

PATENTS AND PRIOR-ARTS

Project report submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING

By

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**UNDERTAKEN AT
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May, 2020

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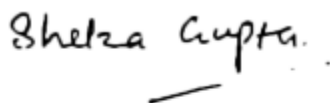
DECLARATION

I hereby declare that the work reported and submitted in the B.Tech. Project Report Patents And Prior -Arts submitted at Jaypee University of Information Technology, Wanknaghat, India is an authentic record of our work carried out under the mentor-ship of Ms. Shelza Gupta, Manager at GreyB Research Pvt. Ltd . I have not submitted this work elsewhere for any other degree or diploma. This is to certify that the above statement made by the candidate is act to the best of my knowledge.

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This is to certify that the above statement made by the candidates is correct to the best of my knowledge.



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ACKNOWLEDGEMENT

Fruitfulness of a project is the culmination of sustained and continuous hard work. My project is no exception to this. However it would have not been possible without the kind support of many individuals and the department itself, hence it is our privilege to extend our thanks to all those people who have contributed directly or indirectly in the successful execution of our project.

I are heartily indebted to my guide **Ms. Shelza Gupta, Manager, GreyB Research Pvt. Ltd** for her constant support, encouragement, valuable guidance and timely help for the progress of this project.

We express our sincere gratitude towards **Dr. M J Nigam, Head of the Department, Electronics and Communication Engineering**, for his support and enduring encouragement for the successful completion of the dissertation.

It is our privilege to express our heartfelt thanks to our project coordinator **Dr. Naveen Jaglan, Assistant Professor, Electronics and Communication Department** for his wholehearted support, valuable guidance in all our endeavors in connection with this project.

We also thank all the teaching and non-teaching staff of the department for the direct or indirect help they rendered.

We would like to express our thanks to our parents without whom co-operation and unflinching support we would have not been in the position to complete our project in such a successful manner and we also express our thanks and appreciation to all our colleagues who willingly helped us with best of their abilities.

Lastly, it is our privilege to remember here the grace of God Almighty, for pouring his blessings over us and also for giving us a life to make all of our dreams true.

LETTER OF CONFIDENTIALITY AND COMPLETION OF TRAINING



GREYB SERVICES

Date: May 21st, 2020
Ref. No. GB/OP-HR/TRA-047

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Shivam Rasraj is working as a Trainee Research Analyst with our organization since Feb, 2020 to till date.

During internship with GreyB, Shivam has worked on multiple Prior Art Research projects but due to confidentiality issues we are unable to disclose project details.

This document is confirming his successful training completion with us.

Yours sincerely,



Pooja Sehgal
Sr. Manager HR

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CHAPTER 1

PROFILE OF COMPANY

1.1 ABOUT GREYB SERVICES

GreyB is an expert research firm based out of Singapore and India. Taking a shot at an offsite/on location model, we help firms to make huge imprints from their innovation and intellectual property. Our customer portfolio comprises of partnerships, law offices, item improvement organizations, R&D offices, in-house IP division, Patent committees, Patent lawyers, Private Equity reserves, IP driven financial speculators, financial speculators, IP financier firms and scholastic foundations.

Our organization comprises of innovation specialists with experience and skill in performing data examine required for powerful creation, the board and commercialization of IP and long haul activities in advances. Our answer group coordinates look into on patent information, logical diaries and market information to help basic business choices. GreyB furnishes answers for help customers with data expected to boost the worth crunched out from licensed innovation and development.

1.2 GOAL

We enable customers with custom research and examination on patent, innovation logical and showcase information to decrease the hazard on innovation ventures like creating an item upheld by a patent or pursue an encroaching item or secure the IP. Our investigators are composed along industry lines, with focuses of mastery in semiconductor, media transmission, electrical and mechanical machines, metals and material science, white merchandise, high-innovation, buyer items, programming, pharmaceuticals, clinical gadgets/medicinal services, compound and science, strong state physical science, biotechnology, oil and gas and modern assembling.

