

Patent Prowess



A Comprehensive Guide to Filing in Diverse Domains

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A comprehensive guide to navigating the intricate landscape of patent filing across diverse domains. This article serves as your compass, offering insights into the art and science of securing intellectual property.

From decoding the nuances of application processes to understanding the trends in patent filing, embark on a journey that demystifies the complex world of patents. 'Patent Prowess' is your go-to resource, empowering inventors, researchers, and businesses to navigate the path to patent success with confidence and expertise.



PATENTED

PATENTS: SAFEGUARDING INTELLECTUAL PROPERTY-HOW AND WHY?

We are quite familiar with the term, 'Property'. Movable or immovable properties like house, land, money, personal belongings etc., is one form of property called the 'tangible property'. There is another form of property about which we are less aware. This form of property is known as 'intangible property'. It is that form of property which we create with the power of our intellect. This form of property is known as 'Intellectual Property' (IP). There are different forms of IPs as given below:

- Patents
- Design/Industrial design
- Copyright
- Geographical indications
- Trade Marks
- Trade secrets
- New plant varieties

Though non-tangible but IP has all the features of movable/immovable property like it can be sold, gifted, inherited, assigned, licenses/leased etc. There are two important issues related to IP, i.e. creation of the IP

and safeguarding/protecting the created IP. Unfortunately we as Indian academic institutions have a poor track record in both of these aspects of IP unlike a country like USA. It is no surprise that more than 50 % knowledge creation in US is by the academic institutes of higher learning. We have a dismal record of creating new knowledge, its documentation and popularization through publication. This needs to be improved.

But without touching upon this point here, I am going to take up the second important issue related to IP, i.e. protecting/safeguarding the IP created by us. Our track record is not rosy here also. Traditionally, we have not been trained to safeguard our new creations. In this era of globalization we must learn fast to safeguard our own novel inventions. Look at the contents given in Table-1. It reflects badly on our part in filing patent applications by Indians in comparison to the total applications filed in Asia and the world over. Even whatever number of applications we are filing as Indians, a majority of these are filed by Non-resident Indians. Academic institutions like PU has to take a lead to improve these statistical figures (see Tabel-2).

One may ask the question, why should we safeguard our IP? Now, there are various reasons to understand that protecting our inventions is important from many angles. About 20-25 years back it was said that 'Time is money and money is power'. Now the saying has changed to 'Knowledge is money and money is power'. That means a nation that creates more knowledge will become more powerful. This is aptly exemplified by the rise of China as a nation in the past few years.

And if the created knowledge is not safeguarded, it can be stolen/exploited/utilized by others at the cost of our hard work. Safeguarding your inventions has numerous advantages as listed below:

- Financial exploitation: The protected IP can be exploited financially by making money out of it for a certain period of time as governed by the IP laws. That means if you have invented a new product/ technology, you can commercialize it on your own or you can sell/ license it to.

Indian Status of Patent Application					
Year	Total Number of Patent Applications				
	India	Asia	India's share of Asian Total (%)	World	India's Share of World total (%)
2013	43031	1497700	2.87	2564500	1.68
2014	42854	1607500	2.67	2680700	1.60
2015	45658	1785300	2.56	2886700	1.58
2016	45057	2020000	2.23	3125100	1.44
2017	46582	2062500	2.26	3168900	1.47

Table-1: Patent applications filed by Indians, Asians and the whole world (2013-2017)

Year	Total Number of Patent Application from Residents and Non-Residents									
	India		Asia		India's Share of Asian Total (%)		World		India's Share of World Total (%)	
	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident
2013	10669	32362	1182598	315102	0.90	10.2	1709000	855500	0.62	3.78
2014	12040	30814	1281157	326343	0.94	9.44	1799500	881200	0.67	3.50
2015	12579	33079	1445696	339604	0.87	9.74	1972800	913900	0.64	3.62
2016	13199	31858	1683106	336894	0.78	9.46	2215200	909900	0.60	3.50
2017	14961	31621	1725446	337054	0.87	9.38	2251500	917400	0.66	3.45

Table-2: Patent applications filed by Resident and Non-resident Indians (2013-2017).

someone else for a price.

- IP protection encourages innovations: Once an invention is protected by patenting or registration, it will be known globally. The IP protected invention becomes a starting point for others to come out with better/more efficient/economic inventions. This is how protected inventions encourage further innovations because such innovations will be known globally.
- Commercialization of the protected inventions enhances quality of human life.
- Apart from financial rewards, the new inventions attract personal recognition to the inventor in the society.
- Since after protection of the invention, it is known to the whole world, such inventions help in avoiding duplication of R & D efforts. It helps the future/potential researchers not to indulge in inventing the wheel.
- It provides incentives for technological advancement. Patenting is significantly and directly related to R & D expenditure. In absence of IP protection, no one will ever invest in the promise of an

invention.

