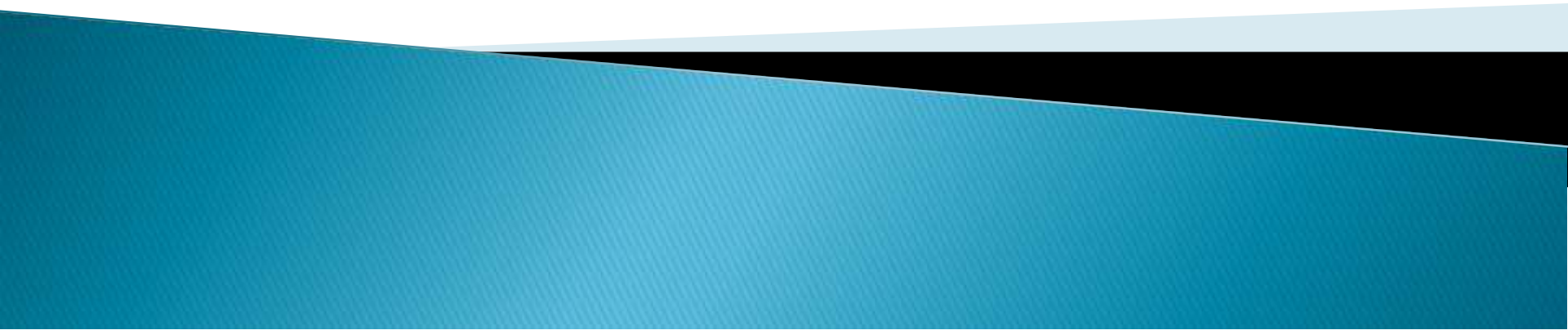


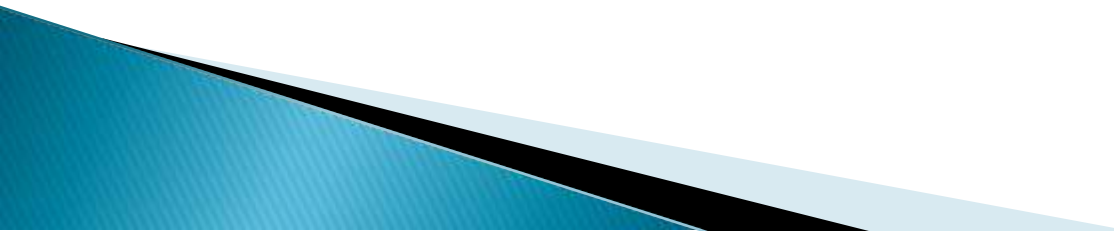
INTELLECTUAL PROPERTY RIGHTS AND PATENTS

UNIT-I



UNIT – I

Definitions and importance of intellectual property – Introduction and history of WTO – Structure of WTO agreements and dispute settlements – Principles of trading system – Trade policy reviews – Agreement on TRIPS – Ministerial conferences – Emerging issues in IPR – Protection of plant varieties – Patent sharks – Open-source movement – Bio-piracy



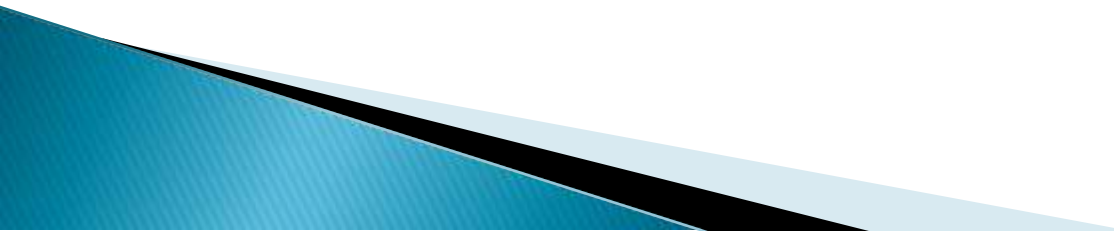
According to WIPO

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

WIPO– World Intellectual Property Organization



Importance of Intellectual Property

- ▶ **Creates and Supports High-Paying Jobs**
 - ▶ **Drives Economic Growth and Competitiveness**
 - ▶ **Protect Consumers and Families**
 - ▶ **Generate Solutions to Global Challenges**
 - ▶ **Encourage Innovation and Reward Entrepreneurs**
- 

WTO AT GENEVA





THE GLOBAL HPV
CONSORTIUM

8 SAHRI VACCINE INSTITUTES



Let us forge a path towards a world
where HPV and cervical cancer
are... a challenge we have
courageously met and overcome.



Dr. Ngozi Okonjo-Iweala

Director-General, World Trade Organization



Introduction and history of WTO

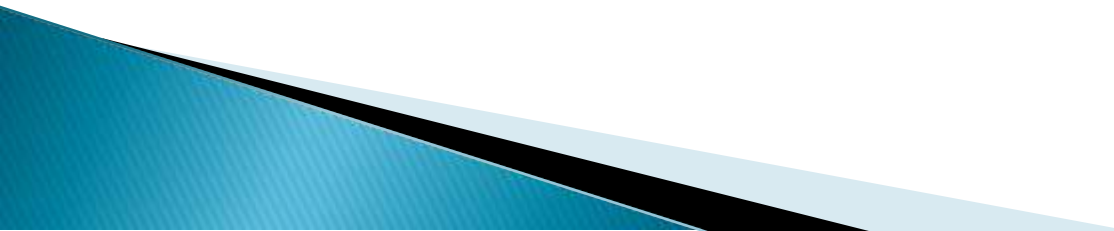
The World Trade Organization (WTO) is the global international organization dealing with the rules of trade between nations.



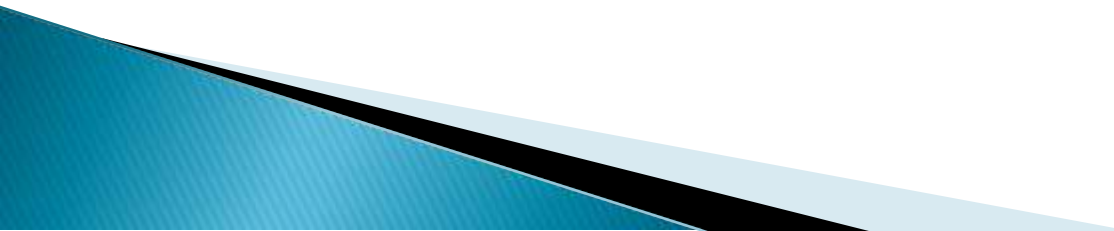
Evolution and History of WTO :

1. Trade Agreement:
2. Establishment of ITO :
3. GATT
4. The Establishment of the WTO after Uruguay Round:

Objectives and functions of World Trade Organisation (WTO)

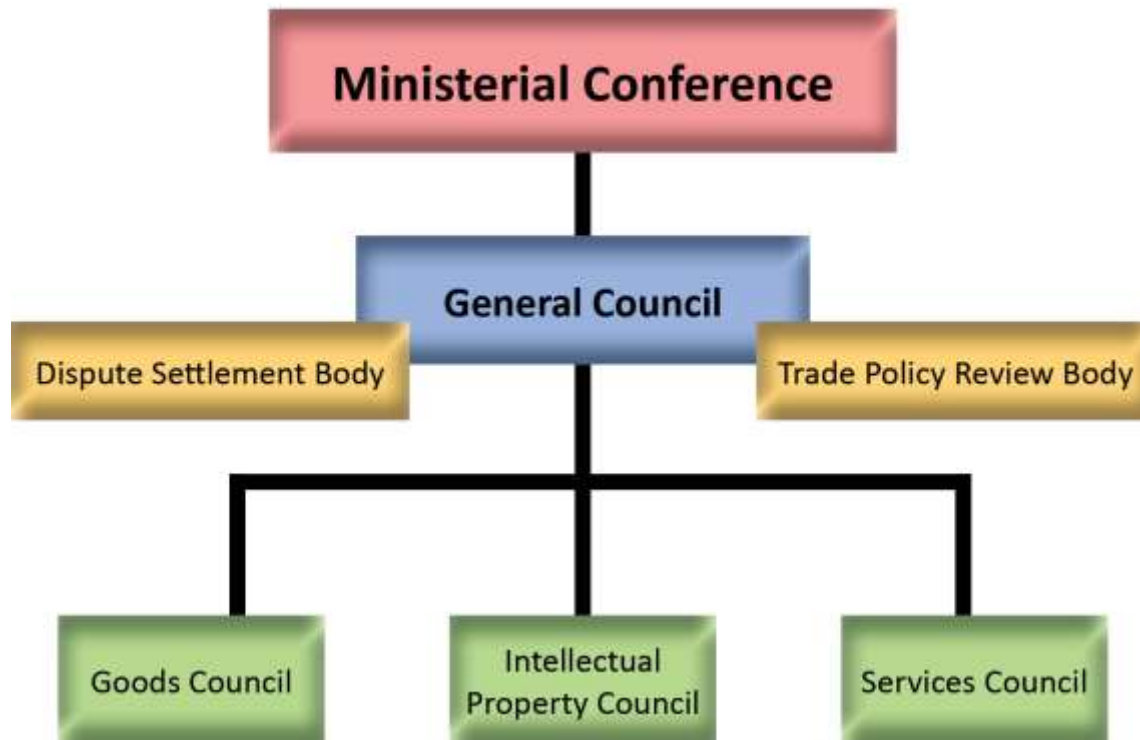
- ▶ 1. Creating and Enforcing International Trade Regulations:
 - ▶ 2. Making the Decision Making Process More Transparent:
 - ▶ 3. Collaboration between International Economic Institutions:
 - ▶ 4. Serving as the World's Leading Forum:
 - ▶ 5. Settlements of Trade Disputes:
- 

6. Others:

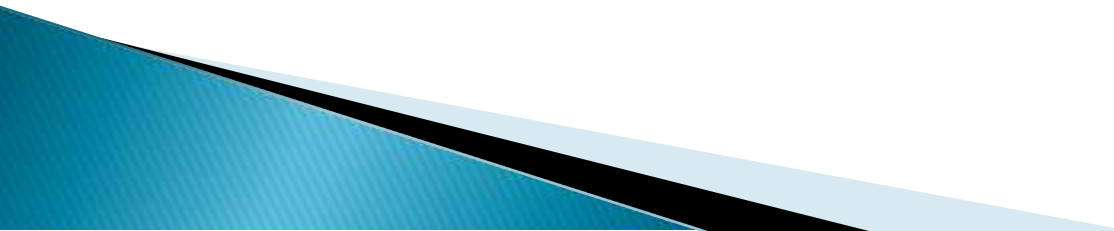
- ▶ To ensure optimum utilization of world resources.
 - ▶ To protect the environment.
 - ▶ To ensure full employment
 - ▶ To raise the level of standard of living
 - ▶ To embrace the idea of sustainable development.
- 

Structure of WTO and its Agreements

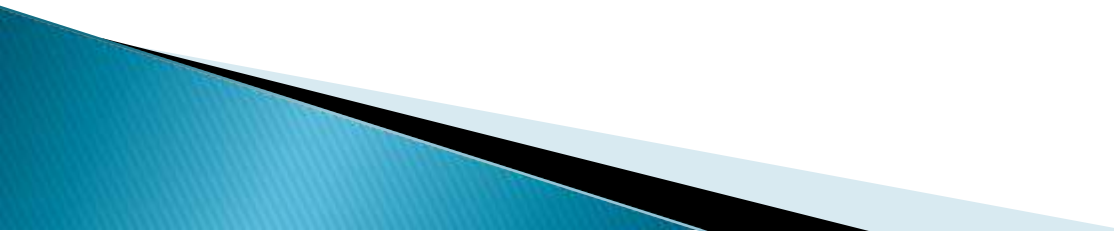
Structures of WTO



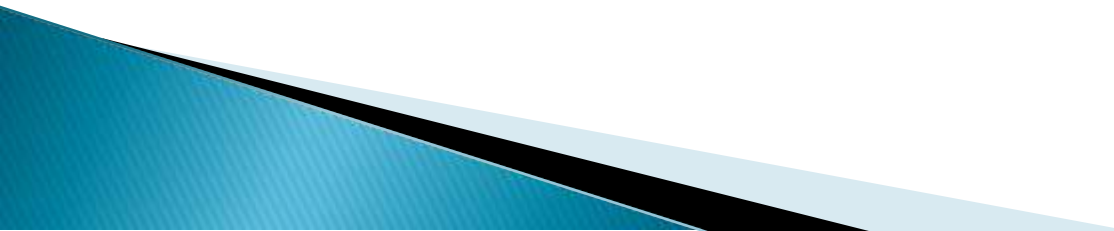
Agreements under WTO authorities:

- ▶ General Agreement on Tariffs and Trade (GATT)
 - ▶ General Agreement of trade in Services (GATS);
 - ▶ Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS);
 - ▶ Agreement on Trade-Related Investment Measures (TRIMS);
 - ▶ settlement mechanism (Dispute Settlement Body–DSB);
 - ▶ Agreement trade Policy Review Mechanism (TPRM);
 - ▶ Agreement on Agriculture
 - ▶ Agreement on Textiles
- 

