

# **ENGINEERING ENTREPRENEURSHIP AND IPR**

## **Module 1**

- Introduction to Ideation, Innovation and Entrepreneurship**
- Introduction to Intellectual Property Rights (IPR)**
- Importance of building a strong team**
- Identifying Pain Points and problem statement**

# Module 1 Syllabus Cond...

- **Introduction to Intellectual Property Rights (IPR)**
  - Types of IPR: Patents, trademarks, copyrights, trade secrets
  - Strategies for protecting intellectual property based on the type of innovation
  - Role of IPR in securing funding and competitive advantage

# Intellectual Property Rights (IPR)

## Introduction

- Intellectual Property Rights (IPR) refer to the legal protections granted to individuals or organizations for their creations, inventions, and innovations.
- These rights are designed to recognize and reward creativity, innovation, and intellectual effort by providing exclusive rights to use, produce, and profit from their creations.

## 1.2.1 Objectives of IPR

- 1. Promote Innovation:** Encourages individuals and companies to innovate by ensuring legal protection for their ideas.
- 2. Economic Growth:** Fosters economic development by protecting investments in research, technology, and creativity.
- 3. Fair Competition:** Provides a legal framework to protect creators against unauthorized use or exploitation.
- 4. Public Benefit:** Balances creators' rights with public interest by eventually making innovations available for public use (e.g., patents expiring after a set period).

## Importance of IPR

- **Encourages Creativity:** Protects creators and ensures recognition and economic benefits.
- **Attracts Investment:** Secure intellectual property rights make businesses more attractive to investors.
- **Facilitates Trade:** Promotes international trade and protects brands globally through agreements like TRIPS (Trade-Related Aspects of Intellectual Property Rights).
- **Protects Consumers:** Ensures the authenticity and quality of products by preventing counterfeiting and piracy.

## 1.2.2 Types of IPR

**1. Patents:** Protect new inventions or processes that are novel, useful, and non-obvious.

Example: A new medical device or a unique manufacturing process.

**2. Trademarks:** Protect symbols, names, logos, or designs that distinguish a company's goods or services.

Example: Apple's logo or McDonald's golden arches.

**3. Copyrights:** Protect original works of authorship like literature, music, and art.

Example: A novel, a movie, or a software program.

**4. Trade Secrets:** Protect confidential business information that provides a competitive edge.

Example: Coca-Cola's secret formula.

## Trade Mark

A trade mark is a type of intellectual property which identifies a product or service as a particular source, and is distinguishable by customers from another product or service.

Logos and names are the most common form of trade mark. This can include product or brand names. Other intellectual property that can be protected with a trade mark

include:

- Shapes including packaging.
- Colours.
- Colour combinations.
- Sounds.
- Patterns.

**Letters**



*Bata*



**Words**



**Names**



It's a better life.



**Numerals**



**Slogans**



**Symbols/ drawings**



## Packaging

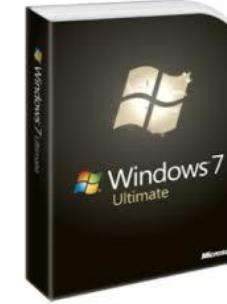


## Sound



- A trade mark must be unique and cannot be confused with another existing trade mark.
- A trade mark cannot look similar to a state symbol such as a flag.
- Businesses use the TM symbol while a trade mark application is in process before the trade mark application is granted to show intent and discourage others from using it.

# Copyright



A copyright (©) is a type of intellectual property which gives the creator or owner the only right to make a copy of their unique work.  
Work covered by copyright laws includes:

- Literary work such as books and recipes.
- Non-literary work such as software and databases.
- Artistic work such as an artwork, graphic or packaging design.
- Educational material such as a training course content.
- Musical work such as sheet music and recordings.



- The copyright symbol © can be added to your work, however, your legal protections remain the same whether you apply the © symbol or not.
- Copyright protections prevent people from copying your work and distributing the copies, making an adaptation of your work, or putting your work on the internet.
- Copyright lasts for 50 years from the end of the owner's life. This is why some classical sheet music can be legally copied, though any newer recordings will still be covered under copyright law.

## ❖ **BUNDLE OF EXCLUSIVE RIGHTS TO THE OWNER**

- ❖ Right of Reproduction
- ❖ Right for adaptation and translation
- ❖ Right of distribution
- ❖ Right of public performance
- ❖ Right of broadcasting

# Patent

- A patent provides the inventor of a process or item, exclusive rights for a designated period of time.
- Patents are the most difficult of intellectual property to obtain and also the most expensive to enforce if someone infringes upon it.
- A patent protects inventions and encourages innovation and commercialisation of technological advances.
- Patents are only granted for non-obvious novel ideas and solutions to problems which have never been invented before or made public in any way. Therefore, if you've made your invention public before applying for the patent, this could affect your chances of getting your patent granted.
- To get a patent, the inventor must disclose technical information about the invention to the public in a patent application. In exchange, the granting authority issues a patent and allows the inventor to publish details about the invention.

- Patents are granted for/ In exchange of full disclosure of the invention
- Limited monopoly for a few years
- Profit maximization
- Recoup his expenses
- Gather investment for further inventions
- First come first serve basis, No question of real inventor
- Validity: Generally 20 years from the date of application.
- Statutory Compliance:
  - ▶ Filing an application with the patent office.
  - ▶ Paying maintenance fees.

