

# **LECTURE NOTES**

**ON**

**III B. Tech II semester (JNTUH-R13)**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

## UNIT-1

### INTELLECTUAL PROPERTY RIGHTS

#### Introduction

**Intellectual property (IP)** is a term referring to creation of the intellect (the term used in studies of the human mind) for which a monopoly (from greek word monos means single polein to sell) is assigned to designated owners by law. Some common types of intellectual property rights (IPR), in some foreign countries intellectual property rights is referred to as *industrial property*, copyright, patent and trademarks, trade secrets all these cover music, literature and other artistic works, discoveries and inventions and words, phrases, symbols and designs. Intellectual Property Rights are themselves a form of property called intangible property.

Although many of the legal principles governing IP and IPR have evolved over centuries, it was not until the 19<sup>th</sup> century that the term *intellectual property* began to be used and not until the late 20<sup>th</sup> century that it became commonplace in the majority of the world.

#### Types of Intellectual Property

The term intellectual property is usually thought of as comprising four separate legal fields:

1. Trademarks
2. Copyrights
3. Patents
4. Trade secrets

**1. Trademarks and Service Marks:** A trademark or service mark is a word, name, symbol, or device used to indicate the source, quality and ownership of a product or service. A trademark is used in the marketing is recognizable sign, design or expression which identifies products or service of a particular source from those of others. The trademark owner can be an individual, business organization, or any legal entity. A trademark may be located on a package, a label, a voucher or on the product itself. For the sake of corporate identity trademarks are also being.

#### General Logos:



The Trademark Registration Logo



In addition to words, trademarks can also consist of slogans, design, or sounds. Trademark provides guarantee of quality and consistency of the product or service they identify. Companies expend a great deal of time, effort and money/ in establishing consumer recognition of and confidence in their marks.



### Federal Registration of trademarks:

Interstate use of trademarks is governed by federal law, namely, the United States Trademark Act (also called the Lanham Act), found at 15 U.S.C 1051et seq. In the United States, trademarks are generally protected from their date of first public use. Registration of a mark is not required to secure protection for a mark, although it offers numerous advantages, such as allowing the registrant to bring an action in federal court for infringement of the mark.

Applications for federal registration of trademarks are made with the PTO. Registration is a fairly lengthy process, generally taking anywhere from twelve to twenty-four months or even longer. The filing fee is \$335 per mark (Present \$225 per class) per class of goods or services covered by the mark.

A trademark registration is valid for 10 years and may be renewed for additional ten year periods thereafter as long as the mark is in used in interstate commerce. To maintain a mark the registrant is required to file an affidavit with the PTO between the fifth and sixth year after registration and every ten years to verify the mark is in continued use. Marks not in use are then available to others.

A properly selected, registered and protected mark can be of great value to a company or individual desiring to establish and expand market share and better way to maintain a strong position in the marketplace.

**2. Copyrights:** Copyright is a form of protection provided by U.S. law (17 U.S.C 101 et seq) to the authors of "original works of authorship" fixed in any tangible medium of expression. The manner and medium of fixation are virtually unlimited. Creative expression may be captured in words, numbers, notes, sounds, pictures, or any other graphic or symbolic media. The subject matter of copyright is extremely broad, including literary, dramatic, musical, artistic, audiovisual, and architectural works. Copyright protection is available to both published and unpublished works.

Copyright protection is available for more than merely serious works of fiction or art. Marketing materials, advertising copy and cartoons are also protectable. Copyright is available for original working protectable by copyright, such as titles, names, short phrases, or lists of ingredients. Similarly, ideas methods and processes are not protectable by copyright, although the expression of those ideas is.

Copyright protection exists automatically from the time a work is created in fixed form. The owner of a copyright has the right to reproduce the work, prepare derivative works based on the original work (such as a sequel to the original), distribute copies of the work, and to perform and display the work. Violations of such rights are protectable by infringement actions. Nevertheless, some uses of copyrighted works are considered "fair use" and do not constitute infringement, such as use of an insignificant portion of a work for noncommercial purposes or parody of a copyrighted work.