SUMMARY

- ▶ WHAT IS IP?
 - ▶ IMPORTANCE OF IP
 - ▶ WTO
 - ▶ OBJECTIVES AND FUNCTIONS OF WTO
 - ▶ STRUCTURE AND AGREEMENTS OF WTO
- 

Functions of DSB:

- ▶ Establish panels: .
 - ▶ Conduct meeting:
 - ▶ Adjudication and decision by consensus:
- 



CONSULTATION



ESTABLISHMENT OF PANEL



PANEL EXAMINATION



REPORT PRESENTATION



ADOPT OR APPEAL REPORT

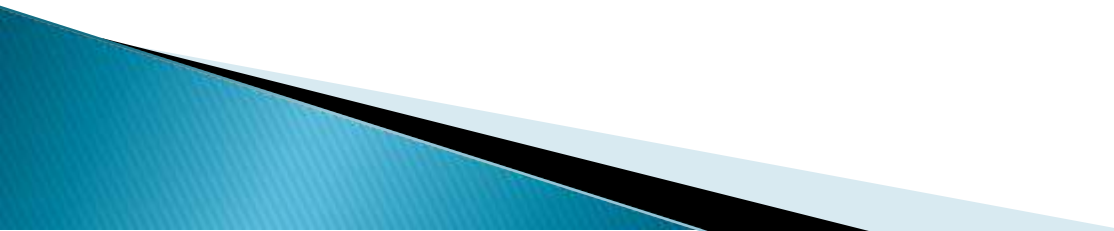


IMPLEMENTATION



RETALIATION

Principles of trading system

- ▶ Trade without discrimination
 1. Most-favoured-nation (MFN)
 2. National treatment:
 - ▶ Freer trade:
 - ▶ Predictability:
 - ▶ Promoting fair competition
 - ▶ Encouraging development
- 

IPRP

UNIT-II FUNDAMENTALS OF PATENT, TRANSFER AND INFRINGEMENT

PATENT –MEANING AND DEFINITION

- ▶ A patent is an exclusive right which is granted by the Government for an invention, for a limited time period



EVOLUTION OF PATENT

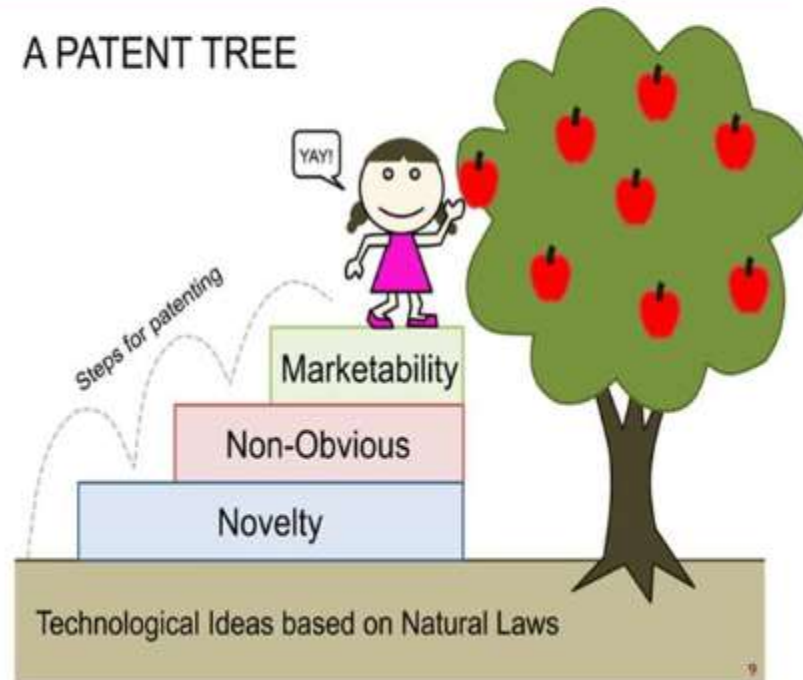
- ▶ COLONISATION
- ▶ POST INDEPENDENCE
- ▶ GLOBALIZATION

PATENTABILITY

A PATENT TREE

EXAMPLE

- A Product
- The apparatus for producing the product
- The process
- The use



Patentable subject matter

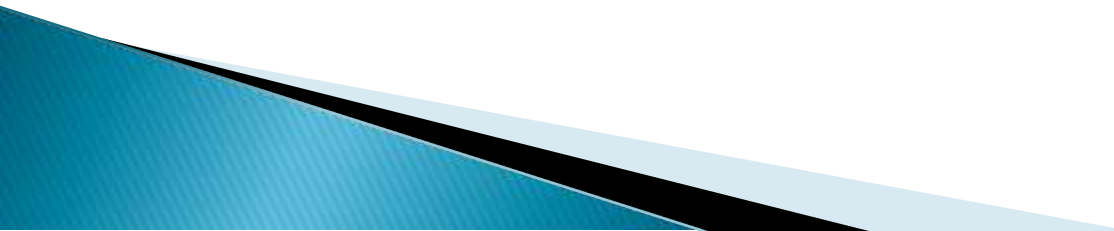
Utility

Novelty

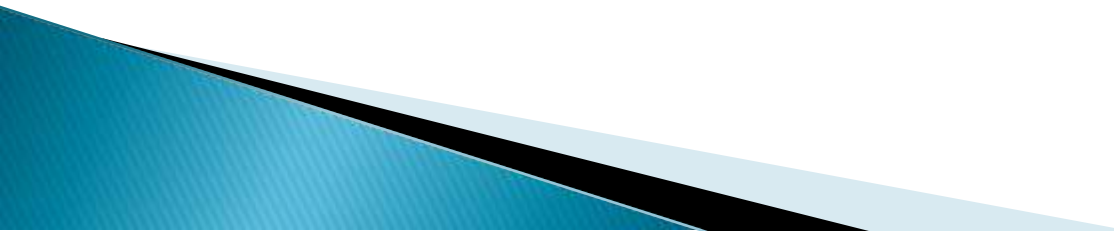
Non obviousness

·

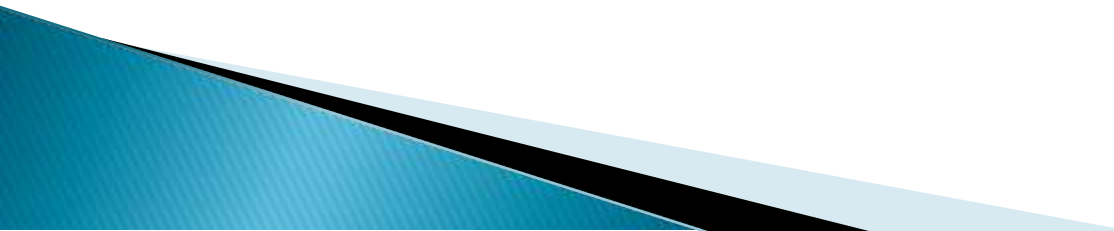
Enablement



GRANT OF PATENTS

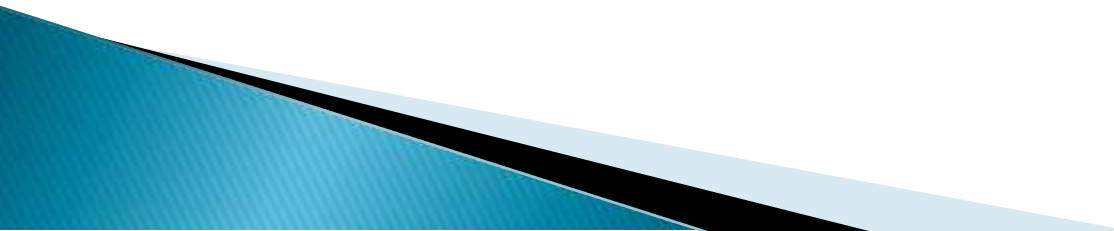
- ▶ Section 43 of the Patents Act, 1970 deals with the Grant of patents.
 - ▶ Conditions
 - ▶ Compliance
 - ▶ consequences
- 

Conditions for Grant of Patents

- ▶ Government – Use machine, apparatus, article patented
 - ▶ Government – use process that is patented
 - ▶ Research or experiment – Use machine, apparatus, article patented
 - ▶ Government– use medicines and drugs that are patented
- 

Compliance of Conditions under the Act for Grant of Patent

A patent is granted promptly when:

- ▶ the patent application has not been declined by the Controller in the exercise of the powers vested in him; or
 - ▶ the application is not in contravention of any provisions under the Act.
 - ▶ FER
 - ▶ Prior art published
- 

Consequences of Grant of Patent

- ▶ “Certificate of Patent”
 - ▶ specification of the invention available on the official website.
 - ▶ public can inspect the patent application
 - ▶ the official journal of the Patent Office publishes the fact that the patent has been granted.
 - ▶ pay the requisite fee
 - ▶ post-grant opposition
 - ▶ Statement of working of the invention commercially
- 

What Are Inventions?

- ▶ As defined in *Section 2 (j)* the term “*invention*” means a new product or process involving an inventive step and capable of application”.

Inventions that are not patentable

(a) Inventions that are frivolous

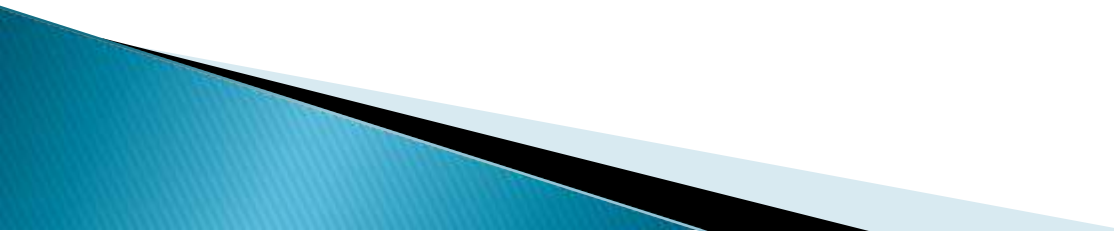
b) Inventions against public morality

(c) mere discovery

d) Mere adding of mixtures

(e) Mere duplication of devices

(f) Horticulture or agricultural method .



(g) Medicinal, curative, diagnostic methods for treating diseases

(h) Essential biological

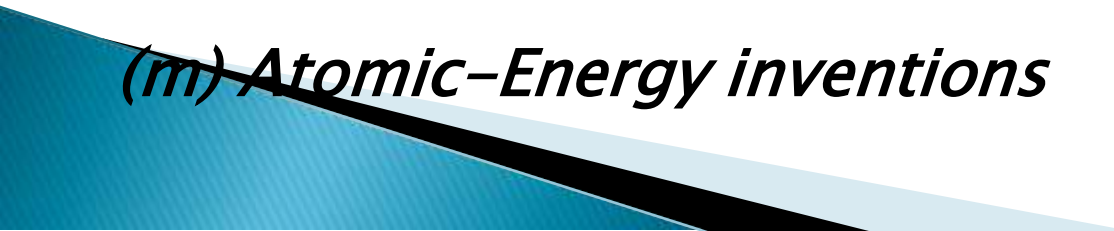
(i) Simple mathematical or business or computer programs

(j) Aesthetic creation

(k) Mental act, rule or method

(l) Traditional Knowledge

(m) Atomic–Energy inventions

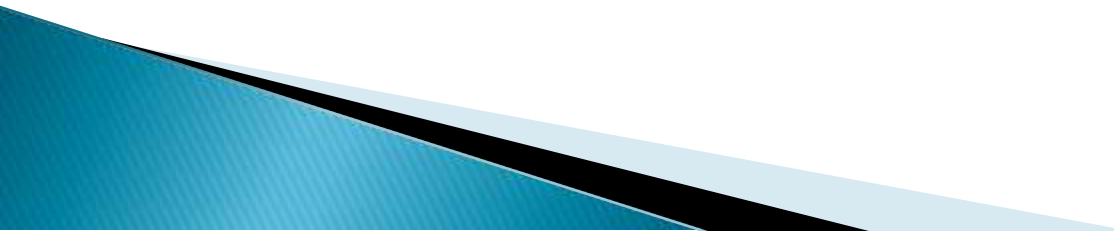


Process and product patent

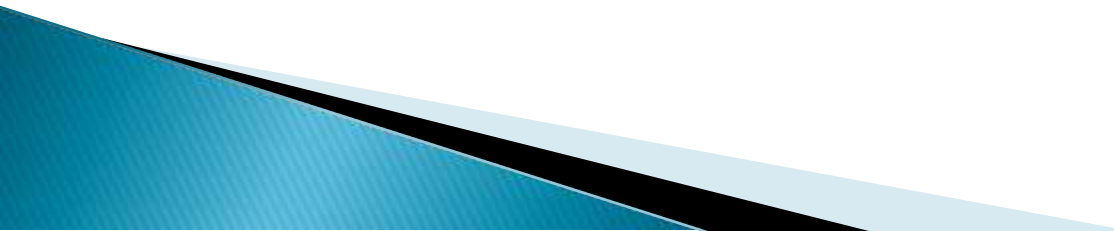
<u>Sr.No</u>	Basis	Product Patent	Process Patent
1	Definition	Patent protection is provided to the 'End Result' or 'the product'.	Process patent protection is provided to only the process, and not the resulting 'End Product'.
2	Competition	Once protection is granted, less competition	Competition shall remain
3	Monopoly	A higher level of monopoly is enjoyed by the inventor	Inventors do not enjoy a monopoly since other persons can still manufacture the same product using a different process.
4	Implementation	Product Patents were introduced as part of the Patents (Amendment) Act, 2005.	Process Patents have been <u>recognised</u> in India ever since the Indian Patent Act, 1970 was enforced.