1.3 TEAM WORK

Our team designs the work-delivery model to streamline in communication interface, effectively answer the key business questions behind a invention, project fit the solution suite to provide answers. This operation of client intimacy, understanding of the research methodology on project basis and operational prowess empowers us with fine quality service to our clients.

1.4 WORK AT GREYB

We work with legal institutes and patent counsels, patent attorneys (USPTO and EPO), corporate/public IP/patent teams, product development managers, technology licensing organizations, R&D stakeholders, IP traders/financiers and litigation experts. Provide the solutions to the need of the clients regarding the protection of the intellectual property and also along with its value and scope in near or far future

CHAPTER 2

INTELLECTUAL PROPERTY

2.1 DEFINITION

Intellectual property (IP) means unique creations of the mind like inventions, significant updates, literature, art and symbols, logos, names, images, and designs used in commerce and business.

2.2 TYPES

Following are the seven types of Intellectual Property-

- Patent- Protects an invention that is novel, useful and non-obvious.
- Design- Protects the external appearance of an article which is unique in its own way.
- Copyright- Protects the expression of an idea like books, articles.
- Trademark- Word, mark, or slogan which distinguishes one manufacturer's goods from another as a mark of loyalty, quality, and promises and many things which can mean to a customer.
- Trade Secret - Protects and hides any commercially valuable data.

2.2.1 PATENT

Patent is a law binding right granted by the potent authorities that refrain unlicensed others from producing, selling and using the invention in a way of their own profit. A patent of an invention is the grant of a property right to the inventor, issued by the regional patent offices of the respective countries. Thus, a patent is a right applied on a property in a territory by a governmental or regional body of the country the patent rights are being applied to.

Purpose of Granting Patents

A patent protects the invention from unauthorized usage by any other individual or firm. A person who has invented anything should reap its benefits before anyone else. Patent acts as a protection and identity. A patent is provided in return that the technology will be made public through publication after a certain amount of time. The inventor can use patents in multiple ways. He can produce products out of it, sell the patent, lease the patent or license others to produce products or sue infringing individual or companies.

The protection period of a patent is 20 years give or take from the date of filing subject to the payment of the renewal fees.

The benefits of registering a patent

A registered patent, apart from using the patent to prevent others from exploiting your invention. The inventor can use patents in multiple ways. He can produce products out of it, sell the patent, lease the patent or license others to produce products or sue infringing individual or companies.

Reasons for Patent

There are four primary benefits included in the patent system: to invent first of all; to disclose the invention after application; to invest in the experiment, to produce and market the invention using production; and to update design using the earlier patents but with a novel feature of its own.

1. Patents give encouragement to monetarily proficient innovative work (R&D). Numerous huge present day organizations have yearly R&D financial plans of several millions or billions of dollars. Without licenses, R&D spending would be essentially less or more killed by and large, constraining the chance of mechanical advances or achievements. Companies would be substantially more moderate about the R&D ventures they made, as outsiders would be allowed to misuse any turns of events. This subsequent avocation is firmly identified with the essential thoughts basic conventional property rights. In contemplation with the original definition of the term "patent," licenses encourage and support divulgence of developments into the open space

to serve everybody. If makers didn't have the legal security of licenses, a great part of the time, they might want or will when all is said in done keep their advancements riddle. Allowing licenses makes the new development straightforwardly open, for maltreatment by anyone after the patent ends, or for extra improvement by various trailblazers. Also, when a patent's term has ended after around 20 years, the open to all record ensures that the inventor's idea isn't lost to mankind.

2) In different undertakings (those with high costs and low fringe costs or low making sense of costs — semiconductors, programming, and pharmaceuticals for instance), when a creation exists, the cost of commercialization (testing, tooling up a plant, developing a market, etc.) is unquestionably more than the fundamental beginning expense. (For example, the internal "trustworthy rule" at a couple of PC associations during the 1980s was that post-R&D costs were 7-to-1). But in the event that there is some way to deal with shield copies from fighting at the minor cost of creation, associations won't make that productization hypothesis.

