State Council on Science & Technology
Science & Technology Department
Government of Odisha
Bhubaneswar-751001
"Science is a way of life. Science is a perspective. Science is the process that takes us from confusion to understanding in a manner that's precise, predictive and reliable - a transformation, for those lucky enough to experience it, that is empowering and emotional."

-Brian Greene

Science & Technology is a key instrument for economic advancement and has been considered as an indicator of economic growth, which depicts the intellectual property of a particular country. With the advent of new economic policy, India has entered into the multilateral system of trade. India now needs strict intellectual property protection system in order to survive in a competitive market. A step in this direction has been taken by instituting a Patent Information Centre under the aegis of the Odisha State Council on Science & Technology Department with technical and financial support from the Technology Information Forecasting and Assessment Council (TIFAC), Department of Science & Technology, Govt. of India, New Delhi.

Intellectual Property Rights (IPRs) are legal monopolistic rights conferred by the Government to inventors or creators of intellectual Property in industrial, scientific, literary & artistic fields in lieu of complete disclosure of the same. IPRs are territorial rights and there is no global patent. Intellectual Property Rights play crucial role in today’s Technology frontier. With advent of WTO, India stepped into new IPR regime. In view of intellectual property protection playing a key role in gaining advantageous position in the competitive technological game for economic growth of the country, setting up of a Patent Information Centre (PIC) under Odisha State Council on Science and Technology Department was conceived as one of its thrust area activities. In pursuance of such decision, the Patent Information Cell, the first of its kind in India, was set up at Odisha State Council on October 2015, in collaboration with Technology Information Forecasting and Assessment Council (TIFAC), DST – Govt. of India. The basic objectives of creating this Centre were as follows:

**Objective**

- Create awareness on Intellectual Property Rights (IPR) and especially on Patents in the neighborhood region and state of this Centre.
- Enable Patent Searches for the University, Research Institutes, Govt. Department & Industry houses.
- Guiding inventors in Patenting and protecting other forms of Intellectual Property Rights to improve socio economic structure of grass root innovators.
- Analysing the Intellectual Property information on a regular basis & suggest new program for Research & Development based on such information.
Training and Manpower development in different sector of Intellectual Property Rights (IPRs).
- Patent Filling Assistance
- Copyright and Design Filling Assistance
- GI filling
- Special Sessions/ Lecture

Introduction
With the advent of the knowledge and information technology era, intellectual capital has gained substantial importance. Consequently, Intellectual Property ("IP") and rights attached thereto have become precious commodities and are being fiercely protected. In recent years, especially during the last decade, the world has witnessed an increasing number of cross-border transactions. Intellectual property Right (IPR) is a term used for various legal entitlements which attach to certain types of information, ideas, or other intangibles in their expressed form. The holder of this legal entitlement is generally entitled to exercise various exclusive rights in relation to the subject matter of the Intellectual Property. The term intellectual property reflects the idea that this subject matter is the product of the mind or the intellect, and that Intellectual Property rights may be protected at law in the same way as any other form of property. Intellectual property laws vary from jurisdiction to jurisdiction, such that the acquisition, registration or enforcement of IP rights must be pursued or obtained separately in each territory of interest. Intellectual property rights (IPR) can be defined as the rights given to people over the creation of their minds. They usually give the creator an exclusive right over the use of his/her creations for a certain period of time.

Types of IPRs
- Patent: Protects Inventions e.g., mobile phone technology, mechanical devices
- Copyright: Protects expression of Ideas in tangible form e.g., books, music, software
- Trademark: Protects indication of source of goods or services e.g., Pepsi, IBM
- Design: Protects outer appearance of a trade article e.g., car designs, phone designs
- Geographical Indication: Protects geographic source of goods e.g., Orissa Pattachitra, Orissa IKAT
- New Plant Variety: Protects new plant variety e.g., new wheat variety
- Semiconductor layout Design: Protects layout design of semiconductors
- Trade Secrets: Protects know-how, non-patentable inventions e.g., Coca-Cola Recipe

Legislations Covering IPRS in INDIA
The Designs Act, 2000 and The Designs Rules, 2001
The Biological Diversity Act, 2002 and The Biological Diversity Rules, 2004

What is Intellectual Property?