- ▶ Apple AirPods charging case
 - ▶ Apple Smart Glasses Strap
 - ▶ Samsung's Energy-Efficient Neural Hardware & Air Purifiers
 - ▶ AI-Based Patent Application Drafting
 - ▶ AI-Performed Technical Process
 - ▶ “Artificial Intelligence–Based Assessment and Tutoring System and Method Thereof”
 - ▶ Artificial Intelligence Enabled Automated System for Targeted Content on Display Devices
- 

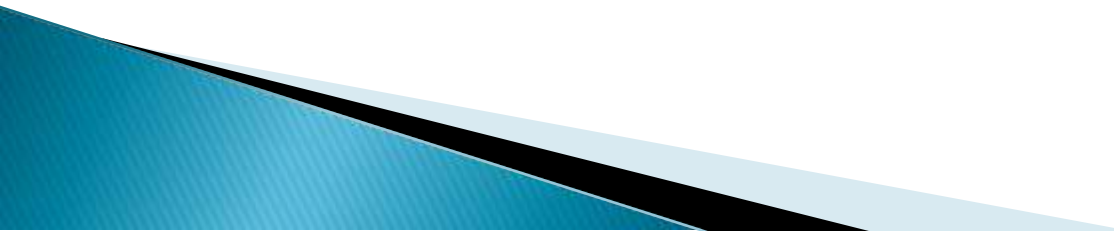
Structure of the specification

- ▶ A title
 - ▶ A statement as to the field.
 - ▶ “state of the art”.
 - ▶ objective technical problem
 - ▶ Statements of invention .
 - ▶ A list of any drawings
 - ▶ A description of specific examples of the invention
 - ▶ The claims.
 - ▶ An abstract.
 - ▶ The drawings.
 - ▶ A sequence listing
- 

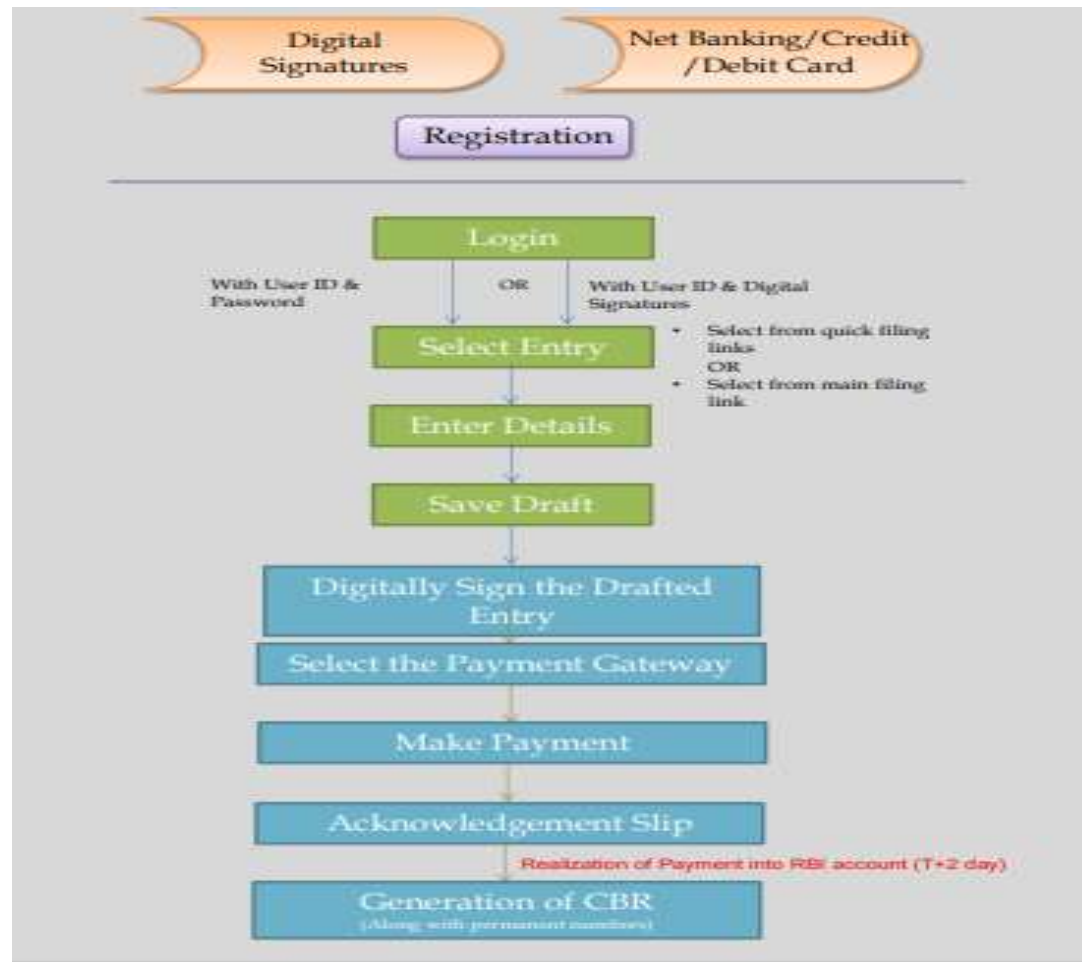
Eligibility conditions

- ▶ **Novelty:**
 - ▶ **Inventive Step:**
 - ▶ **Industrial Applicability:**
 - ▶ **Exclusions:**
 - ▶ **Ownership:**
 - ▶ **Non-Disclosure to the Public:**
- 

REGISTRATION PROCESS

- ▶ **Step 1: Patent Search**
 - ▶ **Step 2: Drafting Patent Specification and Patent Application Filing**
 - ▶ **Step 3: Patent Publication for Public Opposition**
 - ▶ **Step 4: Requesting Patent Examination**
 - ▶ **Step 5: Grant of a Patent**
- 

Steps in E- Filing



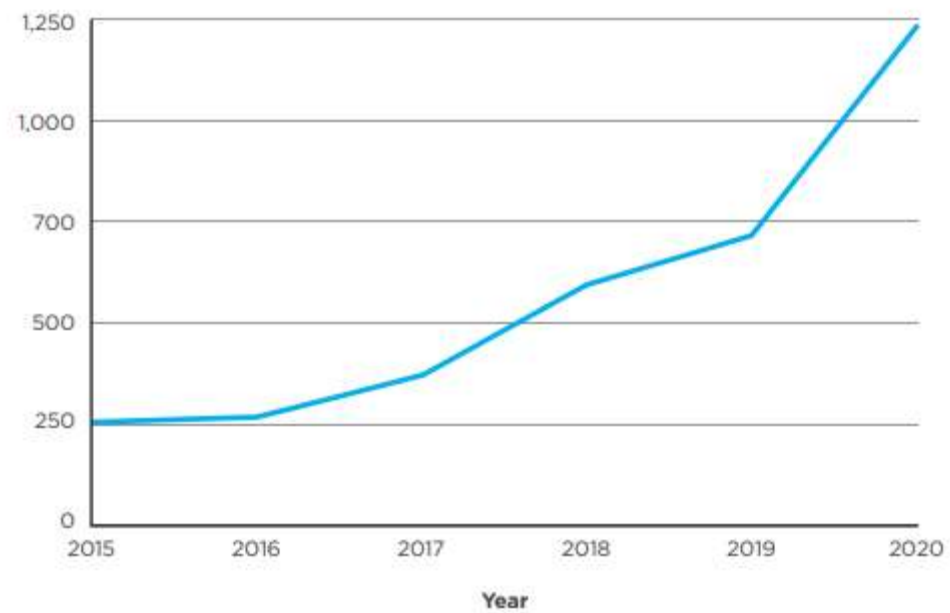
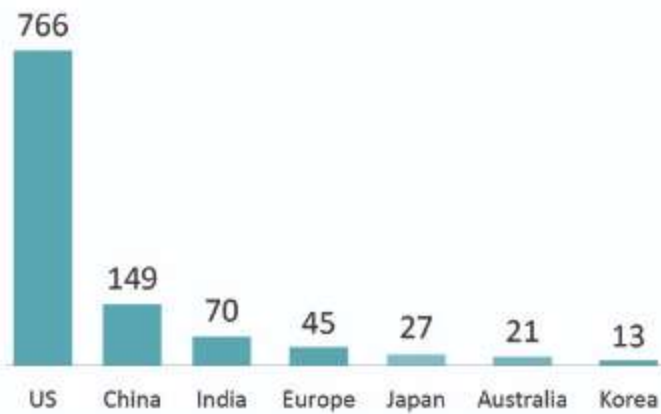
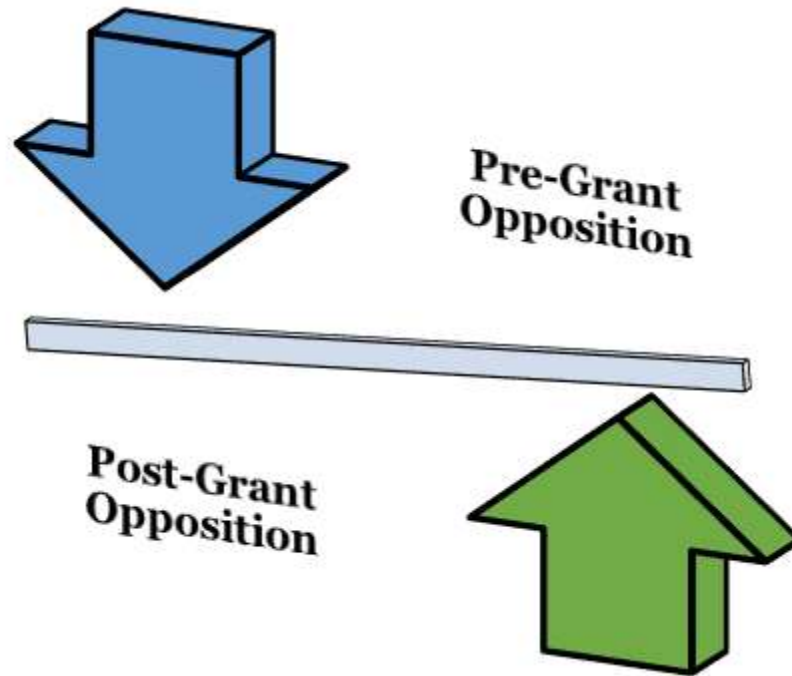


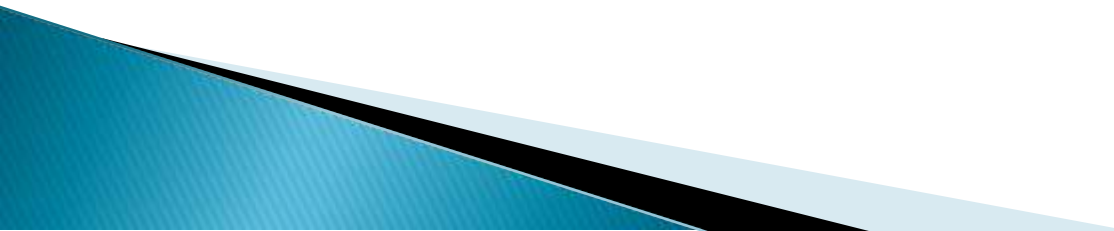
Fig. 5: AI-related publications on arXiv from India 2015- 2020

