**NAME: RAJI ABRAHAM OLUWATOBI**

**DEPARTMENT: MECHANICAL ENGINEERING**

**MATRIC NUMBER: 17/ENG06/074**

**COURSE TITLE: ENGINEERING LAW AND MANAGERIAL ECONOMICS**

**COURSE CODE: ENG 384**

Briefly discuss the following intellectual property protection methods.

1. Patent
2. Copyright
3. Trademark
4. Trade secret

**Patent:**

The word *patent* originates from the [Latin](https://en.wikipedia.org/wiki/Latin) *patere*, which means "to lay open" (i.e., to make available for public inspection). It is a shortened version of the term [*letters patent*](https://en.wikipedia.org/wiki/Letters_patent), which was an open document or instrument issued by a monarch or government granting exclusive rights to a person, predating the modern patent system. Similar grants included [land patents](https://en.wikipedia.org/wiki/Land_patent), which were land grants by early state governments in the USA, and [printing patents](https://en.wikipedia.org/wiki/Printing_patent), a precursor of modern copyright.

A patent is a form of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) that gives the owner the legal right to exclude others from making, using, selling and importing an [invention](https://en.wikipedia.org/wiki/Invention) for a limited period of years, in exchange for publishing an [enabling public disclosure](https://en.wikipedia.org/wiki/Sufficiency_of_disclosure) of the invention. In most countries patent rights fall under [civil law](https://en.wikipedia.org/wiki/Private_law) and the patent holder needs to sue someone [infringing the patent](https://en.wikipedia.org/wiki/Patent_infringement) in order to enforce his or her rights. In some [industries](https://en.wikipedia.org/wiki/Outline_of_industry#Major_industries) patents are an essential form of [competitive advantage](https://en.wikipedia.org/wiki/Competitive_advantage); in others they are irrelevant. It can also patents protect processes, methods and inventions that are "novel," "non-obvious" and "useful."

The procedure for granting patents, requirements placed on the patentee, and the extent of the exclusive rights vary widely between countries according to national laws and international agreements. Typically, however, a patent application must include one or more [claims](https://en.wikipedia.org/wiki/Patent_claim) that define the invention. A patent may include many claims, each of which defines a specific property right. These claims must meet relevant [patentability](https://en.wikipedia.org/wiki/Patentability) requirements, such as [novelty](https://en.wikipedia.org/wiki/Novelty_(patent)), [usefulness](https://en.wikipedia.org/wiki/Utility_(patent)), and [non-obviousness](https://en.wikipedia.org/wiki/Inventive_step_and_non-obviousness).

Types of Patent:

Basically three main types of patent which include \* utility patent \* provisional patent \* design patent.

* A **utility patent** is what most people think of when they think about a patent. It is a long, technical document that teaches the public how to use a new machine, process, or system. The kinds of inventions protected by utility patents are defined by Congress. New technologies like genetic engineering and internet-delivered software are challenging the boundaries of what kinds of inventions can receive utility patent protection.
* A **provisional patent**goes hand in glove with a utility patent. United States law allows inventors to file a less formal document that proves the inventor was in possession of the **invention** and had adequately figured out how to make the invention work. Once that is on file, the invention is **patent pending**. If, however, the inventor fails to file a formal utility patent within a year from filing the provisional patent, he or she will lose this filing date. Any public disclosures made relying on that provisional patent application will now count as public disclosures to the United States Patent and Trademark Office (**USPTO**).
* A **design patent** protects an ornamental design on a useful item. The shape of a bottle or the design of a shoe, for example, can be protected by a design patent. The document itself is almost entirely made of pictures or drawings of the design on the useful item. Design patents are notoriously difficult to search simply because there are very few words used in a design patent. In recent years, software companies have used design patents to protect elements of user interfaces and even the shape of touchscreen devices.