#### **Definition:**

General Definition of copyright "Copyright owner", with respect to any one of the exclusive rights comprised in a copyright, refers to the owner of that particular right.

**Federal Registration of Copyrights:** The works are protected under federal copyright law from the time of their creation in a fixed form. Registration, however, is inexpensive, requiring only a \$30 (present \$85) filing fee, and the process is expeditious. In most cases, the Copyright Office processes applications within four to five months.

Copyrighted works are automatically protected from the moment of their creation for a term generally enduring for the author's life plus an additional seventy years after the author's death. The policy underlying the long period of copyright protection is that it may take several year for a painting, book, or opera to achieve its true value, and thus, authors should receive a length of protection that will enable the work to appreciate to its greatest extent.

**3. Patents:** A patent for an invention is the grant of a property right to the inventor, issued by the United States Patent and Trademark Office. Generally, the term of a new patent is 20 years from the date on which the application for the patent was filed in the United States or, in special cases, from the date an earlier related application was filed, subject to the payment of maintenance fees. U.S. patent grants are effective only within the United States, U.S. territories, and U.S. possessions. Under certain circumstances, patent term extensions or adjustments may be available.

The right conferred by the patent grant is, in the language of the statute and of the grant itself, "the right to exclude others from making, using, offering for sale, or selling" the invention in the United States or importing the invention into the United States. What is granted is not the right to make, use, offer for

sale, sell or import, but the right to exclude others from making, using, offering for sale, selling or importing the invention. Once a patent is issued, the patentee must enforce the patent without aid of the USPTO.

### **There are three types of patents:**

**Utility patents** may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof;

**Design patents** may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture; and

**Plant patents** may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.

**Federal Registration of Copyrights:** Patents are governed exclusively by federal law (35 U.S.C 100 et seq). To obtain a patent, an inventor must file an application with the PTO (the same agency that issues trademark registration) that fully describes the invention. Patent prosecution is expensive, time consuming and complex. Costs can run into the thousands of dollars, and it generally takes over two year for the PTO to issue a patent.

Patent protection exists for twenty years from the date of filing of an application for utility and patents and fourteen years from the date of grant for design patents. After this period of time, the invention fall into the public domain and may be used by any person without permission.

The inventor is granted an exclusive but limited period of time within which to exploit the invention. After the patent expires, any member of the public is free to use, manufacture, or sell the invention. Thus, patent law strikes a balance between the need to protect inventors and the need to allow public access to important discoveries.

**4. Trade Secrets:** A trade secret consists of any valuable business information. The business secrets are not to be known by the competitor. There is no limit to the type of information that can be protected as trade secrets; **For Example:** *Recipes, Marketing plans, financial projections, and methods of conducting business can all constitute trade secrets.* There is no requirement that a trade secret be unique or complex; thus, even something as simple and nontechnical as a list of customers can qualify as a trade secret as long as it affords its owner a competitive advantage and is not common knowledge.

If trade secrets were not protectable, companies would no incentive to invest time, money and effort in research and development that ultimately benefits the public. Trade secret law thus promotes the development of new methods and processes for doing business in the marketplace.

**Protection of Trade Secrets:** Although trademarks, copyrights and patents are all subject to extensive statutory scheme for their protection, application and registration, there is no federal law relating to

to trade secrets and no formalities are required to obtain rights to trade secrets. Trade secrets are protectable under various state statutes and cases and by contractual agreements between parties. **For Example:** *Employers often require employees to sign confidentiality agreements in which employees agree not to disclose proprietary information owned by the employer.*

If properly protected, trade secrets may last forever. On the other hand, if companies fail to take reasonable measures to maintain the secrecy of the information, trade secret protection may be lost. Thus, disclosure of the information should be limited to those with a “need to know” it so as to perform their duties, confidential information should be kept in secure or restricted areas, and employees with access to proprietary information should sign nondisclosure agreements. If such measures are taken, a trade secret can be protected in perpetuity.