3) Patent rights make a spark for associations to make workarounds to secured developments, thus making improved or elective head-ways that may for no situation be made.

One interesting response of present day patent usage is that the youth baseball maker can use the select right status to transform into a licence. This allows the trend-setter to accumulate capital quickly from allowing the creation and may allow fast headway to occur in light of the fact that the individual may choose to not manage a collecting advancement for the development. Thus, the architect's time and efforts can be spent on unadulterated turn of events, allowing others to concentrate on manufacturability.

Three criteria for patent grant:

1. New – The development ought not be freely known at all, anyplace on the planet.

Proprietors of developments ought to be mindful so as to keep the innovation mystery until a patent application has been effectively made. In the event that the thought has just been discussed, monetarily misused, publicized or illustrated, at that point the curiosity of the creation might be undermined.

On the off chance that the innovation should be unveiled to an outsider before a patent application has been settled on, a non-revelation understanding ought to be drawn up.

When a Date of Filing has been gotten for the patent application, the innovation can guarantee a "Patent Pending" status and the candidate can continue to uncover the creation as showed in the patent application to invested individuals. As a major aspect of the application procedure, the patent application will be distributed following year and a half and if the legal prerequisites are met. When distributed, subtleties of the development will be made accessible for open examination.

2. INVENTIVE STEP – Imaginative STEP – The development must be something that speaks to an improvement over any current item or procedure that is as of now accessible.

The improvement must not be clear to somebody with specialized aptitudes or information in the innovation's specific field. In the event that an innovation is new yet evident to an individual gifted in the craftsmanship, the development would not satisfy the creative advance necessity.

3. INDUSTRIAL APPLICATION – The development must be valuable and have some type of handy application. It ought to be equipped for being made or utilized in some type of industry.

2.2.2 WHAT IS A TRADE MARK?

A trademark is an unquestionable sign, structure or verbalization which perceives things or organizations of a particular trader from the equivalent things or organizations of various vendors. A trade mark means that you can use to perceive your business' items or organizations from those of various sellers. A trade engraving can be addressed graphically as your association's logo or an imprint. Through an enrolled trade mark, you can make sure about your picture (or "engraving") by restricting others from using its name or logo. When increased, a trade engraving can prop up uncertainly as long as you reestablish it predictably. Since an enrolled trade mark is a kind of IP, you can allow or give out it to others

The benefits of registering a trade mark

It isn't necessary to enroll trademark in Singapore. For an imprint that isn't enlisted, you may depend on your privileges under the custom-based law activity of "going off" to ensure your detriment for impersonation or encroachment. Be that as it may, in the event that you register an exchange mark connection to your merchandise or potentially benefits, you are successfully increasing a legal imposing business model of your imprint. An exchange imprint can enhance your business since it very well may be utilized to secure your piece of the pie, you can permit it to outsiders, for example, a franchisee, or you can sell it altogether for a predetermined worth. You can likewise utilize an exchange imprint to assist you with raising value for the improvement of your business.

2.2.3 WHAT IS COPYRIGHT?

Copyright secures works which can be imaginative for a start but has to be imprinted on some real life structure like a book on paper or a art on canvas or music in storage. A copyright provides the user rights to control distributions, unauthorized usage and stealing of his idea. The copyright empowers the proprietor to control the business and distribution of his work.

It gives selective rights to the proprietor. Nobody can use, distribute, sell, claim his work without any written agreement from his side.

What is protected by copyright?

Copyright protects the expression of thoughts and ideas like- Words and illustrations. Ideas on its own are not protected. The following are protected under copyright law:

Literary works (e.g., written works, source codes of computer programs)

- Works in drama
- Work in music
- Work in art
- Publications of above
- Sound recordings , Films
- Broadcasts of sort
- Performances

What is not protected by copyright?

