of research activities in a given field. Business development teams conduct them prior to the marketing of a technology or to assist them with licensing. Some companies conduct them to reassess the importance of their patent portfolio and technical contributions to a joint venture. Sometimes these kinds of searches indicate the opportunity for strategic business acquisitions (ie. Merger & Acquisitions).

What to be searched in a State-of-the-art Search?

- Full text specification and claims of granted patents and published patents from all major patent offices of the world (World wide database)
- Technical publications (like journals) and non-technical publications (like product brochures)
- Search is carried out for whole technical field or a part of technical field according to the requirement of person concerned
- It is not limited to unexpired patent like in case of Infringement search
- It is not limited to one inventive concept like in case of Patentability search.

If this kind of search is carried out for longer period of time, then it is regarded as “Collection Search” instead of “Current State of the art”

6. Patent Landscape Search

It is a one type of state-of-the-art search. It involves deeper analysis of patent and non-patent references after completion of the state of the art search. The study often results in the categorization of patents into fundamental discoveries versus incremental improvements, a visual display of patenting over time periods, the history of a technology’s development, and even analyses of inventor collaborations. The patent landscape study may further identify key innovator groups over defined periods of time.

Patent landscape is often conducted to determine whether to enter a specific research area. A landscape can significantly improve your ability to make business decisions by providing an overview of patent activity in specific technology areas. Using aspects of competitive

intelligence, a landscape study is something that could anticipate any product liability issues in the future.

The patent landscape study helps:

- To monitor markets of interest
- To identify gaps in and improve your research and development
- To determine which of your prospective patents will have significant commercial value
- To confirm which inventions are now in the public domain
- To give better understanding of current competitors and identity future ones.

What to be searched in a Patent Landscape Search?

- It involves all features of State-of-the-art search
- It involves the different types of analysis on data generated by State-of-the-art search
- In short, it is nothing but the analysis of large data set, both patent and non-patent documents, generated by State-of-the-art search.

4. USE OF PATENT SEARCH

The result of Patent Search can be utilized for different purposes. Some of them are listed as under:

- Gain competitive intelligence; by innovator company
- Monitor industry trends; by innovator company
- Uncover new markets and market opportunities; by innovator company
- Identify licensing opportunities; by patent holder company
- Make, build or buy decisions; by third company
- Find solutions to technological problems; by
- Research merger or acquisition candidates; by
- Explore investment opportunities; by capital venture company
- Discover top inventors for recruiting purposes; by innovator company
- Protect your current intellectual assets; by patent holder company

5. STRUCTURE OF PATENT

Structure of Patent Application

Any Patent Application filed in Indian Patent office should possess following structure:

- Title of invention
- Name of applicant(s), nationality and address
- Name of inventor(s), nationality and address
- Preamble of application
- Field of invention
- Background of Invention
- Object of invention
- Summary of Invention
- Detailed description
- Claims
- Figures (if any)
- Abstract

Searchable fields of Indian Patent

After 18 months of the date of filing, application get published by the Patent Office in the Patent office journal with following details

- Application Number
- Date of Application
- Date of Publication
- Title Of Invention
- International Patent Classification (IPC)
- Name And Address Of The Applicant
- Name Of Inventors
- Priority Details (if any)
- Abstract (With OR Without Figure)

Patent Search of Indian patents can be possible using Indian Patent office database (available free online) by using any of above mentioned field.

Non-searchable fields of Indian Patent

At present following fields are not available online for search. These include:

- Field of invention
- Background of Invention

- Object of invention
- Summary of Invention
- Detailed description
- Claims
- Figures (if any)

If it is required, then full text patent article can be retrieved from the patent office by paying requisite fees in the patent office.

The work of digitalization in the patent office is going on. Once it get completed, search using above mentioned field can also be possible.

Searchable fields of International Applications and World wide patents

Most of the major Patent Offices of the world, viz. USPTO, EPO, WIPO etc. are publishing full text patent articles, in which each above mentioned searchable-fields as well as non-searchable fields can be searched online.

Structure of Indian Patent (Searchable fields)


INDIAN PATENT OFFICE

IN202860

 INTELLECTUAL PROPERTY INDIA

(12) INDIAN PATENT SPECIFICATION		
(11) Patent No. 202860	(45) Date of Publication of Granted Patent: 13/04/2007 Journal No. 15/2007	
(21) Patent Application No. 990/MUM/2001	(71) Applicant(s) : RELIANCE INDUSTRIES LIMITED	
(22) Date of filing : 10/10/2001	(72) Inventor(s) :	
(51) International Classification :	1.1)M. THOMAS 2)S. FOTEDAR 3)DR. S. R. NARAWANE 4)S. A. CHOUGULE 5)R. B. KUMBHAR 6)V. C. MALSHI	
(74) Agent :	(24) PCT International filing Date. NA	
(86) PCT International Application No.	(30) Priority Details.	
(33) Convention Country(s).	(31) Application No(s).	(32) Priority Date.
NA	NA	:NA
(54) Title of the invention : A PROCESS AND DEVICE FOR SELECTIVE RECOVERY OF COBALT AND MANGANESE CATALYSTS FROM PURGE STREAM IN THE MANUFACTURE OF POLYCARBOXYLIC ACIDS		
(57) Abstract: A process for selective recovery of cobalt and manganese catalysts from purge stream in the manufacture of polycarboxylic acids. It comprises precipitating cobalt and manganese from the purge stream with a selective precipitating agent at 40-100° c. The molar ratio of the precipitating agent to the cobalt and manganese in the purge stream is 0.7-0.95 : 1. The purge stream is filtered to separate the precipitate and the filtrate are recovered by acidification and from the filtrate are recovered by running the filtrate through an ion exchange bed comprising a chelating ion exchange resin and eluting the ion exchange bed with a mineral acid. A device for carrying out the above process comprising a precipitation vessel (2) provided with heating means (2a) and connected to a filtration vessel (5) which in turn is connected to a dissolution vessel (6) and an ion exchange column (7) comprising an ion exchange bed of chelating ion exchange resin (8).		

Structure of US Patent (First page of Searchable fields)



US007219912B2

(12) **United States Patent**
Meyer

(10) **Patent No.:** **US 7,219,912 B2**
(45) **Date of Patent:** **May 22, 2007**

(54) **RAISING WHEEL CHAIR** 3,964,786 A * 6/1976 Mashuda 297/330
 4,054,319 A 10/1977 Fogg, Jr. et al.
 4,067,249 A 1/1978 Deucher
 4,076,304 A 2/1978 Deucher
 4,407,543 A * 10/1983 Mashuda 297/330
 4,456,086 A 6/1984 Wier et al.
 4,623,194 A 11/1986 Pillot
 4,884,841 A * 12/1989 Holley 297/DIG. 10
 5,346,280 A * 9/1994 Deumite 297/330
 5,366,036 A 11/1994 Perry
 5,803,545 A 9/1998 Guguin
 5,984,338 A 11/1999 Meyer
 6,125,957 A * 10/2000 Kauffmann 297/DIG. 10
 6,179,076 B1 1/2001 Fernie et al.
 6,192,533 B1 * 2/2001 Porcheron 280/304.1

(75) Inventor: **Bruno Meyer, Wohlen (CH)**

(73) Assignee: **Levo AG, Wohlen (CH)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/804,154**

(22) Filed: **Mar. 19, 2004**

(65) **Prior Publication Data**
 US 2004/0173998 A1 Sep. 9, 2004

Related U.S. Application Data

(63) Continuation of application No. PCT/CH02/00519, filed on Sep. 20, 2002.

(30) **Foreign Application Priority Data**
 Sep. 21, 2001 (CH) 2001 1745/01

(51) **Int. Cl.**
A61G 5/10 (2006.01)
B62M 1/14 (2006.01)

(52) **U.S. CL.** **280/304.1; 280/250.1; 280/657; 297/337**

(58) **Field of Classification Search** 280/304.1, 280/250.1, 657; 297/316, 423.38, DIG. 10, 297/DIG. 4, 330
 See application file for complete search history.

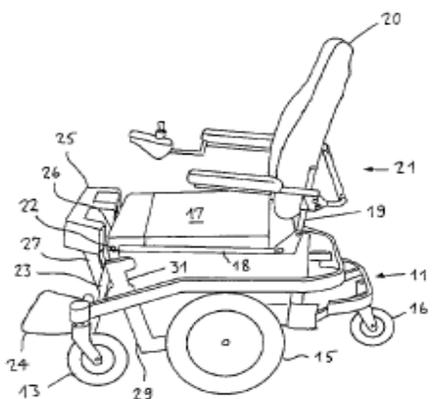
(56) **References Cited**
U.S. PATENT DOCUMENTS
 3,191,990 A * 6/1965 Rugg et al. 297/DIG. 4
 3,261,031 A * 7/1966 Gates 297/DIG. 4
 3,379,450 A * 4/1968 Jones et al. 280/657
 3,630,569 A 12/1971 Lory

FOREIGN PATENT DOCUMENTS
 EP 0 526 088 A1 2/1993
 FR 2 589 341 5/1987
 FR 2 697 418 5/1994
 WO 79/00647 9/1979
 WO 82/01314 4/1982
 WO 01/87219 A1 11/2001

* cited by examiner
Primary Examiner—Hau Phan
 (74) *Attorney, Agent, or Firm*—Buchanan Ingersoll & Rooney PC

(57) **ABSTRACT**
 A raising wheel chair includes a lifting device with a telescopic guide. With the lifting device, the raising frame can be moved up and down both in sitting and in standing position. It is therefore possible to vary the level of the seat or the footrest. Thanks to the tilted arrangement of the telescopic guide, the user of the chair will, on an upward movement, also be moved closer to the objects of interest. The inclined arrangement of the telescopic guide can provide room for the front wheels and permit a short length of the raising wheel chair.