Another method by which companies protect valuable information is by requiring employee to sign agreements promising not to compete with the employer after leaving the job. Such covenants are strictly scrutinized by courts, but generally, if they are reasonable in regard to time, scope and subject matter, they are enforceable.

## AGENCIES RESPONSIBLE FOR INTELLECTUAL PROPERTY REGISTRATION

### United States Patents and Trademark Office:

The agency charged with granting patents and registering trademarks is the United States Patent and Trademark Office (PTO), one of fourteen bureaus within the U.S. Department of Commerce. The PTO, founded more than two hundred years ago, employs nearly 700 (present 1000 employs) are working. At present it is located in 18 building in Arlington, Virginia. Its official mailing address is Commissioner of Patents and Trademarks, Washington, DC 20231.

The PTO is physically located at 2900 Crystal Drive in Arlington, Virginia. Its web site is <http://www.uspto.gov> and offers a wealth of information, including basic information about trademarks and patents, fee schedules, forms, and the ability to search for trademarks and patents. Since 1991, under the Omnibus Budget Reconciliation Act, the PTO has operated in much the same way as a private business, providing valued products and services to customers in exchange for fees that are used to fully fund PTO operations.

It uses no taxpayer funds. The PTO plans to move all of its operations to Alexandria, Virginia, by mid-2005. The PTO is one of the busiest of all government agencies, and as individuals and companies begin to understand the value of intellectual property, greater demands are being made on the PTO.

Legislation passed in 1997 established the PTO as a performance-based organization that is managed by professionals, resulting in the creation of a new political position, deputy secretary of commerce for intellectual property. In brief, the PTO operates more like a business with greater autonomy over its budget, hiring, and procurement. U.S patents issued its first patent in 1790. Since 1976 the text

and images of more than three million are pending for registration. The PTO is continuing its transition filing for both trademarks and from paper to electronic filing for both trademarks and patents.

The PTO is led by the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (the “Director”), who is appointed by the President. The Secretary of Commerce appoints a Commissioner for Patents and a Commissioner for Trademarks. Citations to many cases in this text will be to “U.S.P.Q.”, a reference to United States Patent Quarterly, a reporter of cases decided by the Trademark Trial and Appeal Board (TTAB) as well as patent and copyright cases.

## INTERNATIONAL ORGANIZATIONS, AGENCIES AND TREATIES

There are a number of International organizations and agencies that promote the use and protection of intellectual property. Although these organizations are discussed in more detail in the chapters to follow, a brief introduction may be helpful:

**International Trademark Association (INTA)** is a not-for-profit international association composed chiefly of trademark owners and practitioners. It is a global association. Trademark owners and professionals dedicated in supporting trademarks and related IP in order to protect consumers and to promote fair and effective commerce. More than 4000 (*Present 6500 member*) companies and law firms more than 150 (*Present 190 countries*) countries belong to INTA, together with others interested in promoting trademarks. INTA offers a wide variety of educational seminars and publications, including many worthwhile materials available at no cost on the Internet (see INTA’s home page at <http://www.inta.org>). INTA members have collectively contributes almost US \$ 12 trillion to global GDP annually. INTA undertakes advocacy [active support] work throughout the world to advance trademarks and offers educational programs and informational and legal resources of global interest. Its head quarter in New York City, INTA also has offices in Brussels, Shanghai and Washington DC and representative in Geneva and Mumbai. This association was founded in 1878 by 17 merchants and manufacturers who saw a need for an organization. The INTA is formed to protect and promote the rights of trademark owners, to secure useful legislation (the process of making laws), and to give aid and encouragement to all efforts for the advancement and observance of trademark rights.

**World Intellectual Property Organization (WIPO)** was founded in 1883 and is specialized agency of the United Nations whose purposes are to promote intellectual property throughout the world and to administer 23 treaties (Present 26 treaties) dealing with intellectual property. WIPO is one of the 17 specialized agencies of the United Nations. It was created in 1967, to encourage creative activity, to promote the protection of Intellectual Property throughout the world. More than 175 (*Present 188*) nations are members of WIPO. Its headquarters in Geneva, Switzerland, current Director General of WIPO is *Francis Gurry* took charge on October 1, 2008. The predecessor to WIPO was the BIRPI [Bureaux for the Protection of Intellectual Property] it was established in 1893. WIPO was formally created by the convention (meeting) establishing the world intellectual Property organization which entered into force on April 26 1970.

