

# An Overview of Intellectual Property Rights

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# Objective and Plan of Presentation

## Objective

- To give a general introduction to the concept of Intellectual Property Rights and Their Role in Technology Transfer

## Plan of Presentation

- Rationale of Protection
- Different kinds of IPRs
- IPRs and Licensing/Technology Agreements

# INTRODUCTION

# Kinds of Property

- Movable Property
  - Car, Pen, Furniture, Dress
- Immovable Property
  - Land, Building
- Intellectual Property
  - Literary works, inventions

# Nature of Intellectual Property

- Creation of human mind (Intellect)
- Intangible property
- Exclusive rights given by statutes
- Attended with limitations and exceptions
- Time-bound
- Territorial

# Definition of Intellectual Property

“Intellectual Property shall include the rights relating to

- literary, artistic and scientific works,
- performances of performing artists, phonograms, and broadcasts,
- inventions in all fields of human endeavour
- scientific discoveries
- Industrial designs
- trademarks, service marks and commercial names and designations
- protection against unfair competition

and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.”

(WIPO Convention)

# International Treaties

- Paris Convention for the Protection of Industrial Property 1883
- Berne Convention for the Protection of Literary and Artistic Works 1886
- International Union for New Varieties of Plants (UPOV) 1961, 1972, 1978 and 1991
- Convention on Biodiversity, 1992
- Agreement on Trade Related Aspects of Intellectual Property Rights 1994
- Internet Treaties 1996

# Basic Principle

- Contract between creator and sovereign state
  - Protection for revelation
- Balance between rights of creator and public interest
  - Rights and limitations and exceptions



# Major Intellectual Properties

- Copyright and Related Rights
- Industrial Property
  - Patents
  - Industrial Designs
  - Trade Marks
  - Geographical Indications
  - Layout Designs/Topographies Integrated Circuits
  - Trade Secrets
  - Protection of New Plant Varieties

# IP Laws of India

<b>Act</b>	<b>Ministry/Department</b>
The Copyright Act, 1957	Higher Education
The Patents Act, 1970	Industrial Policy & Promotion
The Designs Act, 2000	Industrial Policy & Promotion
The Trade Marks Act, 1999	Industrial Policy & Promotion
The Geographical Indications of Goods (Registration and Protection) Act, 1999	Industrial Policy & Promotion
The Semiconductor Integrated Circuits Layout- Design Act, 2000	Information Technology
The Protection of Plant Varieties and Farmers' Rights Act, 2001	Agriculture and Cooperation

# **COPYRIGHT AND RELATED RIGHTS**

# Scope of Copyright

- Original Literary, Dramatic, Musical and Artistic Works
  - Work: Ideas expressed in material form
  - No copyright in ideas or facts
- Cinematograph Films
- Sound Recordings

# Rights

- Two Kinds of Rights
  - Moral Rights
    - ❖ To protect personality of author
  - Economic Rights
    - ❖ To bring economic benefits

# Moral Rights

- Right of Authorship
- Right of Integrity
  - Digital Manipulation
  - No Right for Display
- Inalienable Rights

# Economic Rights -1

- Right of Reproduction
  - Making copies e.g. an edition of a novel
  - Storage in computer memory
- Right of Distribution/Issuing Copies
  - Digital Distribution
- Right of Communication to the Public
  - Public Performance
  - Internet Communication

# Economic Rights 2

- Adaptation Rights
  - Conversion into another form e.g. literary to drama
  - Abridgement
  - Picturizations, comic formats
- Right to make a cinematograph film or sound recording
- Translation Rights
- Rental Rights
- Resale Rights for original artistic works.