Concepts not protected by copyright include:

- Virtual Ideas or concepts
- Discoveries of sort
- Procedures of sort
- Methods
- Non tangible works

2.2.4 INDUSTRIAL DESIGN RIGHTS

•An industrial design right is an authorized advancement right that makes sure about the visual arrangement of articles that are not totally utilitarian. A mechanical arrangement involves the creation of a shape, plan or synthesis of model or concealing, or mix of model and concealing in three-dimensional structure containing classy worth. A mechanical arrangement can be a couple of dimensional model used to make a thing, present day product or craftsmanship.

This privilege guarantees the visual structure of things that are not completely utilitarian. A mechanical structure includes the creation of a shape, arrangement or bit of model or concealing, or mix of model and concealing in three-dimensional structure containing classy worth. A mechanical arrangement can be an a couple of dimensional model used to make a thing, present day item or craftsmanship

.2.2.5 TRADE SECRETS

- A trade secret is data which isn't commonly known or sensibly ascertainable, by which a business can acquire a financial bit of leeway over contenders or clients.
- Compared to licenses, the upsides of trade secrets are that a competitive advantage isn't constrained in time (it "proceeds uncertainly as long as the mystery isn't uncovered to the general population")

CHAPTER 3

PATENTS

3.1 TYPES OF PATENTS ISSUED:

1. Utility licenses might be conceded to any individual who imagines a helpful procedure, a machine, an article of assembling, or a piece of issue. Models: fiber optics, PC equipment, or prescriptions. Utility patent can be temporary or non-temporary.
2. Design patents might be allowed to any individual who imagines another, unique, and fancy plan for an article of assembling. Models: the vibe of an athletic shoe, a bike cap, and the Star Wars characters.
3. Plant licenses might be conceded to any individual who develops or finds and aquatically imitates any unmistakable and new assortment of plants

By and large, an utility patent secures the manner in which an article is utilized and works, while a structure patent ensures the manner in which an article looks. Both plan and utility licenses might be gotten on for the article in the event that it is imaginative in the two its utility and its fancy appearance.

Utility applications can be temporary or non temporary. A temporary application is a straightforward patent application which incorporates just a portrayal of the innovation. A non temporary application is the full patent application that incorporates pledges, drawings, and cases. You despite everything need to record a non temporary application inside one year of documenting your temporary application.

3.2 HOW PATENT LOOKS LIKE?

1. Utility licenses might be allowed to any individual who designs a valuable procedure, a machine, an article of production, or a synthesis of issue. Models: fiber optics, PC equipment, or meds. Utility patent can be temporary or non-temporary.

2. Design patents might be allowed to any individual who develops another, unique, and elaborate plan for an article of assembling. Models: the vibe of an athletic shoe, a bike cap, and the Star Wars characters.

All the more especially, the data in a patent archive alludes to the accompanying:

- Applicant: the name of the individual or organization applying to have a specific innovation ensured;
- Inventor: the name of the individual or people who designed and built up the development;
- Description: an unmistakable and succinct clarification of known existing advancements and issues related with them and how the new innovation is applied to take care of these issues; explicit instances of the new innovation are additionally generally given;
- Claims: an announcement characterizing the extent of the security looked for or conceded through the patent;
- Citation and references: certain patent records likewise incorporate references to related innovation data revealed by the candidate or by a patent inspector during the patent conceding system; these references and references incorporate both patent and non-patent reports. Why utilize patent data?

Patent data speaks to a tremendous wellspring of innovative and lawful data introduced in a normalized position and frequently not imitated anywhere else. It can help clients to:

- Avoid duplication of innovative work exertion;
- Determine the patentability of their creations;
- Avoid encroaching other designers' licenses;
- Estimate the estimation of their or other designers' licenses;
- Exploit innovation from patent applications that have never been without a doubt, and licenses that are not legitimate in specific nations or are no longer in power;
- Gain knowledge on the inventive exercises and future course of business contenders;
- Extract, examine and audit key patterns in explicit specialized fields, specifically those of open intrigue, for example, those identifying with wellbeing and condition issues.