Leading countries with AI patents

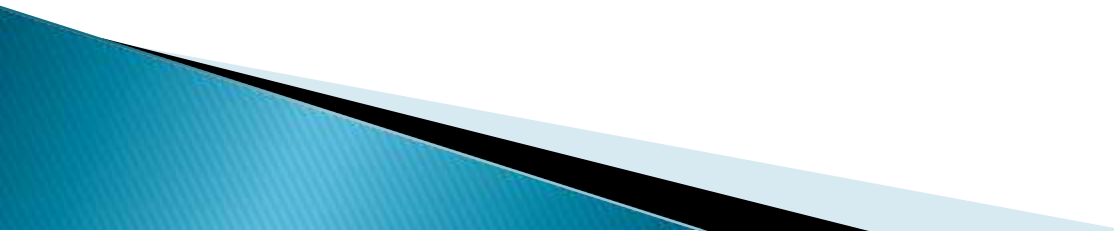


Opposition to grant of patent

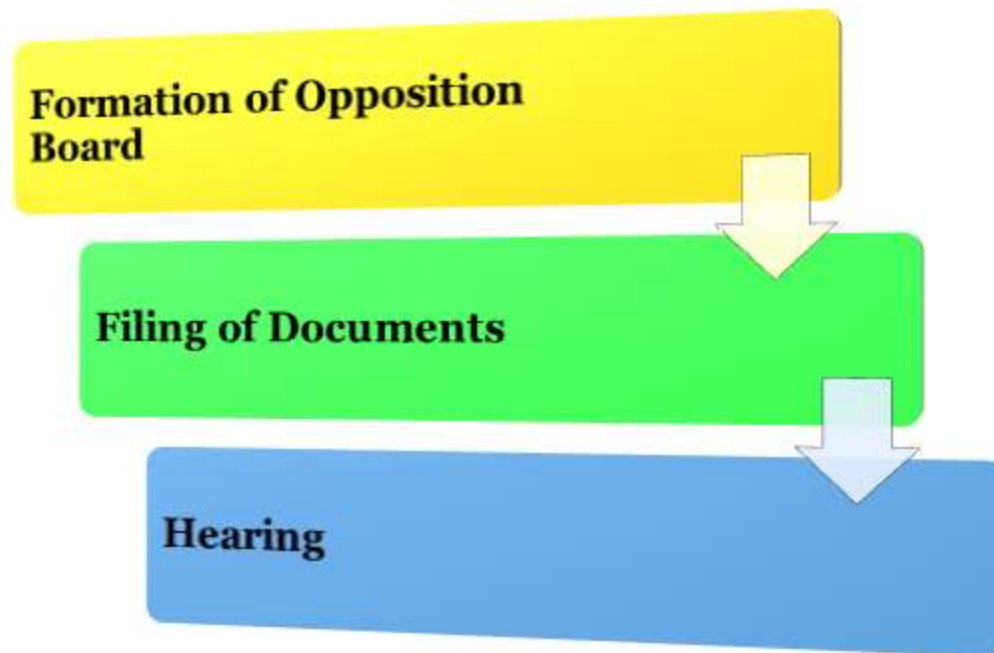


- ▶ Anticipation by publication which is prior;
- The grounds of Opposition of Patent were:*
- ▶ Prior Public knowledge and Prior public usage;
 - ▶ Lack of inventive step and Obviousness;
 - ▶ Non-patentability as per the Patent Act, 1970;
 - ▶ Inadequacy and clearness of description
- 

Procedure For Pre-Grant Patent Opposition

- ▶ a representation for the Opposition in Form-7(A)
 - ▶ notice of opposition of Patent to the applicant
 - ▶ a reply to the representation within 3 months
 - ▶ reject the Pre-Grant representation for Opposition of Patent and grant the Patent.
/ask the applicant of Patent to amend the complete specifications of the Patent
- 

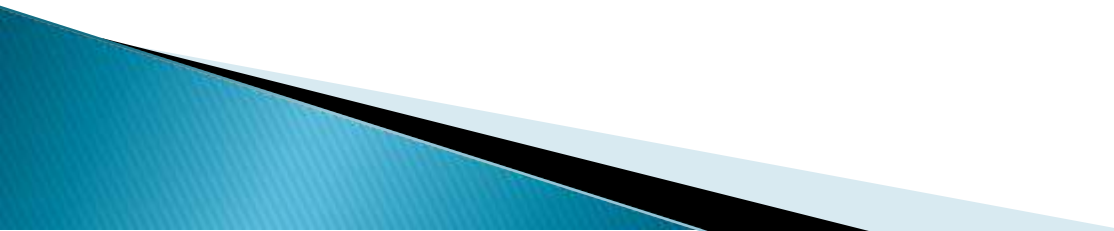
Post-Grant Patent Opposition



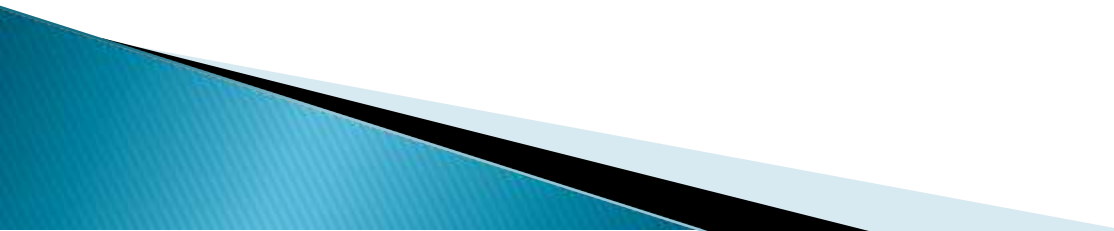
Landmark Cases On Patent Opposition In India

- ▶ *Novartis AG vs. Natco Pharma Ltd*

Rights of the Patentee

- 1. Right to Exploit the Patent:**
 - 2. Right to Grant license:**
 - 3. Right to Surrender:**
 - 4. Right to Sue for Infringement:**
 - 5. Right to Use and Enjoy Patent:**
- 

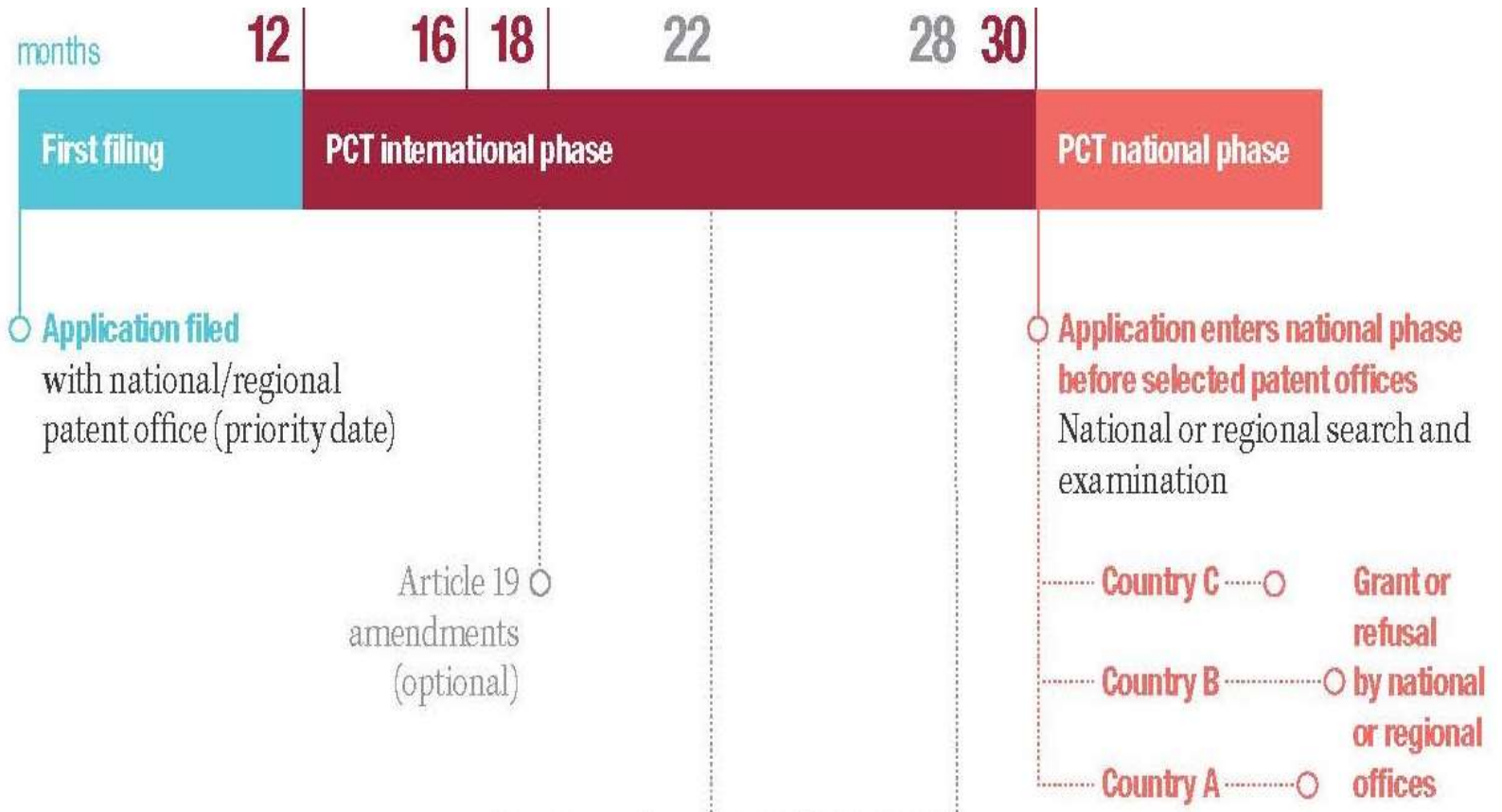
Obligations of a Patentee Under the Patent Act, 1970

- ▶ **1. Duty to Disclose**
 - ▶ **2. Duty to Request Examination (Section 11B):**
 - ▶ **3. Duty to Respond to Objections:**
 - ▶ **4. Duty to Clear All Objections:**
 - ▶ **5. Duty to Pay Statutory Fees (Section 142):**
- 

PCT

- ▶ The Patent Cooperation Treaty (PCT) is an international IP agreement that provides patent protection in several countries through the filing of a single common application
- ▶ World Intellectual Property Organization (WIPO)

- ▶ PHASE 1 : NATIONAL PHASE/FIRST FILING:
- ▶ PHASE 2 : INTERNATIONAL PHASE:
- ▶ PHASE 3 : NATIONAL PHASE:



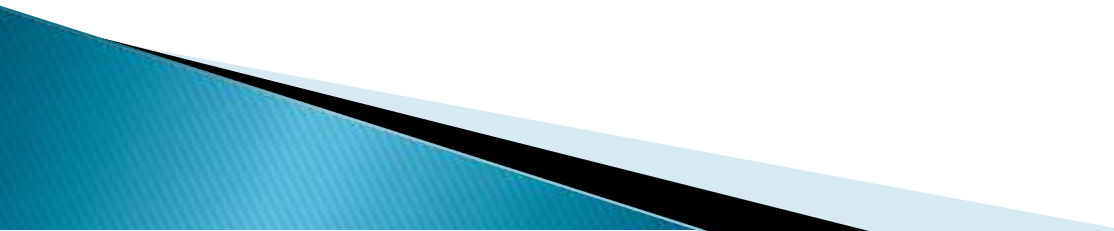
- ▶ EMR provides an exclusive right to the person who files for a patent to distribute an output in their country for a period of five years.
- ▶ Benefits of EMR



Conditions of obtaining an EMR for a particular product–

1. A patent application is pending in that member country where EMR is being sought.
2. A patent has been granted for that product in another member country.
3. Marketing approval has been obtained in such other member country.

Novartis v Adarsh Pharma and Anr. 2004,



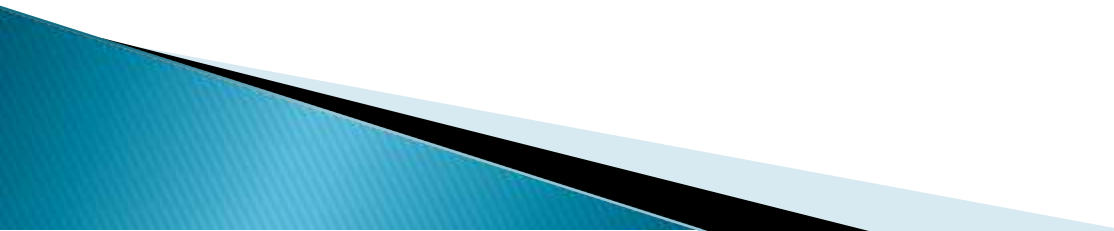
Milestones in Indian patent

- i. Amendments in Rules: The Patents Rules have been amended in 2016, 2017 and 2019
- ii.. Use of IT and Technology:
- iii. Manpower Augmentation
- iv India's and WIPO :
- v. India and Japan: Patent Prosecution Highway (PPH) project

TRANSFER AND INFRINGEMENT

- ▶ Transfer of Patent:

A patentee can transfer the ownership of the patent to another to use the invention by way of:

- ▶ Assignment
 - ▶ Licenses
 - ▶ By activity of law
- 

Assignment

The patentee transfers all or a part of his patent rights to the appointee who obtains the right to prevent others from creating, utilising, practising, or disseminating the invention.

Types of Assignment

- ▶ Legal assignment
 - ▶ Equal or Equitable assignment
 - ▶ Mortgages
- 

Licensing

- ▶ Patent licensing is a process of granting permission to a third party to extract benefits by selling and using the licensed product.

Types of License

- ▶ Sub license
 - ▶ Cross-license
 - ▶ Voluntary licensing
 - ▶ Compulsory licensing
 - ▶ Carrot licensing
 - ▶ Stick licensing
- 

NAME THE TYPE OF LICENSE

- ▶ **Novartis** had developed certain innovative pharmaceutical products but granted a **license to Sun Pharma** to manufacture and market them in India. Later, **Sun Pharma** gave the rights to some regional/local companies for distribution in smaller markets.

- ▶ **Fiat** allowed Tata to use some of its advanced engine technologies (like the Multijet diesel engine). In return, **Tata gave Fiat access** to its wide distribution network and manufacturing facilities in India



Assignment	License
Assignment refers to the transfer of ownership and of the patent to the assignee.	A license grants you the permission to use any patented invention, which would otherwise be referred to as infringement.
Assignments must be executed in writing.	Licenses can be granted without any written documentation.
Assignees don't need to pay any royalties to the original owner.	Licensees may be expected to pay certain royalties in exchange of using the inventor's product.
As you become a proprietor of the patent, it may be a bit expensive to get an assignment.	Licenses are much cheaper than assignments as you will also be paying some royalty in exchange of using the patent.

