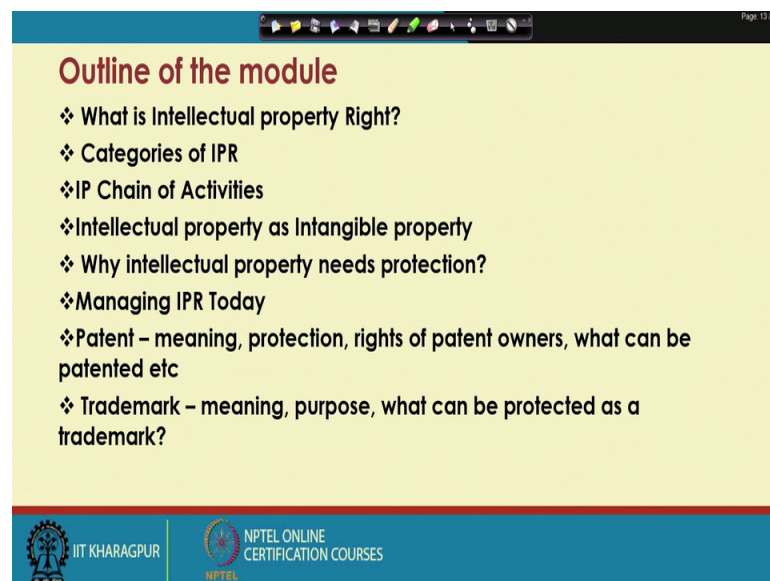


Ethics in Engineering Practice
Prof. Susmita Mukhopadhyay
Vinod Gupta School of Management
Indian Institute of Technology, Kharagpur

Lecture – 12
Intellectual Property Rights and Ethics

Welcome. Today we will be discussing about Intellectual Property Rights and Ethical issues related to it. Let see the outline of today's discussion.

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The slide is titled "Outline of the module" and lists the following topics for discussion:

- ❖ What is Intellectual property Right?
- ❖ Categories of IPR
- ❖ IP Chain of Activities
- ❖ Intellectual property as Intangible property
- ❖ Why intellectual property needs protection?
- ❖ Managing IPR Today
- ❖ Patent – meaning, protection, rights of patent owners, what can be patented etc
- ❖ Trademark – meaning, purpose, what can be protected as a trademark?

The slide also features the IIT Kharagpur logo and the NPTEL Online Certification Courses logo at the bottom.

So, in this module we are going to discuss about what is intellectual property right. We will discuss about the different categories of IPR. What is the intellectual property chain of activities? We will discuss in why intellectual property is an intangible property. Why intellectual property needs protection? How IPR is managed today?

We will discuss about patent it is meaning protection, rights of patent owners, and what can be patented. We will discuss about trademark meaning, purpose, what can be protected as a trademark?

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❖ Industrial design – meaning, why protect industrial designs and what can be protected as industrial design

❖ Geographical indications – meaning, why geographical indications need protection, geographical indications vs. a trademark

❖ Copyrights and related rights – meaning, what protect copyrights, rights of holders, advances in technology and copyrights, benefits of copyrights and other related rights

❖ WIPO - World Intellectual Property Organization

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We will discuss about industrial design meaning, why protect industrial design, and what can be protected as an industrial design. We will discuss also about geographical indications meaning, why geographical indications need protection, geographical indications versus trademark.

We will discuss about copyrights and related rights meaning, what protect copyrights, rights of holders, advances in technology and copyrights, benefits of copyrights and other related rights. And we will also discuss about world intellectual property organization.

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What is Intellectual Property?


A category of property that includes;

“intangible creations” of the human intelligence,

and

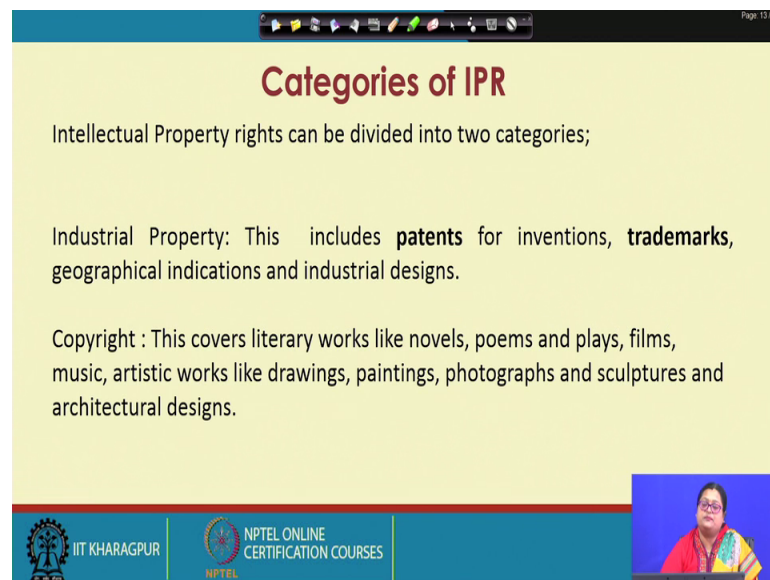
mainly covers **copyrights, patents, and trademarks** along with other types of rights, such as **trade secrets, publicity rights, moral rights,** and rights against **unfair** competition.