3.3 DATES IN A PATENT

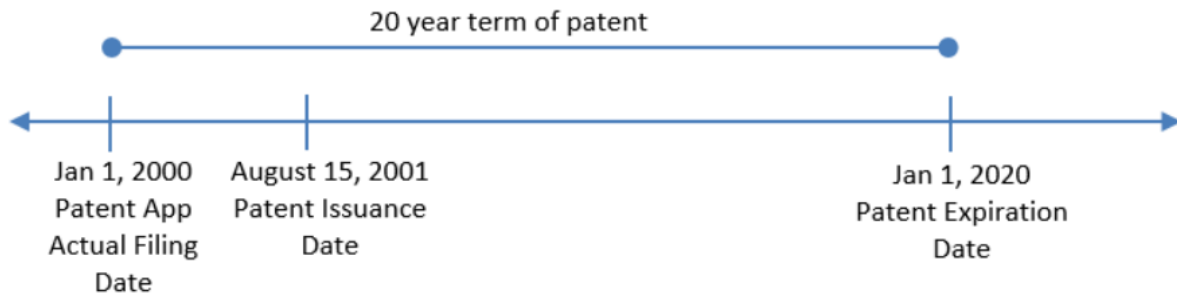


FIG 3.3 TIMELINE OF A PATENT

Filing date

When a patent is first filed to a local patent office its called the filing date. The patent may just be a idea right then but its given a 1 year period to fulfill its working and then it is made public.

Publication date

The date on which the patent is made available to the public through the official publication is called publication date. It is done to make the public and competitors aware that such a technology exists.

Grant date.

This is the date on which the official body grants the patent.

Expiry date

in most patent laws nowadays, the term of patent is 20 years from the filing date of the application.

3.4 PATENT LAWS

The patent law writes about all the laws and conditions that are needed to be satisfied to be granted a patent. The law establishes the regional offices of respective countries to abide by the law and grant patents on the condition that the law and conditions are abided upon .

The law specifies the conditions and specifications to be followed.

In the language of the statute, any person who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent,” subject to the requirements and specifications of the law. The word “process” is talked by law as an act or method, and primarily means the way to the working of the subject. The term “machine” used in the law supposes no explanation. The term “manufacture” refers to the obvious meaning of manufacturing or production of products. The term “composition of matter” relates to chemical and physical mixture of various components the subject is made up of. These components of subject matter taken together include everything made up by the mankind.

The patent law says that the subject matter should be “useful.” The term “useful” means a product of purpose which serves a help, that is, a product which will not function to perform the intended purpose would not be called useful, and therefore shall not be granted a patent.

Interpretations of the law by the courts have strictly confirmed the limits of the field of subject that can be patented, thus it has been held that matters of nature, seasons unexplored territory , discover-able aspects cannot be patented.

A patent cannot be granted on a mere suggestion or idea or dream. The patent is granted upon the fact that the improvement is hard bidden , new product, manufacture, etc., as has been said, and not upon the idea or suggestion of the new product. A complete description of the actual product or other subject is needed to be granted.

CHAPTER 4

Types of Searches:

1. Prior Art Search
2. Infringement Analysis
3. Landscape Analysis

Infringement Analysis

It is a skilled study regarding a patent about its prior arts and the products it doesn't comply with. If a patent of a certain technology lies with someone else then a organization making a unlicensed product will be deemed as infringing and will be slapped with heavy penalties.

So to find out a infringement a thorough study on the product and the infringement products has to be done and similarities have to be assessed.