Intellectual property is an intangible creation of the human mind, usually expressed or translated into a tangible form that is assigned certain rights of property. Examples of intellectual property include an author's copyright on a book or article, a distinctive logo design representing a soft drink company and its products, unique design elements of a web site, or a patent on the process to manufacture chewing gum.

What is Intellectual Property Rights?

Intellectual property rights (IPR) can be defined as the rights given to people over the creation of their minds. They usually give the creator an exclusive right over the use of his/her creations for a certain period of time.

Intellectual property (IP) refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce.

Categories of Intellectual Property

One can broadly classify the various forms of IPRs into two categories:

- IPRs that stimulate inventive and creative activities (patents, utility models, industrial designs, copyright, plant breeders’ rights and layout designs for integrated circuits) and
- IPRs that offer information to consumers (trademarks and geographical indications).

IPRs in both categories seek to address certain failures of private markets to provide for an efficient allocation of resources.
IP is divided into two categories for ease of understanding:

1. Industrial Property

2. Copyright

Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source; and

Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs

Rights protected under Intellectual Property

a. Intellectual Property

- Inventions
- Trademarks
- Industrial design
- Geographical indications

b. Copyright

- Writings
- Paintings
- Musical works
- Dramatics works
- Audiovisual works
- Sound recordings
- Photographic works
- Broadcast
- Sculpture
- Drawings
- Architectural works etc.

Duration of Intellectual Property Rights:

Term of every patent will be 20 years from the date of filing of patent application, irrespective of whether it is filed with provisional or complete specification. Date of patent is the date on which the application for patent is filed.

Term of every trademark registration is 10 years from the date of making of the application which is deemed to be the date of registration.
Copyright generally lasts for a period of sixty years.

The registration of a geographical indication is valid for a period of 10 years.

The duration of registration of Chip Layout Design is for a period of 10 years counted from the date of filing an application for registration or from the date of first commercial exploitation anywhere in India or in any convention country or country specified by Government of India whichever is earlier.

The duration of protection of registered varieties is different for different crops namely 18 years for trees and vines, 15 years for other crops and extant varieties.

**The Rules and Laws governing Intellectual Property Rights in India are as follows:**

- The Copyright Act, 1957, The Copyright Rules, 1958 and International Copyright Order, 1999
- The Designs Act, 2000 and The Designs Rules, 2001
- The Biological Diversity Act, 2002 and The Biological Diversity Rules, 2004

**What can be patented?**

Any invention concerning with composition, construction or manufacture of a substance, of an article or of an apparatus or an industrial type of process.

**Who can apply for Patent?**

The inventor may make an application, either alone or jointly with another, or his/their assignee or legal representative of any deceased inventor or his assignee.
How is a patent obtained?

- File an application for patent
- With one of the patent offices based on territorial jurisdiction of the place of office or residence of the applicant /agent
- Pay the required fee
- Information concerning application form and details of fee available at www.ipindia.nic.in
- Guidelines for applicants also available on this website

The Patent Office then

- Conducts searches to ascertain the prerequisites
- Publishes the application
- Conducts in-depth examination
- Raises objection to the application
- Grants the patent

What is meant by patentable invention?

A patentable invention is a new product or process, involving an inventive step and capable of being made or used in an industry. It means the invention to be patentable should be technical in nature and should meet the following criteria –

- Novelty: The matter disclosed in the specification is not published in India or elsewhere before the date of filing of the patent application in India.
- Inventive Step: The invention is not obvious to a person skilled in the art in the light of the prior publication/knowledge/ document.
- Industrially applicable: Invention should possess utility, so that it can be made or used in an industry.

What is not patentable?

