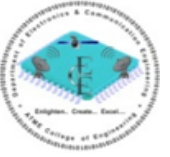




A T M E
College of Engineering



Module-3

Introduction To Intellectual Property, Patents & Process of Patenting

Module-3(8 Hours)

Introduction To Intellectual Property: Role of IP in the Economic and Cultural Development of the Society, IP Governance, IP as a Global Indicator of Innovation, Origin of IP, History of IP in India. Major Amendments in IP Laws and Acts in India.

Patents: Conditions for Obtaining a Patent Protection, To Patent or Not to Patent an Invention. Rights Associated with Patents. Enforcement of Patent Rights. Inventions Eligible for Patenting. Non-Patentable Matters. Patent Infringements. Avoid Public Disclosure of an Invention before Patenting.

Process of Patenting. Prior Art Search. Choice of Application to be Filed. Patent Application Forms. Jurisdiction of Filing Patent Application. Publication. Pre-grant Opposition. Examination. Grant of a Patent. Validity of Patent Protection. Post-grant Opposition. Commercialization of a Patent. Need for a Patent Attorney/Agent. Can a Worldwide Patent be Obtained. Do I Need First to File a Patent in India. Patent Related Forms. Fee Structure. Types of Patent Applications. Commonly Used Terms in Patenting. National Bodies Dealing with Patent Affairs. Utility Models.

Module Overview: Intellectual Property and Patents

1. Introduction to Intellectual Property (IP)

- Meaning, purpose, and significance of IP.
- Role of IP in **economic growth** (innovation, entrepreneurship, investment) and **cultural development** (creativity, safeguarding traditional knowledge, arts).
- **IP Governance** – how IP is regulated nationally and internationally.
- IP as a **global indicator of innovation** (use in ranking nations' STI ecosystem).
- **Origin and evolution** of IP concepts worldwide.
- **History of IP in India** – from colonial period to modern IP system.
- **Major amendments in Indian IP laws and acts** (especially TRIPS compliance, Patents Act amendments).

2. Patents: Fundamentals

- **Conditions for patentability**: novelty, inventive step, industrial applicability.
- **Decision-making**: when to patent or not to patent.
- **Rights associated with patents** – exclusive rights, duration, transfer/licensing.
- **Enforcement** – remedies against infringement.
- **Patentable and non-patentable inventions** under Indian law.
- Importance of **avoiding public disclosure** before filing.

3. Patent Process and Procedures

- **Stages in patenting:** prior art search → filing → publication → examination → opposition (pre/post grant) → grant → commercialization.
- **Application types** – provisional, complete, PCT, divisional, etc.
- **Forms and fee structure** required for filing.
- **Jurisdiction of filing** – national, international.
- **Patent validity** and protection period.
- **Patent opposition mechanisms** (pre-grant and post-grant).
- **Commercialization** of patents and economic benefits.
- **Role of patent attorneys/agents** in the process.
- Clarification on **worldwide patents** – (no single worldwide patent, but international routes like PCT).
- Requirement to **file in India first** for Indian inventors.

4. Institutions and Supporting Systems

- **National bodies** dealing with patents – e.g., Indian Patent Office, Controller General of Patents, Designs & Trademarks (CGPDTM).
- **Utility models** as an alternative form of protection.
- Commonly used **terminologies** in patenting.

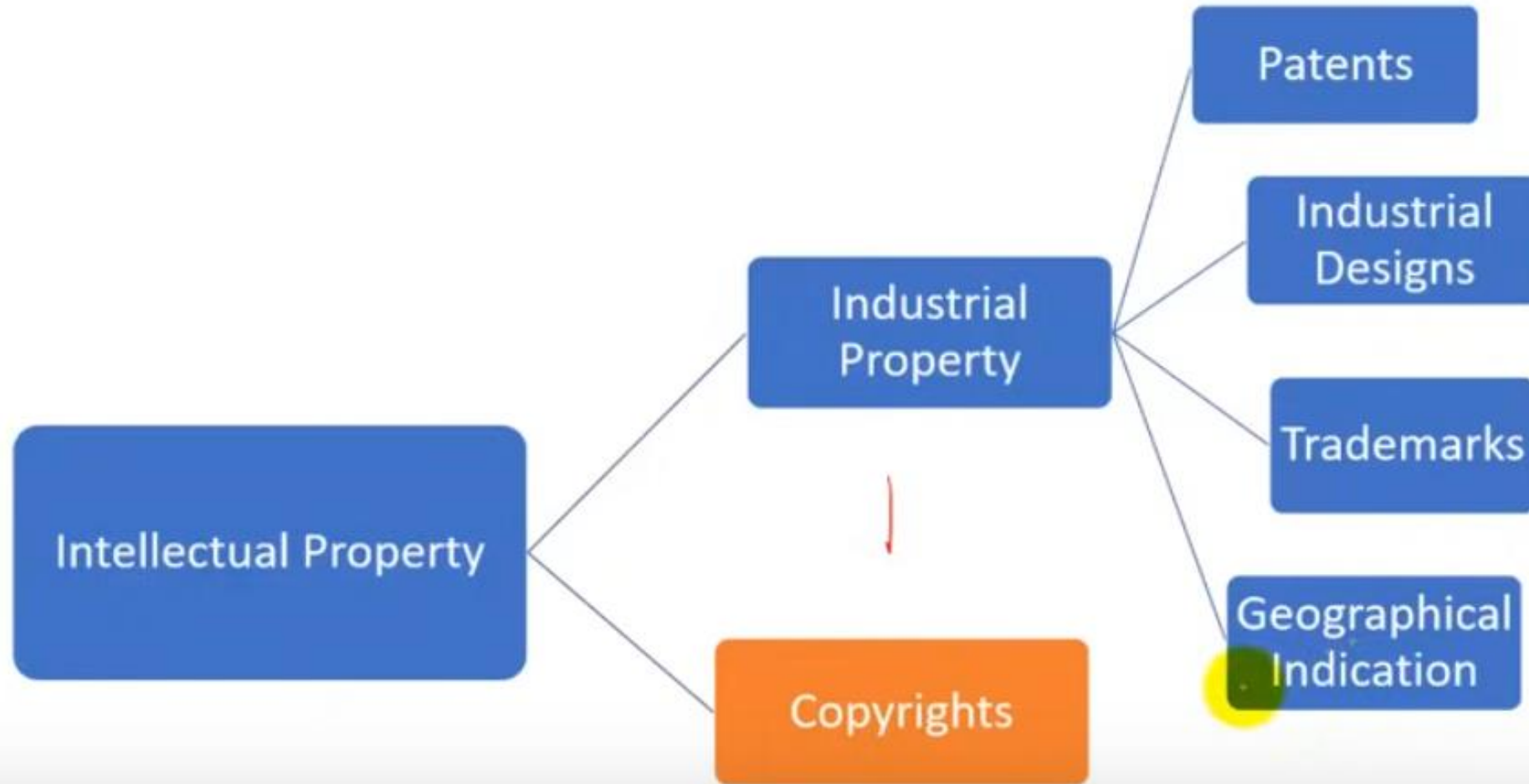
Introduction To Intellectual Property

Intellectual Property Overview

- Intellectual Property (IP) is a unique form of property **created by human** intellect in arts, literature, science, and trade.
- It is **intangible**, contrasting with familiar tangible assets like land, houses, gold, and cars.
- Intellectual Property Rights (IPR) are **legal privileges** granted to creators/inventors, exchanged for disclosing creation processes.
- **Special rights** include use, sale, distribution, and the ability to restrict others from using the invention without permission.
- **Excludes rights over physical objects** embodying the creation, emphasizing intellectual creativity.