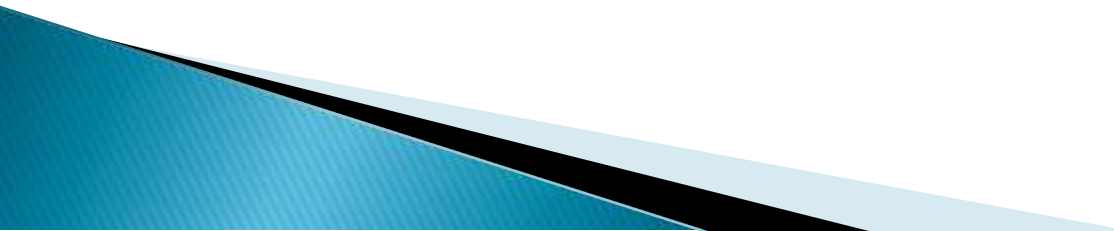


Infringement

Without the consent of the patent holder,

- ▶ Making, using, offering for sale, selling, importing the patented product,
- ▶ Using the patented process, or using, offering for sale, selling, or importing the product directly contained by that process

Types of patent infringement

- ▶ Direct Infringement
 - ▶ Indirect Infringement
 - ▶ Wilful Infringement
- 

The remedies available to the patentee are

:

- ▶ Temporary injunction

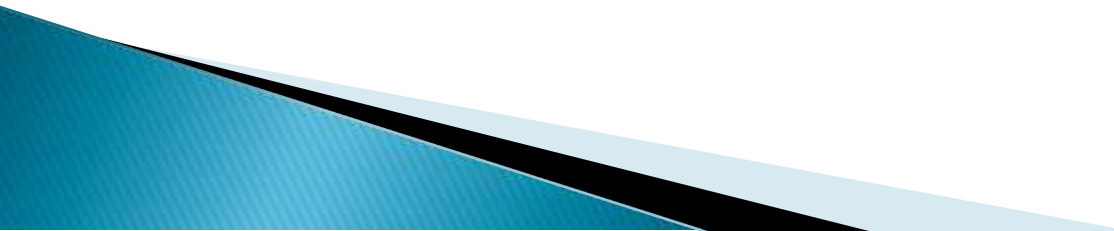
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- ▶ Permanent injunction

- ▶ Damages



Cases where the patentee can opt for surrendering patent

- ▶ A patentee wishing to avoid his patent being challenged by an opponent, thereby leading to invalidation of his patent.
 - ▶ A patentee is unable to pay the fee within the prescribed time
 - ▶ In any other circumstances like inability to commercialize
- 

Procedure for Surrender of Patents

i. Online Notice and application of Surrender of Patents:

.

ii. Publishing the details of surrender

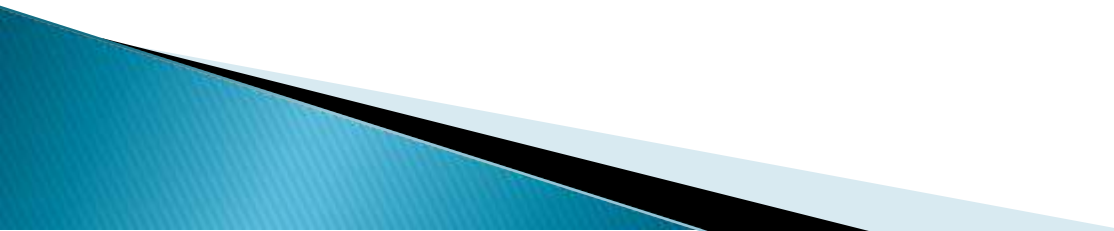
.

iii. Opposition to surrender

iv. Revoke :



Challenges in Patent/Emerging Issues in Patent

- ▶ 1. Patentability of Software:
 - ▶ 2. Evergreening of Patents
 - ▶ 3. Cost of Patent services:
 - ▶ 4. Delay in grant of patents:
 - ▶ 5. Awareness Issues:
 - ▶ 6. Funding issues :
 - ▶ 7. Patent leads to cooperation or competition;
- 

INTELLECTUAL PROPERTY RIGHTS AND PATENTS

UNIT -IV
GEOGRAPHICAL INDICATION, INDUSTRIAL
DESIGN AND IC LAYOUT

- ▶ UNIT-4: GEOGRAPHICAL INDICATION, INDUSTRIAL DESIGN AND IC LAYOUT (9)
Geographical Indications: Concept, historical perspective, potential benefit, renewal and status of Geographical Indications – Geographical Indications in India – Infringement of GI – Status of GI registration in India. Industrial Designs and IC Layouts: Registration of Industrial Designs – Copyrights in Industrial designs – Terms, procedure and conditions for Industrial Designs – Infringement of ID – Integrated circuit layout design – Trade secrets

CONCEPT OF GEOGRAPHICAL INDICATION



- ▶ Geographical Indication (GI) is a sign used on a product that originates from a specific geographical location.

Geographical indication protection extends to a wide range of products including, but not limited to:

- ▶ Agricultural Products
 - ▶ Handicrafts
 - ▶ Industrial Products
 - ▶ Foodstuffs
- 

- ▶ origin of a particular region or locality;
- ▶ quality attributed to their geographic origin;
- ▶ promote the goods of producers of a particular region.



States, Products and Sarees

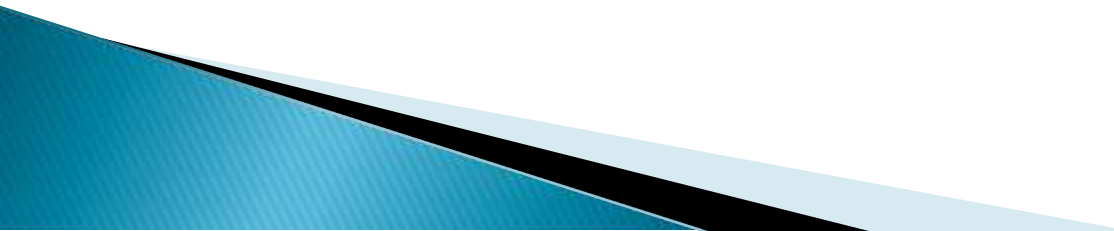
Rajasthan	Blue Pottery of Jaipur, Kathputlis, Sanganeri Hand-Block Printing
Gujarat	Agates of Cambay, Kutch Embroidery, Patan Patola
Madhya Pradesh	Chanderi Fabric, Leather Toys of Indore, Ratlami Sev, Jhabua Kadaknath Black Chicken Meat
Chhattisgarh	Bastar Dhokra, Bastar Wooden Craft, Bastar Iron Craft
Odisha	Konark Stone Carving, Pattachitra, Ganjam Kewda Flower
Maharashtra	Puneri Pagadi, Nashik Valley Wine, Mahabaleshwar Strawberry, Warli Painting, Alphonso Mango
Telangana	Silver Filigree of Karimnagar, Hyderabad Haleem, Narayanpet, Handloom Sarees, Adilabad Dokra metal craft and Warangal durries
Goa	Feni
Karnataka	Channapatna Toys & Dolls, Mysore Sandal Soap, Mysore Jasmine
Andhra Pradesh	Pochampalli Ikat, Kondapalli Bommallu, Tirupathi Laddu
Puducherry	Villianur Terracotta Works
Tamil Nadu	Kancheepuram Silk, Coimbatore Wet Grinder, Thanjavur Paintings, Temple Jewellery of Nagercoil
Kerala	Aranmula Kannadi, Palakkadan Matta Rice, Balaramapuram Saris and Fine Cotton Fabrics

Types of geographical indication

- ▶ Quality-neutral geographical indications,
- ▶ Qualified geographical indications,
- ▶ Direct geographical indications, and
- ▶ Indirect geographical indications

HISTORY OF GEOGRAPHICAL INDICATIONS

IN INDIA

- ▶ Early Period
 - ▶ TRIPS
 - ▶ Geographical Indications of Goods (Registration & Protection) Act, 1999 (GI Act)
 - ▶ 'Geographical Indications of Goods (Registration and Protection) Rules, 2002 (GI Rules).
 - ▶ First GI: Darjeeling Tea
 - ▶ **Geographical Indications of Goods (Registration and Protection) (Amendment) Rules, 2020**
- 

REGISTRATION PROCESS

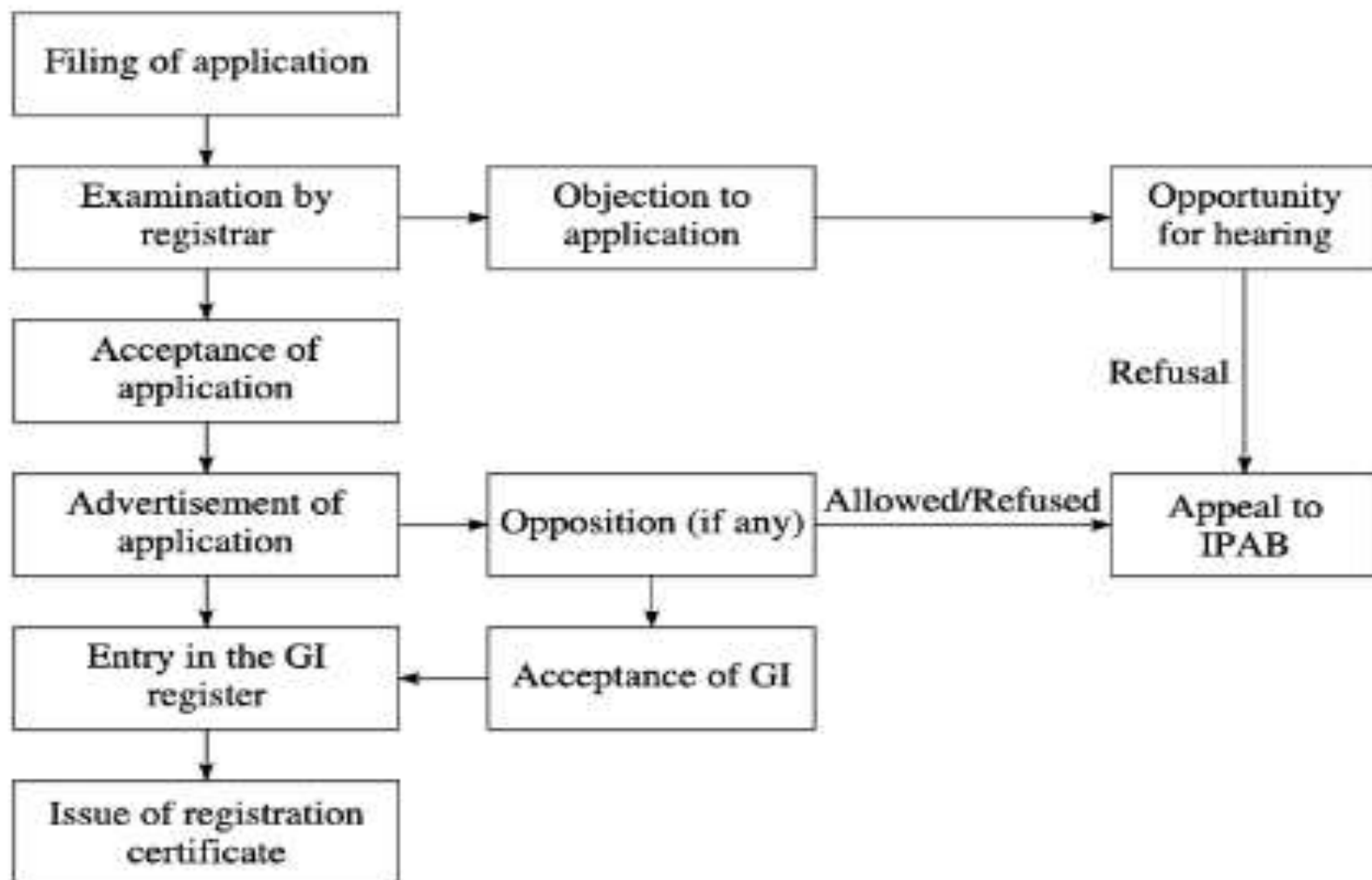
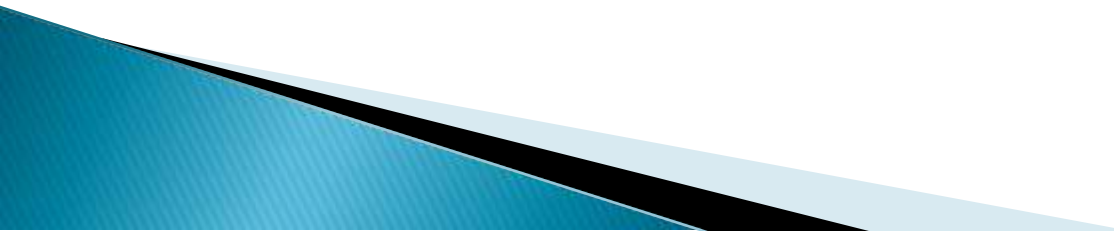


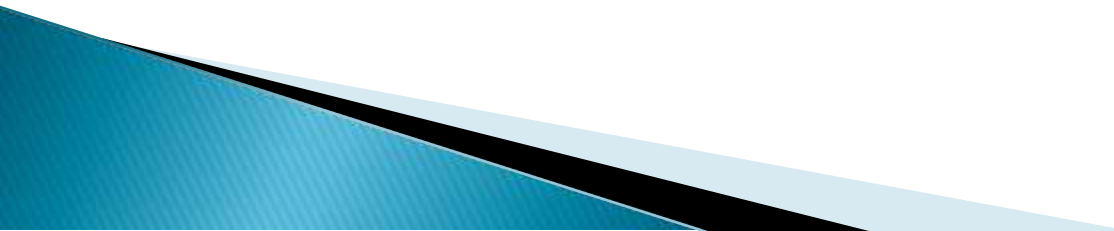
Figure 7.1 Registration Process of GI.