Landscape Analysis

1. Patent landscaping is a study that constitutes exhaustive search, analysis and study of patent documents relating to the technological field of interest.
2. A detailed tax analysis of the technology is done in coordination with the client, based on the objective of the analysis. The patent documents are analyzed and arranged in the finance to help our clients extract maximum value from the available data about the patent.
3. Patent landscape reports are heavily used as a knowledge base for countering competitor strategy, and understanding technology trends financially, among others.

4.1 Prior Art Search

What is Prior Art?

- Combination of two words prior + Art meaning earlier/existing knowledge
- Anything that was publicly known and could have contributed towards the making of a so called “invention”

Invention is valid and may be patentable only if it is different from the prior art and is not an obvious derivation of the prior art, i.e., there was some involvement of human intelligence in making of the invention

What is Prior Art Search?

- An effort to identify Prior-Art references relevant in a particular context. May include:
 - Search on Patent/ Non-Patent Databases
 - General Internet Search for News Items, Articles, blogs and Other References
 - Identifying and Consulting experts in the fields
 - Physical search in a ‘yet-to-be-digitized’ library

References Acceptable as “Prior-Art” in Patent Cases

- Any publicly published document like Patents, Scientific Paper, Books, Conference Proceedings, News clipping, Blog Entry, Comic Book, Fiction
- Oral Disclosures (that are available and have been validated for the date of creation)
- Traditional Knowledge??

References “NOT” Acceptable as “Prior-Art” in Patent Cases

Non-public information like unpublished scientific papers, provisional applications, etc.

Any information known and meant for only a particular group of people like trade secret, documents for internal circulation within a company, etc.

Why Conduct Prior-Art Search?

Legal Intelligence

- Be sure if a particular product is free of any IPR and related legal issues
- Be sure if an “Innovation?” is worth patenting and if it will swift through the prosecution
- Know when to “fight” and when to “surrender” if a competitor asserts a patent against you

Technical Intelligence

- Be sure that you are not re-inventing the wheel
- Identify solutions to your technical problems
- Identify alternative approaches to achieve a given goal

Business Intelligence

- Know and track what competitors are up to
- Keep a track of opportunities (and threats)
 1. Want to know if what we have invented is unique
 2. Can lead to discovery of interesting and useful literature that can inform our own research
 3. Want to determine how close the prior art is to our invention (patentability)
 4. To uncover what has been done before:
 - a) help you to write your patent application
 - b) help you understand your competition
 - c) help you avoid patent infringement
 - d) help you learn more about your field of invention

Types of Prior-Art Search

1. Patentability – determining whether an invention is patent-able; must consider the entire disclosure of the prior art

2. State of the art – looks at a technology area generally to see what others are doing in a particular field
3. Validity – determining whether an issued patent is valid; compare claims to the disclosures of the prior art
4. Clearance or “Freedom to Operate” – determine whether there are third party patents that cover a product or process; specific emphasis on claims

	Activity/ Situation (When)	Prior-Art Search (Which)
	Thought you Innovated Something	Valid patent Search
	Planning/ Completed a Product Launch	Freedom-to-Operate Search
	Accused of Patent Infringement	
	Plan to License a Patent	Invalidity/ Validity Search
	Involved in a Litigation concerning IP	

In the Middle of Innovating	
	Design Around Searches
Facing a Stumbling Block	
Planning to Innovate	
	State-of-the-art Searches
Planning Business Expansion	
	IP Landscape Studies
Planning a Business Strategy	

TABLE 4.1 PRIOR-ART SEARCH – WHEN & WHICH

Prior-Art Search: General Steps

Understanding the Search Subject



Identifying Key-Features



Identifying Term Sets



Developing Search Strategy & Conducting Search



Screening & Analysis



Presentation of Results

More on Search Strategies

Keyword-based search

- use keywords which can distinctively summarize the patent or in other word are a summary of the patent.

Patent-Class upon search

Uses IPC class (or jurisdiction specific class) restriction to optimize the searches .

Concept upon Search

A concept search uses the relationship and structure between different elements or method steps to find relevant prior art

Author/ Inventorname and Assignee name upon search

Directed search upon a certain inventor or assignee which have worked in the certain field and can supposedly have made some similar product.