# Ownership of Rights

- Literary – author
- Drama – Dramatist
- Music – Composer
- Artistic work – Artist e.g. Painter, sculptor, architect
- Photograph – Photographer
- Author of Computer Programme – Person who causes the work to be created
- Cinematograph film – producer
- Sound Recording - producer

# Author as Owner of Rights: Exceptions

- In the course of employment – employer
- Employment by newspaper, magazine – employer has publishing right; other rights with author
- Photograph, painting, cinema for valuable consideration – person who pays money

# Author as Owner of Rights: Exceptions

- Lecture delivered in public – Person delivering
- Government Work – Government
- Public Undertaking Work – public undertaking
- Work of International Organization – International Organization

# Author as Owner of Rights: Exceptions

- Work of apprentice – to Teacher
- If teacher writes a book then teacher because he is employed to teach and not write
- Question Papers – Paper setter
- Encyclopedia, dictionary – editor for collection
- Music under contract by film producer – film producer

# Securing Copyright

- Formality free protection
- Voluntary Registration (S. 44 & 45)
- Registration does not as a matter of law establish that what is registered is in fact and in law copyrightable subject matter

# Duration of Copyright

- Literary, dramatic, Musical and Artistic Works published during life time of author: **Life + 60 years**
- All Other Works: 60 years from date of publication
  - Posthumous, Anonymous Works
  - Works of Government and Organizations
  - Cinema and Sound Recording
  - Photograph

# RELATED RIGHTS

- Rights granted by law to communicators of works to the public
  - Performers
  - Broadcasting Organizations

# Performer's Rights

- Recording, broadcasting and communicating to the public of a live performance
- Presumption of transfer of performer's right to cinematographic film producer
- Duration: 50 years



# Rights Of Broadcasting Organisations

- Broadcast Reproduction Right
- Re-broadcasting, Recording and Communicating to the Public of a Broadcast
- Duration: 25 Years

# PATENTS

# What is a PATENT?

- A patent is an exclusive right granted for an invention, which is a product or a process that provides a new way of doing something, or offers a new technical solution to a problem
- The **limited monopoly right** granted by the state enables an inventor to prohibit another person from manufacturing, using or selling the patented product or from using the patented process, without permission.
- Period of Patents - 20 Years

# WHAT CAN BE PATENTED?

Inventions in all fields of technology, whether products or processes, if they meet the criteria of

- Novelty;
- Non-obviousness (inventive step);
- Industrial application (utility).

# Conditions of Patentability

- Novelty: Invention not known to public prior to claim by inventor
- Inventive Step: Invention would not be obvious to a person with ordinary skill in the art
- Industrial Application: Invention can be made or used in any useful, practical activity as distinct from purely intellectual or aesthetic one

# Grant of Patent

- Patents are granted by national patent offices after publication and substantial examination of the applications
- In India provisions exist for pre-grant and post grant opposition by others
- They are valid within the territorial limits of the country
- Foreigners can also apply for patents

# INVENTIONS – NOT PATENTABLE

An Invention Which is frivolous **or** which claims anything obviously contrary to the well established Natural Laws e.g.

- Machine giving more than 100% performance
- Perpetual motion machine
- Newton's laws of gravitation

# INVENTIONS – NOT PATENTABLE

A machine whose 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 :**

- Gambling machine
- device for house-breaking
- Biological warfare material or device
- Terminator gene technology
- embryonic stem cell



# INVENTIONS – NOT PATENTABLE

**Mere Discovery of a Scientific Principle  
or Formulation of an Abstract Theory  
or discovery of any living thing or non–living  
substance occurring in nature**

- *Discovery adds to the human knowledge by disclosing something ,not seen before, **whereas,***

- *Invention adds to human knowledge by suggesting an action resulting in a new product or new process*

- *e.g. Archimedes Principle, Superconducting Phenomenon as such – not patentable , **However,***

- *An apparatus /method for technological application may be patentable*

# INVENTIONS – NOT PATENTABLE

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 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.

# INVENTIONS – NOT PATENTABLE

**A substance** obtained by mere admixture resulting only in the aggregation of the properties of the components thereof **Or** a process for producing such substance, e.g.