Effects of Patent:

A patent does not give a right to make or use or sell an invention.[[21]](https://en.wikipedia.org/wiki/Patent#cite_note-Herman-21) Rather, a patent provides, from a legal standpoint, the [right](https://en.wikipedia.org/wiki/Natural_and_legal_rights) to exclude others] from making, using, selling, offering for sale, or importing the patented [invention](https://en.wikipedia.org/wiki/Invention) for the [term of the patent](https://en.wikipedia.org/wiki/Term_of_patent), which is usually 20 years from the filing date[[5]](https://en.wikipedia.org/wiki/Patent#cite_note-PatentLength-5) subject to the payment of [maintenance fees](https://en.wikipedia.org/wiki/Maintenance_fee_(patent)). From an economic and practical standpoint however, a patent is better and perhaps more precisely regarded as conferring upon its proprietor "a right to *try* to exclude by asserting the patent in court", for many granted patents turn out to be invalid once their proprietors attempt to assert them in court.[[3]](https://en.wikipedia.org/wiki/Patent#cite_note-lemley-2005-3) A patent is a limited property right the government gives inventors in exchange for their agreement to share details of their inventions with the public. Like any other property right, it may be sold, licensed, [mortgaged](https://en.wikipedia.org/wiki/Mortgage_law), assigned or transferred, given away, or simply abandoned.

A patent, being an exclusionary right, does not necessarily give the patent owner the right to exploit the invention subject to the patent. For example, many inventions are improvements of prior inventions that may still be covered by someone else's patent.[[21]](https://en.wikipedia.org/wiki/Patent#cite_note-Herman-21) If an inventor obtains a patent on improvements to an existing invention which is still under patent, they can only legally use the improved invention if the patent holder of the original invention gives permission, which they may refuse.

Some countries have "working provisions" that require the invention be exploited in the jurisdiction it covers. Consequences of not working an invention vary from one country to another, ranging from revocation of the patent rights to the awarding of a compulsory license awarded by the courts to a party wishing to exploit a patented invention. The patentee has the opportunity to challenge the revocation or license, but is usually required to provide evidence that the reasonable requirements of the public have been met by the working of invention.

Benefits of Patent:

The benefits of having a patent right cannot be over emphasized regardless of a few challenges which may arise. The following are benefits of patent:

1. Patents provide incentives for economically efficient [research and development](https://en.wikipedia.org/wiki/Research_and_development) (R&D). A study conducted annually by the [Institute for Prospective Technological Studies](https://en.wikipedia.org/wiki/Institute_for_Prospective_Technological_Studies) (IPTS) shows that the 2,000 largest global companies invested more than 430 billion euros in 2008in their R&D departments. If the investments can be considered as inputs of R&D, real products and patents are the outputs. Based on these groups, a project named Corporate Invention Board, had measured and analyzed the patent portfolios to produce an original picture] of their technological profiles. Supporters of patents argue that without patent protection, R&D spending would be significantly less or eliminated altogether, limiting the possibility of technological advances or breakthroughs. Corporations would be much more conservative about the R&D investments they made, as third parties would be [free to exploit](https://en.wikipedia.org/wiki/Free-rider_problem) any developments. This second justification is closely related to the basic ideas underlying traditional [property rights](https://en.wikipedia.org/wiki/Property). Specifically, "[t]he patent internalizes the [externality](https://en.wikipedia.org/wiki/Externality) by giving the [inventor] a property right over its invention." A 2008 study by Yi Quan of [Kellogg School of Management](https://en.wikipedia.org/wiki/Kellogg_School_of_Management) showed that countries instituting patent protection on pharmaceuticals did not necessarily have an increase in domestic pharmaceutical innovation. Only countries with "higher levels of economic development, educational attainment, and economic freedom" showed an increase. There also appeared to be an optimal level of patent protection that increased domestic innovation.
2. In accordance with the original definition of the term "patent", patents are intended to facilitate and encourage disclosure of [innovations](https://en.wikipedia.org/wiki/Innovation) into the [public domain](https://en.wikipedia.org/wiki/Public_domain) for the [common good](https://en.wikipedia.org/wiki/Common_good). Thus patenting can be viewed as contributing to [open hardware](https://en.wikipedia.org/wiki/Open-source_hardware) after an embargo period (usually of 20 years). If [inventors](https://en.wikipedia.org/wiki/Inventor_(patent)) did not have the legal protection of patents, in many cases, they might prefer or tend to keep their inventions secret (e.g. keep [trade secrets](https://en.wikipedia.org/wiki/Trade_secret)). Awarding patents generally makes the details of new technology publicly available, for exploitation by anyone after the patent expires, or for further improvement by other inventors. Furthermore, when a [patent's term](https://en.wikipedia.org/wiki/Term_of_patent) has expired, the public record ensures that the patentee's invention is not lost to humanity.
3. In many industries (especially those with high [fixed costs](https://en.wikipedia.org/wiki/Fixed_cost) and either low [marginal costs](https://en.wikipedia.org/wiki/Marginal_cost) or low reverse engineering costs — computer processors, and pharmaceuticals for example), once an invention exists, the cost of commercialization (testing, tooling up a factory, developing a market, etc.) is far more than the initial conception cost. (For example, the internal [rule of thumb](https://en.wikipedia.org/wiki/Rule_of_thumb) at several computer companies in the 1980s was that post-R&D costs were 7-to-1.)