The following are Non-Patentable inventions within the meaning of Section 3 of Patents Act, 1970 -

- An invention which is frivolous or which claims anything obviously contrary to well established natural laws;
- An invention the primary or intended use or commercial exploitation of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment; (For e.g. process of making brown sugar will not be patented.)
- The mere discovery of a scientific principle or the formulation of an abstract theory (or discovery of any living thing or non-living substances occurring in nature);
The mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or mere new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant;

A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance;

The mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way;

A method of agriculture or horticulture; (For e.g. the method of terrace farming cannot be patented.)

Any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products; (For e.g. any new technique of hand surgery is not patentable)

Plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;

A mathematical or business method or a computer programme per se or algorithms;

A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;

(A mere scheme or rule or method of performing mental act or method of playing game; (m) a presentation of information;

Topography of integrated circuits;

An invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.

Inventions relating to atomic energy and the inventions prejudicial to the interest of security of India.

Types of Patent Applications

Ordinary Application

Application for Patent of Addition (granted for Improvement or Modification of the already patented invention, for an unexpired term of the main patent).

Divisional Application (in case of plurality of inventions disclosed in the main application).

Convention Application, claiming priority date on the basis of filing in Convention Countries.

National Phase Application under PCT.
Appropriate office for filing an application & for other Proceedings

Application is required to be filed according to the territorial limits where the applicant or the first mentioned applicant in case of joint applicants, for a patent normally resides or has domicile or has a place of business or the place from where the invention actually originated. If the applicant for the patent or party in a proceeding having no business place or domicile in India, the appropriate office will be according to the address for service in India given by the applicant or party in a proceeding. The appropriate office once decided in respect of any proceedings under the Act shall not ordinarily be changed. The four patent offices are located at Kolkata, Mumbai, Delhi & Chennai.

What are the documents required for filing a Patent application?

1) Application form in duplicate (Form 1).
2) Provisional or complete specification in duplicate. If the provisional specification is filed, it must be followed by the complete specification within 12 months. (Form 2).
3) Drawing in duplicate (if necessary).
4) Abstract of the invention in duplicate.
5) Information & undertaking listing the number, filing date & current status of each foreign patent application in duplicate (Form 3).
6) Priority document (if priority date is claimed) in convention application, when directed by the Controller.
7) Declaration of inventorship where provisional specification is followed by complete specification or in case of convention/PCT national phase application (Form 5).
8) Power of attorney (if filed through Patent Agent).
9) Fee (to be paid in cash/by cheque /by demand draft) (Schedule I).
   (The cheque or demand draft should be payable to the "Controller of Patents" drawn on any schedule bank at a place where the appropriate office is situated).

Request for permission to file abroad:

If any application is to be filed abroad, without filing in India, it should be made only after taking a written permission from the Controller. The request for permission for making patent application outside India shall be made in Form-25 along with a fee of Rs 1000/- or Rs 4000/- for natural person and other than natural person respectively. A gist of invention should also be filed along with the Form-25.

Specifications

Provisional specification - Application for patent may be accompanied by the provisional specification. It should contain the description of invention with drawing, if required. It is not
necessary to include Claim. However, the complete specification should be fairly based on the matter disclosed in the provisional specification and should be filed within 12 months. If the complete specification is not filed within 12 months the application is deemed to have been abandoned. Usually a provisional specification is filed to establish priority of the invention in case the disclosed invention is only at a conceptual stage and a delay is expected in submitting full and specific description of the invention. Although, a patent application accompanied with provisional specification does not confer any legal patent rights to the applicants, it is, however, a very important document to establish the earliest ownership of an invention.

Complete specification - The complete specification is an essential document in the filing of patent application along with the drawing to be attached according to the necessity. Complete specification should fully describe the invention with reference to drawing, if required, disclosing the best method known to the applicant and end with Claim/Claims defining the scope of protection sought. The specification must be written in such a manner that person of ordinary skill in the relevant field, to which the invention pertains, can understand the invention.