IP Branches

- IP comprises two main branches: "Copyrights and Related Rights" and "Industrial Property Rights."
- Copyrights and Related Rights refer to the creative expressions in the fields of literature and art, such as books, publications, architecture, music, wood/stone carvings, pictures, portrays sculptures, films and computer-based software's/databases.
- "Industrial Property Rights" encompass Patents, Trademarks, Trade Services, Industrial Designs, and Geographical Indications.



1. Copyright

- What it protects:** Original creative works (literary, artistic, musical, dramatic, software, films, etc.).
- Rights:** Prevents others from copying, reproducing, or distributing without permission.
- Example:** A novel, a movie, or a computer program. If you write a book, you automatically get copyright protection.

2. Trademark

- What it protects:** Brand identifiers like **names, logos, slogans, or symbols** that distinguish goods or services of one company from another.
- Rights:** Prevents others from using similar marks that could confuse customers.
- Example:** Nike's "**swoosh**" **logo** or Coca-Cola's brand name.

3. Patent

- What it protects:** **New inventions or processes** that are useful, novel, and non-obvious.
- Rights:** Gives the inventor exclusive rights to make, use, or sell the invention (usually for 20 years).
- Example:** The technology behind touchscreen phones or a new type of medicine.

4. Trade Services (Service Marks)

- **What it protects:** Similar to a trademark, but specifically for **services instead of products**.
- **Rights:** Identifies and protects the source of services.
- **Example:** The **FedEx logo** or **McDonald's "I'm Lovin' It" slogan**, since they are tied to services like delivery or fast food.

5. Industrial Designs

- **What it protects:** The **aesthetic or ornamental design** (shape, pattern, or color) of a product, not its function.
- **Rights:** Protects how something **looks**, not how it works.
- **Example:** The unique shape of a Coca-Cola bottle, or the design of an iPhone's body.

6. Geographical Indication (GI)

A **Geographical Indication (GI)** is a type of intellectual property right that identifies a product as coming from a **specific geographical location**, where its **quality, reputation, or characteristics** are essentially linked to that place.

It shows that the product is **unique** because of the **climate, soil, culture, or traditional skills** of that region.

GI tags are usually given to **agricultural products, foodstuffs, wines, handicrafts, and industrial goods**. Items that meet geographical origin and quality standards may be endorsed with a government-issued stamp which acts as official certification of the origins and standards of the product.

◆ Key Features

1. **Link to location** → The product must originate from a specific place.
2. **Unique qualities** → The qualities must be due to that location (environment, traditional know-how, or culture).
3. **Collective right** → Unlike patents or trademarks (which belong to one person/company), GIs usually belong to a **community or group of producers**.

◆ Examples (India)

- **Darjeeling Tea** (West Bengal) → Famous for its unique aroma and flavor due to Darjeeling's climate.
- **Mysore Silk** (Karnataka) → Special silk sarees produced traditionally in Mysore.
- **Alphonso Mango** (Maharashtra) → Known as the "King of Mangoes."
- **Kanchipuram Sarees** (Tamil Nadu) → Traditional handwoven silk sarees.
- **Nagpur Oranges** (Maharashtra).

Trade Services:

In banking, **Trade Services** refers to all the services a bank provides to support **international or domestic trade** (import/export of goods and services). These services usually involve **financing, lending, or handling trade documents**.

“Any services in relation to trade”

- Means: Any banking support connected with buying/selling goods and services across borders (import/export).

“Or any trade related financing, lending or other financial accommodation provided (or to be provided) by the bank”

- Means: The bank gives **financial help** such as loans, credit, or guarantees to businesses involved in trade.

Suppose an Indian company imports machinery from Germany.

The German supplier wants **payment guarantee** → the Indian company asks its bank to issue a **Letter of Credit**.

When the goods are shipped, the supplier submits documents → the bank checks them.

If everything matches, the bank pays the supplier and later collects money from the importer.

All of these steps are **Trade Services provided by the bank**.

Trade Services = all the banking services that help businesses carry out trade, especially import/export, by handling documents, payments, credit, and guarantees

In short:

- **Copyright** = protects creative expression
- **Trademark** = protects brand identity
- **Patent** = protects new inventions
- **Trade Service/Service Mark** = protects service branding
- **Industrial Design** = protects product appearance

Role of IP in the Economic and Cultural Development of the Society

1. Creativity = Key to Progress

- A society grows when people **invent, innovate, and create**.
- Example: New medicines, technology, art, and literature improve living standards.

2. IPR as an Incentive

- IP laws **reward creators** by giving them exclusive rights (copyright, patents, trademarks).
- This protection **encourages innovation** and inspires others to create.
- Example: A company invests in research because it knows its invention will be protected.

3. Negative Side of Rigid IPR

- If applied too strictly, IP can **hurt society**.
- Example: Under the **TRIPS Agreement**, farmers often cannot save or reuse patented seeds.
- Multinational corporations (MNCs) control seed prices → farmers can't afford them.

4. Balancing IP and Society's Needs

- To reduce negative impacts, laws introduce **exceptions, limitations, and special rights**.

Examples: Farmers' Rights under PVP&FR Act, 2001:

- Farmers can **save, share, and exchange seeds**. They are protected from legal action if they unknowingly use another's plant variety.



5. Cultural and Social Protection

- IP laws also ensure that **unethical or dangerous innovations** do not get legal recognition.
- This protects **human values, safety, and cultural balance**.

***Positive Role:** IP encourages innovation, boosts economy, protects culture.*

***Negative Impact:** If too rigid, it hurts farmers, education, and access to essential goods.*

***Solution:** Balance through laws, exceptions, and limitations that protect both creators and society.*

TRIPS = Trade-Related Aspects of Intellectual Property Rights.

- It is an international legal agreement under the **World Trade Organization (WTO)**.
- It sets **minimum standards** for protecting intellectual property (patents, copyrights, trademarks, etc.) worldwide.
- All WTO members, including India, must follow TRIPS rules.
- TRIPS requires **patent protection** (or similar rights) for new inventions, including **genetically modified (GM) seeds** or specially developed hybrid seeds. When a company develops such seeds, it can **patent** them.

The Problem for Farmers

1. Patented seeds = No saving/reusing

1. Traditionally, farmers saved part of their harvest as seed for the next season.
2. Under TRIPS (and patent law), if the seed is patented, farmers **cannot legally save or replant it** without the patent-holder's permission.

2. Need to buy every season

1. Farmers must purchase new seeds each time from the company → increases **dependency** and **cost**.

3. Price control by companies

1. Multinational seed companies (like Monsanto in the case of Bt Cotton in India) often fix high prices for seeds.
2. Small farmers struggle to afford them.

Example

- A company patents a genetically modified cotton seed.
- Farmers buy and plant it → crop grows successfully.
- Next year, the farmer **cannot legally reuse the harvested seeds** (because of patent law).
- He must **buy again** from the company at the market price.

◆ Indian Context

India balanced TRIPS with the **Protection of Plant Varieties and Farmers' Rights (PVP&FR) Act, 2001:**

- Farmers can **save, share, and replant seeds** (even of protected varieties).
- But they cannot **brand and sell** patented seeds commercially.

“Under TRIPS, farmers cannot save or reuse patented seeds” → it means patent laws prevent traditional practices of seed saving and force farmers to depend on seed companies for each planting season.

1. Traditional Seeds

- **Definition:** Seeds that farmers have used and saved for generations.
- **Source:** Naturally occurring, passed down from one harvest to the next.