Paracetamol (Antipyretic) +Brufen (analgesic) = A drug (antipyretic & analgesic)

- A soft drink that is only a mixture of sugar and some colorants in water

***But, a mixture resulting in synergistic properties of mixture of ingredients may be patentable e.g***

***Soap, Detergent, lubricant.***

# INVENTIONS – NOT PATENTABLE

Mere arrangement or re-arrangement or duplication of known devices, each functioning independently of one another in a known way

*for example -.*

- *A Bucket fitted with torch,*
- *An Umbrella with fan*
- *A Clock and radio in a single cabinet*
- *A flour-mill provided with sieving*

# Not patentable

## Method of Agriculture or Horticulture

- e. g. **Cultivation of algae ,  
Producing new form of a known plant,  
preparation of an improved soil**

**However, Agricultural Equipments  
are patentable**

## Inventions - Not Patentable

Plants & animals **in whole or any part thereof** **other than** micro-organisms, **but** including seeds, varieties and species **and** **essentially biological process** for production or propagation of plants & animals e.g.

- **Clones and new varieties of plants:**
- A process for production of plants or animals if it consists entirely of natural phenomena such as crossing or selection

## Inventions - Not Patentable

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

*These are the outcomes of mental process only and do not involve industrial process or product*

### *For example-*

- *Computer programme claimed by itself or as a record on a carrier*

- **Non-patentable**
- A literary, dramatic, musical or artistic work or any other aesthetic creation including cinematographic work and television productions

These subject-matters fall under the copy-right protection

A mere scheme or rule or method of performing mental act or method of playing game

### *Examples –*

- Scheme for learning a language , Method for solving a crossword puzzle, Method of learning a language, Method of teaching /learning - Not patentable
- Novel apparatus for playing game or carrying out a scheme – *patentable*



# Non-patentable

## Presentation of information

### Examples –

*Any manner or method of expressing information , whether by spoken words, Visual display, symbols ,diagrams or information recorded on a carrier*

## **Topography of integrated circuits.**

An invention which, in effect, is the

Traditional Knowledge or an aggregation or duplication of known properties of traditionally known component or components

- Traditional Knowledge is already in public domain, and hence, *not patentable*
  - However, any value-addition using Traditional Knowledge leading to a new process or product, possessing novelty, inventive step and industrial applicability, can be *patentable*
- 
- **Inventions relating to atomic energy – Not patentable**

# **INDUSTRIAL DESIGNS**

# What is an Industrial Design?

- ‘Design’ means only the features of shape, configuration, pattern, ornament or composition of lines or colours *applied* to any article whether in two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article *appeal to* and are judged solely by *the eye*.

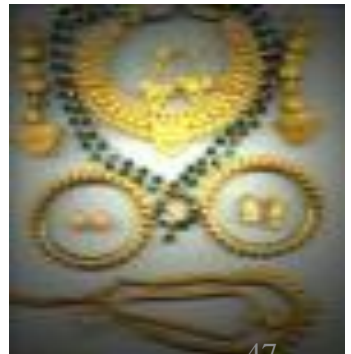
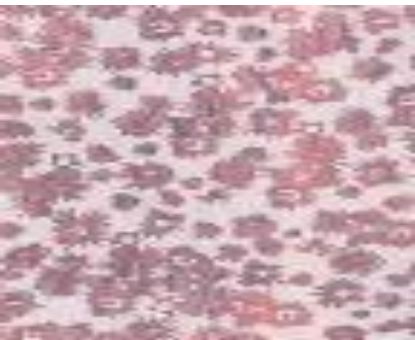
# Consumer Products



# Pharmaceutical Product



# Textile & Jewellery





# Rights of the Registered Proprietor

- The proprietor of the registered design has the exclusive right to apply the design to any article in the class in which the design is registered
- Period of protection is ten years extendable by 5 years.



# What is Excluded?

- Any mode or principle of construction or anything which is in substance *a mere mechanical device*
- Trade mark
- Property mark
- Artistic work

# What is not registrable?

- A design which is *not new or original*
- A design which has been *disclosed* to the public anywhere in the world prior to the filing
- A design which is *not significantly distinguishable* from known designs or combination of known designs

# What is not registrable?

- A design which comprises or contains *scandalous or obscene matter*
- A design which is *contrary to public order or morality*