12 Claims, 4 Drawing Sheets



NB:- Apart from above mentioned first page, whole detailed description including claims are available for online search

6. TOOLS FOR PATENT SEARCH

There are various Free databases as well as paid databases are available for Patent Search. The list of some important databases is given as under.

a. Online Free databases

Search Databases	Web link	Scope of search
Google	www.google.com	General search engine; Not suitable for Patent Search
Google's Patent Search	http://www.google.com/patents	US patents only
USPTO	http://patft.uspto.gov/	US Patents only
EPO	www.worldwide.espacenet.com	- EP Patents - WIPO patents - World wide patens
Patent Scope (WIPO)	http://www.wipo.int/pctdb/en/	WIPO Patents
Free Patents Online	http://www.freepatentsonline.com/	-US Patents -EP Patents -JP Patents -WIPO Patents
Patent Facilitation Centre (PFC)	http://www.indianpatents.org.in/db/db.htm	-Indian Patents (Abstract only)
Indian Patent Office	http://ipindia.nic.in/patent/patents.htm	Indian Patents (Granted as well as 18 month Published Patents)
BigPatent India	http://india.bigpatents.org/	Indian Patents (Granted as well as 18 month published Patents)

Paid Databases

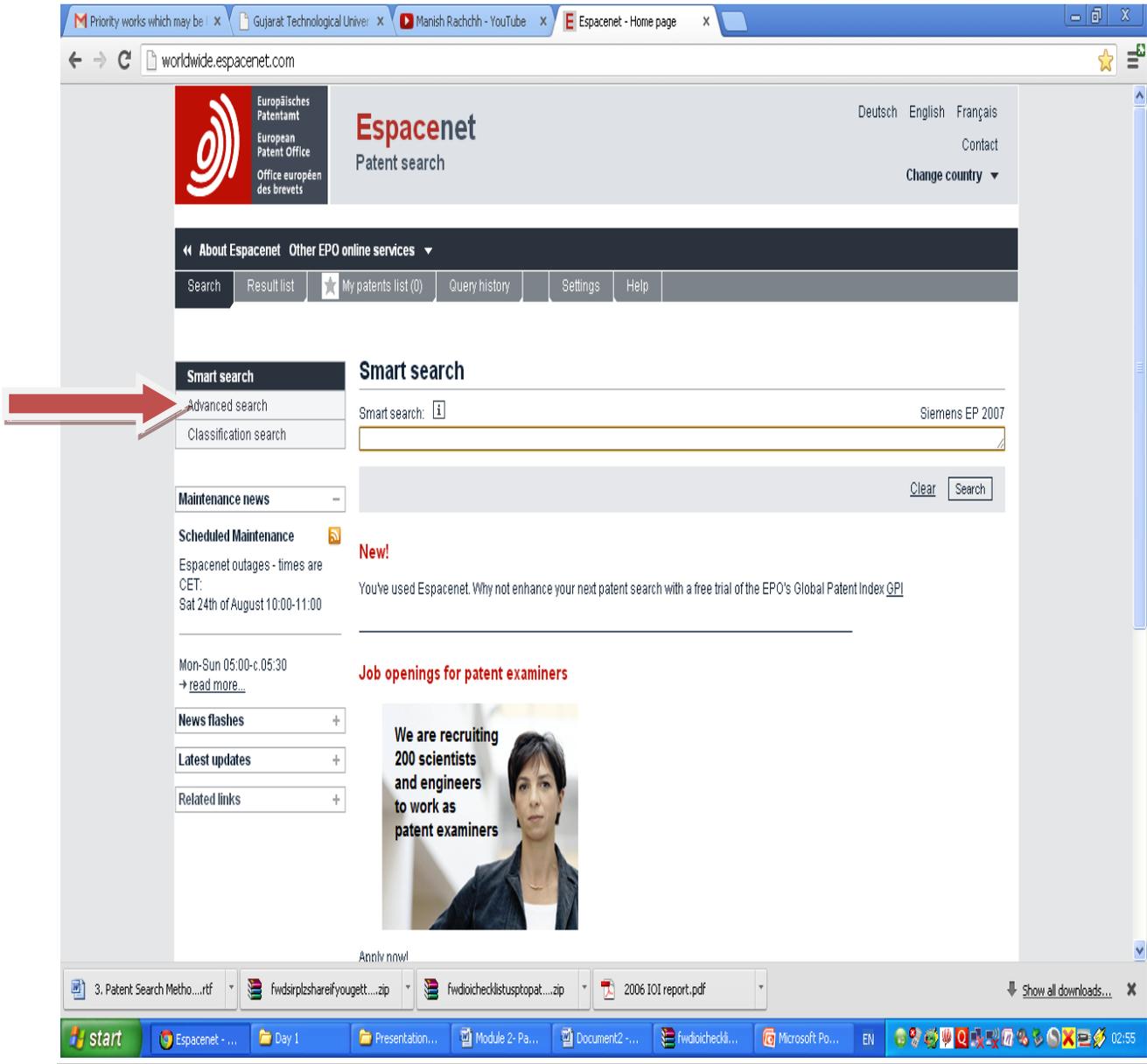
Micropatent	http://www.micropat.com/static/index.htm	World wide patents
Derwent	http://www.thomsonreuters.com/products_services/scientific/DWPI	World wide patents
Aureka	http://www.thomsonreuters.com/products_services/scientific/Aureka	World wide patents
Delphion	http://www.delphion.com/	World wide patents
LexisNexis	http://www.lexisnexis.com/patentservices/priorart/	World wide patents
Dialog	http://www.dialog.com/	World wide patents
Hoover	http://www.hoovers.com/free/	World wide patents
Patent Search Express	http://www.patentsearchexpress.com/	World wide patents
Patent Insight Pro	http://www.patentinsightpro.com/	World wide patents

Special features:

- Advantage of these paid databases is that, in addition to simple patent search, they also provides multitude of applications like Data mining, Data Processing & Data Analysis.
- “Patent Landscape Search” is only possible by using any of the paid databases only.
- Features of services and extent of coverage of world wide patent documents are varying among different service providers.

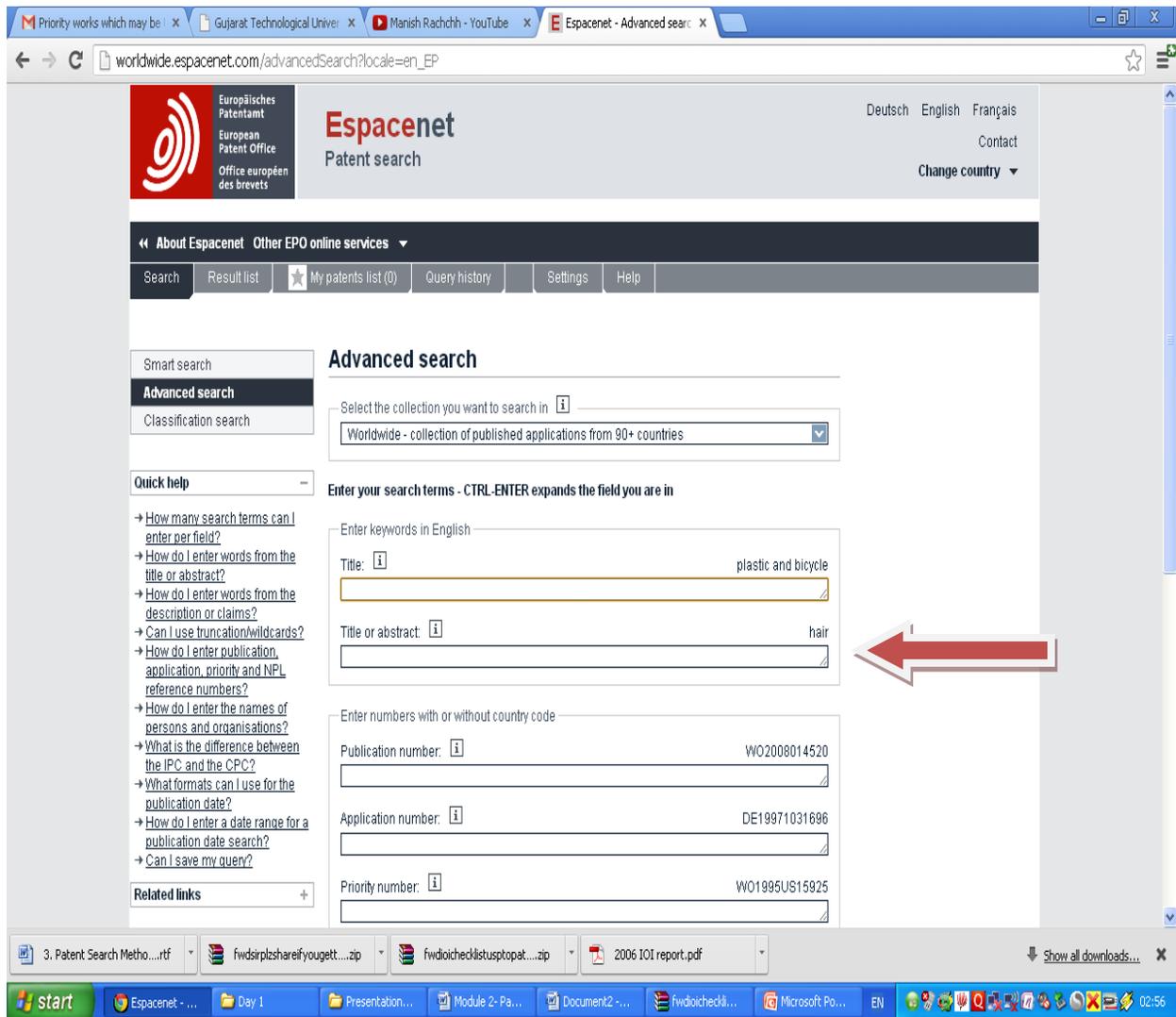
7. European Patent Office (EPO) [esp@cenet]
www.worldwide.espacenet.com