Features:

- Farmers can **save, reuse, exchange, and sell** without restriction.
- Adapted to local climate and soil.
- Less yield compared to modern varieties.

Example: Local varieties of rice, wheat, or pulses that farmers in a village use year after year.

2. Hybrid Seeds

Definition: Seeds produced by **cross-breeding two different parent plants** to get desirable traits (like higher yield or pest resistance).

Source: Developed by plant breeders but not genetically modified in a lab.

Features:

- High yield in the **first generation (F1)**.
- If farmers save and reuse hybrid seeds, the **next generation (F2)** often gives **poor yield and unpredictable results**.
- Farmers usually **buy new hybrid seeds each season**.

Example: Many hybrid varieties of maize, tomato, or sunflower.

3. Patented GM (Genetically Modified) Seeds

Definition: Seeds created by **direct genetic modification (biotechnology)** to add specific traits (e.g., insect resistance, drought tolerance).

Source: Developed in labs, usually by multinational companies (e.g., Monsanto, Bayer).

Features:

- Protected under **patent law (TRIPS Agreement)**.
- Farmers **cannot legally save/reuse** these seeds → must **buy fresh seeds every year**.
- Companies control the **price and distribution**.
- Can significantly increase yield but raises **dependency and cost issues**.

Example: Bt Cotton (genetically modified to resist bollworm).

What is IP Governance?

Since **Intellectual Property (IP)** (like patents, copyrights, trademarks, etc.) is very important for innovation, trade, and culture, countries need **systems, agencies, and laws** to regulate and enforce it.

IP Governance = The way IP is **administered, protected, and promoted** by national and international organizations.

IP Governance in India

1. Main Authority

- In India, most categories of IP (patents, trademarks, copyrights, industrial designs, etc.) are governed by the **Department for Promotion of Industry & Internal Trade (DPIIT)**, under the **Ministry of Commerce & Industry**.
- **Exception:** Plant Variety and Farmers' Rights are handled separately under the **Protection of Plant Varieties and Farmers' Rights Act (PVP&FR Act)**.

2. Other Key Organizations

- **TIFAC** (Technology Information Forecasting and Assessment Council) → Promotes patent awareness, helps with technology forecasting.
- **NRDC** (National Research Development Corporation) → Supports patent commercialization (turning patents into usable products).
- **CIPAM** (Cell for IPR Promotion and Management) → Creates awareness and simplifies IPR processes in India.

IP Governance at the International Level

- Since trade and creativity cross borders, countries need to **coordinate rules** so that IP rights are respected internationally.
- For this, the **United Nations (UN)** established the **World Intellectual Property Organization (WIPO)**.

Functions of WIPO:

- Educates and spreads awareness about IP.
- Provides systems for **international filing and registration** of patents, trademarks, and copyrights.
- Oversees **treaties and conventions** to set global standards.

Examples of International Treaties under WIPO:

- Paris Convention** → Protects industrial property (patents, trademarks) across countries.
- Patent Cooperation Treaty (PCT)** → Allows inventors to file one international patent application valid in many countries.
- Berne Convention** → Protects copyrights (books, music, films, etc.) internationally.
- Rome Convention** → Protects rights of performers, producers, and broadcasters.

Patents are proof of **new inventions**.

When a country produces a high number of patents, it shows **active research, technology development, and innovation**.

Therefore, IP (especially patents, trademarks, copyrights, designs) is often used as an **indicator** to measure how innovative a country is.

Role in Global Rankings

Global ranking organizations (that measure how advanced or innovative a country is) use **IP data** as one of the parameters.

These rankings look at the **Science, Technology, and Innovation (STI) ecosystem** of a nation.

Example parameters:

- Number of patents filed.

- Number of research publications.

- Quality of higher education.

- Investment in R&D.

Example: SCImago Report (2020)

- **SCImago** is an online portal that ranks journals, institutions, and countries based on research data (from Scopus database).
- In 2020:
 - India ranked **4th in research publications** (good research output).
 - India ranked **50th in Intellectual Property Rights** (low patent/innovation activity compared to research).

How to Improve Global Ranking

Awareness: Train and sensitize teachers, researchers, and scientists about the importance of **filing patents/IP**, not just publishing papers.

Infrastructure: Set up **IP cells** and **innovation centers** in universities and research institutes to help with:

- Patent filing.
- Technology transfer.
- IP commercialization.

1. Early Beginnings (~500 BCE in Sybaris, Greece)

Time & Place: Around 500 BCE, in the Greek city-state of Sybaris.

What happened:

People who created **improvements in luxury items** (like jewelry, furniture, or fancy tools) were given a **one-year exclusive right** to benefit from their invention.

This was one of the **earliest recorded instances of IP**.

Significance:

Even in ancient times, society recognized that **creators should be rewarded for their inventions**.

This was a primitive way of encouraging creativity and innovation.

Example: If a craftsman in Sybaris invented a new type of wine cup, only he could sell it for a year.

2. Medieval Europe – Practical IP Governance

Time & Place: Medieval Europe, around the 17th century.

What happened:

IP started becoming **more formalized**.

In **1623, Britain** passed a law giving guilds (groups of artisans or merchants) **legal rights to innovate and sell their creations**.

Problem:

While the law encouraged innovation, it also caused **public resentment**, because: It created monopolies for guilds. Ordinary people or other craftsmen couldn't freely use or reproduce these innovations.

Significance: This was an early attempt at **IP governance**, but it favored groups (guilds) rather than individual inventors.

3. Statute of Monopolies (1624, Britain)

Purpose: To fix the problems of the 1623 law.

What it did:

Granted **exclusive rights to the original inventor** (not guilds) for **14 years**.

Importance:

Considered **one of the first modern patent laws**.

Focus shifted from protecting groups (guilds) to **rewarding individual inventors**.

Example: If someone invented a new mechanical clock, only the inventor could make and sell it for 14 years.

4. Statute of Anne (1710) – Foundation of Copyright

•**Purpose:** To protect **authors** rather than inventors.

•**What it did:**

- Allowed authors to **control reproduction and distribution** of their works (books, literature, etc.).
- Protection lasted **14 years initially**, with the option to **renew for another 14 years**.

•**Importance:**

- This was the **first modern copyright law**.
- Focused on **intellectual creativity in literature**, ensuring authors could earn from their works.

Example: If an author wrote a book, no one else could print or sell it without permission for 14 years.

5. Global Adoption (Late 18th – 19th Century)

After Britain's innovations, other countries began **enacting their own IP laws**.

Purpose:

Protect **novel inventions** (patents) and **creative works** (copyrights).
Encourage **innovation and creativity worldwide**.

Significance:

Led to the **modern IP system** where inventions, creative works, and trademarks are protected internationally.

History of IP in India

Patents

- The history of the Indian patent system dates back to the pre-independence era of British rule. The first patent related legislation in India was Act VI of 1856, adapted from the British Patent Law of 1852.
- The objective of this legislation was to **encourage the inventions of new and useful manufactures**.
- The rights conferred to the inventor were termed as **“Exclusive Privileges”**.
- In 1859 certain amendments were made to the Act, such as:
 - Grant of exclusive privileges to useful inventions.
 - Increase of priority time from 6 months to 12 months.
 - Exclusion of importers from the definition of the inventor.