## **Berne Convention for the Protection of Literary and Artistic Works (the Berne Convention)**

An International copyright treaty called the convention for the protection of Literary and Artistic works signed at Berne, Switzerland in 1886 under the leadership of **Victor Hugo** to protect literary and artistic works. It has more than 145 member nations. The United States became a party to the Berne Convention in 1989. The Berne Convention is administered by WIPO and is based on the precept that each member nation must treat nationals of other member countries like its own nationals for purposes of copyright (the principle of “nation treatment”). In addition to establishing a system of equal treatment that internationalized copyright amongst signatories, the agreement also required member states to provide strong minimum standards for copyrights law. It was influenced by the French “right of the author”.

**Madrid Protocol** It is a legal basis is the multilateral treaties Madrid (it is a city situated in Spain) Agreement concerning the International Registration of Marks of 1891, as well as the protocol relating to the Madrid Agreement 1989. The Madrid system provides a centrally administered system of obtaining a bundle of trademark registration in separate jurisdiction. The protocol is a filing treaties and not substantive harmonization treaty. It provides a cost-effective and efficient way for trademark holder. It came into existence in 1996. It allows trademark protection for more than sixty countries, including all 25 countries of the European Union.

**Paris Convention** The Paris convention for the protection of Industrial Property, signed in Paris, France, on 20<sup>th</sup> March 1883, was one of the first Intellectual Property treaties, after a diplomatic conference in Paris, France, on 20 March 1883 by Eleven (11) countries. According to Articles 2 and 3 of this treaty, juristic (one who has through knowledge and experience of law) and natural persons who are either national of or domiciled in a state party to the convention. The convention is currently still force. The substantive provisions of the convention fall into **three main categories**: National Treatment, Priority right and Common Rules.

An applicant for a trademark has six months after filing an application in any of the more than 160 member nations to file a corresponding application in any of the other member countries of the Paris Convention and obtain the benefits of the first filing date. Similar priority is afforded for utility patent applications, although the priority period is one year rather than six months. The Paris Convention is administered by WIPO.

**North American Free Trade Agreement (NAFTA)** came into effect on January 1, 1994, and is adhered to by the United States, Canada, and Mexico. The NAFTA resulted in some changes to U.S. trademark law, primarily with regard to marks that include geographical terms. The NAFTA was built on the success of the Canada-U.S Free Trade Agreement and provided a compliment to Canada’s efforts through the WTO agreements by making deeper commitments in some key areas. This agreement has brought economic growth and rising standards of living for people in all three countries.

**General Agreement on Tariffs and Trade (GATT)** was concluded in 1994 and is adhered to by most of the major industrialized nations in the world. The most significant changes to U.S intellectual property law from GATT are that nonuse of a trademark for three years creates a presumption the mark has

been abandoned and that the duration of utility patent is now twenty years from the filing date of the application (rather than seventeen years from the date the patent issued, as was previously the case).

## **THE INCREASING IMPORTANCE OF INTELLECTUAL PROPERTY RIGHTS**

- ❖ Protecting Intellectual Property Rights
- ❖ Technology has led to increase awareness about the IP
- ❖ Some individuals and companies offer only knowledge. Thus, computer consultant, advertising agencies, Internet companies, and software implementers sell only brainpower.
- ❖ Domain names and moving images are also be protected
- ❖ More than fifty percent of U.S. exports now depend on some form of intellectual property protection.
- ❖ The rapidity with which information can be communicated through the Internet has led to increasing challenges in the field of intellectual property.
- ❖ The most valuable assets a company owns are its Intellectual property assets
- ❖ Companies must act aggressively to protect these valuable assets from infringement (breaching, violation of law) or misuse by others
- ❖ The field of intellectual property law aims to protect the value of such investments

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