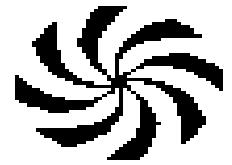
# ***NOT REGISTRABLE ARTICLES***

- ★ Calendar, certificates, forms, greeting cards, leaflets,
- ★ Maps, building plan, medals
- ★ Labels, tokens, stamps
- ★ Religious symbols
- ★ Mere mechanical contrivance
- ★ Building and construction or real estate
- ★ Flags, emblems, or signs of any country, computer icons Parts of articles not manufactured and soled separately
- ★ Layout designs of integrated circuits Basic shape, variations commonly used in the trade
- ★ Mere workshop alteration
- ★ Mere change in size
- ★ Any principle or mode of construction of article

# TRADE MARKS



# TRADE MARK



- ***A name of an enterprise or a Mark*** capable of being represented ***graphically, distinguishing the goods or services*** of one person from those of others  
e. g., LUX, Godrej, TVS , Telco, 555, APPLE
- **Trade Mark can be -**
  - *sign , words, letters, numbers,*
  - *drawings, pictures, emblem,*
  - *colours or combination of colours,*
  - *shape of goods,*
  - *graphic representation or packaging or*
  - *any combination of the above***as applied to an article or a product.**

# Registration of Trade Mark

- Trade Marks are registered by national trade mark registries and are valid in that country
- Registration is made after examination and publication
- Period of registration is for 10 years but can be renewed indefinitely

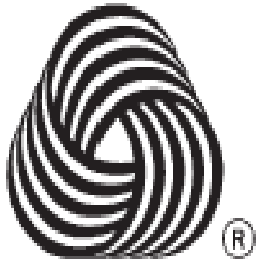
# Kinds of Trademarks

- Marks on goods
- Service Marks
- Certification trademark
- Collective Marks
- Well known marks
- Trade Names



# TRADE MARK

- **Service Marks include** banking, education, finance, insurance, real estate ,entertainment,repairs, transport, conveying news and information, advertising etc
- **Certification Trade marks:** Certified by the Proprietor as having characteristics like geographical origin, ingredients, quality  
e.g.AGMARK,WOOLMARK **Certification mark cannot be used as a trade mark.**
  - » Certifies that the goods on which it is applied are made of 100% wool. It is registered in 140 countries and licensed to the companies which assure that they will comply with the strict standards set out by the Woolmark company , the owner of the mark.



WOOLMARK

# COLLECTIVE MARK

- COLLECTIVE MARK is a Mark that distinguishes the goods -or services of members of association from **marks** of other undertakings
- Who owns collective Mark ?  
Association of persons
- It could be manufacturers, producers, suppliers, traders or other profession bodies like institute of chartered accountants, test cricketers association etc.

## WELLKNOWN MARKS

- *Coca Cola* for soft drink
- **Toblerone** (Triangular-shaped chocolates)



## Trade Names

- Godrej- Furniture, Refrigerators, Storewell, Compactor etc



- GE- Bulbs



# Forms of TM

- Visual: Words, letters, numerals, devices including drawings and symbols or 2-D representations of object or a combination of two or more of these, colour combinations or colour *per se*, 3-D sign as shape of goods or packaging.
- Audio: Sounds, Musical Notes
- Olfactory: Smells

# What is protected and what's not?

- **Right to use TM** in relation to goods/ services as registered are ***protected*** (If TM consists of several parts, protection is for TM as a whole)
- State Emblems, Official Hallmarks, Emblems of Intergovernmental Organizations **cannot** be used as TM.

# **GEOGRAPHICAL INDICATIONS OF GOODS**

# What is a Geographical Indication?

Geographical Indication is an indication which identifies goods as **agricultural** goods, **natural** goods or **manufactured** goods as originating, or manufactured in the territory of country, or a region or locality in that territory, where a given **quality, reputation** or **other characteristic** of such goods is essentially **attributable to its geographical origin.**

- Explanation clarifies that GI need not be a geographical name
  - E.g. Alphonso, Basmati
- Goods include goods of handicraft or of industry and also foodstuff.