- The **world's first patent** was granted in 1790 to Samuel Hopkins in USA for the "making of pot ash and pearl ash by a new apparatus and process"
- In India, the first patent was awarded in 1856 to a civil engineer, George Alfred from Calcutta, for his invention, 'An Efficient Punkah Pulling Machine'
- A few years later, it was felt that '**Designs**' could also pass the criteria of the invention and thus should be included in the Patent Act.
- The new Act was '**The Patterns and Designs Protection Act**' under Act XIII of 1872. At the beginning of the 20th century, all the earlier Acts related to inventions and designs were done away with the introduction of '**The Indian Patents and Designs Act, 1911**' (Act II of 1911).

Amendments in Indian Patent Law (last 3 decades)

1. Reciprocal arrangements with other countries for securing priority dates

If an inventor files a patent in one country, they can **claim the same filing date** when applying in another country (within a fixed time).

This helps inventors protect their inventions internationally without losing priority.

2. Product patent for inventions in all fields of technology

Earlier, India allowed only **process patents** (method of making something, not the actual product).

Now, **product patents** are allowed in **all technologies** (like medicines, chemicals, food, electronics).

This change made India's patent system **TRIPS-compliant** (as per WTO agreements).

3. Exclusion of new forms of known substances (to prevent evergreening)

“Evergreening” = drug companies making tiny changes to an old medicine just to keep extending the patent.

Indian law **disallows patents on mere new forms** of existing substances **unless they show real improvement** in effectiveness.

This protects public interest by ensuring **cheaper generic medicines**.

4. Rationalization of the opposition procedure

Streamlining the way people can **oppose a patent application** (make it fairer and more systematic).

5. Introduction of pre-grant opposition (by representation)

- Before a patent is officially granted, **anyone can raise objections** (e.g., saying it is not new, or lacks inventive step).
- This prevents **undeserving patents** from being approved.

6. Introduction of post-grant opposition

- Even **after a patent is granted**, it can be challenged (within 1 year) if there are valid reasons (like prior invention already exists).

7. Compulsory license for export purposes

- The government can allow another manufacturer to **produce and export a patented product** (usually medicines) to countries that cannot afford or make it themselves.

8. Compulsory license for manufacture

- If a patented product is not being **produced in sufficient quantity, or is too expensive**, the government can let others manufacture it **without the patent owner's permission** (with some royalty paid).
- This ensures **public access** to essential products.

9. Extension of grace period (6 → 12 months) for filing a patent if published in a government exhibition

- Sometimes, inventors display their work in **official exhibitions** before filing a patent.
- A **grace period** gives them time to still file a patent afterwards.
- This period was extended from **6 months to 12 months** → giving inventors more time to protect their

A long time ago, in the **15th century**, people only had handwritten books. Every book was copied by hand, which was slow and full of mistakes. Then came the **printing press** – and suddenly, books could be copied easily! But this raised a problem:

How do we protect the rights of authors so that others don't just copy and sell their work without permission?

That's when the **idea of copyright laws** started around the world.

Phase 1 – Early British Rule (1847)

- In **1847**, during the East India Company's time, India got its **first copyright law**.
- Copyright lasted for the author's **lifetime + 7 years**.
- Authors had to **register** their copyright for it to be valid.
- If an author died and the book owner didn't want to publish it, the **government could step in and grant a license** to ensure the book reached people.

Phase 2 – Later British Raj (1914)

- In **1914**, another law was passed – the **Indian Copyright Act, 1914**, based on the **UK Copyright Act, 1911**.
- This law was stricter: if someone copied a work without permission, it was a **criminal offence**.
- This meant copyright protection was no longer just civil (money fines) but also had **criminal punishments**.

Phase 3 – After Independence (1957)

- India became independent and needed its own copyright law. So, in **1957**, the **Copyright Act, 1957** was passed.
- It replaced the old 1914 law.
- It was designed to match the **Berne Convention (1886)**, an important international copyright treaty.
- This Act became the backbone of copyright law in India.

Amendments to keep up with the world

The 1957 Act has been **amended six times** (1983, 1984, 1992, 1994, 1999, 2012).

These changes made sure India's law matched modern needs – like protecting films, music, computer software, and online content.

It also complied with international treaties such as:

WIPO Copyright Treaty (1996)

WIPO Performances and Phonograms Treaty (1996)

India in the Global Copyright Family : India is an active member of many global agreements, including:

Berne Convention (1886, modified 1971), TRIPS Agreement (1995)

Universal Copyright Convention (1951)

Rome Convention (1961), WCT & WPPT (1996)

Trademarks – Protecting Brands

Companies wanted to protect the **names, logos, and symbols** that identified their products.

- **1940:** India passed its first **Trademarks Act**, borrowed from Britain (1938 Act).
- Over time, trademark rules were included in other laws like the **Indian Penal Code, Criminal Procedure Code, and Sea Customs Act** to prevent misuse.
- **1958:** The Act was renamed the **Trade and Merchandise Marks Act**.
- **1999:** To comply with **TRIPS (global IP rules)**, the **Trademarks Act, 1999** was enacted.
- Today, this is the **current law for registering and protecting trademarks in India**.

Geographical Indications (GI) – Linking Products to Place

Some products are unique to a **specific place**.

- India passed the **Geographical Indications of Goods Act, 1999**, which came into force on **15th September 2003**.
- It ensures that only products genuinely originating from that area can use that name.
- Example: **Darjeeling Tea, Kanchipuram Silk, Alphonso Mango**.
- GI protection is part of **TRIPS (Article 22.1)**.

Industrial Designs – Protecting Creativity in Products

Designs make products **unique and attractive**.

- **1872:** First law, **Patterns and Designs Act**, protected novel patterns.
- **1907:** Replaced by **British Patents and Designs Act**, later basis for **Patents and Designs Act, 1911**.
- **1970:** Patents were separated into the **Patents Act, 1970**; the 1911 Act remained for designs.
- **2000/2001:** Dedicated **Industrial Designs Act** passed, giving legal protection for creative designs.

Semiconductor Integrated Circuits (SICLD) – Protecting IT Innovations

The IT revolution brought **new types of IP**: layout designs of semiconductors.

- A semiconductor chip's layout is **unique intellectual property**.
- To protect this, India passed the **SICLD Act, 2000**, following **TRIPS rules (Articles 35–38)**.
- This law ensures Indian innovators in IT are **protected globally**.

Before the 1970s

- ✓ In India (and many other countries), **plants and animals could not be patented.**
- ✓ **Reason** → They are natural living things, not inventions.
- ✓ But **microorganisms (like bacteria, fungi, etc.)** were allowed to be patented, because they can be artificially modified and used in industries (for medicine, agriculture, food, etc.).

1970 Patents Act (India)

Made it **clear in law**:

No patents for plants and animals.

Only **microbes** could be patented.

Problem

With globalization, new plant varieties (like high-yield seeds, hybrid crops) needed protection so that plant breeders and scientists could benefit from their work. For this, an international system existed: **UPOV (International Union for the Protection of New Varieties of Plants)**, created in **1978** and revised in **1991**.

India's Solution: Sui Generis Law

Sui generis = a **special law designed for India's needs** instead of directly copying UPOV.

India passed the **PPV&FR Act, 2001** (Plant Varieties Protection and Farmers' Rights Act).

This Act:

Protects new plant varieties → If a scientist or company develops a new seed/variety, they get rights over it (like a patent).

Protects farmers' rights → Unlike UPOV, Indian law ensures farmers can **save, use, exchange, and replant seeds**, even if they are protected varieties.

In simple words

You **cannot patent plants or animals** in India (still true today). But you can **protect new plant varieties** (like hybrid rice, wheat, cotton) under a **special law (PPV&FR Act, 2001)**. This gives rights both to **breeders (scientists/companies)** and to **farmer**

Biodiversity Conservation – Protecting Nature

India also focused on **protecting its environment and biodiversity**.