Home Page of esp@cenet website



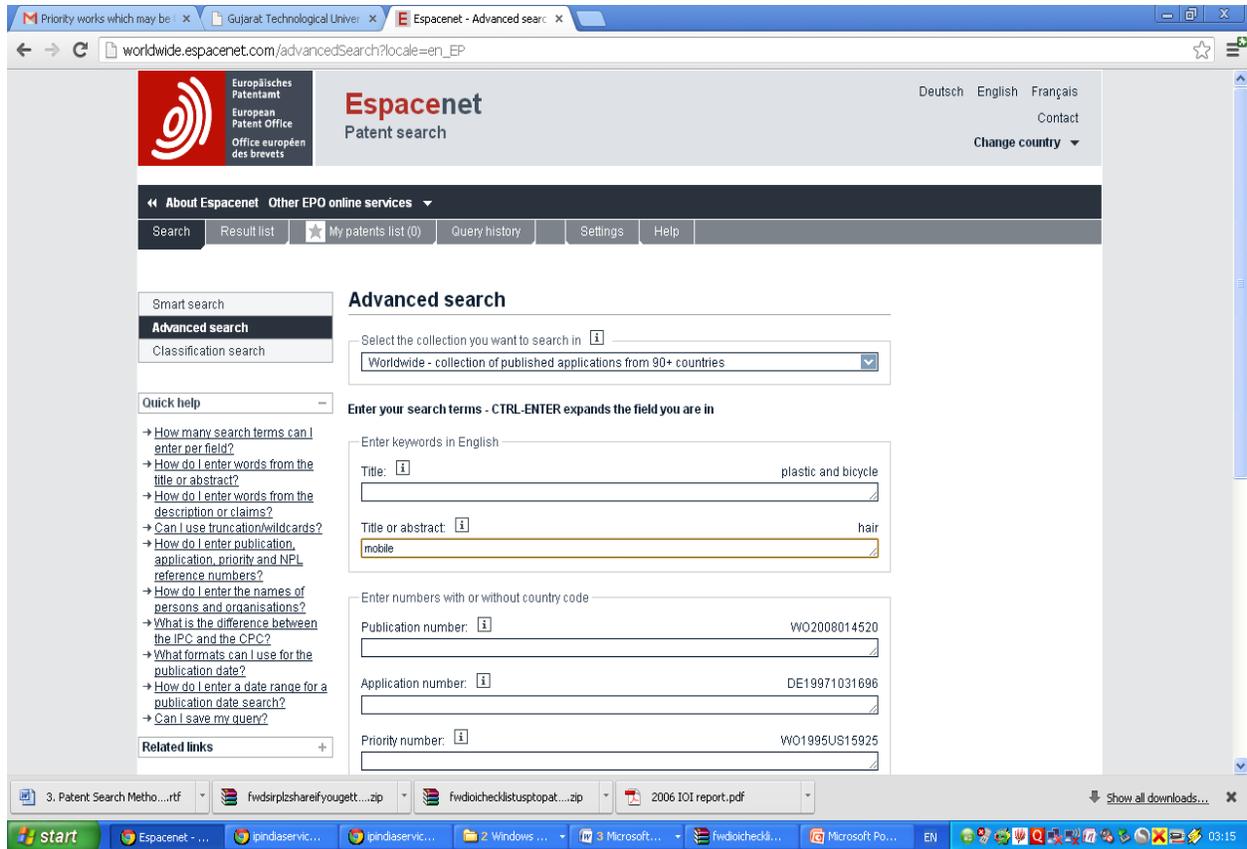
Lets assume that our invention is about “Mobile GPS based payment system” and we want to do Patent Search.

To do so Click on Advanced Search option

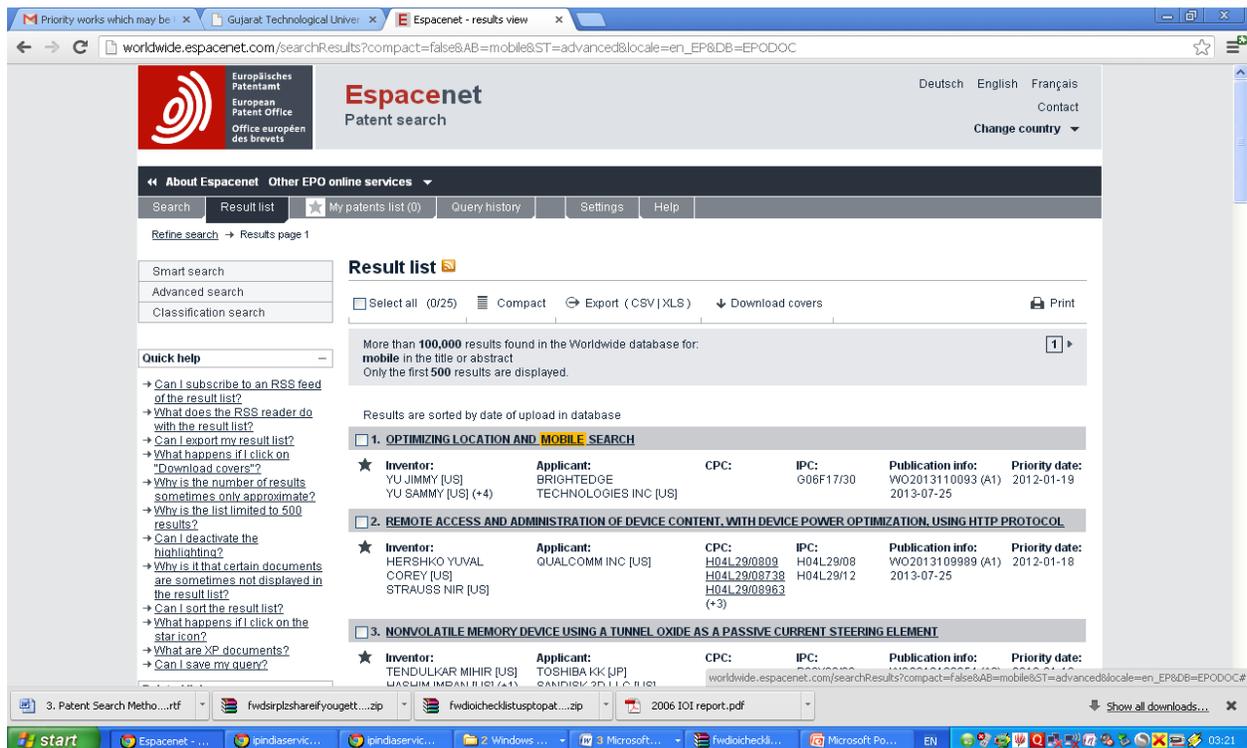


Enter Key words in “Title OR Abstract Field”

Say for Example our invention belongs to Mobile GSM technology then first key word is “Mobile”, so enter “mobile” in Title Or Abstract field



Press “Enter” key, so list of patents will come which are known as “Hits”.



In this case, number of hits are > 1 lac, which are difficult to study. So it need to be narrow down. Now add “Mobile AND GSM” in “Title OR Abstract field”

The screenshot shows the Espacenet search results page. The search criteria are 'mobile AND GPS' in the title or abstract field. The results list shows three entries:

Result ID	Inventor	Applicant	CPC	IPC	Publication info	Priority date
1. Method for establishing an internet link for a wireless mobile device	HU SHIN-JIE [TW]	ACER INC [TW]		H04W76/02	TW201316810 (A) 2013-04-16	2011-10-04
2. On-device mapping of wifi hotspots via direct connection of wifi-enabled and gps-enabled mobile devices	HALCROW MICHAEL A [US] KIRKLAND DUSTIN [US]	IBM [US]	H04W48/16 H04W48/18 H04W48/20 (*2)	G01S5/02 G06F17/30 H04L12/28 (*5)	TW1392276 (B) 2013-04-01	2006-01-19
3. SAFETY VERIFICATION AND NOTIFICATION SYSTEM FOR MECHANICALLY PROPELLED VEHICLE PASSENGERS	FLANAGAN MICHAEL [IE]	FLANAGAN MICHAEL [IE]	G06Q30/01 G06Q30/00 G06Q30/00	G06Q30/00 G06Q30/00 G06Q30/00	WO2013108238 (A1) 2013-07-25	2012-01-17

Now we are getting 8697 hits, which is still difficult to read individually.

So now add 3rd key word that is “road”

The screenshot shows the Espacenet Advanced search interface. The search terms are "mobile AND GPS AND Road". The search collection is set to "Worldwide - collection of published applications from 90+ countries". The search results page shows 285 hits.

The screenshot shows the Espacenet Result list page. The search results are displayed in a table format. The first result is "1. Probabilistic Reverse Geocoding" with inventor BARCKLAY BOB [US] and applicant HAHN JOHN [US] (+1). The second result is "2. SYSTEM AND METHOD FOR PARKING ASSIST IN AN OPEN URBAN ENVIRONMENT" with inventor THRAEFF STEFAN [SE] and applicant THRAEFF STEFAN [SE] and HOLMSTROEM KATARINA [SE]. The third result is "3. Communication apparatus e.g. mobile telephone, for e.g. wirelessly transmitting data for e.g. motor car, has sensor for detecting velocity of apparatus that receives and analyzes data containing information about current speed road users".