Citation based search

Forward and backward citations analysis help to identify relevant patents in the same technology timeline and scope. Most useful in the case of validity/invalidity searches

Bio-sequence/ Chemical structure Searches

In cases where a bio-sequences and/or chemical structure is involved, it is empirical to use bio-sequence and chemical structure searches on various databases

Main steps in prior art searching

1. Identify keywords
2. Set up search terms from keywords
3. Select databases
4. Perform search and examination
5. Summarize and discuss relevant prior art found and give rating for how problematic it is

STEP 1: Identify keywords

1. Probably most critical step...
2. Worthwhile to spend some time on this
3. How to identify keywords:
4. Try and crystallize the two or three MAIN components that make your invention unique (e.g. GPS; gears; compass etc.).
5. Try and think of all the synonyms and similar concepts for each of these and list them.
6. While searching, you might discover more synonyms & alternative words – incorporate these into your search terms and start again with the searching...

STEP 2: Set up search terms

1. Use all the synonyms and alternate words
2. Go from general to specific – have all the synonyms and options in your first search term, and narrow down to very specific words and your core concepts for the last search term
3. This is to ensure that you
4. Cover as much ground as possible and try and pick up prior art that you might otherwise have missed (broad)
5. See how much prior art there is that is very closely related to your invention (narrow)

STEP 3: Select databases

1. Depends on how much time available & how thorough you want to / need to be...
2. USPTO database(<http://www.uspto.gov>)
3. European patent database (<http://ep.espacenet.com>)
4. Google Scholar (<http://scholar.google.com>)
5. For more thorough search, can also include:
6. Information specialist searches (Dialog, Thomson Innovation, Q-Pat (Questel), etc.)
7. Sciencedirect
8. Ebscohost
9. Scopus
10. Google etc

STEP 4: Perform search and examination

1. Modify search terms to suit each search engine (e.g. truncation symbols)
2. When obtaining large no. of results, check for obvious exclusions and modify search terms accordingly (e.g. using the term cell and getting a lot of results relating to cell phones, then use
3. “-phone*” to try and exclude these...)

STEP 5: Analysis and Search Report

1. Once your search is complete, examine the relevant prior art items in detail
2. Discuss the reasons why your invention is patentable against each of these items
3. Rate them in terms of how problematic they are according to you (this can e.g. help you and the patent lawyer later to write the patent application in a certain way so as to try and

minimize problems / objections from the patent office! It can also help you to identify any further improvements to the invention that can help differentiate from the prior art.

CHAPTER 5

TYPES OF PRIOR-ART SEARCH

Patentability Search – How?

Search Subject: An Invention

E.g., A new treatment for hypertension using a mixture of “Extract from Acacia” (A Catechin) + “Extract from Scutellaria” (A Flavanoid)

Key-Features: Key Novelty Aspects derived from the description of the Invention

E.g, in this invention, we can identify key features of varying scope as follows (from Narrow to Broad):

- Mixture of Acacia + Scutellaria for treatment of Hypertension (or other blood/cardio disorders)...

If no references for above key-feature Is found – We can check for following

- Documents mentioning Use of Mixture of Acacia + Any Flavanoid (or Any Catechin + Scutellaria) for hypertension (or blood/cardio disorder treatment) AND a document mentioning Scutellaria as a Flavanoid (or Acacia as a Catechin)

If no references for above key-feature is found – We can broaden further to check for following

- Documents mentioning Use of Mixture of Any Catechin + Any Flavanoid for hypertension (or blood/cardio disorder treatment) AND a document mentioning Scutellaria as a Flavanoid AND a document mentioning Acacia as a Catechin

Search Strategy:

- New strategy for each of the above feature (Narrow to Broad)
- Focused on identifying any document (patent/non-patent)

- Focused on Full-text of the Documents
- Focused on documents published before the official date (priority date) of Invention (if any)
- No restriction on Jurisdiction of search, Status of the Patent, etc

Analysis:

- Mainly Focused on Mapping Documents identified from the search on to the key-features identified
- Depending on the results may also hint towards optimum patent scope

Invalidity Search – How???