Key laws and policies:

- **1927:** Indian Forest Act
- **1972:** Wildlife Protection Act
- **1988:** National Forest Policy
- **1957–2006:** Acts for water, mining, forest conservation, and recognition of tribal rights.
- **2002:** Biological Diversity Act
- **2009:** National Biodiversity Action Plan
- **2006:** National Environment Policy

- A patent is an exclusive right granted for an innovation that generally provides a new way of doing something or offers a new technical solution to a problem.
- The exclusive right legally protects the invention from being copied or reproduced by others.
- In return, the invention must be disclosed in an application in a manner sufficiently clear and complete to enable it to be replicated by a person with an ordinary level of skill in the relevant field.

CONDITIONS FOR OBTAINING A PATENT PROTECTION

There is a set criterion, as provided in Section 2(1)(j) of the Patents Act, 1970, which must be fulfilled for a product or a process to qualify for the grant of a patent. The criterion encompasses:

- **Novelty - *Not part of 'State of the Art'*.** The innovation claimed in the patent application is new and not known to anybody in the world. In other words, the innovation is

- not in the knowledge of the public,
- not published anywhere through any means of publication and
- not be claimed in any other specification by any other applicant.
- Inventive step - *Not obvious to the person (s) skilled in the art.* The innovation is
 - ✓ a technical advancement over the existing knowledge,
 - ✓ possesses economic significance and,
 - ✓ not obvious to a person skilled in the concerned subject.
- Capable of industrial application - *For the benefit of society.* The invention is capable of being made or used in any industry.

- Once an invention has been developed, the inventor has to decide whether to exploit the invention for personal benefits as provided by the statutory laws of the country or put it in the public domain.
- By and large, the inventor prefers the former option. Only a miniscule of inventions is placed in the public domain without claiming any benefits.
- In the latter case, anybody can exploit the innovation for commercial or societal benefit without paying any money to the inventor.
- If the owner of an invention wishes to seek monetary gains, he can choose from either of the two options, i.e. patenting or Trade Secret. If the inventor is absolutely sure of maintaining the secrecy of invention for a very long period (maybe 100 years or more) and the probability of reverse engineering of the technology is nil or very low, then the —“Trade Secret” category is preferred.
- If the invention has a short life span or the probability of reverse engineering is high once the invention is in the public domain, then the “patent” category is preferred.

- As per the Court of Law, a patent owner has the right to decide who may or may not use the patented invention.
- In other words, the patent protection provided by the law states that the invention cannot be commercially made, used, distributed, imported, or sold by others without the patent owner's consent.
- The patent owner may permit other parties to use the invention on mutually agreed terms.
- As a matter of fact, the patent rights are negative rights as the owner is restricting others from using the patent in any manner without his prior permission.
- The patent holder may choose to sue the infringing party to stop illegal use of the patent and also ask for compensation for the unauthorized use.

ENFORCEMENT OF PATENT RIGHTS

- Enforcement is the process of ensuring compliance with laws, regulations, rules, standards and social norms.
- Patent rights are usually enforced by the judicial courts.
- The Court of Law has the authority to stop patent infringement.
- However, the main responsibility for monitoring, identifying and taking action against infringers of a patent lies with the patent owner.

INVENTIONS ELIGIBLE FOR PATENTING

- Patents may be granted for inventions/technologies in any field, ranging from a paper clip or ballpoint pen to a nanotechnology chip or a Harvard mouse (mouse with cancer genes).
- It is a general belief that patents are awarded only to major scientific breakthroughs. But, it is not true.
- In fact, the majority of patents are granted to inventions displaying an improvement over the existing invention.
- For example, many patents can be awarded to a single molecule e.g. penicillin's (an antibiotic that kills microbes) and its derivatives. The derivatives are made by making subtle changes in the structure of the penicillin resulting in new/improved properties, such as acid stability or temperature stability or killing a wide range of microbes (germs).
- The new antibiotic molecules, known as second, third or fourth generation penicillin's can also be patented.

- In our daily life, we use many patented items, such as toothbrush, toothpaste, shoes, pen, eyeglasses, textiles, mobile phones, wristwatch, bicycle, scooter, car, television, cold drinks, beverages and many more.
- It is not uncommon that many products contain several inventions (patents) e.g. the laptop computer involves hundreds of inventions working together. Similarly, cars, cell phones and televisions have many patented components.

In the Patent Act, 1970, there are some exclusion (product and processes) that cannot be patented, such as:

➤ **Invention contrary to public morality –**

If something goes **against ethics, public order, or human dignity**, it cannot be patented.

Examples:

A method for **human cloning** (unethical).

A method for **gambling** (encourages bad practices).

➤ **Mere discovery (not invention)**

Just **finding something that already exists in nature** is not an invention.

Examples:

Discovering a new **microorganism** in soil.

Discovering **laws of gravity**.

Reason → You didn't create it; you just found it.

➤ **Mere discovery of a new form of a known substance**

If a substance is already known, simply discovering a **new use** or **slight modification** is not patentable.

Example: Aspirin was patented for fever/pain. Later discovered to help in **heart treatment** → This is just a **new use**, not a new invention.

➤ **Frivolous inventions (silly or trivial ideas)**

Inventions with **no real technical advancement or utility**.

Examples:

Dough mixed with herbs → only a taste change.

A **100-year calendar** or a **bus timetable** → information arrangement, not invention.

➤ **Arrangement or rearrangement of known devices**

Simply **combining existing products** without real innovation is not patentable.

Examples:

Umbrella with a **fan attached**.

A torch fixed to a **bucket**.

➤ **Inventions falling within Section 20(1) of the Atomic Energy Act, 1962**

Inventions with no real technical advancement or utility

Examples:

Dough mixed with herbs → only a taste change.

A **100-year calendar** or a **bus timetable** → information arrangement, not invention.

➤ **Literary, artistic, musical works, software, teaching methods**

These are **creations of the mind**, but they fall under **Copyright law (1957)**, not Patents.

Examples:

Books, sculptures, paintings, computer programs, mathematical methods, teaching methods.

➤ **Topography of integrated circuits** - protection of layout designs of integrated circuits is provided separately under the Semiconductor Integrated Circuit Layout Designs Act, 2000.

➤ **Plants and animals (and their parts)**

No patents on plants, animals, seeds, or biological processes for breeding/propagation. Protected instead by the **PPV&FR Act, 2001**.

➤ **Traditional knowledge**

Knowledge that has existed for centuries in communities (like Ayurveda, herbal remedies) cannot be patented.

Example:

Using **turmeric** for wound healing (traditional knowledge in India) → not patentable.