Registration of Patent in Nigeria:

There are two types of patent applications in Nigeria, namely; (1) PCT Conventional Patent and (2) Non-conventional Patent.

**PCT or Conventional Patent** is a Patent application that had been registered in another country before. This means the Patent may be undergoing second, third or fourth registration (as the case maybe) in Nigeria. For example, a Patent first registered in the UK by the patent owners and then registered in the US and also registered in France and then in Nigeria is a conventional patent and the Patent owners could claim priority in each of these countries by simply maintaining the priority date in each of these countries. On the other hand, **Non-conventional Patent** is a Patent that is undergoing its first registration in the country of invention. It is otherwise known as a local patent.

Requirement needed to register for patent in Nigeria

Prepare a document with the following these subheadings:

1. Title of the invention
2. Abstract: summary of the invention.
3. The background i.e. what necessitated the invention, impact, problem it intends to solve; Description of the working process of the invention
4. Specifications i.e. the working process in that field of invention.
5. Claims
6. Diagrammatic representation if available; mostly hand sketch
7. Conclusion
8. Company name and address
9. Power of Attorney
10. Assignment if any

An Inventor of a Patent may transfer his right over a Patent to an applicant to file an application for registration of the Patent. Where an Invention is made in the course of an employment, the invention belongs to the employer. Nevertheless, if the employee's contract of employment does not include inventive activity but the employee manage to make an invention or his invention is of an exceptional importance, he is entitled to a fair remuneration based on his salary and the nature of the invention. A person can only use the Patent of another if he obtains license from its owner. If the fee and terms of usage cannot be agreed by the parties, the person seeking to use the Patent may apply to court to fix a fee and terms for usage of the Patent.

**Copyright:**

Copyright refers to the legal right of the owner of intellectual [property](https://www.investopedia.com/terms/i/intellectualproperty.asp). In simpler terms, copyright is the right to copy. This means that the original creators of products and [anyone they give authorization to](https://www.investopedia.com/terms/l/licensing-agreement.asp) are the only ones with the exclusive right to reproduce the work. [Copyright law](https://www.investopedia.com/articles/personal-finance/010715/worlds-top-10-law-firms.asp) gives creators of original material the exclusive right to further use and duplicate that material for a given amount of time, at which point the copyrighted item becomes public domain. [Copyrights protect original works of authorship](https://www.upcounsel.com/trademark-vs-copyright), such as literary works, music, dramatic works, pantomimes and choreographic works, sculptural, pictorial, and graphic works, sound recordings, artistic works, architectural works, and computer software. With copyright protection, the holder has the exclusive rights to modify, distribute, perform, create, display, and copy the work.