- It provides technological and market information, which is valuable for researchers and policy makers.
- IP protection generates interest among the investors.
- IP protection protects and strengthens domestic market.
- IP protection helps entrepreneurs' entry into foreign markets.
- It reveals trends in the trade competition.
- It creates competitiveness in the industrial circle.
- IP protection is an index of a country's growth.
- IP protection helps in creation of spin-off companies.

In nutshell, protecting your IP is important not only to the inventors but to the whole society and for knowledge-based economy.

The next issue to be addressed is how to protect the intellectual property created by us. There are two ways in which this could be done:

1. Filing of a patent application of a novel invention, and
2. Registration of IP (like Industrial design, Trade mark, Copy right, GI etc.) in the concerned Government department.

Out of the two processes, we shall concentrate on the first process, i.e.

filing of patent application, because this is more important as it requires some basic level of understanding to the inventors.

For filing an Indian patent application, information in certain official forms like Forms 1, 2, 3 and 5 needs to be supplied. Formats for these forms are available on the website of Indian Patent Office. Applicants need not bother too much about filling of information in these forms because we at RDC shall do it for you, except for Form-2. Form-2 contains all the information regarding the invention you want to safeguard about the new invention. This form cannot be filled by us, till you provide the details about your invention. This information is to be provided by the inventor himself/herself. Even if someone downloads the format of Form-2 from the website, he/she is clueless to fill the required information in Form-2. So, an effort has been made here to make the process easy for the applicants/inventor. Before we go into the intricacies of filling of Form-2, let me make some basic things clear to you. What is a patent?

Patent is the right/authority given by the Government to the owner of an invention to exclude others

exploiting the patented invention for making, using or selling/ financially exploiting the patented invention. Patent rights are territorial in nature, i.e. if you have patent rights in India for some invention then your rights are protected in India only and not in any other country unless you obtain patent rights in other countries. Similarly, if you obtain a patent for some invention in USA, then your rights are protected in USA but not in India. Patent rights are given for a limited period of time, like in India the rights are given for 20 years only. Some people ask, why not to obtain a 'World Patent'. It is to be understood that there is nothing like a world patent. One may wonder then, how to protect your patent rights in other countries. For this purpose, there is a provision of filing of a PCT application for your invention.

It must be noted that PCT application is not a patent, but this is a provision made by the PCT signatory countries that once you file a PCT application, then your IP rights are safeguarded in these countries for almost 30 months. That means for this much time period no one else can exploit your invention in these countries. This time period is to be used by the inventor to assess the impact (financial or otherwise) of his/her invention in these countries. And after suitable assessment one can decide to file patent applications in the countries of his/her choice, because filing of patent applications is a costly affair.

India is a signatory country to PCT. One can file PCT application in India along with an Indian patent application in the Indian Patent Office. The inventors should understand what types of inventions can be patented? For

this purpose, we have to understand what is a new invention? A "New invention" means any invention or technology which has not been anticipated by publication in any document in the country or elsewhere in the world or used/worked in the country before the date of filing of the patent application, i.e. the subject matter has not fallen in public domain or that it does not form part of the prior art. An invention which is in the form of a product or a process or both, can be patented, subject to the condition that it fulfills three basic criteria as given below

1) Novelty: A new invention which is a product or process is novel and fulfills this requirement. Novelty means that the product/process must not be existing in public domain before filing of the application. That means the invention must not have been reported in any journal/book/magazine, patent literature, brochure, pamphlet, catalog, internet publication/any written or oral description or known in any other way. Prior publication, prior claiming, prior public use or prior public knowledge are the novelty destroying elements. However, there is a safeguard. If you have published your invention in some journal then you can still file an Indian patent application before the expiry of 12 months of the publication of the inventing in the journal. But it is always better to first file a patent application and then publish the invention in some reputed journal. Prior art search is a necessary step before filing a patent application.

2) Non-obviousness: There has to be inventiveness in your invention. Prior art should not point or lead towards the invention, otherwise the invention would be considered as 'Obvious'. It is to be noted that simplicity or complexity of an invention has no bearing on the grant of the patent. Even a simple invention can be granted a patent subject to the condition that it should not be obvious.

How the inventiveness or inventive step can be determined? Presence of a feature in the prior art that makes the current invention obvious to a person skilled in the art would make the invention obvious or the other way, presence of a feature that makes the invention not obvious to a person skilled in the art would make it non-obvious.