PATENT INFRINGEMENTS

Once the patent is granted to the applicant, he owns the right to use or exploit the invention in any capacity. If anyone uses the invention without the prior permission of the owner, that act will be considered an infringement of the invention. Infringements can be classified into two categories

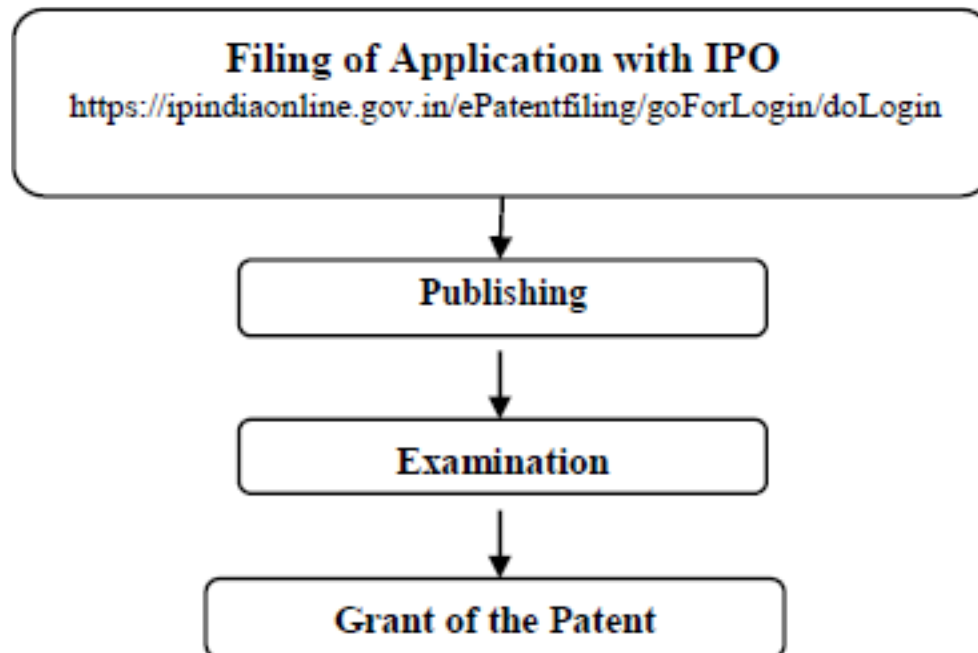
- **Direct Infringement** - when a product is substantially close to any patented product or in a case where the marketing or commercial use of the invention is carried out without the permission of the owner of the invention.
- **Indirect Infringement** - When some amount of deceit or accidental infringement happens without any intention of infringement. If such an unlawful act has been committed, the patentee holds the right to sue the infringer through judicial intervention. Every country has certain laws to deal with such unlawful acts. Following reliefs are made available to the patentee:
 - ✓ **Interlocutory/interim injunction:** A temporary order by the court to **immediately stop** the infringer from making or selling the product until the case is decided.
 - ✓ **Damages or accounts of profits:** The infringer must pay money to the patent owner, either as **compensation** for losses or by giving up the **profits earned** from infringement.
 - ✓ **Permanent injunction:** A **final court order** stopping the infringer forever from using or selling the patented invention.

AVOID PUBLIC DISCLOSURE OF AN INVENTION BEFORE PATENTING

- Generally, an invention that has been either published or publicly displayed cannot be patented, as the claimed invention will lose the Novelty criterion.
- However, under certain circumstances, the Patents Act provides a grace period of 12 months for filing a patent application from the date of its publication in a journal or presentation in a reputed scientific society or exhibition.
- Sometimes, disclosure of an invention before filing a patent application is unavoidable, e.g. selling your invention to a potential investor or a business partner who would like to know complete details of the invention in order to judge its commercial value. In such a case, it is advisable to sign a Non-Disclosure Agreement (NDA) or any other confidential agreement to safeguards your interest

Process of Patenting

- In India, the process of grant of a patent is a lengthy procedure that may take anywhere 3-4 years or more
- The major steps involved in this process are listed in figure
- Fig: Flowchart of major steps involved in grant of patent



1. Filing of Application with IPO

- The process begins by **submitting a patent application** to the **Indian Patent Office (IPO)** through the online portal
<https://ipindiaonline.gov.in/ePatentFiling/goForLogin/doLogin>.
- The inventor/applicant must file either a **provisional** or a **complete specification** depending on how developed the invention is.
- Filing secures a **priority date**, which establishes legal ownership of the invention.
- The required forms include inventor and applicant details, description of the invention, claims, and drawings (if applicable).
- Once filed, the IPO issues an **application number** as official acknowledgment.

2. Publishing

- After filing, the application is **automatically published** in the **Patent Office Journal** after **18 months** from the filing or priority date.
- Early publication can be requested to speed up the process.
- Upon publication, the invention becomes publicly visible — anyone can view its details — but the applicant **does not yet have enforceable rights**.
- The purpose of publishing is to ensure **transparency** and allow others to file **pre-grant oppositions** if they find the invention lacks novelty.

3. Examination

- After publication, the applicant must file a **Request for Examination (RFE)** within the prescribed time limit (**normally within 48 months**).
- The Controller refers the application to a **Patent Examiner**, who evaluates:
 - ☐ Novelty (newness)
 - ☐ Inventive step (non-obviousness)
 - ☐ Industrial applicability (usefulness)
 - ☐ Compliance with the **Indian Patent Act 1970** and its rules.
- The examiner issues a **First Examination Report (FER)** listing any objections.
- The applicant must **respond** to these objections by amending claims or giving clarifications.

4. Grant of the Patent

- Once all objections are resolved and there is **no opposition** pending, the Controller **grants the patent**.
- The details of the granted patent are published again in the Patent Office Journal.
- The patentee then obtains **exclusive rights** for **20 years** from the filing date to make, use, sell, or license the invention.
- After grant, renewal fees must be paid annually to maintain validity.

While the process of patenting includes –

- Prior art search,
- Choice of Application to be Filed,
- Patent Application Forms,
- Jurisdiction of Filing Patent Application,
- Publication,
- Pre-grant Opposition,
- Examination,
- Grant of a Patent,
- Validity of Patent Protection,
- Post grant Opposition

❖ PRIOR ART SEARCH

- Before an inventor embarks upon the patent filing process, he has to ensure that his invention is novel as per the criterion for the grant of a patent. For this, he/she has to check whether or not his invention already exists in the public domain.
- For this, he/she needs to read patent documents and Non-Patent Literature (NPL), scientific journal/reports/magazines, etc.
- The information lying in the public domain in any form, either before the filing of the patent application or the priority date of the patent application claiming the invention, is termed as Prior Art.
- Conducting a prior art search before filing the patent has advantages as it averts infringement, tracks research and development and provides access to detailed information on the invention.
- The prior art search is carried out on the parameters such as novelty, patentability, state of the art, infringement, validity and freedom to operate.

The commonly used databases for prior art search fall in two categories i.e. Patents Databases and NPL. The patent databases are

- ☐ Indian Patent Advanced Search System (InPASS <http://ipindiaservices.gov.in/publicsearch/>).
- ☐ Patentscope (WIPO- <https://www.wipo.int/patentscope/en/>).
- ☐ Espacenet (EU- <https://worldwide.espacenet.com/patent/>).
- ☐ USPTO (USA- <https://www.uspto.gov/>).
- ☐ Google Patents Advanced Search (<https://patents.google.com/advanced>).
- ☐ Orbit Intelligence (<https://www.questel.com/business-intelligence-software/orbitintelligence/>).
- ☐ Derwent Innovation (<https://clarivate.com/derwent/solutions/derwentinnovation/>).
- ☐ PROQUEST (<https://about.proquest.com/search/?searchKeyword=patent+>).