**Copyright** is the [exclusive right](https://en.wikipedia.org/wiki/Exclusive_right) given to the creator of a [creative work](https://en.wikipedia.org/wiki/Creative_work) to reproduce the work, usually for a limited time. The creative work may be in a literary, artistic, educational, or musical form. Copyright is intended to protect the original expression of an idea in the form of a creative work, but not the idea itself. A copyright is subject to [limitations](https://en.wikipedia.org/wiki/Limitations_and_exceptions_to_copyright) based on public interest considerations, such as the [fair use](https://en.wikipedia.org/wiki/Fair_use) doctrine in the United States. Some jurisdictions require "fixing" copyrighted works in a tangible form. It is often shared among multiple authors, each of whom holds a set of rights to use or license the work, and who are commonly referred to as rights holders. These rights frequently include reproduction, control over [derivative works](https://en.wikipedia.org/wiki/Derivative_work), distribution, [public performance](https://en.wikipedia.org/wiki/Performing_rights), and [moral rights](https://en.wikipedia.org/wiki/Moral_rights) such as attribution. Copyrights can be granted by public law and are in that case considered "territorial rights". This means that copyrights granted by the law of a certain state, do not extend beyond the territory of that specific jurisdiction. Copyrights of this type vary by country; many countries, and sometimes a large group of countries, have made agreements with other countries on procedures applicable when works "cross" national borders or national rights are inconsistent.

Typically, the public law [duration of a copyright](https://en.wikipedia.org/wiki/Copyright_term) expires 50 to 100 years after the creator dies, [depending on the jurisdiction](https://en.wikipedia.org/wiki/List_of_countries%27_copyright_lengths). Some countries require certain [copyright formalities](https://en.wikipedia.org/wiki/Copyright_formalities) to establishing copyright, others recognize copyright in any completed work, without formal registration.

Benefit of Copyright:

**1.**  **Public notice of your ownership.**  Your work will be published in the Copyright Office’s Catalog and will be searchable to the public.  Anybody thinking of using this work will be able to search this Catalog and see that your work is protected.  This gives constructive notice to the public that you own the work and helps defeat claims of “innocent infringement.”

**2.**  **Legal evidence of ownership.** If somebody takes your work, registration will avoid a costly dispute over the actual ownership.  Your copyright registration will provide proof of your ownership and relieve you of this legal burden.

**3.**  **Validity.**  Your registration will demonstrate the validity of your copyright if it is registered within five years of publication.  This can prevent future challenges to your rights in the work.

**4.**  **Maximization of damages.**  Without a timely registration, a copyright holder is limited to actual damages in the case of infringement.  These can be nominal and/or difficult to prove.  With a registration, the copyright holder is entitled to statutory damages and attorneys’ fees.  Rather than having to prove actual damages, a copyright holder with a timely registration may be eligible for statutory damages of up to ~~N~~150,000 per infringement, plus attorneys’ fees.  However, to claim these damages, the registration must be made within three months of the work’s publication or before the infringement occurs.  Therefore, time is of the essence.

**5.**  **Ability to bring an infringement suit.**  Perhaps the most important benefit.  Even though a copyright holder has rights in a work, those rights, with limited exception, cannot be enforced through the courts unless the work is registered with the Nigeria Copyright Office.  Without registration, a copyright holder cannot bring a lawsuit for copyright infringement. It makes the most sense to register a work as quickly as possible after it is created.  By doing so, a copyright holder can take advantage of all the above benefits, including the provisions on statutory damages and attorneys’ fees.  Currently, the typical filing fee for a copyright registration is either ~~N~~13,500 or ~~N~~21,500, depending upon the circumstances.  If you have questions about registering a copyright, or are ready to register your work, contact one of our attorneys to walk you through the process.

The effective way of registration of copyright and getting the required certificate is by getting the copyright form and filling it up, passport photography and certificate of ownership.