Benefits of GI

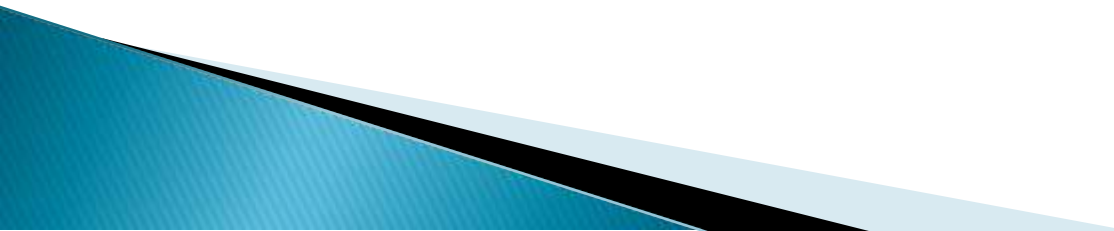


- ▶ **1 – ENHANCES ECONOMIC GROWTH**
 - ▶ **2 – PREVENTS UNAUTHORIZED USE OF GI TAGS**
 - ▶ **3 – EXPANDS BUSINESS**
 - ▶ **4 – INCREASES TOURISM**
- 

RENEWAL AND STATUS OF GI

- ▶ REGISTRATION
 - ▶ AUTHORIZED USER
 - ▶ REGISTER
 - ▶ RENEWAL
- 

INFRINGEMENT OF GEOGRAPHICAL INDICATIONS

- ▶ According to Article 22.1 of the GI Act, “A registered GI is infringed by a person who not being an authorised user
 - ▶ UNAUTHORISED USE
 - ▶ PASSING OFF
 - ▶ FALSE REPRESENTATIONS
- 

REMEDIES FOR INFRINGEMENT

- ▶ CIVIL REMEDIES

INJUNCTION

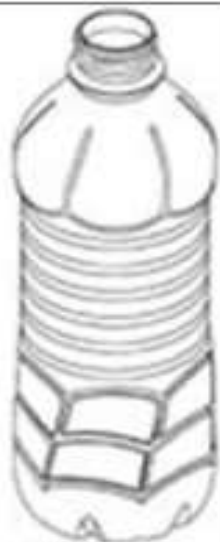
DAMAGES

DELIVERY OF THE INFRINGING LABELS AND
INDICATIONS CONTAINING PRODUCTS

- ▶ CRIMINAL REMEDIES(Falsification and
Misrepresentation)

six months to three years imprisonment and a fine
of not less than rupees fifty thousand but may
extend to rupees two lakh

INDUSTRIAL DESIGNS



Article Name:
Bottle
Design Number:
223506
Owner:
Pepsico, Inc.



Article Name:
Cooler For Drinks
Design Number:
246916
Owner: Pepsico, Inc.



Article Name:
VEHICLE (CASE 2)

Design Number:
315254-001

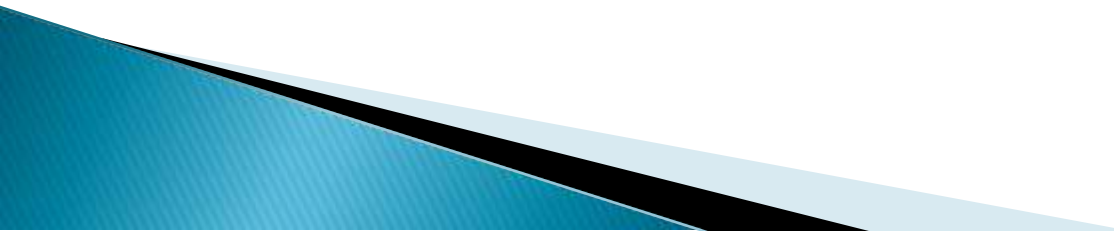
Owner: TATA MOTORS LIMITED



Article Name:
Crusher For Crushing Of Coal

Design Number:
279820

Owner: Tata Steel Limited

- ▶ Industrial designs are those designs that give ornamental or aesthetic value to a product, which is then manufactured industrially. An industrial design may consist of three-dimensional (3D) features such as the shape of a bottle or vase used in various industries or two-dimensional (2D) features such as patterns for textiles and wallpaper that serve the purpose of decoration.
- 

REGISTRATION OF INDUSTRIAL DESIGNS

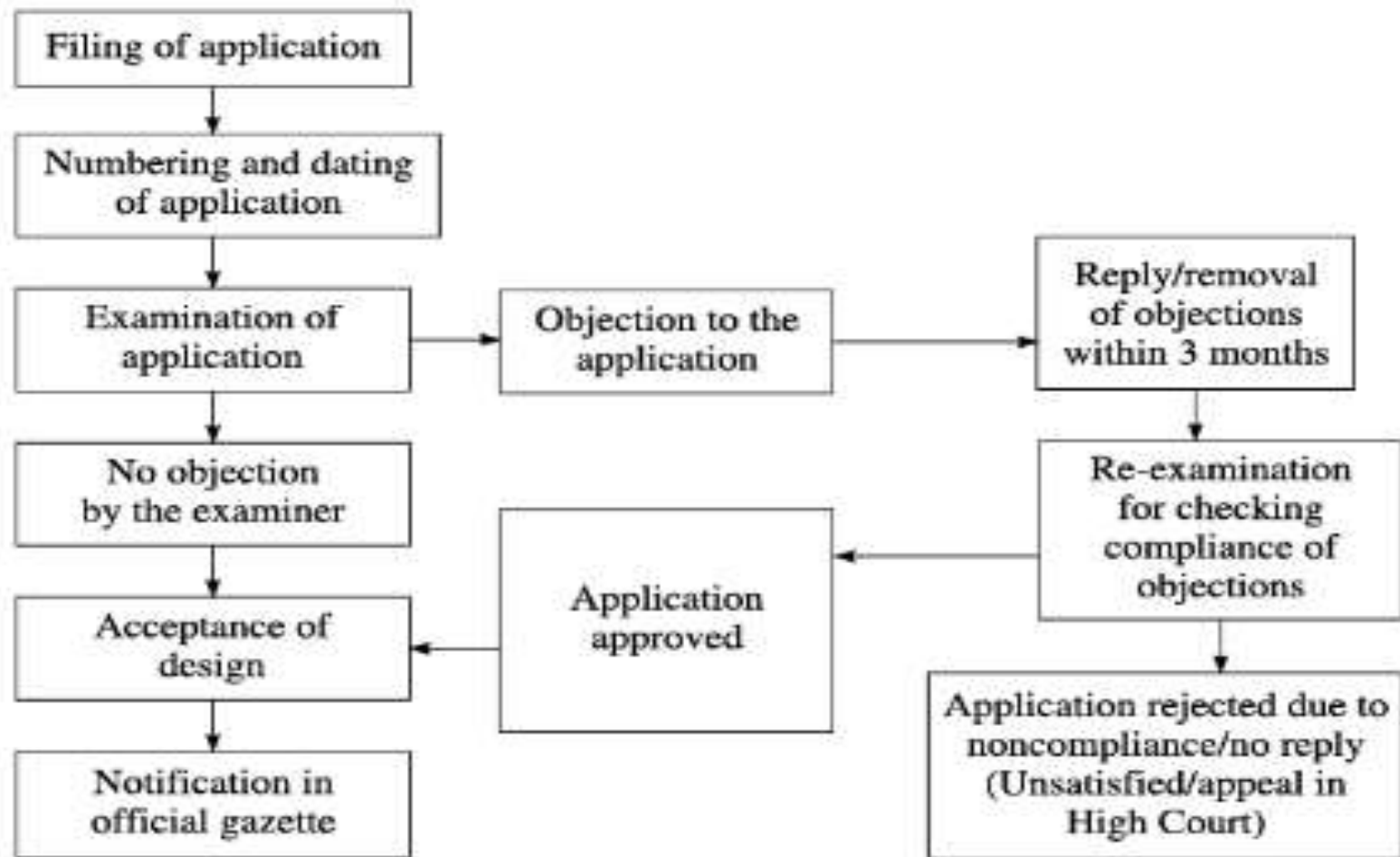
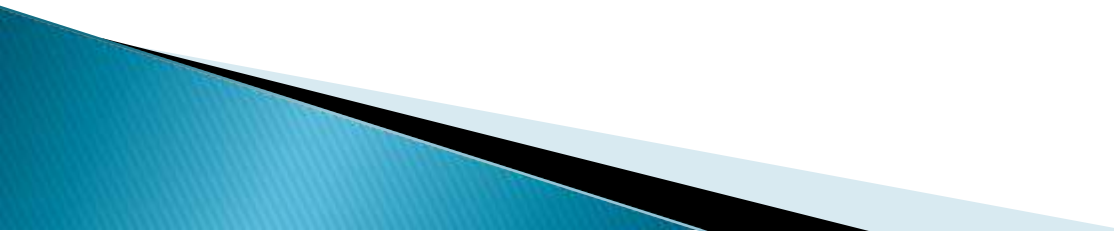


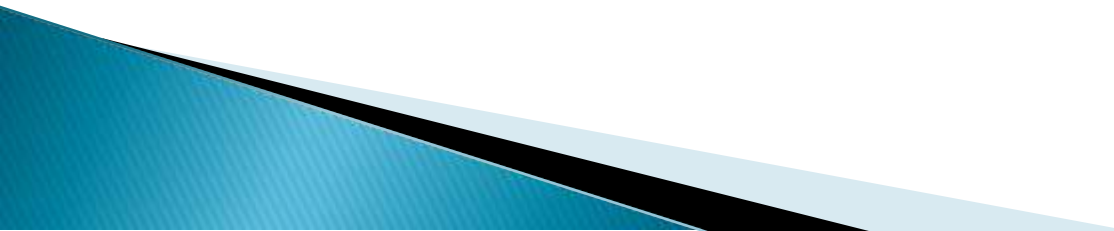
Figure 6.2 Process for Registration of Industrial Designs.

COPYRIGHTS IN INDUSTRIAL DESIGNS

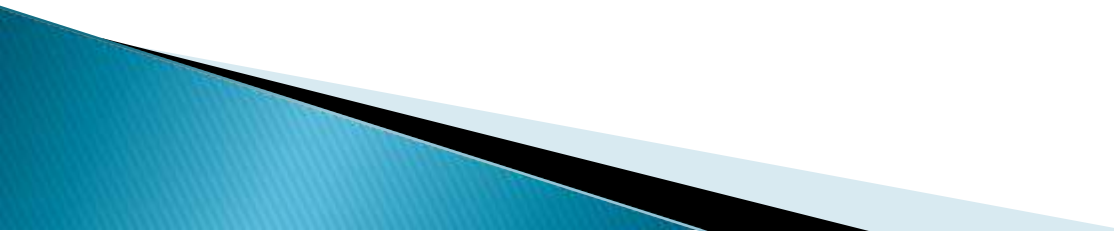
- ▶ Interface between copyright and ID
 - ▶ Both deal with the protection of creative works
 - ▶ Different approach
 - ▶ Industrial design protection criteria differ from copyright protection criteria
 - ▶ Period of protection
 - ▶ Industrial designs may also be protected under copyright
- 

TERMS,PROCEDURE AND CONDITIONS OF INDUSTRIAL DESIGNS

Period of validity of Design Registration

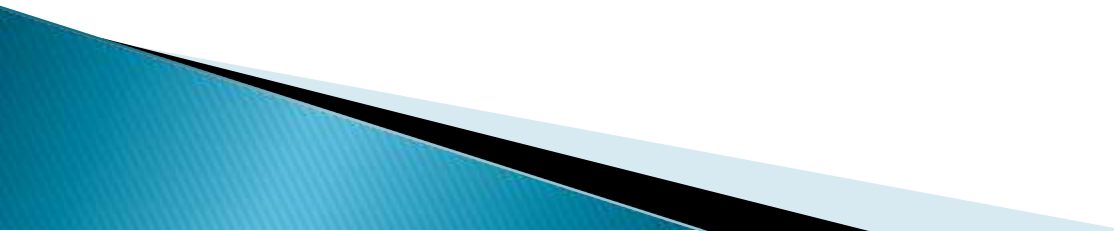
- ▶ 1. Initially 10 years from the date of registration
 - ▶ 2. Later it shall be renewed for every 5 years with applicable fee
- 