- **Non-Patent Literature (NPL)**

- ❑ **Scholarly publications:** Handbooks, Textbooks, Withdrawn, Patents, Encyclopedias, Journals (IEEE, Research Gate, Springer, Wiley Online Library, etc.), Dissertations, NCBI_s, PubMed, Conference Proceedings, Technical Reports, Public Conferences, etc.
- ❑ **Industry/trade publications:** Industry reviews and public disclosures (Social media, YouTube, Books, Magazines, Datasheets, Blueprints, etc.).
- ❑ **Others:** Newspapers, Websites, Technology blogs, Researchers websites, etc.
- ❑ Although, majority of NPL data is available freely on the public forum, some of the journals are paid and can be accessed after paying the subscription.
- ❑ Major Patent Office's such as the United States Patent and Trademark Office's (USPTO), European Patent Office (EPO), Japan Patent Office (JPO), etc. are maintaining in house NPL databases to make patents examination more effective

❖ CHOICE OF APPLICATION TO BE FILED

Once a decision has been made to patent the invention, the next step is, what kind of application needs to be filed i.e. provisional patent application or complete (Final) patent application - generally, the provisional patent application is preferred for the following reasons:

- ❑ It is cheaper, takes less time, and involves fewer formalities.
- ❑ Any improvements made in the invention after the filing of the provisional application can be included in the final application.
- ❑ In other words, the provisional application does not require complete specifications of the inventions. The application can be filed even though some data is yet to be collected from pending experiments.
- ❑ A provisional application allows you to secure a priority date for the patent applied.

❖ PATENT APPLICATION FORMS



- As per the Patent Act, 1970 (Section 39) and the Patents Rules, 2003 (Rule 7, 54, 135 and sub rule (1) of rule 20, the application for the grant of patent is filed using Form-1 and Form-2.
- The information sought in **Form-1 is general in nature** i.e. Title of Application, Names of Applicant(s) and Inventor(s), Type of Application (Ordinary, Convention, PCT-NP (PCT- National Phase), Divisional, Patent of Addition, etc.).
- Whereas **Form-2 seeks technical information** and whether to file the provisional application or complete the application. For Provisional Application, only Description of the Invention and the Abstract is to be furnished. Whereas, Complete Application requires Description of the Invention, Abstract, Claims and the manner in which invention have to be performed.
- The **Claims of the patent are a very crucial part of the specifications** because they define the actual boundary of the invention.
- Claims specify what is actually claimed by the invention and what is being sought to be protected. It clearly describes what the patent does and does not cover

Region	State	Address
NORTH	Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, Delhi and the Union Territory of Chandigarh, Jammu and Kashmir and Ladakh.	Intellectual Property Office Building, Plot No. 32, Sector 14, Dwarka, New Delhi-110078, Phone: 011-28032491 , Fax: 011-28034301, Email: delhi-patent@nic.in
SOUTH	Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Telangana and the Union Territories of Pondicherry and Lakshadweep	Patent Office Intellectual Property Building G.S.T. Road, Guindy, Chennai-600032, Phone: 044-22505242 Fax: 044-22502066, Email: chennaipatent@nic.in
WEST	Maharashtra, Gujarat, Madhya Pradesh, Goa and Chhattisgarh and the Union Territories of Daman and Diu & Dadra and Nagar Haveli	Boudhik Sampada Bhawan, Antop Hill, S. M. Road, Mumbai - 400 037. Phone: 022- 24153651, 24148165, Fax: 022-24130387, Email: mumbaipatent@nic.in
REST OF INDIA	Remaining States	Intellectual Property Office Building, CP-2 Sector V, Salt Lake City, Kolkata-700091, Phone: 033-23679101, 033-23671987 Fax: 033-23671988, Email: kolkatapatent@nic.in

❖ PUBLICATION

- Once the patent application has been filed at the Regional Patent Office, the patent application is kept secret for 18 months in the Patent Office.
- After the expiry of **18 months** (from the date of filing of the application or the priority claimed date, whichever is earlier), the application is published in the Official Journal of Patent Office (<http://www.ipindia.nic.in/journalpatents.html>).
- The purpose of publishing the application is to inform the public about the invention.
- The publication of an application is a mandatory step.

❖ PRE-GRANT OPPOSITION

- If anybody has an objection to the invention claimed in the patent application, he/she can challenge the application by approaching the Controller of Patents within **6 months** from the date of publication. It is termed as Pre-grant Opposition.
- Depending on the outcome of the case, the patent application may be rejected or recommended for the next step, i.e. patent examination.
- Although the patent application is kept secret for 18 months, **but under special circumstances, this period can be reduced when the patentee/applicant plans to sell or license the patent or seek an investor).**
- **For this, the applicant has to fill a Form-9 and submit it to the Controller General.**

❖ EXAMINATION

- Patent examination is a critical step in the process of grant of a patent. All the important criteria (novel, inventive step, etc.) are scrutinized by the professionals depending on the content of the invention.
- Usually, the examiner raises certain queries/doubts which need to be addressed by the inventors. Once the examiner is satisfied with the answers received from the inventors, the application is recommended for the grant of a patent.
- It is pertinent to mention that a patent application is not examined automatically after clearing the publication stage. The applicant or his representative has to make a request for examination of the patent by filing **Form-18A** and submitting the same within **48 months** from the date of filing of the application

❖ GRANT OF PATENT

- After fulfilling all the requirements for the grant of a patent, including all objections/queries raised by the Patent Examiner and the public at large, the patent is granted to the applicant.
- The granted patent is published in the Official Journal of the Patent Office.
- This journal is published every **Friday** and contains information related to patent applications published under section (u/s) 11A, post-grant publication, restoration of patent, notifications, list of non-working patents and public notices issued by the Patent Office.

❖ VALIDITY OF PATENT PROTECTION

- The patent protection is granted to an applicant for a limited period, generally **20 years**, starting from the date of filing of the application.
- Once a patent is granted for an invention in India, the next vital step is to ensure that it is **renewed annually** by paying Patent Renewal Fee as per Section 53, Rule 80 of the Indian Patents Act, till the expiry of the patent grant period.
- Non-payment of Patent Renewal Fee might result in the cancellation of the patent.
- In some countries, patent protection may be extended beyond 20 years.
- The **extension aims to compensate for the time expended on the administrative approval procedure** before products can be put on the market. The time taken for this procedure means that the patent **owner may sometimes not be able to benefit from his right for a considerable period** after the grant of the patent.

❖ POST GRANT OPPOSITION

- Once the patent has been granted by the Patent Office, it still can be challenged by anyone **within one year** from the date of publication of the grant of the patent.
- The granted patent can be challenged either **via a Patent Office or in a Court of Law**.
- These bodies may invalidate or revoke a patent upon a successful challenge by the interested party on the grounds mentioned below:
 - ✓ The applicant for the patent wrongfully obtained the invention or any part of the invention.
 - ✓ The invention claimed has been published before the priority date.
 - ✓ The invention claimed was publicly known / used before the priority date.
 - ✓ The invention claimed is obvious and does not involve an inventive step.
 - ✓ The subject of the claim is not patentable as per Chapter II of the Patent Act, 1970.
 - ✓ The details/specifications of the invention do not sufficiently and clearly describe the invention.

COMMERCIALIZATION OF A PATENT

- The patent owner may grant permission to an individual/organization/industry to make, use and sell his patented invention. This takes place according to agreed terms and conditions between the involving parties.
- A patent owner may grant a license to a third party for the reasons mentioned below:
 - The patent owner has a decent job e.g. university professor and has no desire or aptitude to exploit the patent on his own.
 - The patent owner may not have the necessary manufacturing facilities.
 - The manufacturing facility is not able to meet the market demand.
 - The patent owner wishes to concentrate on one geographic market; for other geographical markets, he may choose to license the patent rights.
- Once the patent is granted, the patentee (person holding the rights to the patent) enjoys the exclusive rights to use the patented invention.
- Only the patentee has the right to license or deal with the patent for any deliberations.
- Although, the validity of the granted patent is for 20 years (from the date of filing a patent application), but the patentee is required to furnish information (Form-27), on an **annual basis relating to the commercialization/selling of the patent. It is called as Working/Licensing of the Patent.**

- The licensing of a patent can be **exclusive or non-exclusive**.
- In an Exclusive License, the patent is sold to only one individual/organization for a fixed time period. During this time period, no other person or entity can exploit the relevant IP except the named licensee.
- In Non-Exclusive License, a patentee can sell his patent rights to as many individuals/parties as he likes.
- If the patentee is **not able to commercialize his patent within three years from the date of the grant of a patent**, any person may submit an application to the Controller of Patents for grant of Compulsory Licensing (of the patent), subject to the fulfillment of following conditions:
 - ✓ Reasonable requirements of the public concerning the patented invention have not been satisfied.
 - ✓ The patented invention is not available to the public at a reasonable price.
 - ✓ The patented invention is not worked in the territory of India.