Essentially Same as Patentability Search, Except for the Following:

Search Subject: A granted Patent

E.g., Patent Number (EP....) + may be a specific Claim 1

Key-Features: Key Novelty Aspects Derived From Clauses of the Claim

Search Strategy:

- Focused on documents published before the date of priority of any patent if available.
- Citations already cited during Prosecution or in previous Oppositions/ Litigations can be used as check points or source of information for term sets, IPC classes, relevant assignees or inventors, etc.
- Robust Spider Searching using backward citations can be performed
- Search using Inventor/ Assignee names may be useful

Unlike Patentability searches, the invalidity search is much more critical in nature as an entire infringement suit might depend on it, hence, comprehensiveness is desirable.

		Patentability	Invalidity	
	Search Subject	An Invention	A Patent	
	Patent Search	Yes	Yes	
	Search Scope	Full-Text	Full-Text	
	Legal Status Restrictions	None	None	
	Non-Patent Search	Yes	Yes	
	Jurisdiction Restrictions	No	No	
	Dates Restrictions	Generally No	Yes	

	Degree of			
	Comprehensiveness	Moderate	High	
	Desired			
	Best Suited Search	Keyword +	Keyword + Spider +	
	Strategies	Others	<u>Inventor/Assignee</u>	

TABLE 5.1 QUICK COMPARISON

More on Databases

Following are the databases used

	Patent databases	Non- Patent databases	
	Micro Patent	ACM	
	Thomson Innovation	IEEE	
	Delphion	Google Scholar	
	USPTO patent database/ eSpacenet	SAE	
	Sequence and Structure databases via	Pub Med	

	STN	Scirus	
	GenomeQuest	Science Direct	
	Derwent World Patent Index	Thomson Innovation	
	Patent Café *	GenBank	
	AUSPAT		
	PatBase		

TABLE 5.2 DATABASES

Search Report Structure

About the Search

- List of Objective
- Key-Features identified & Corresponding Relevance Criteria
- Term Sets and Search Strategies Used & Corresponding Log
- Databases and Any Other Information Source Used
- Assumptions (If any)

List of Relevant Documents

- Patent Numbers/ Literature Title
- Publication and Other Important Dates
- Mapping/Analysis Details (Textual/Visual)

Additional Details That Can be Added depending on the Search Type

- Legal Status and Expiry Dates (FTO Searches/ State-of-the-Art searches)
- Sequence/Structure Details
- Trends and Charts (State-of-the-Art/ Landscape Studies)

It is also advised to include a complete list of documents that were analyzed so as to have a complete record...

1. Patent validity searches are done to verify that the invention meets the criteria and asks to be patentable.
2. The searches involve discovering the patent and literature which discloses the features of the particular invention. Such searches are done prior to the submission of the application to cut losses due to rejection and counter sue from prior arts owners.

CONCLUSION

This internship at GreyB Research Pvt Ltd. provides a huge boost to my career. It actually provides me a exposure to the corporate world. It tough me well to work in a team environment, to deliver well under a strict timeline.It provided me platforms to utilize my skills and path to take a leap towards success.It provides me the opportunities to work on various live projects. I have learned a lot about Prior-Art and Validity Search. It has taught me in detain how to search for prior arts , how to handle invalidation projects and many more corporate ways.

REFERENCES

- 1) GreyB Services <http://www.greyb.com/>
- 2) USPTO official site <http://www.uspto.gov/>
- 3) Micropatent <http://www.micropat.com/static/index.htm>
- 4) Google.com <http://www.google.com/?tbs=pts&hl=en>
- 5) Wikipedia <http://en.wikipedia.org>