Normally, it should contain the following matter-

1) Title of invention,
2) Field of invention,
3) Background of invention with regard to the drawback associated with known art,
4) Object of invention,
5) Statement of invention,
6) A summary of invention,
7) A brief description of the accompanying drawing,
8) Detailed description of the invention with reference to drawing/examples,
9) Claim(s),
10) Abstract.

The specification must start with a short title, which describes the general nature of invention. The title should not contain anyone's name, a fancy name and trade name or personal name or any abbreviation etc.

Rights of the Patente

Where a patent covers a product, the grant of patent gives the patentee the exclusive right to prevent others from performing, without authorization, the act of making, using, offering for sale, selling or importing that product for the above purpose.

Where a patent covers a process, the patentee has the exclusive right to exclude others from performing, without his authorization, the act of using that process, using and offering for sale, selling
or importing for those purposes, the product obtained directly by that process in India. Where a patent is granted to two or more persons, each of those persons will be entitled to an equal undivided share in the patent unless there is an agreement to the contrary.

**Restoration of lapsed patents**

Where a patent has ceased to have effect due to failure to pay the renewal fee within the prescribed period, the patentee or his legal representative can within 18 months from the date on which the patent ceased to have effect make an application in Form 15 for restoration of the patent. If the Controller is satisfied that failure to pay the renewal fee was unintentional and that there has been no undue delay in the making of the application, then the patent will be restored.

**Procedure to check if invention is already patented**

The person concerned can perform a preliminary search on Patent Office website in the Indian patent data base of granted patent or Patent Office journal published every week or by making search in the documents kept in the Patent Office Search and Reference Room, which contains Indian patents arranged according to international patent classification system as well in serial number. It is open to the general public from Monday to Friday, except Gazetted holidays. The public can also conduct search free of charge on the website of Patent Office. The person concerned can also make a request for such information under section 153 of the Act.

**Patent Agent**

A Patent agent is a registered person with Indian Patent Office whose name is entered in the patent agent register after being declared qualified the patent agent examination conducted by the patent office and who is entitled—

(a) To practice before the Controller; and

(b) To prepare all documents, transact all business and discharge such other functions as may be prescribed in connection with any proceeding before the Controller under this Act.

Eligibility conditions for registration as patent agents are below.-

A person shall be qualified to have his name entered in the register of patent agents if he fulfills the following conditions, namely—

(a) He is a citizen of India;

(b) He has completed the age of 21 years;

(c) He has obtained a degree in science, engineering or technology from any university established under law for the time being in force in the territory of India or possesses such
other equivalent qualifications as the Central Government may specify in this behalf and, in addition, —

(i) Has passed the qualifying examination prescribed for the purpose; or

(ii) Has, for a total period of not less than ten years, functioned either as an examiner or discharged the functions of the Controller under section 73 or both, but ceased to hold any such capacity.

It is not necessary under the patent law to engage a registered patent agent for filing an application for patent. The applicant is free to file an application by him / her or through the patent agent. However, an applicant who is not a resident of India is required to file either through the registered patent agent or must give an address for service in India.

**Infringement of Patents**

Infringement of a patent consists of the unauthorized making, importing, using, offering for sale or selling any patented invention within the India.

**Penalties**

1) Contravention of secrecy provisions relating to certain inventions (Sec.118) - If any person fails to comply with any directions given under section 35 or makes or causes to be made an application in contravention of section 39 he shall be punishable with imprisonment up to 2 years or with fine or with both. (Section 35 deals with secrecy directions relating to inventions relevant for defence purposes and Section 39 deals with residents not to apply for patents outside India without prior permission.

2) Falsification of entries in register etc (Sec.119) - If any person makes, or causes to be made, a false entry in any register kept under this Act, he shall be punishable with imprisonment for a term that may extend to 2 years or with fine or with both.