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
BARCKLAY BOB [US]	HAHN JOHN [US] (+1)	G01C21/30 G01C21/34 G01C21/3415	G01C21/34	US2013184986 (A1) 2013-07-18	2008-10-06
THRAEFF STEFAN [SE]	THRAEFF STEFAN [SE] HOLMSTROEM KATARINA [SE]		G08G1/14	WO2013103316 (A1) 2013-07-11	2012-01-05

Now we are getting only 285 hits.

Still if you want to add we can add 4th Key word that is “Payment”

The screenshot shows the Espacenet search results page. The search query is 'mobile AND GPS AND Road AND Payment'. The results list contains four entries:

- 1. GPS MOBILE TELEPHONE SYSTEM HAVING FUNCTION OF SETTling TOLL ROAD**
 Inventor: KIM CHUNG GI, Applicant: SMART I & T CO LTD, IPC: H04Q7/38 (IPC1-7):H04Q7/38, Publication info: KR20040066398 (A) 2004-07-27, Priority date: 2003-01-17
- 2. TOLL SYSTEM FOR CENTRAL DEDUCTION OF FEE PAYMENT FOR VEHICLES USING A ROAD NETWORK WITH HIGHWAY TOLL**
 Inventor: WIDL ANDREAS [DE], BARKER RONALD [DE] (+1), Applicant: MANNESMANN AG [DE], WIDL ANDREAS [DE] (+2), IPC: G07B15/063, G07B15/06 (IPC1-7):G07B15/00, Publication info: WO0111571 (A1) 2001-02-15, Priority date: 1999-08-04
- 3. DEVICE AND METHOD FOR AUTOMATICALLY PAYING TOLL OF ROAD AND RECORDING MEDIUM RECORDING AUTOMATIC TOLL PAYMENT PROGRAM**

A red arrow points to the title of the first result.

So now we are getting only 4 hits, which you can study easily. Now to see, patent document in detail, click on “Title” part.

The screenshot shows the bibliographic data page for patent KR20040066398 (A). The title is 'GPS MOBILE TELEPHONE SYSTEM HAVING FUNCTION OF SETTling TOLL ROAD'. The page includes the following information:

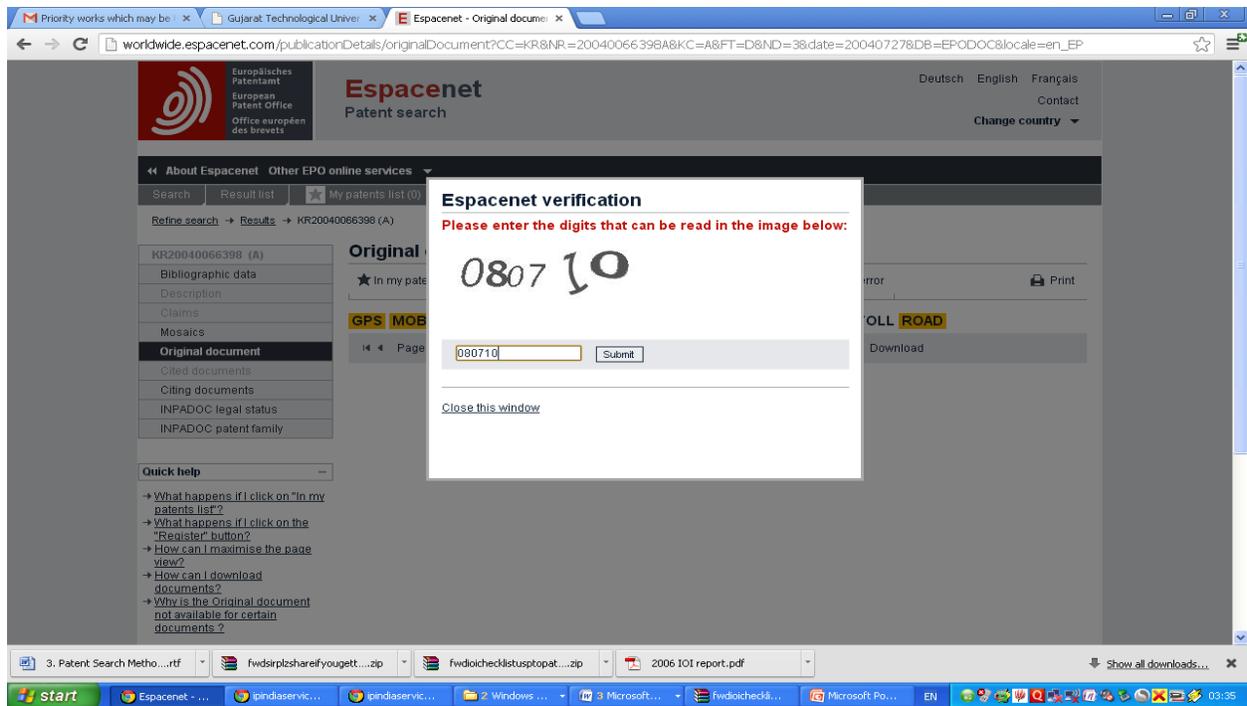
- Page bookmark:** KR20040066398 (A) - GPS MOBILE TELEPHONE SYSTEM HAVING FUNCTION OF SETTling TOLL ROAD
- Inventor(s):** KIM CHUNG GI
- Applicant(s):** SMART I & T CO LTD
- Classification:** - international: H04Q7/38; (IPC1-7): H04Q7/38; - cooperative:
- Application number:** KR20030003451 20030117
- Priority number(s):** KR20030003451 20030117

The abstract is: 'PURPOSE: A GPS mobile telephone system having a function of settling a toll road setting method without installing extra setting equipment. CONSTITUTION: A GPS(Global Positioning System) mobile telephone(100) has a function of settling a s the position information of the GPS mobile'. A red arrow points to the title of the patent.

Now abstract and other details will come. If you are interested in full documents, then click on “Original documents” on left hand side of the screen.



The whole document is available in .pdf format. But it may be available in different language depending on the resident country of applicant. But if it is in English and you want to study it, click on “Download button”.



Enter the same number appears in dialog box in the box provided and click on submit button. The whole document in .pdf format will get saved in your system.

Then read that particular Patent and understand what that patents' tells us about the technology and like that.

Advantage:

- It is the most exhaustive database for Patent search, which available absolutely FREE.
- It provides free search for three type of databases
 - i) *EP database* : All patent application published by EPO within last 24 months
 - ii) *WIPO database*: All patent application published by WIPO in last 24 months
 - iii) *World wide database*: All patent application published by EPO & WIPO before 24 months duration + more than 60 million patents from 90+ countries
- It provides 3 option for searching; a) Quick Search; b) Advanced Search; c) Number Search (either Application number/ Priority Number)
- It updates the database weekly on each Wednesday.
-

❖ Limitations

- Knowledge of syntax is required to carry out search using this database

❖ Syntax for Searching using EPO database [esp@cenet]

i) Use of Boolean operators like “AND, OR, NOT”

- Purpose and Use of Boolean operators are very similar as describe under USPTO.
- Only difference is that instead of “ANDNOT”, here we have to use “NOT” and maximum of three operators can be used per input field, and a total of 20 within the search mask as a whole.

ii) Use of Truncation by using Wildcards

Similar to USPTO database, here also we can use truncation symbols (wildcards) to include either the plural form of a word, or alternative spellings etc.

There are three different wildcard characters available:

* stands for a string of characters of any length (standard sign for truncation in internet)

? stands for zero or one character

stands for exactly one character

For example, to find patents having in the title the word car or cars → type car? In the title field.

iii) Default operators

We can enter search terms without having to type in the default operators like AND or OR, as the system automatically uses the correct operator within the following fields:

- For the title and abstract fields, the default operator is AND
- For the publication number , publication date, application number and priority number fields, the default operator is OR
- For the inventor and applicant fields, the default operator is AND
- For the ECLA and IPC fields, the default operator is AND
- The mandatory operator for combining 2 or more input fields is AND

iv) Limitation for search string

There are certain limitations for search string:

- Maximum of 4 search terms per field
- Maximum of 21 search terms and 20 operators per mask
- When combining search fields the default operator is AND and cannot be changed
- Apostrophes, slashes and hyphens cannot be used. Please use blanks instead

7.2 INDIAN PATENT OFFICE (IPO) DATABASE

<http://ipindia.nic.in/patent/patents.htm>

The screenshot shows the homepage of the Indian Patent Office website. The header includes the Government of India logo and the text: "Government of India, Controller General of Patents Designs and Trademarks, Department of Industrial Policy and Promotions, Ministry of Commerce and Industry". The navigation menu includes: Home, About us, Patents, Designs, Trademarks, Geographical Indications, Rajiv Gandhi NIIPM, Sitemap, and Contact us. The 'Patents' menu item is highlighted with a red arrow. The main content area is divided into three sections: Gateways, Resources, and News. The News section contains several articles with dates from 2013.