# Trade Secret

Trade secrets are a form of intellectual property which can include ingredient formulas and secret processes. Trade secrets retain value through not commonly known or easily decipherable information.

The generally understood definition of a trade secret includes three factors:

- Information that is not commonly known to the public.
- The secret retains economic benefit because the information is not publicly known.
- The holder makes reasonable efforts to maintain its secrecy.

- Trade secrets are not registered or known publicly in contrast to copyright, trade marks and patents.
- Businesses put internal measures in place to prevent the secret from becoming public knowledge, such as confidentiality agreements or non-disclosure agreements (NDAs). Trade secrets and control measures such as NDAs do not have an expiration date and are often kept continuously secret for generations.
- To reduce the risk of a trade secret being discovered and duplicated, the number of individuals with access to the information should be reduced.
- Trade secrets can be licenced, but this is rare and usually avoided unless absolutely necessary.

# Comparison of Types of IPR

Aspect	Patents	Trademarks	Copyrights	Trade Secrets
Protects	Inventions, processes, designs	Brand identifiers	Creative and artistic works	Confidential business info
Key Requirement	Novelty, utility, non-obviousness	Distinctiveness	Originality	Secrecy
Validity Period	~20 years	Indefinite with renewal	Life + 50–70 years	Unlimited while secret
Examples	New drug formula	Apple logo	A novel or song	Coca-Cola formula
Enforcement	Patent office, courts	Trademark registry, courts	Copyright office, courts	NDAAs, trade secret laws

## 1.2.3 Strategies for protecting intellectual property based on the type of innovation

- Innovate Continuously
- Geographically Separate Teams
- Embrace Open-Source
- Avoid Joint Ownership
- Utilize Non-Disclosure Agreements
- Implement Strong Access Control
- Maintain Secrecy
- Secure Exact-Match Domains

- **Innovate Continuously:** Regularly create new and improved products or processes to stay ahead of competitors and render older innovations less valuable for copying. This ensures your IP remains relevant and competitive in the market.
- **Geographically Separate Teams:** Distribute teams working on sensitive projects across different locations to minimize the risk of a single breach compromising the entire innovation. This strategy adds an extra layer of security for trade secrets.
- **Embrace Open-Source:** Publish non-core innovations as open-source to build goodwill and make the information public, limiting competitors' ability to claim exclusive rights. Open-source contributions can also drive collaboration and innovation.
- **Avoid Joint Ownership:** Ensure that ownership rights for IP are clearly assigned to a single entity or party to prevent disputes and complications in enforcing rights or monetizing the IP. Joint ownership can lead to inefficiencies and legal complexities.

**Utilize Non-Disclosure Agreements (NDAs):** Require employees, contractors, and collaborators to sign NDAs, legally binding them to maintain the confidentiality of proprietary information. NDAs are critical for protecting sensitive discussions and projects.

**Implement Strong Access Control:** Restrict access to IP-related materials and systems to only those employees or partners who need it, using role-based permissions and monitoring. This reduces the likelihood of unauthorized use or data breaches.

**Maintain Secrecy:** Keep trade secrets and sensitive information confidential by limiting exposure, using encryption, and conducting regular audits of security protocols. Secrecy is essential for safeguarding IP that cannot be patented or copyrighted.

**Secure Exact-Match Domains:** Register domain names that exactly match your brand or trademark to protect your online identity and prevent cybersquatting. This is crucial for maintaining control over your digital presence.

## 1.2.4 The Role of Intellectual Property Rights (IPR) in Securing Funding and Competitive Advantage

### (i) Securing Funding

IPR plays a critical role in attracting investors and securing funding for businesses, particularly startups and innovation-driven companies:

- **Demonstrates Innovation:** A strong IP portfolio showcases originality and innovation, making the business more appealing to investors.
- **Protects Investments:** IPR provides legal protection against copying or infringement, assuring investors that their investments are safeguarded.

- **Enhances Valuation:** Patents, trademarks, and copyrights can significantly increase a company's valuation, providing a tangible asset for negotiations.
- **Enables Licensing and Revenue:** IPR creates opportunities for licensing, franchising, and generating additional income streams, attracting funding based on potential revenue.
- **Supports Loan and Grant Applications:** IP assets can act as collateral for loans or as evidence of innovation for government grants and subsidies.

## **(ii) Gaining Competitive Advantage**

IPR helps businesses stand out in the market and build a sustainable edge over competitors:

- **Monopoly on Innovations:** Patents give exclusive rights to exploit an invention, creating a temporary monopoly and reducing competition.
- **Brand Recognition:** Trademarks protect brand identity, ensuring that customers associate the product or service with quality and reliability.

- **Prevents Copying:** Copyrights and trade secrets deter competitors from imitating original works, processes, or designs.
- **Fosters Market Leadership:** A robust IP portfolio strengthens the company's position as an industry leader and innovator.
- **Encourages Customer Loyalty:** Trademarks and geographical indications help build trust and loyalty by distinguishing products from competitors.
- **Supports Expansion:** IP rights enable secure entry into new markets and licensing opportunities, fueling growth and scalability.