**Trademark:**

Trademarks are distinctive indicators or signs that individuals, businesses, or other legal entities use. They use these indicators or signs to communicate that services or products to consumers that are connected to the trademarks stem from a unique source. Trademarks are also utilized to differentiate services or products from those of other legal entities. Trademarks are commonly designated by three, different symbols based on whether they are unregistered, registered, or simply unregistered service marks. If trademark infringement occurs, owners of a registered trademark have the option of filing a lawsuit to head off any unauthorized usage of his trademark. Commonly, trademarks can either be symbols, logos, names, phrases, words, images, designs, or even a mix of any of these elements. A **trademark** (also written **trade mark** or **trade-mark**[]](https://en.wikipedia.org/wiki/Trademark#cite_note-:0-1)) is a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) consisting of a recognizable [sign](https://en.wikipedia.org/wiki/Sign_(semiotics)), [design](https://en.wikipedia.org/wiki/Design), or [expression](https://en.wikipedia.org/wiki/Expression_(language)) which identifies [products](https://en.wikipedia.org/wiki/Good_(economics_and_accounting)) or [services](https://en.wikipedia.org/wiki/Service_economies) of a particular source from those of others, although trademarks used to identify services are usually called [service marks](https://en.wikipedia.org/wiki/Service_mark). The trademark owner can be an individual, [business organization](https://en.wikipedia.org/wiki/Business_organizations), or any [legal entity](https://en.wikipedia.org/wiki/Juristic_person). A trademark may be located on a [package](https://en.wikipedia.org/wiki/Packaging_and_labeling), a [label](https://en.wikipedia.org/wiki/Label), a [voucher](https://en.wikipedia.org/wiki/Voucher), or on the product itself. For the sake of [corporate identity](https://en.wikipedia.org/wiki/Corporate_identity), trademarks are often displayed on company buildings. It is legally recognized as a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property).

Benefit of Trademark:

The following below are some benefits of trademark:

**1.Exclusive rights**

Trade mark registration gives the proprietor the right to exclusive use of the mark in respect of the goods or services covered by it. Possibly the most important reason for registration of a trade mark is the powerful remedies against unauthorised use. A trade mark registration allows the proprietor to sue for infringement and to obtain very powerful remedies such as interdict, delivery up infringing articles and damages. At the same time, the trade mark infringement provisions do not preclude a person.

**2. Hypothecation / security**

A registered trade mark can be hypothecated as security, meaning that a registered trade mark can be pledged as security to secure loan facilities much the same way as immovable property can be bonded.

**3. Intangible property**

A very important reason for registration is to create the trade mark as an identifiable intangible property in the legal sense. Trade mark registration is a value store or receptacle of the value attaching to the reputation or goodwill that the product enjoys.

A common law trade mark attaches to the goodwill and, generally speaking, the goodwill is not severable from the business in its entirety. This has the practical effect that an unregistered trade mark will never have a separate and independent existence. It will always form part of the goodwill and it will always be attached to the business. The only way in which to acquire a common law trade mark is to acquire the business as a going concern. Trade mark registration, by contrast, can be transferred like any other asset owned by a person or a company.

**4. Licensing**

A registered trade mark can be licensed. A trade mark licence can be recorded on the trade mark register, giving the licensee rights to institute legal proceedings in the event of infringement.

**5. Assignment**

A registered trade mark can be transferred. The same is not possible for a common law trade mark, which can only be transferred with the business.

**6. Deterrent**

Trademark registration deters other traders from using trademarks that are similar or identical to yours in relation to goods and services like yours. By using the ® symbol, youput others on notice of your rights. Moreover, a registered mark can be found when others search the official register before choosing to commence using a particular name.

**7. Use in proceedings**

A trade mark registration is prima facie evidence of validity of the registration and the rights conveyed by registration. In legal proceedings relating to a registered trade marks the fact that a person is registered as the proprietor of the trade mark is evidence of the validity of the original registration of the trade mark, unless the contrary is proved.

**8. The right to use the symbol ® or “R” or word registered**

Once the trademarks is registered the symbol ® or “R” or word “Registered” may be used for the goods and services listed in the registration.

**9. Foreign territories**

A registered mark can be used as a basis to obtain registration in some foreign countries, facilitating protection of the brand worldwide as the business expands.