Gateways

- Comprehensive eFiling Services for Patents | Trademarks | Comprehensive eFiling Services for Trade Marks **NEW**
- Status of Patents | Trademarks | GI
- Request for correction of TM Records
- Public Search Patents | Trademarks | Designs
- Electronic Register of Patent Agents

Resources

- IP Acts and Rules
- PO status of issued FEEs **NEW**
- Information w/s 146 (Working of Patents) **NEW**
- IP Awareness
- NICE Classification
- Applications related to Traditional Knowledge, Food & Pharmaceuticals
- Right to Information Act
- Bilateral Cooperation | List of Scientific Advisors
- Research Studies | Controller's Decision
- International Non Proprietary Names (INN)
- Notice Board Tenders | Office Circulars | Vacancy Announcement

Our Publications

- Journal Patent | Trademark | GI
- Annual Reports
- Guidelines for Examination of Biotechnology Applications for Patent
- Guidelines for Prosecution of Patent

News

- The Date for Opening of Technical and Financial Proposal with respect to RFP for Implementation of wired LAN and electrical connectivity in New Cabins at IPO, Kolkata has been extended to 22nd July, 2013 (19 July, 2013)
- Appointment Order for the post of Examiner in TMR (17 July, 2013)
- The Controller General of Patents, Designs and Trademarks (CGPDTM) is organizing Cluster Level IP Awareness Program in association with Industry Associations (CII, FICCI & ASSOCHAM) (17 July, 2013)
- Due to scheduled network maintenance online services of Patents, Designs & Trade Marks shall not be available between 6:00PM 16/07/2013 and 10:00AM 17/07/2013. Applicants/Agents are advised to prepare for down time and file last date cases through cash counters (within office working hours) of Patent Office (16 July, 2013)
- On the request received from Stake holders, the deadline for submitting comments on "Draft Guideline for Computer related inventions" has been extended till 26th July, 2013 for the last time (16 July, 2013)
- The provisions relating to the international registration of trademarks under the Madrid Protocol have come into force in India... (Notification) | (Public Notice) (08 July, 2013)
- Applicants can now electronically submit their reply to the Examination Reports by using the 'Comprehensive e-filing services for Patents', which will result in internal automation and speedy disposal of Applications (07 July, 2013)
- CGPDTM releases Draft guidelines for Computer related inventions inviting public comments. The comments may be sent by mail to birendrap.singh@nic.in till 19th July, 2013 (28 June, 2013)
- CGPDTM publishes information received from Patentees regarding working of Patented inventions in accordance with section 146(G) of the Patents Act, 1970 read with rule 131(G) of the Patents Rules, 2003 for the year 2012 (24 June, 2013)
- RFP for LAN and Electrical Connectivity in New Cabins (21 June, 2013)

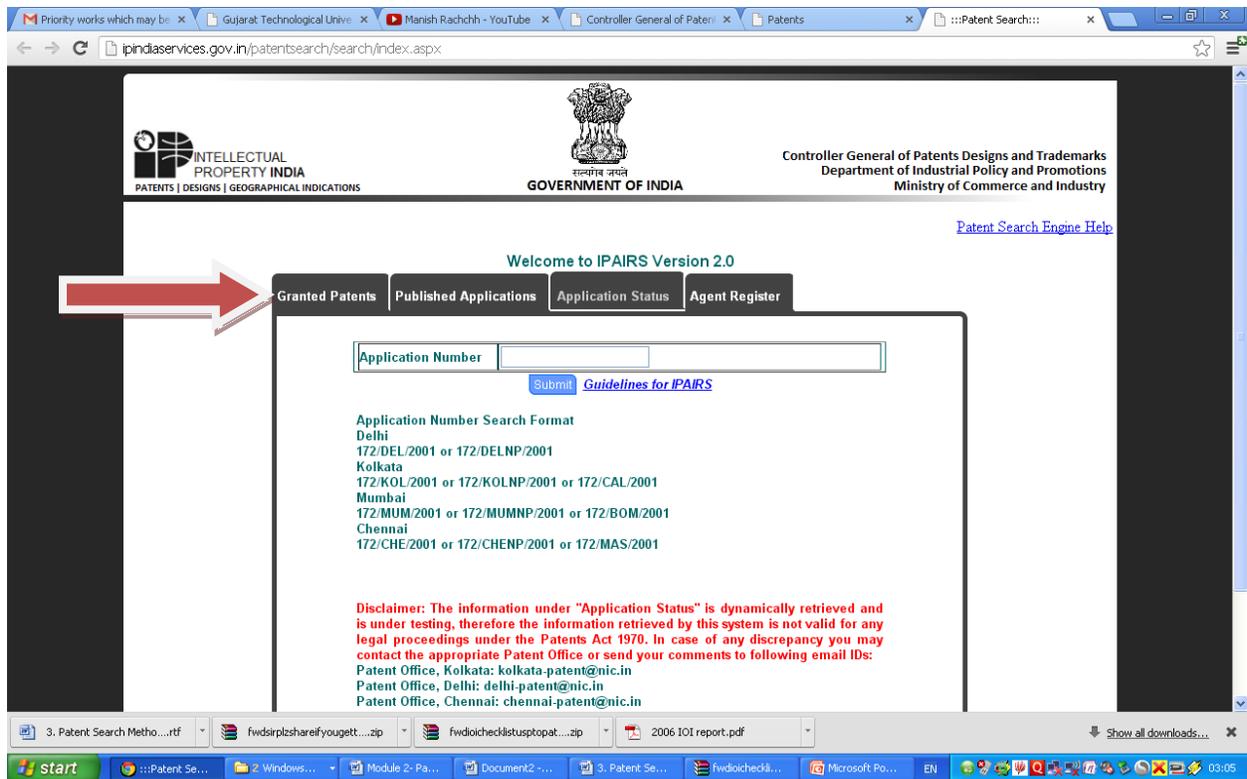
Home page of Indian Patent office website.
We are currently interested in "Patents", so click on it.

The screenshot shows a web browser window with the URL ipindia.nic.in/ipr/patent/patents.htm. The page is titled "Controller General of Patents Designs and Trademarks" and features a navigation menu with options like "Home", "Comprehensive eFiling Services for Patents", "Interactive Guidance", "Patent Search for 18th Month Publications", "Public Search for granted Patents", and "Application Status".

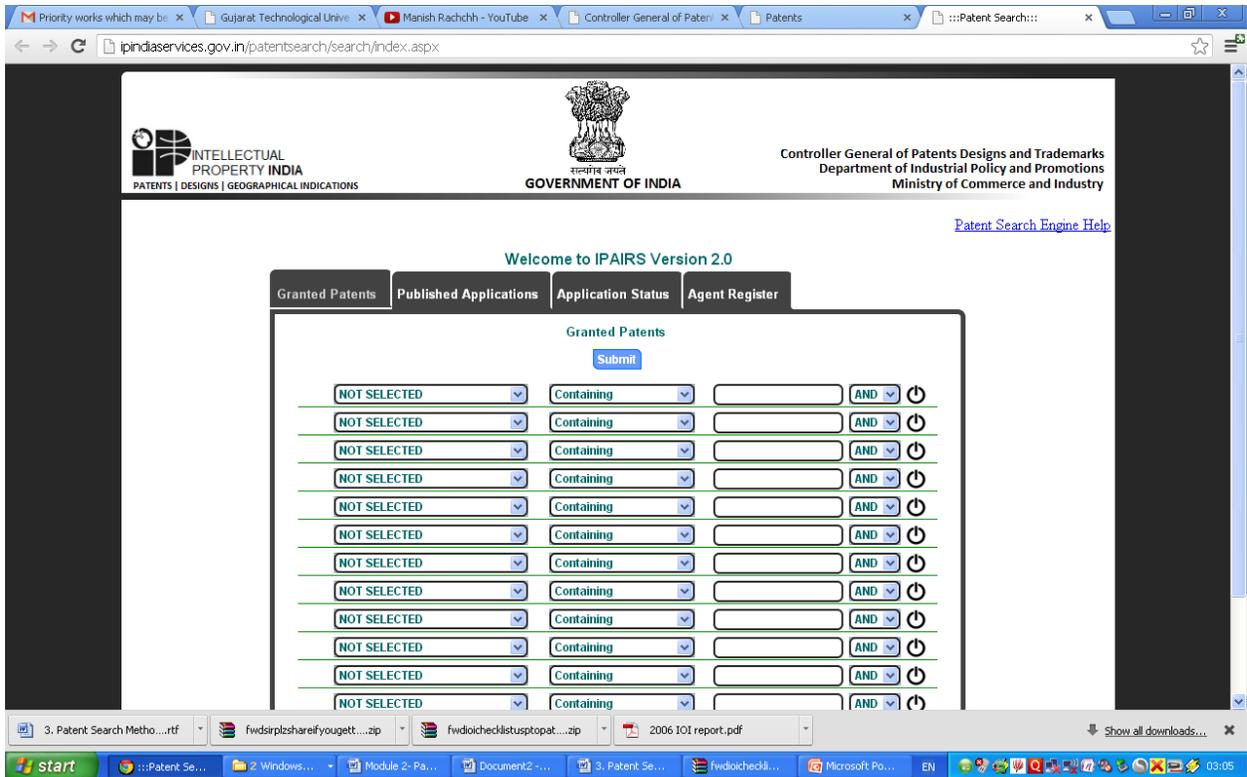
The main content area is titled "Patents" and contains a section "History of Indian Patent System". A large red arrow points to this title. The text below the title lists various acts and amendments from 1856 to 2005, including the British Patent Law of 1852, the Patents & Designs Protection Act of 1872, and the Patents Act of 1970. A "Read More..." link is visible at the bottom right of the text.

The browser's taskbar at the bottom shows several open applications, including "3. Patent Search Metho...", "fwdslrplzshareifyougett...", "fwdioicheckliststopotat...", and "2006 IOI report.pdf". The system tray shows the time as 03:05.