# Registration

- In India, geographical indications have to be registered.
- Geographical Indications Registry examines and publishes the application before registration
- Registration is valid for 10 years but can be renewed indefinitely

# Rights

- Exclusive right to use the Geographical Indication on the goods
- Right to obtain relief for infringement of the Geographical Indication

# **SEMICONDUCTOR INTEGRATED CIRCUITS LAYOUT-DESIGN**

# Protectable Layout Designs?

- Original and novel Layout-Designs of semiconductor integrated circuits can get protection through registration
- Registration is done after examination and publication of the application
- Registration is valid for 10 years

# Non-registrable Layout-Designs

- Not original
- Has been commercially exploited anywhere in India or in a convention country
- Not inherently distinctive
- Not inherently capable of being distinguishable from any other registered layout-design

**TRADE SECRETS**

# Trade Secrets

- Some inventions, data, information cannot be protected by any of the available means of IPRs. Such information is held confidential as a trade secret.
- Trade secret can be an invention, idea, survey method, manufacturing process, experiment results, chemical formula, recipe, financial strategy, client database etc.

# When Trade Secrets are preferred?

- When invention is not patentable;
- Patent protection is limited to 20 years, when secret can be kept beyond that period;
- When cost of patent protection are prohibitive;
- When it is difficult to reverse engineer



# How to guard Trade Secret?

- Restricting number of people having access to secret information
- Signing confidentiality agreements with business partners and employees
- Using protective techniques like digital data security tools and restricting entry into area where trade secret is worked or held
- National legislations provide protection in form of injunction and damages if secret information is illegally acquired or used.

# **PLANT VARIETIES AND FARMER'S RIGHTS**

# PROTECTION OF PLANT VARIETIES

- Registrable varieties and criteria:
  - New Varieties
    - ❖ Novelty, Distinctiveness, uniformity and stability
  - Extant varieties
    - ❖ Distinctiveness, uniformity and stability
- Persons who can Register
  - Breeders, farmers, universities, agricultural institutes
- Period of protection
  - 15 years for annual crops
  - 18 years for trees and vines

# Rights of Breeders

- Production
- Sale
- Marketing
- Distribution
- Export
- Import

However, if the breeders' variety is essentially derived from a farmers' variety, the breeder cannot give any authorisation without the consent of the farmers or communities from whose varieties the protected variety is derived.

# Farmers' Rights

- To save, use, sow, re-sow, exchange, share or sell his farm produce including seed in the same manner as he was entitled earlier (Seeds for sale should not be branded)
- To full disclosure of the expected performance of the Seeds or planting material by the plant breeder. Where these fail to perform in the manner claimed by the breeder, the farmer may claim compensation from the plant breeder.

# Researchers' Rights

Free and complete access to protected materials for research use in developing new varieties of plants.

However, authorisation of the breeder is required “whose repeated use of such variety as parental line is necessary for commercial production of such other newly developed variety”.

# **INTERNATIONAL ORGANISATIONS**

# International Organizations in IP

- World Intellectual Property Organisation
- World Trade Organisation



# **IPR LICENSING AND TECHNOLOGY TRANSFER**

# Licensing of an IP

- Licence is a permission granted by an IP owner to another person to use the IP on agreed terms and conditions, while he continues to retain ownership of the IP
- Licensing creates an income source
- It establishes a legal framework for transfer of technology to a wider group of researchers and engineers
- Creates market presence for the technology or trademark

# Licensing Conditions of IPRs

- Owners of IP prefer to transfer technology through licensing agreements only
- All rights or limited rights can be licensed
- Can be exclusive or non-exclusive or sole (owner and licensee)
- Most such agreements provide for royalty payment and non-transfer to a third party.
- Royalties can be upfront, part upfront and part % per production/sale, only % per production/sale
- The particular uses for which the IP can be used are also generally specified
- Needs to be careful about the Competition law

# Is Licensing Profitable?

- IBM revenue from patent licensing \$ 1.7 billion (2002)
- Texas Instruments generated \$ 3 billion in licensing in 10 years
- US and Canadian Universities generated \$ 1.1 billion in royalties (2001)
- New York University \$ 109 million (2004)
- Ohio University to get \$52 M. From royalties on the growth hormone drug SOMAVERT in 5 years (2011)
- CSIR \$ 150 million in milestone payments + royalty