3) Unauthorized claim of patent rights (Sec.120) - If any person falsely represents that any article sold by him is patented in India or is the subject of an application for a patent in India, he will be punishable with fine that may extend to Rs.1,00,000. The use of words 'patent', Patented', 'Patent applied for', 'Patent pending', 'Patent registered' without mentioning the name of the country means they are patented in India or patent applied for in India.

4) Wrongful use of words, "patent office" (Sec.121) - If any person uses on his place of business or any document issued by him or otherwise the words “patent office” or any other words which reasonably lead to the belief that his place of business is, or is officially connected with, the patent office, he will be punishable with imprisonment for a term that may extend to 6 months, or with fine, or with both.
5) Refusal or failure to supply information (Sec.122) - If any person refuses or fails to furnish information as required under section 100(5) and 146 he shall be punishable with fine, which may go up to Rs 10,00,000/-. If he furnishes false information knowingly he shall be punishable with imprisonment that may extend to 6 months or with fine or with both.

6) Practice by non-registered patent agents (Sec.123) - Any person practicing as patent agent without registering is liable to be punished with a fine of Rs 1,00,000/- in the first offence and Rs.5,00,000/- for subsequent offence.

7) Deals with offences by companies (Sec.124) - When offence is committed by a company as well as every person in charge of and responsible to the company for the conducts of its business at the time of the commission of the offence will be deemed to be guilty and will be liable to be preceded against and punished accordingly. Provided that nothing contained in this sub-section shall render any such person liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

E-filing of Patent applications

What is e-Filing?

E-filing is a service provided by the Intellectual Property Office, India in order to enable Customers to apply for a patent on-line allowing from the User’s browser for the User to:

- Complete an electronic application form
- Provide the associated attachments
- Complete the necessary payment details

Procedure for e-filing

1. Acquire Class 3 Digital Signatures either from (n) Code Solutions, Tata Consultancy Services (TCS) & Safe Script.
2. New users (Applicants, Agents or Attorneys), can complete online registration by providing Digital Signature details to get a User ID and Password for using the e-Filing System of Indian Patent Office (IPO).
3. Secure Login into the system with created User Id and the Password.
6. After creating application (XML) file offline, Digitally Sign the XML file (Max. file size permitted 5MB) for uploading on to the IPO Server.
7. Login into e-Patent portal (http://ipindia.gov.in) for uploading Application XML file on IPO Server.
11. On successful EFT acknowledgement details would be displayed/generated.
12. Print Acknowledgement. Click on "Print" to generate printout of acknowledgement.

**Fees under the Patents Act, 1970**

There are two elements for cost of getting patent / filing patent in India:

i) The Government fees for Forms, requests and renewals.

ii) Professional Charges for patent professional, patent agent / attorney

Government fees too, are different for an individual inventor and a company and fees for patent application also defers based on number of claims and pages in the specification. So, a lot of factors need to be considered when talking about costs involved in getting patent.

Yet to give an idea, the cost to file a patent is approximately Rs. 45,000 to 65,000. This is assuming that the applicant have hired patent (agent) professionals for patent research, writing and filing patent application for his/ her invention.

This cost requires in stages as the invention proceeds from Novelty Search (about Rs. 15000), Patent drafting and filing in India (about Rs. 30,000) and after 1 to 2 years for responding to office actions if any objections are taken by controller in examination report on application about the invention, such response to office actions typically requires (about Rs. 15000).

If an applicant is filing patent on his/ her own, without help from patent agent, then it can cost much lesser as only fees the candidate is paying as government fees for patent filing and prosecution.

Here is how an applicant will need charges as per stages in patent filing. It is assuming that applicant have hired a patent professional in helping patent filing, which is recommended and makes this all patenting efforts worthwhile with his/ her experience and expertise in techno-legal writing.

**Stage 1: invention disclosure**

This is initial phase when applicant disclose his/ her invention to the patent professional (patent agent) by signing a Non disclosure agreement. Here applicant should submit each know fact about his/ her invention, description diagrams and experimental results (if any). Hold nothing back.