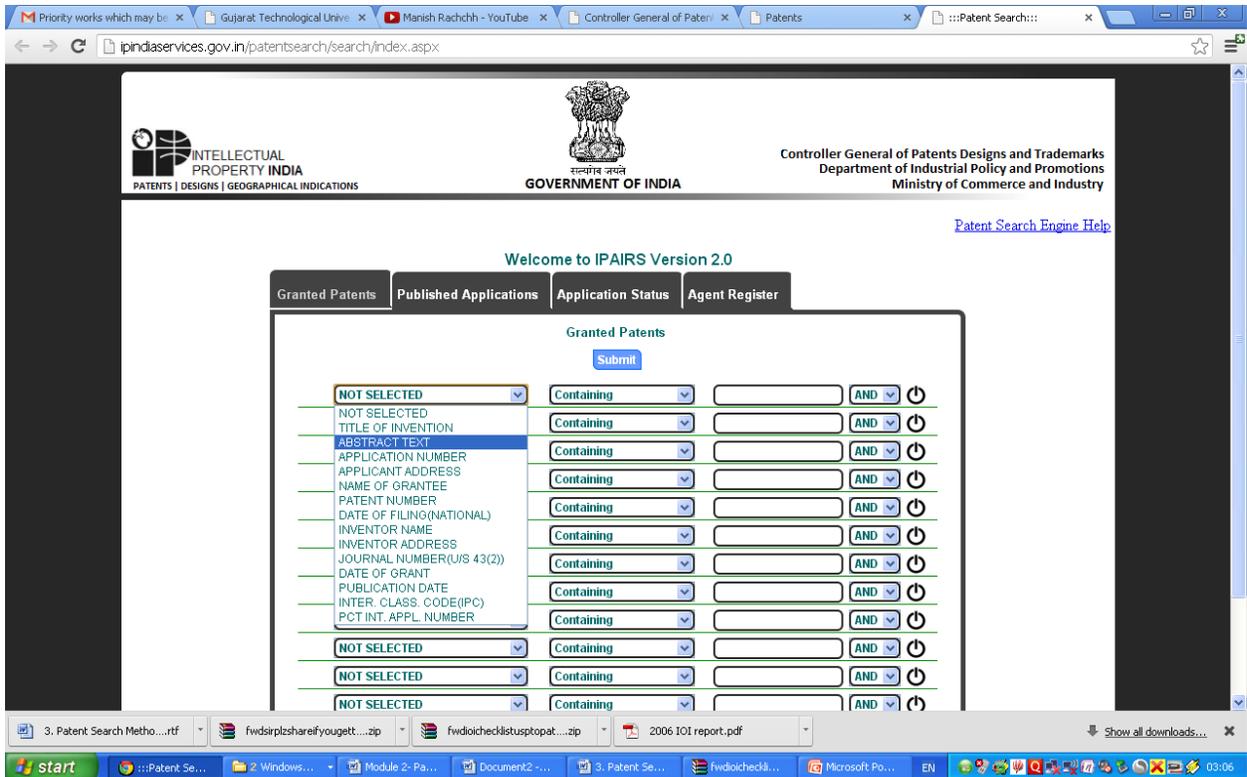
Another screen for Patens will open. Now click on “Granted Patents”.



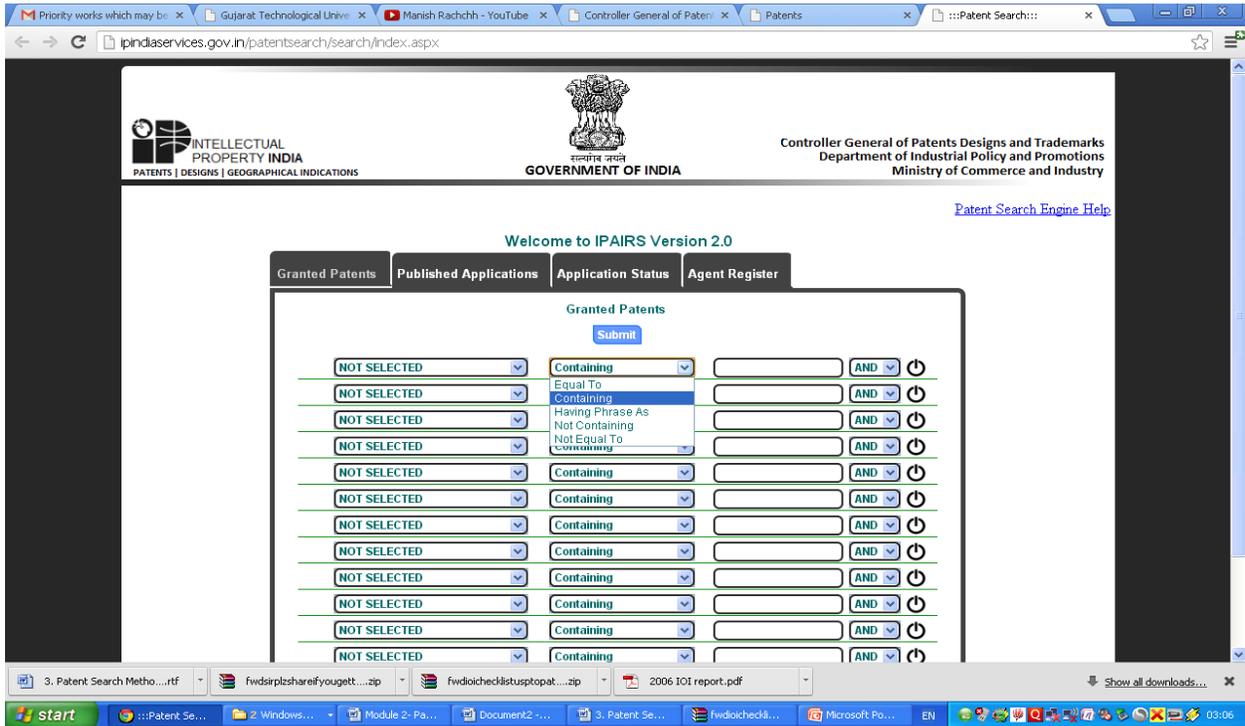
Once again click on “Granted Patents”



Search Screen will appear like above.

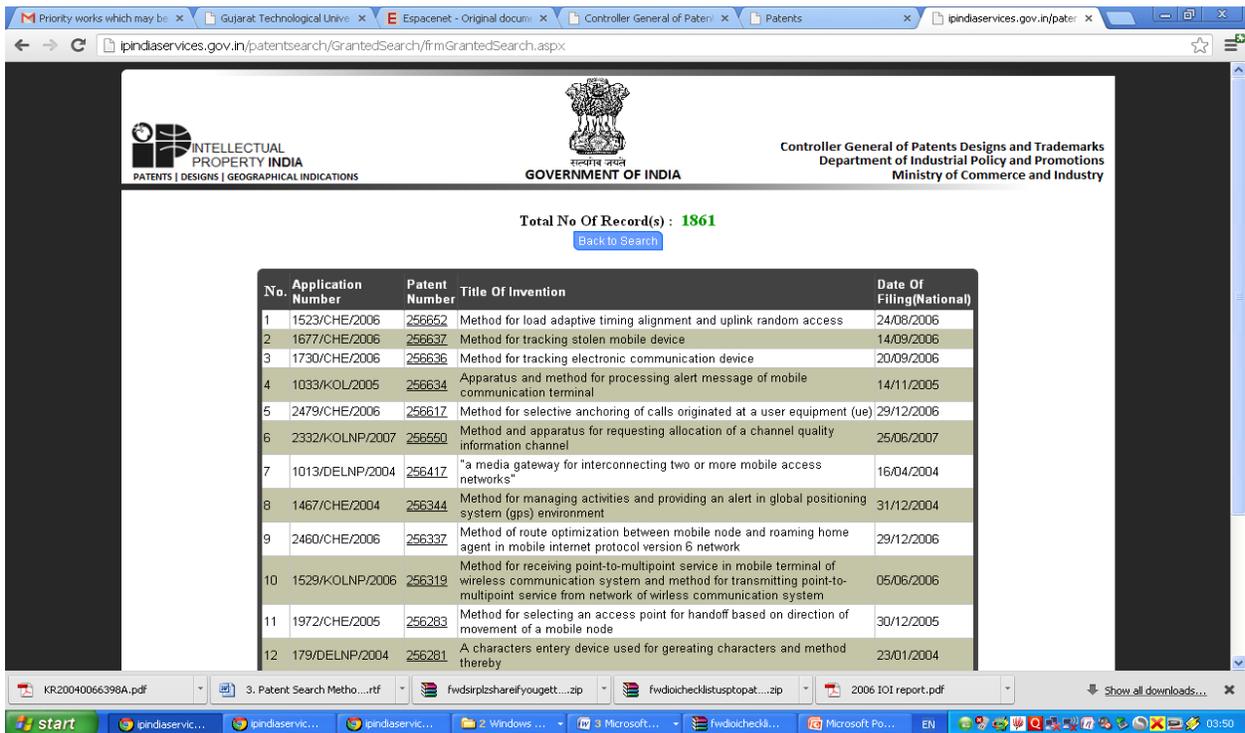


Select “Abstract” in Field part.