NEED FOR PATENT ATTORNEY / AGENT

- ☐ In general, applicants can prepare their patent applications and file them without assistance from a patent attorney.
- ☐ However, given the complexity of patent documents, it is advisable to seek legal assistance from a patent attorney/agent when drafting a patent application.
- ☐ Furthermore, the legislation of many countries requires that an applicant, whose ordinary residence or principal place of business is outside the country, be represented by an attorney or agent qualified in the country (which usually means an agent or attorney who resides and practices in that country)

CAN A WORLDWIDE PATENT BE OBTAINED?



- There is no such term as Universal Patent or World Patent or International Patent as the patent rights are territorial.
- An application for a patent must be filed with a Patent Office of the country in which one wishes to seek patent protection.
- However, pursuing patent protection across multiple countries through individual application can be time consuming , arduous and costly.
- To address this challenge, **various Regional Offices have been established to facilitate patent applications on behalf of a group of nations** e.g. European Patent Office and African Regional Intellectual Property Organization allow a single application to cover multiple member nations within a specific region.
- However, if one wishes to seek patent protection in several countries worldwide, it is preferred to file an **international patent under the Patent Cooperation Treaty (PCT)**.
- The only condition is that the applicant's home country should be a member of PCT.
- India, along with over 190 nations, is a member of PCT.

DO I NEED FIRST TO FILE A PATENT IN INDIA

- Yes, in general, Indian residents are required to file the patent application first in India. Subsequently, they may file for patent protection in other countries.
- But for this, prior approval is needed from the Patent Office. However, this approval can be waived off under the following circumstances:
 - ❑ The applicant is not an Indian resident.
 - ❑ If 6 weeks have expired since the patent application was filed in India by an Indian resident.
 - ❑ If two or more inventors are working on an invention in a foreign country and one of the inventors is an Indian resident. The invention does not have a potential market in India and hence does not wish to file the patent in India. In such a scenario, the Indian resident has to seek Foreign Filing Permission (FFP) from an Indian Patent Office.
 - ❑ In case of international collaboration, if one part of the invention originated in India and the inventor is an Indian resident, he has to seek permission to file the patent outside India.
 - ❑ If the invention is related to defense or atomic energy or utility model, the inventor/s needs to seek permission from the Indian Patent Office because inventions related to these domains are not the subject matter of patentability in India and are sensitive to national security.

PATENT RELATED FORMS

Form No.	Title of Form
1	Application for a grant of a patent
2	Provisional/Complete specifications
7	Notice of opposition on grant of a patent
7A	For filing a representation opposing grant of a patent
17	Application for compulsory license
18	Request for examination of the application for patent
21	Request for termination of compulsory license
22	Application for registration of patent agent
27	Statement regarding the working of the patented invention on a commercial scale in India
30	Miscellaneous form to be used when no other form is prescribed

Source: http://www.ipindia.nic.in/writereaddata/Portal/IPORule/1_70_1_The-Patents-Rules-2003-Updated-till-23-June-2017.pdf

Item	Natural person/ startup (₹)	Small entity alone or with a natural person /startup (₹)	Others alone or with natural person/ startup/ small entity (₹)
Provisional/Complete Specifications	1,600	4,000	8,000
Request for Early Publication	2,500	6,250	12,500
Request for Examination	4,000	10,000	20,000
Express Request For Examination	5,600	14,000	28,000
Renewal Fees (Annually)			
3 rd to 6 th Year	800	2,000	4,000
6 th to 10 th Year	2,400	6,000	12,000
11 th to 15 th Year	4,800	12,000	24,000
16 th to 20 th year	8,000	20,000	40,000

FEES STRUCTURE

- As per the patent Act, 1970 and The Patents Rules (1972), the requisite fee has been specified based on the type of form/s to be submitted to the Office.
- Electronically filed applications are 10% cheaper than physical filing.

TYPES OF PATENT APPLICATIONS



- **Provisional Application** - A patent application filed when the invention is not fully finalized and some part of the invention is still under experimentation. Such type of application helps to obtain the priority date for the invention.
- **Ordinary Application** - A patent application filed with complete specifications and claims but without claiming any priority date.
- **PCT Application** - An international application filed in accordance with PCT. A single application can be filed to seek patent protection and claim priority in all the member countries of PCT.
- **Divisional Application** - A Divisional Application happens when a single patent application contains **more than one invention** inside it. Since **one patent application should cover only one invention**, the applicant (inventor) needs to **divide** it into separate applications. These separate applications are known as Divisional Applications, and they share the same priority date as the parent application.

- **Patent of Addition Application** - When an invention is a slight modification of the earlier invention for which the patentee has already applied for or has obtained a patent, the applicant can go for Patent of Addition, if the modification in the invention is new.

Benefit - There is no need to pay a separate renewal fee for the Patent of Addition, during the term of the main patent. It expires along with the main patent.

- **Convention Application** - If a patent application has been filed in the Indian Patent Office and the applicant wishes to file the same invention in the one or more Convention countries (e.g. Paris Convention) by claiming the same priority date on which application was filed in India, such an application is known as Convention Application. The applicant has to file Convention Application within 12 months from the date of filing in India to claim the same priority date.

NATIONAL BODIES DEALING WITH PATENT AFFAIRS

There are many departments/organizations/bodies dealing with various aspects of patents, namely,

- **The Indian Patent Office (IPO)**
- **Department for Promotion for Industry and Internal Trade (DPIIT)**
- **Technology Information, Forecasting and Assessment Council (TIFAC)**
- **National Research Development Corporation(NRDC)**

UTILITY MODELS



- In many cases, a new invention involves an incremental improvement over the existing products, but this technical improvement is not sufficient enough to pass the stringent criterion of Novelty and Non-obviousness set aside for the grant of a patent. Such small innovations can still be legally protected in some countries and termed as “Utility Models” or “Petty Patents” or “Innovation Patents”.
- In this case, the criterion of Novelty and Non-obviousness are diluted or relinquished. But the requirement of industrial application or utility is the same as that for patents.
- Utility Model is a helpful tool for Micro, Small and Medium Enterprises (MSME) since the grant of a Utility Model is usually less rigorous and involves minimal cost.
- MSMEs do not have deep pockets to carry out intensive R&D leading to the grant of patents. But their innovations are good enough for improving their products/processes and bringing more financial rewards. Such inventions pass the requirements set aside for Utility Models but not for patents.

- The life of the Utility Model is less as compared to the patents. It varies from 7-15 years in different countries.
- Nearly 80 countries, including France, Germany, Japan, South Korea, China, Finland, Russian Federation and Spain, provide protection for Utility Models under their IPR laws.
- India till date does not recognize utility patents. If these small patents are recognized under IP protection in India, it will catapult the number of patents (filed and granted) on annual basis.