**Stage 2: Novelty search (patentability search)**

The professional charges at this phase range from (Rs 10,000 to Rs.20, 000)

In this phase, patent professional performed an extensive search for prior art in all possible databases for patent, articles, thesis etc and builds a patentability search report based on closest prior art found for your invention.

**Stage 3: Decide to file patent application**

On reviewing the patentability search report and discovered closest prior arts for his/ her invention applicant can take a decision whether to go ahead with patent application filing.

Applicants invention needs to have “inventive step” as compared with existing prior art to be able to qualify for a patent. The inventive step is achieved when the applicant invention has either ‘technical advance’ or ‘economic significance’ or both over existing prior arts.
When applicant decide to go ahead with patent filing next step is writing patent application also called as patent drafting.

**Stage 4: Patent drafting (patent writing)**

Patent drafting charges range from Rs. 20,000 to 30,000 (professional fees)

Drafting a patent application is a specialized job and requires both technical (field of invention) and legal (Indian patent act) understanding.

As applicant may have heard, patent is a techno-legal document. Many inventors trying to write patent application on their own writes it from completely technical perspective. Writing patent application as a technical document without considering legal aspect may be a mistake which can make his/ her application not worth a lot. And all the efforts his/ her took for research and development can go waste.

Hence, right patent professional (patent agent) with appropriate experience can remarkably add value to patent application.

**Stage 5: Filing Patent application**

Patent filing involves patent office fees as explained in table below

When applicant done with the review of patent drafted and satisfied with the scope and technical details in the patent application, you can file the patent application is prescribed manner. That is with appropriate forms with appropriate fees. Applicant need to pay fees of Rs. 1600 or 4000 or 8000 (based on type of applicant) while submitting the patent application in patent office.

If applicant do not file request for early publication (fees mentioned in table below) the patent application will be published on expiry of 18 months.

**Stage 6: Request for Examination**

Request for examination fees is Rs. 4000 or 10000 or 20000 (based on type of applicant)

The request for examination is to be made within 48 months from the date of filing the patent application, along with prescribed form and fees. This is the request made to Indian patent office to examine the patent application.

**Stage 7: Responding to objections in examination report**

The first examination report submitted to controller by examiner generally contains prior arts (existing documents before the date of filing) which are similar to the claimed invention, and same is reported to patent applicant.

**Step 8: respond to objections**

Majority of patent applicants will receive some type of objections based on examination report. The best thing to do it analyze the examination report along with patent professional (patent agent) and creating a response to the objections raised in the examination report. This is a chance for an inventor to communicate his novelty or inventive step over prior arts found in the examination report. The inventor and patent agent create and send a response to the examination
that tries to prove to controller that his invention is indeed patentable and satisfies all patentability criteria’s.

**Step 9: Grant of patent**

The application would be placed in order for grant once it is found to be meeting all patentability requirements. The grant of patent is notified in the patent journal which is published time to time.

**Stage 10: Renewal of Patent fees**

Maintaining patent for its entire life time that is 20 years from filing date requires renewal fees to be paid to patent office.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Description</th>
<th>Natural Person (Individual inventors)</th>
<th>Other than Natural person (companies)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Application for grant of patent</td>
<td>1600</td>
<td>6250</td>
<td>8000</td>
</tr>
<tr>
<td>2</td>
<td>Early publication fee</td>
<td>2500</td>
<td>10000</td>
<td>12500</td>
</tr>
<tr>
<td>3</td>
<td>Request for examination of patent application</td>
<td>4000</td>
<td>400/sheet</td>
<td>20000</td>
</tr>
<tr>
<td>4</td>
<td>For every Extra sheet over 30 sheets</td>
<td>160/sheet</td>
<td>800/claim</td>
<td>800/sheet</td>
</tr>
<tr>
<td>5</td>
<td>For every Extra claim over 10 claims</td>
<td>320/claim</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

“Patent system added the fuel to the fire of genius” - Abraham Lincoln