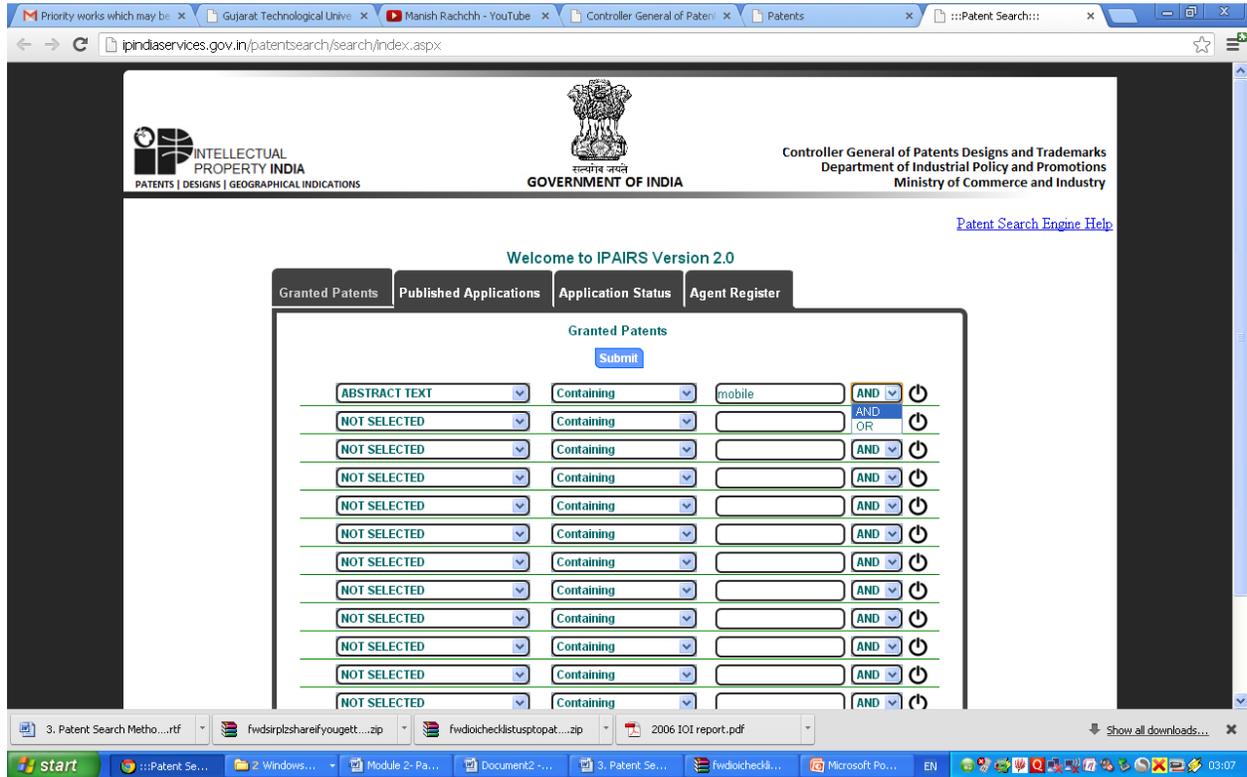


Select in the next field “containing”

Add key word in next blank field. In our example 1st key word is “Mobile”, enter it



So total **1861 patents** are granted in the field of Mobile in India so far. So it is required to narrow down your search. Add 2nd key word that is GPS



Select once again "Abstract" as shown in below

The screenshot displays the IPAIRS Version 2.0 web application. At the top, there is a header with the Intellectual Property India logo and the Government of India emblem. The main content area features a search form for 'Granted Patents'. The form includes a 'Submit' button and a list of search criteria. The first criterion is 'ABSTRACT TEXT' with a dropdown menu set to 'Containing' and a text input field containing 'mobile'. Other criteria include 'NOT SELECTED', 'TITLE OF INVENTION', 'APPLICATION NUMBER', 'APPLICANT ADDRESS', 'NAME OF GRANTEE', 'PATENT NUMBER', 'DATE OF FILING(NATIONAL)', 'INVENTOR NAME', 'INVENTOR ADDRESS', 'JOURNAL NUMBER(U/S 43(2))', 'DATE OF GRANT', 'PUBLICATION DATE', 'INTER. CLASS. CODE(IPC)', and 'PCT INT. APPL. NUMBER'. Each criterion has a 'Containing' dropdown and an 'AND' button. The taskbar at the bottom shows several open applications, including '3. Patent Search Metho...', 'fwdsiplzshareifyougett...', 'fwdioichecklistusptopat...', and '2006 IOI report.pdf'.

The screenshot shows the IPINDIA search engine interface. At the top, it says "Welcome to IPAIRS Version 2.0". Below this, there are tabs for "Granted Patents", "Published Applications", "Application Status", and "Agent Register". The "Granted Patents" tab is active, and a "Submit" button is visible. The search criteria are as follows:

- Field 1: ABSTRACT TEXT, Containing, mobile, AND
- Field 2: ABSTRACT TEXT, Containing, gps, AND
- Field 3: NOT SELECTED, Containing, AND
- Field 4: NOT SELECTED, Containing, AND
- Field 5: NOT SELECTED, Containing, AND
- Field 6: NOT SELECTED, Containing, AND
- Field 7: NOT SELECTED, Containing, AND
- Field 8: NOT SELECTED, Containing, AND
- Field 9: NOT SELECTED, Containing, AND
- Field 10: NOT SELECTED, Containing, AND
- Field 11: NOT SELECTED, Containing, AND
- Field 12: NOT SELECTED, Containing, AND

Add another key work that is GPS and see many hits you are geeing.

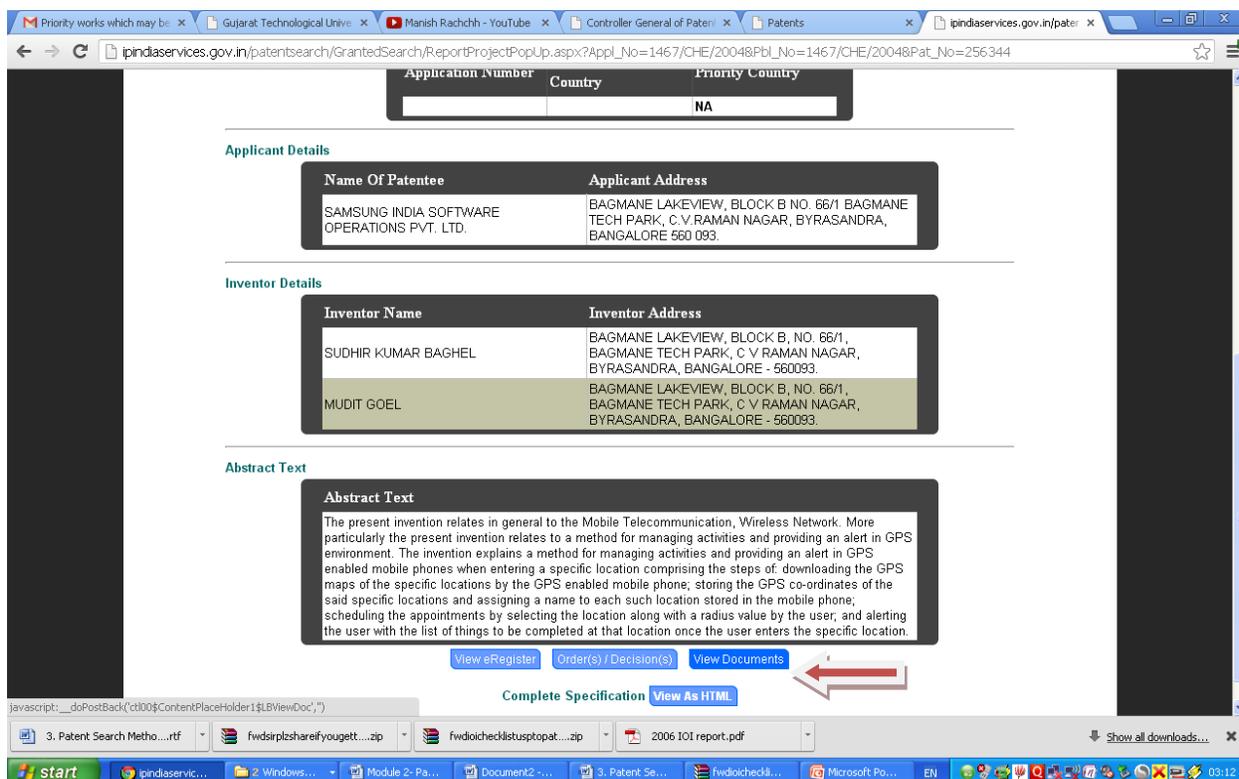
The screenshot shows the search results page for the query. It displays "Total No Of Record(s) : 24" and a "Back to Search" button. Below this is a table of results:

No.	Application Number	Inventor Number	Title Of Invention	Date Of Filing(National)
1	1467/CHE/2004	256344	Method for managing activities and providing an alert in global positioning system (gps) environment	31/12/2004
2	1972/CHE/2005	256283	Method for selecting an access point for handoff based on direction of movement of a mobile node	30/12/2005
3	1986/CHE/2005	255807	Method for tracking an object using a mobile device	30/12/2005
4	1182/CHE/2005	254663	A method for automatically controlling peripherals of a hand-held device in a restricted area	25/08/2005
5	781/CHENP/2006	253833	Method for minimizing the maximum system time uncertainty for a mobile station	03/03/2006
6	69/MUMNP/2008	251868	A method for registration in a wireless communication system	14/01/2008
7	2569/CHENP/2004	251133	"system and method for the detection and compensation of radio signal time of arrival errors"	16/11/2004
8	1056/KOL/2005	242630	Mobile communication terminal and signal receiving method thereof	22/11/2005
9	886/CHENP/2004	241532	Base station time calibration using position measurement data sent by mobile stations during regular position location sessions	28/04/2004
10	2506/DEL/1998	241469	"systems and methods for sharing reference frequency signals within a wireless mobile terminal between a wireless transceiver and global positioning system receiver"	25/08/1998
11	3185/DELNP/2006	241036	"method and apparatus for providing slot reservations for slotted messages in wireless communication networks"	02/06/2006
12	814/KOL/2004	238790	Method and system for providing position information of galler receiver	22/01/2004

Now we are getting only 24 patents, which are easy to manage. To download document, click on “Patent no.”

Home page of Opened patents, which shows Title, applicant name, Inventor name, Abstract etc.