Industrial applicability:

- The invention should be produced/applied industrially. If it is a product, then the utility of the product needs to be specified out in the application and if it is a process, then it needs to be specified how the invention is to be practiced at industrial scale.
- Despite fulfilling all the above conditions, certain inventions still fall under the category of 'Non-patentable' inventions. These are frivolous inventions or those inventions which are against the established natural laws, e.g. perpetual machines, or those inventions which are against public order or morality like any process of making brown sugar. Mere discovery of scientific principles or new usages of known substances are also non-patentable. Mere discovery of new forms like salts, esters, polymorphs etc. of a known substance, simple admixtures of substances, any process for medical, surgical, diagnostic or therapeutic use for human beings or animals are non-patentable. After understanding the above basic things, let us now come to the filing of Indian patent application. There are two ways of filing an Indian patent application as given below:

1. Filing of a Provisional application
2. Filing of application with 'Complete Specifications'

Provisional Indian patent application: A provisional patent application is to be filed when you have not fully developed your invention but you have reached to some point where it would take some more time to complete the invention, and you are confident to obtain your invention in some specific period of time. Due to intense competition with your competitors, you want to have priority of inventing the new product/process, in that case it is advisable to file a 'Provisional application'. It must be remembered that you need to file the application with 'Complete specifications' within a period of 12 months from the date of filing of the Provisional application. Details of filing of provisional applications are not discussed here.

We do not encourage filing of 'Provisional applications' due to certain reasons, but if somebody is interested in filing of an Indian patent provisional application, then they should approach the IPR cell in RDC for further guidance. It should be noted that an idea cannot be patented. That means you cannot file a patent application for a simple 'Idea' without having any substantial outcome in hand.

Patent application with 'Complete specifications':

When the invention is fully developed and present in hand, then application with 'complete specifications' is to be filed.

Here, I am discussing in details about filing an Indian Patent application with complete specifications.

While filing an Indian Patent Application, the most important Form to be filled is the Form-2. Blank Form-2 is available and downloadable from the Indian Patent Office website, as said earlier. But it has been observed during my sojourn as Director, RDC that a majority of inventors are ignorant about the contents to be filled in Form-2. When they approach us, we offer them guidance to fill Form-2 but even after constant and continuous guidance the applicants are unable to give required information leading to non-granting/rejection of the patent applications.

I have taken the contents of granted Indian patents of seven different categories as given below and compiled them into suitable slots in Indian Patent Application Form-2 for the guidance of new applicants. In my opinion, these categories would fulfil the needs of a majority of the inventors of PU:

1. Pharm. Formulation
2. Chemical product/API
3. Herbal product
4. Bioprocess
5. Bio-medical process/product
6. Food product
7. Engineering product

Form-2 Prototypes of the above categories of patents are attached in PDF and WORD formats. Instructions have been given in different color fonts.

The inventor has to simply fill the information asked in the format of Form-2. After filling the Form-2, the unwanted instructions could be deleted.

I believe this should prove to be a big help to the inventors and would lead to a quantum jump in filing of patent applications resulting into successful granting of the applied patent applications at PU. But that does not mean that the process of obtaining a patent stops with the application.

There are steps like 'Request for Examination', 'Replying to the FER' once the application is examined and the 'First examination report' (FER) is received, and defending your claims if a 'Hearing' is assigned. But, do not worry, we at RDC would help you out at each step. For more details and any further help, you can approach the 'IPR Cell' at RDC.

We at RDC shall provide all the logistics for filing patent applications and the cost for filing of applications and further steps are fully born by Parul University. Moreover, once your patent application is published or a patent is granted, financial incentives are offered by the University to the inventors as per the R & D Policy of Parul University.



Patent Prototype for Pharmaceutical Formulations

From pioneering drug delivery systems to optimizing formulations for enhanced efficacy, we dissect the patenting process, offering insights into securing intellectual property in the ever-evolving world of pharmaceuticals.



Patent Prototype for Chemical Product

Join us as we delve into the intricacies of transforming innovative ideas into tangible prototypes, offering a glimpse into the future of chemical product development and the journey towards patent protection.

Patent Prototype for Herbal Product

Unravelling the meticulous process of bringing nature's remedies into the realm of intellectual property protection showcasing how inventive ideas blossom into tangible, protectable assets



Patent Prototype for Bio-Processing

The patent prototype presented here marks a pioneering step toward revolutionizing bio-processing, offering a glimpse into the ingenious solutions poised to shape the future of biotechnology

Patent Prototype for Biomedical Engineering

The intricacies of patenting, we unravel the dynamic landscape that propels biomedical ideas from imagination to tangible, patent-worthy innovations. Join us on this pursuit of a healthier, more resilient future.



Patent Prototype for Food Technology

Unveiling the roadmap for securing intellectual property in the dynamic landscape of culinary inventions, we delve into the essential steps and considerations for crafting a patent prototype

Patent Prototype for Engineering Product

From conceptualization to implementation, this comprehensive guide takes you step by step through the journey of transforming your engineering product into a patent-ready prototype.