**10. Counterfeit Goods Act 1997**

A registered trademarks empowers customs authorities at South African ports of entries to prevent the importation of counterfeit foreign goods. The Counterfeit Goods Act 1997 (CGA) affords the proprietor of an intellectual property right or anybody with an interest in goods bearing or representing such rights, to take civil or criminal action against a person or company that is involved in counterfeiting.

**Trade secret:**

A trade secret can be a process, practice, design, formula, pattern, or a collection of information that is not commonly known or plausibly attainable. A trade secret is also generally something by which a business can get an economic advantage over its customers or its competitors. Two other phrases for trade secrets are classified information and confidential information. For the most part a trade secret is based on these three factors. The three factors are information not generally available to the public, the deliverance of a kind of economic benefit to its holder, and being subjected to demonstrable efforts to have its secrecy maintained. Companies can protect themselves from their trade secrets being compromised by making sure they have non-disclosure or non-compete clauses with their employees. **Trade secrets** are a type of [intellectual property](https://en.wikipedia.org/wiki/Intellectual_property) that comprise [formulas](https://en.wikipedia.org/wiki/Formula), [practices](https://en.wikipedia.org/wiki/Best_practice), [processes](https://en.wikipedia.org/wiki/Business_process), [designs](https://en.wikipedia.org/wiki/Design), [instruments](https://en.wikipedia.org/wiki/Legal_instrument), [patterns](https://en.wikipedia.org/wiki/Pattern), or compilations of information that have inherent economic value because they are not generally known or readily ascertainable by others, and which the owner takes reasonable measures to keep secret.[[1]](https://en.wikipedia.org/wiki/Trade_secret#cite_note-:0-1) In some [jurisdictions](https://en.wikipedia.org/wiki/Jurisdiction), such secrets are referred to as [*confidential information*](https://en.wikipedia.org/wiki/Confidential_information).

Benefit of Trade secret:

* **Abstract ideas**. The [Nigerian Supreme Court](http://www.supremecourt.gov/opinions/13pdf/13-298_7lh8.pdf) has ruled that if a method is drawn to an abstract idea, it will not be eligible for a patent simply because it is implemented with a computer. However, as long as the information or concept has value and has been kept confidential, it can be protected as trade secrets.
* **Long-term protection**. Patents usually last up to 20 years while a trade secret has the potential to last forever. As long as the trade secret remains confidential and classified, the trade secret protection does not expire. The key is keeping it “secret” because once the information is made public, the trade secret is lost.
* **Inexpensive protection**. Obtaining trade secret protection is typically quicker and not as expensive as getting a patent. However, you must implement ongoing strategies for ensuring the information remains confidential, including limiting the number of people who know the secret and ensuring those individuals sign [non-disclosure agreements](https://www.swensonlawfirm.com/importance-non-disclosure-agreement/).
* **Notoriety**. An added benefit of obtaining a trade secret is it creates mystique for your business. Marketers take advantage of recipes being a “family secret” for a reason – it creates a buzz about your company which increases your bottom line.

**Difference between patent, copyright and trademark**

|  |  |  |  |
| --- | --- | --- | --- |
|  | PATENT | COPYRIGHT | TRADEMARK |
| What’s Protected? | Inventions, such as processes, machines, manufactures, compositions of matter as well as improvements to these | Original works of authorship, such as books, articles, songs, photographs, sculptures, choreography, sound recordings, motion pictures, and other works | Any word, phrase, symbol, and/or design that identifies and distinguishes the source of the goods of one party from those of others |
| Rights Granted | Right to prevent others from making, selling using or importing the patented invention | Right to control the reproduction, making of derivative works, distribution and public performance and display of the copyrighted works | Right to use the mark and to prevent others from using similar marks in a way that would cause a likelihood-of-confusion about the origin of the goods or services. |
| Requirements to be Protected Term of Protection | An invention must be new, useful and nonobvious  20 years | A work must be original, creative and fixed in a tangible medium  Author’s life plus 70 more years | A mark must be distinctive (i.e., that is, it must be capable of identifying the source of a particular goods)  For as long as the mark is used in commerce |