To download whole document, put click on “View Documents name”



INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | GEOGRAPHICAL INDICATIONS

GOVERNMENT OF INDIA
सत्यमेव जयते

Controller General of Patents Designs and Trademarks
Department of Industrial Policy and Promotions
Ministry of Commerce and Industry

Details

Application Number : 1467/CHE/2004

[Back To Search](#) [Back To Results](#)

PG Journal Number	Publication Date	Patent Number	Grant Date	Title Of Invention	Date Of Filing
23/2013	07/06/2013	256344	04/06/2013	METHOD FOR MANAGING ACTIVITIES AND PROVIDING AN ALERT IN GLOBAL POSITIONING SYSTEM (GPS) ENVIRONMENT	31/12/2004

Int Patent Classific Number	Pct Int Appl Number	Pct Int Filing Date
G06F 19/00	N/A	N/A

Application Number	Dof Convention Country	Priority Country
		NA

Applicant Details

Name Of Patentee: [REDACTED]
Applicant Address: [REDACTED]

Now, there is chance that “Pop up” is blocked.

So select it and “Always Allow it”

The following pop-ups were blocked on this page:

- ipindiaservices.gov.in/patentsearch/Grant...EUNYPyQigiazGJUESo1vXQ==&loc=pTWQghAPsmQ=

Always allow pop-ups from ipindiaservices.gov.in
 Continue blocking pop-ups

[Manage pop-up blocking...](#) [Done](#)

INTELLECTUAL PROPERTY INDIA
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GOVERNMENT OF INDIA
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Controller General of Patents Designs and Trademarks
Department of Industrial Policy and Promotions
Ministry of Commerce and Industry

Details

Application Number : 1467/CHE/2004

[Back To Search](#) [Back To Results](#)

PG Journal Number	Publication Date	Patent Number	Grant Date	Title Of Invention	Date Of Filing
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Int Patent Classific Number	Pct Int Appl Number	Pct Int Filing Date
G06F 19/00	N/A	N/A

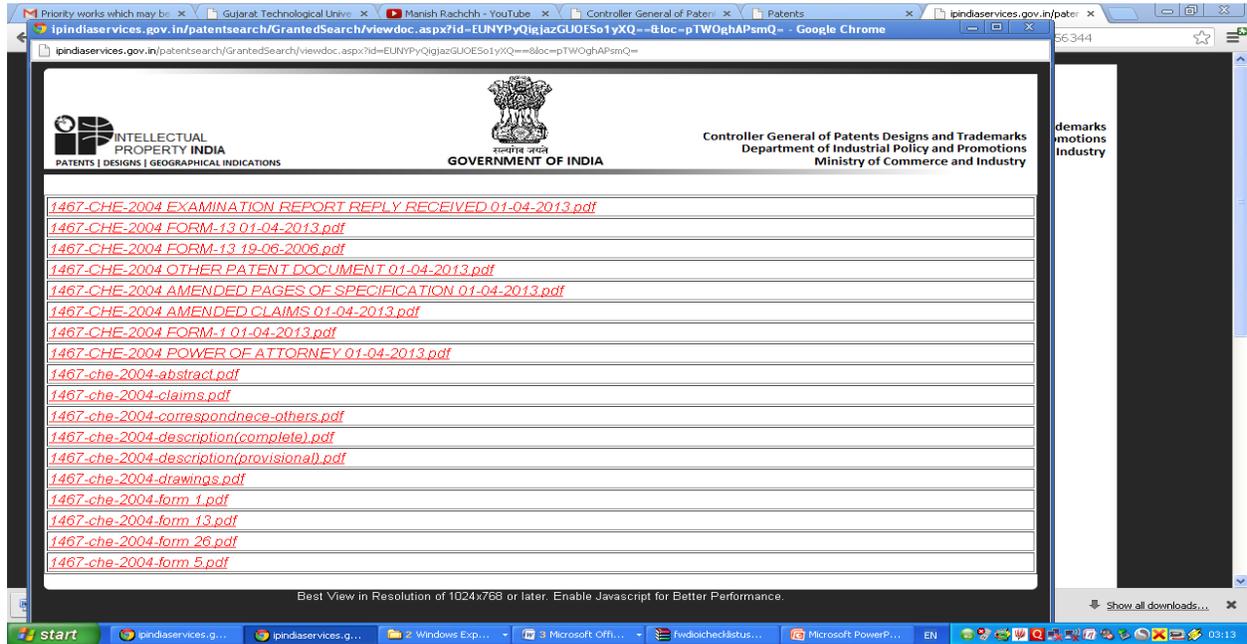
Application Number	Dof Convention Country	Priority Country
		NA

Applicant Details

Name Of Patentee: [REDACTED]
Applicant Address: [REDACTED]

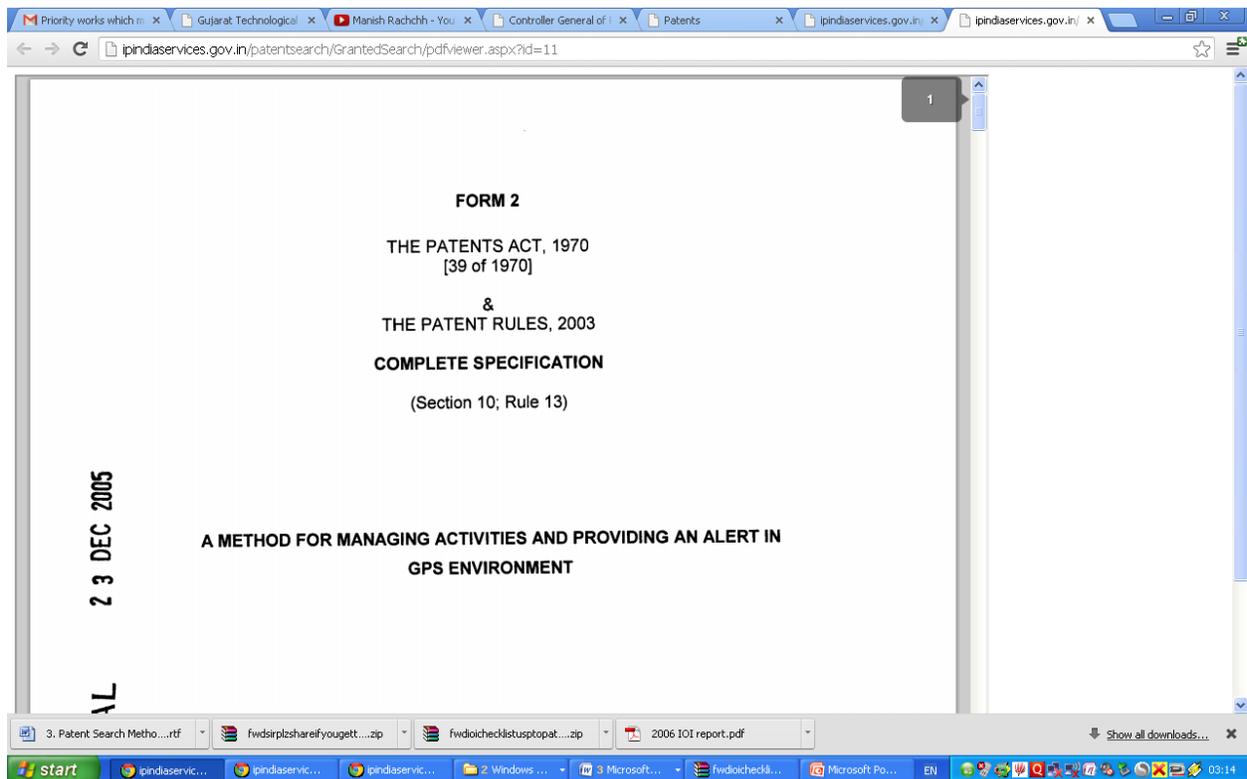
After this, click on “View Documents”, we will get all forms, that applicant has filled.

Importance one is Form 2 with detailed description.



You can download n number of files.

Example of Patent downloaded:



Above is the snap shot of patent belongs to “Mobile and GSM”

Advantage:

- It provides search facility for two types of databases;
 1. Indian patent application published after 18 months (but yet not granted) from 1st January 2005 onwards.
 2. Indian Patents granted from 1st January 1912 onwards.
- It is comparatively simple database for searching.
- It also provides search facility according to the particular patent office [ie. Delhi, Mumbai, Chennai, Kolkata or All]



Limitations

- It provides search for limited field only for published as well as granted Indian Patent application.
[viz. title, date of filing, date of publication, name of applicant, name of inventor, Abstract etc.]
- It does not provide search for detailed description or claims.



Syntax for searching using IPO database

(A) Field Search

It provides search facility for different fields viz.

- Title
- Abstract
- Application Number
- Applicant’s name
- Inventor name
- International Patent classification (IPC)
- Patent Number
- Name of Patentee
- Publication Date

(B) Use of Boolean operators like “AND, OR, ANDNOT”

Its purpose is to search two terms using two search fields. Functions of these operators are very similar to USPTO. By default NOTSELECTED option will appear.

8. WHAT IS NEXT AFTER PATENT SEARCH?

After successful completion of a Patent search, researchers have to follow below mentioned steps:

- Read the important patent documents found out during Patent search.
- Check the degree of similarity between different embodiments given in published / granted patent as compared to your invention.
- Check the non-obviousness criteria of by comparing searched patent with your invention.
- If numbers of similar / likely patents are more then use Patent Analysis or say Patent Landscape software to filter out excess patents and retain only most relevant patents.
- After Patent Analysis followed by reading of their claims, if you found that your invention is not falling under their umbrella, you can begin with drafting of your patent application.

- Patent drafting is an art of science and it involves the use of techno-legal skill. If it is not carefully drafted then chances of rejection would be more. Therefore it is advisable for beginners to take the assistance of Patent Agent or Patent Attorney to draft their application. But if you are well verged with drafting then you can do it by your own.
- After careful drafting you can file your Patent Application as a
 - 1) Provisional Application OR 2) Complete Application.
- After filing, publication and followed by examination of your patent application will be done by Patent examiners and they generate some query that you have to resolve.
 - After successful office action, if everything is good then you get a —**Grant of Patent.**