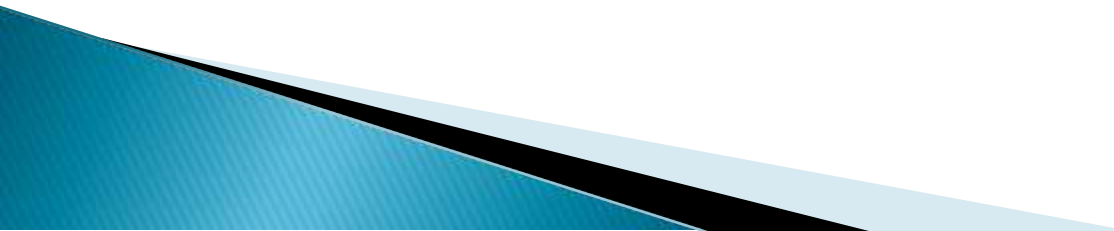
CONDITIONS FOR REGISTRATION

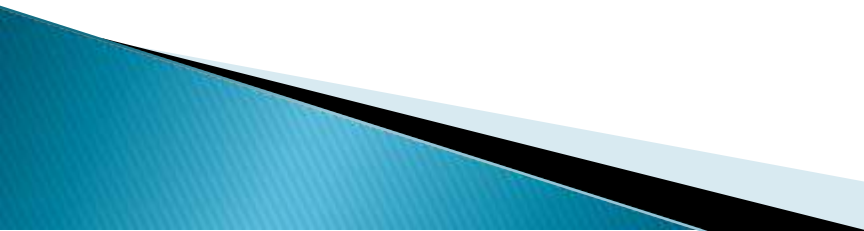
- ▶ Be new or original registration
 - ▶ Not been disclosed to the public anywhere by publication .
 - ▶ Be significantly distinguishable from known designs or combination of known designs.
 - ▶ Not comprise or contain scandalous or obscene matter.
 - ▶ Not be a mere mechanical contrivance.
 - ▶ Be applied to an article and should appeal to the eye.
 - ▶ Not be contrary to public order or morality.
 - ▶ Not be prejudicial to the security of India
- 

INFRINGEMENT OF ID

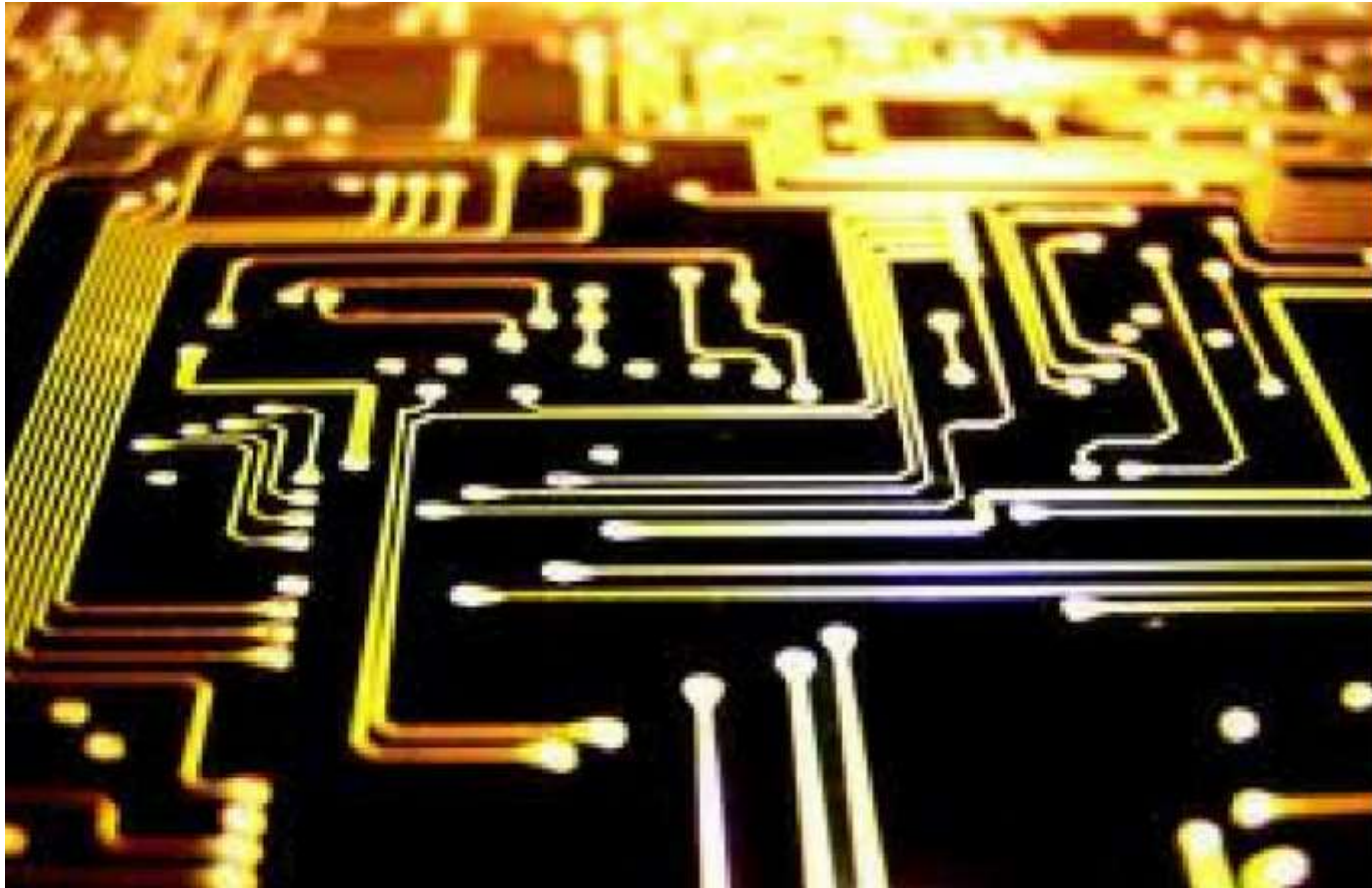
- ▶ A third party manufactures or sells, etc., the registered design or any similar design for commercial purposes (meaning that private or domestic use is excluded) and if the third party is not licensed to do so by the owner of the registered design right, such activity constitutes a design right infringement.

- ▶ Under Section 22(2)(a) of the Design Act, the one who infringes shall pay a sum (not exceeding) Rs. 25,000/ (Rupees Twenty-five thousand only) for every breach contravened. The total amount shall sum up to (not exceeding) Rs. 50,000 (Rupees Fifty thousand only). The above amount is for the recovery of the Infringement.
 - ▶ Under Section 22(2)(b), it is mentioned that the owner of the registered Design is vested with certain rights wherein it can call for recovery of damages and make the infringing party liable.
- 

- ▶ Section 55 of the Copyright Act of 1957 provides the scope of civil remedies available on the proprietor's registered work. It helps to seek remedies, claim damages or file a suit for injunction against anyone who infringes the registered article under the Act.
 - ▶ The claimant also enjoys the entitlement along with profits gained by the infringing party upon the infringed design.
 - ▶ If in any circumstance, the registe
- 

- ▶ stop importing the products and confiscate any such product that holds the power to infringe the rights of the registered person.
 - ▶ The criminal remedies –punished with imprisonment for a minimum of six months extended up to three years. (along with fine ranging from 50,000 INR to 2,00,000 INR)
 - ▶ punishment on second and subsequent crime –
---imprisonment for a minimum of one year which can be further extended to three years with a fine ranging from 1,00,000 INR to 2,00,000 INR.
- 

INTEGRATED CIRCUIT LAYOUT DESIGN

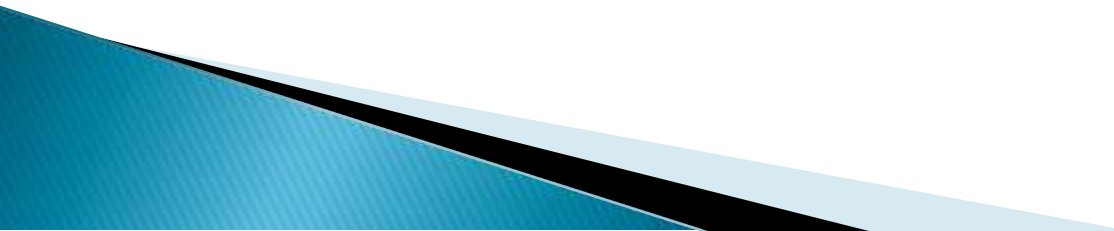


Semiconductor Integrated Circuit Layout Design (SICLD) Act, 2000

- ▶ An integrated circuit is a miniature electrical circuit containing electronic devices, some or all of the devices and interconnections of which are embedded in or on a piece of material, usually a semi-conductor material e.g. silicon.

- ▶ Integrated circuits are used as computer memory circuits and microprocessors.

They are used in the

- ▶ aircraft,
 - ▶ cars,
 - ▶ washing machines,
 - ▶ radios and
 - ▶ cellular telephones.
- 

Layout or Topography

- ▶ Layout designs, sometimes called topographies, of integrated circuits are the three-dimensional placement of some or all of the elements and interconnections that make up an integrated circuit.



Criteria of registration of Layout Design

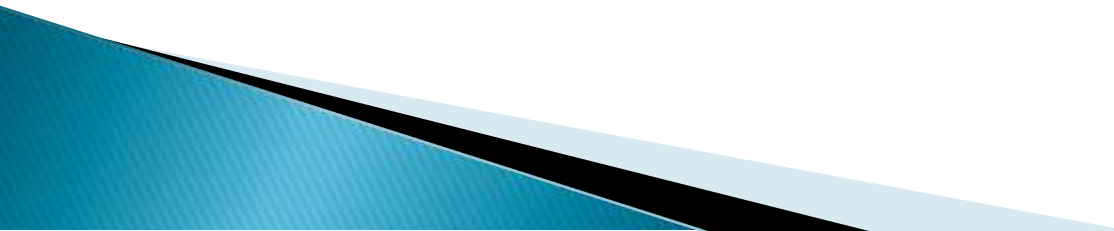
- ▶ Original, distinct, and able to stand out from other layout designs
- ▶ 10 years



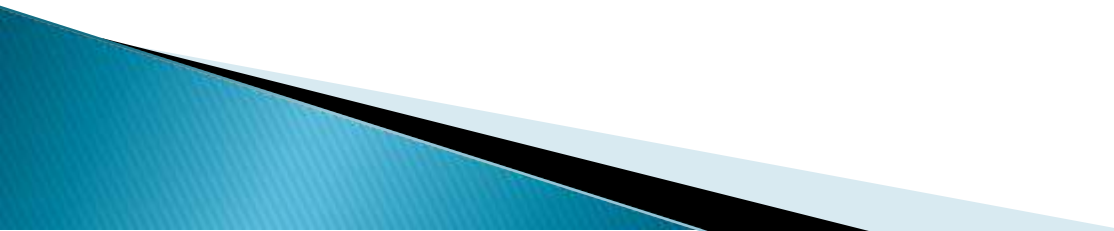
TRADE SECRETS

- ▶ Trade secrets are intellectual property (IP) rights on confidential information which may be sold or licensed.

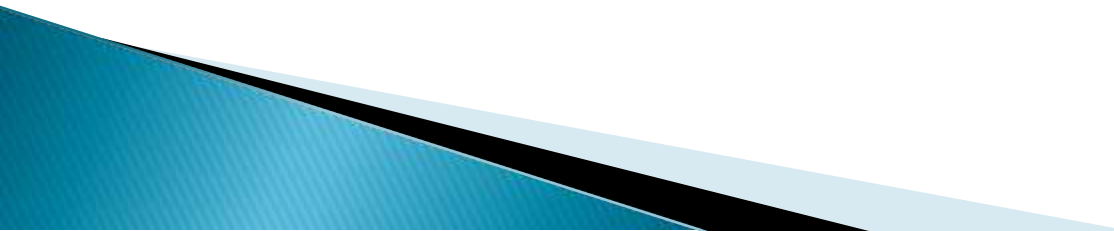
Example

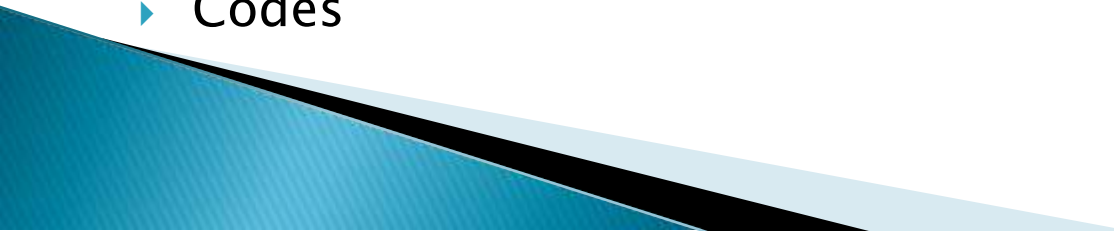
- ▶ Google's search algorithm exists as intellectual property in code and is regularly updated to improve and protect its operations.
 - ▶ The secret formula for Coca-Cola, which is locked in a vault, is an example of a trade secret that is a formula or recipe.
- 

Essentials of trade secret

- ▶ **commercially valuable** because it is secret,
 - ▶ be known only to a **limited group of persons**, and
 - ▶ be subject to **reasonable steps** taken by the rightful holder of the information to keep it secret, including the use of confidentiality agreements for business partners and employees.
 - ▶ The unauthorized acquisition, use or disclosure of such secret information in a manner contrary to honest commercial practices by others is regarded as an unfair practice and a violation of the trade secret protection.
- 

Types of trade secrets

- ▶ **technical information**
 - ▶ **commercial information,**
 - ▶ **combination of elements,**
 - ▶ **financial information**
 - ▶ **formulas and recipes and**
 - ▶ **source codes.**
- 

- ▶ Financial
 - ▶ Business
 - ▶ Scientific
 - ▶ Technical
 - ▶ Economic
 - ▶ Engineering
 - ▶ Such information, according to federal law, includes:
 - ▶ Patterns
 - ▶ Plans
 - ▶ Compilations
 - ▶ Program devices
 - ▶ Formulas
 - ▶ Designs
 - ▶ Prototypes
 - ▶ Methods
 - ▶ Techniques
 - ▶ Processes
 - ▶ Procedures
 - ▶ Programs
 - ▶ Codes
- 

Term of Trade Secret registration

- ▶ trade secret protection is not limited in time



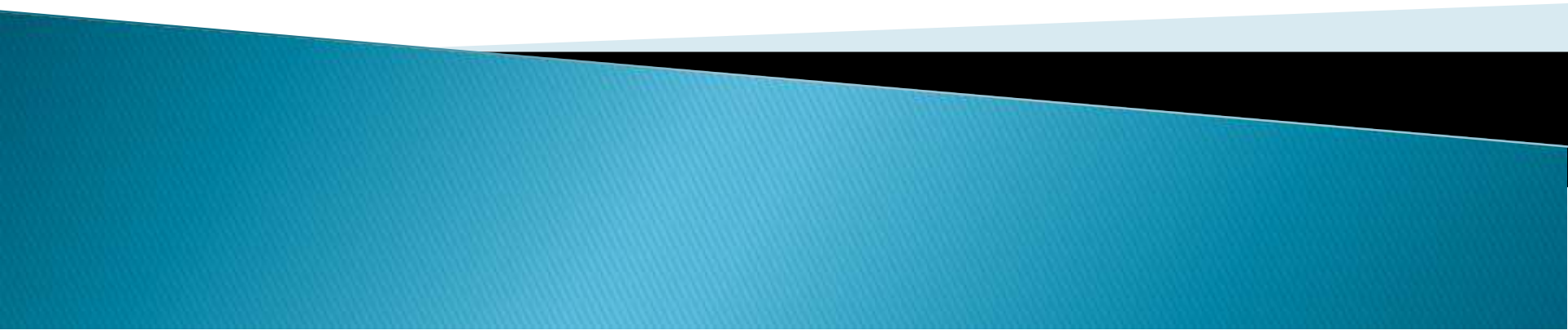
Term of Trade Secret registration

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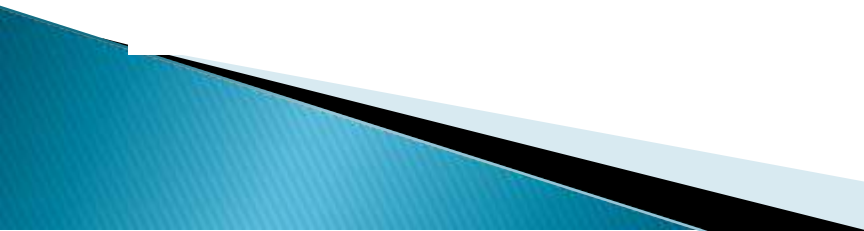
INTELLECTUAL PROPERTY RIGHTS AND PATENTS

UNIT-5:INTELLECTUAL PROPERTY
MANAGEMENT



- ▶ UNIT-5:INTELLECTUAL PROPERTY MANAGEMENT (9) Creating Intellectual Property: Need for creating intellectual property – Development of IP and Knowledge – Types of innovations – Behavioral aspects. Intellectual Property Management:Need and importance of IP management – IP management activities – 5Cs model of managing IP – Research and Developments in India (Case Study)

- Wealth creation
 - Identity in the marketplace
 - Entering in new markets
 - Creation of entry barriers
 - Strengthening and safeguarding the existing IP
 - Shaping industry architecture
 - Protecting traditional knowledge
- 

- Human Thought Process
 - Tacit Ideas/Knowledge
 - Codification
 - Validation/Experimentation
 - Explicit Scientific/Business Knowledge
 - Scrutiny
 - Intellectual Property
- 

Innovation

- ▶ Innovation can refer to **something new** or to a **change made to an existing product, idea, or field**



	Reinforced	Overtured
Unchanged	Incremental innovation	Modular innovation
Changed	Architectural innovation	Radical innovation

Example: Bike

Incremental innovation



Modular innovation

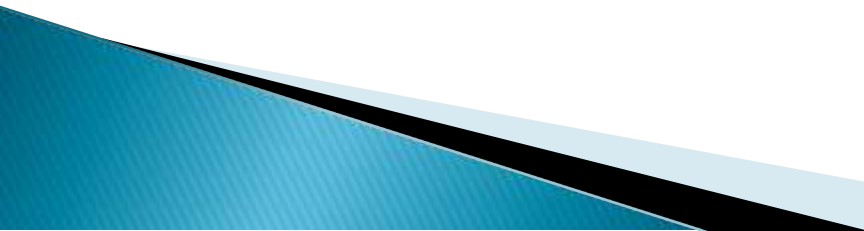


Architectural innovation



Radical innovation

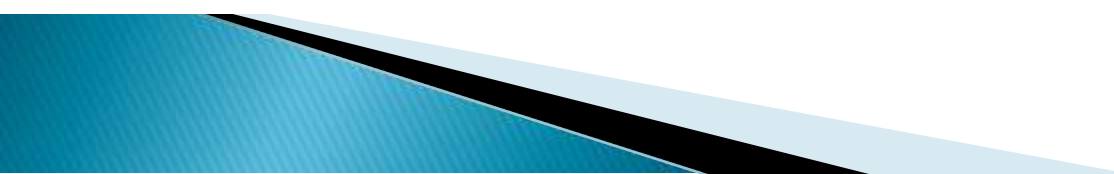


- Incremental innovations
 - Modular innovations
 - Architectural innovations
 - Radical innovations
- 

Behavioral aspects

- ▶ CREATIVITY AND INNOVATION

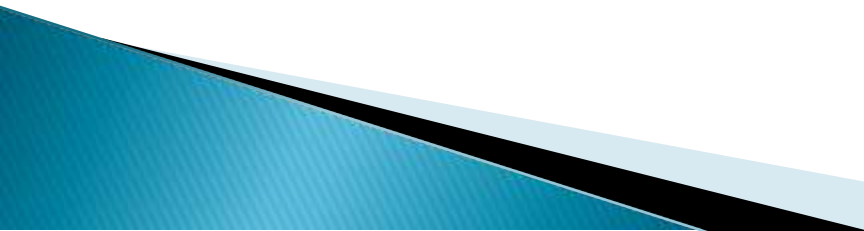


- Open Atmosphere
 - Tolerance for Failure
 - Free Communication
 - Quest for Knowledge
 - Decentralization
 - Management Support
- 

Intellectual Property Management:



Management of acquisition, exploitation, and protection of intellectual property of an organization, for the purpose of capturing maximum value currently and ensuring the sustainability of IP assets for the future, can be termed as IP management. IP management seeks to derive competitive advantage for the organization by coordinating the entire IP value chain of the organization ranging from IP creation to IP enforcement. IP management is assuming more importance as market value of the firms is increasingly being determined by IP and knowledge assets.

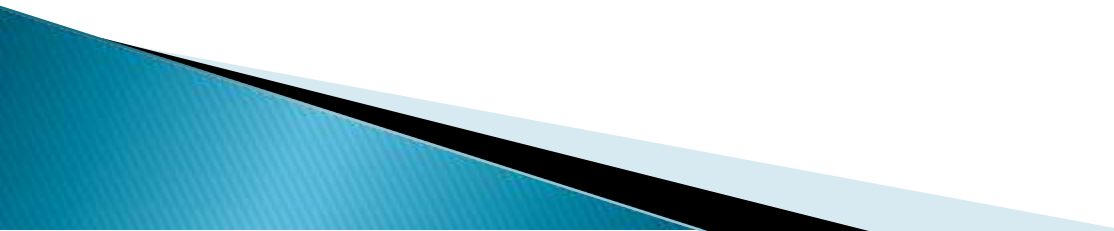


Need and Importance of IP Management



1. Share of IP and knowledge assets in the firm valuation is increasing and these assets deserve to have adequate attention.
 2. IP management can be crucial for the survival of an organization in the emerging knowledge economy.
 3. Value derived from IP may be undermined in the absence of proper IP management.
 4. Sound IP management is the pre-requisite for the sustenance of IP ecosystem in the organization.
 5. Value originating from IP of an organization may be captured by other organization if safeguards through good IP management are not put in place.
 6. Superior IP management can benefit the customers, in particular and society, in general through improved product and services.
- 

IP MANAGEMENT ACTIVITIES

- ▶ UNDERTAKING IP INTELLIGENCE
 - ▶ ACQUISITION OF IP
 - ▶ DECISION ON IP PORTFOLIO
 - ▶ SUPPORTING DEVELOPMENT OF IP
 - ▶ COMMERCIALIZATION OF IP
 - ▶ PROTECTING IP MANAGEMENT
 - ▶ PUTTING IP MANAGEMENT IN PLACE
 - ▶ CARRYING OUT IP AUDITS
- 

5CS MODEL OF MANAGING IP

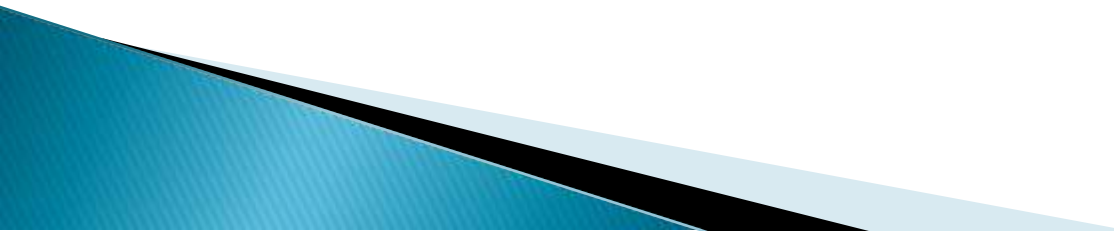


- ▶ CARVING
- ▶ CREATING
- ▶ COMMERCIALIZATION
- ▶ CAPTURING
- ▶ CONSERVING

RESEARCH AND DEVELOPMENT IN INDIA (CASES)

- ▶ Council of Scientific & Industrial Research (CSIR)
 - ▶ Indian Council of Agricultural Research (ICAR)
 - ▶ Indian Council of Medical Research (ICMR)
 - ▶ Defence Research and Development Organisation (DRDO)
 - ▶ Department of Atomic Energy (DAE)
 - ▶ Department of Space (DoS)
 - ▶ Department of Electronics (DoE)
- 

INCENTIVES TO RESEARCH AND DEVELOPMENT

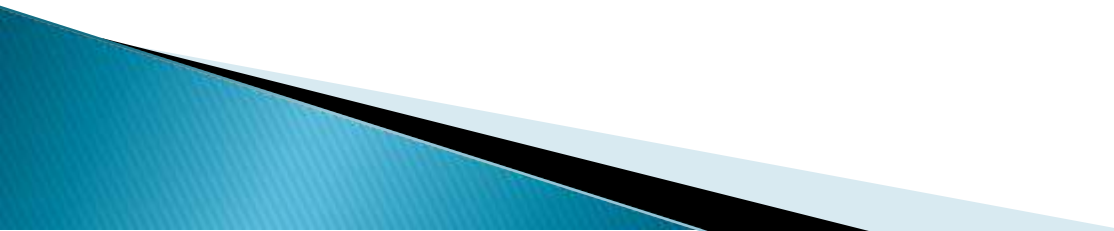
- ▶ 100% write off of revenue expenditure on R&D;
 - ▶ Exemption from Excise Duty and Customs duty
 - ▶ Exemption from Price Control of Drugs
 - ▶ Support in the form of grants
 - ▶ Atomic energy space and Defence research
- 

Intellectual property in India

- ▶ 2025 GLOBAL INNOVATION INDEX
- ▶ India ranks 38th among 139 countries –WIPO



COMPANIES INVOLVED IN IP FOR AI

- ▶ Tata Consultancy Services
 - ▶ Wipro
 - ▶ Infosys
 - ▶ HCL Technologies and
 - ▶ Persistent System
 - ▶ Zensar Technologies
- 

CHALLENGES IN INDIAN R&D

1. Indian R&D expenditure levels are lagging as compared to leading countries at the global platform.
 2. There is an urgent need to prop up R&D expenditure and IP generation in the higher education sector.
 3. There is need for better IP management so that IP assets can be put through the phase of commercialization.
 4. There is a need on part of private sector to boost R&D expenditure.
- 