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So, first we are going to discuss about what is intellectual property. So, intellectual property is a category of property which is the intangible creation of human intelligence. And it mainly covers copyrights patents and trademarks along with other types of rights, such as trade secrets, publicity rights, moral rights and rights against unfair competition.

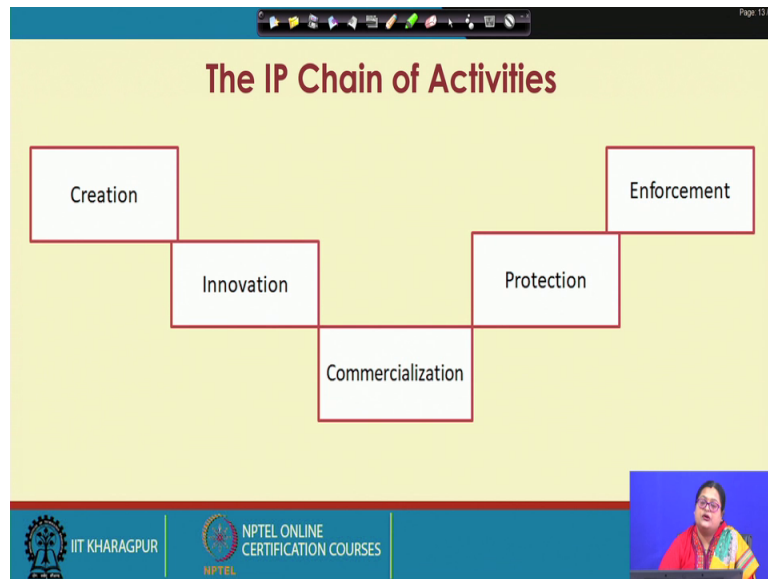
(Refer Slide Time: 02:51)



The slide is titled "Categories of IPR" in a dark red font. Below the title, it states "Intellectual Property rights can be divided into two categories;". It then lists two categories: "Industrial Property: This includes **patents** for inventions, **trademarks**, geographical indications and industrial designs." and "Copyright : This covers literary works like novels, poems and plays, films, music, artistic works like drawings, paintings, photographs and sculptures and architectural designs." The slide has a yellow background and is part of a presentation, as indicated by the navigation icons at the top and the logos at the bottom. The logos include IIT KHARAGPUR and NPTEL ONLINE CERTIFICATION COURSES. A small video inset in the bottom right corner shows a woman speaking.

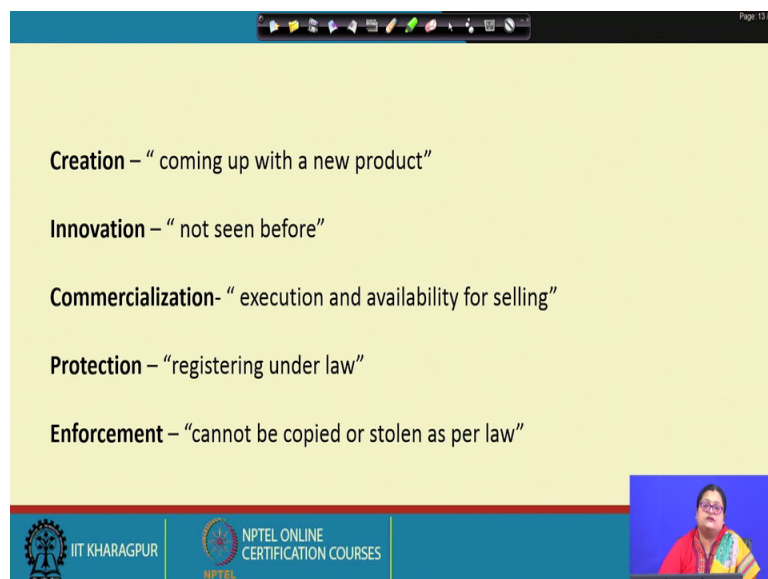
There are different categories of intellectual property right, and we are going to see them over here like what are the different categories. It can be divided into 2 main categories. One is the industrial property; which includes mainly patents for inventions, trademarks, geographically indications and industrial designs. And copyright, which covers the literary works like novels poems and plays, films, music, artistic works, like drawings, paintings, photographs and sculptures, and architectural designs.

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We will discuss now about the chain of activities which are involved in intellectual property. So, the chain of activity includes creation, innovation, commercialization, protection and enforcement.

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Creation is that and coming up of a new product. Each of the stages are important for intellectual property and rights and it is protection. So, when we tell creation. It is coming up with a new product innovation, it is something which is not seen before; commercialization which is execution and availability for selling. So, you can make money or profit out of it. Protection is registered under law. And enforcement which is cannot be copied or stolen as per law.

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The slide is titled "INTELLECTUAL PROPERTY AS INTANGIBLE PROPERTY" in red text at the top. It is divided into two sections: "Tangible Property" and "Intangible property". Under "Tangible Property", it lists: "• can be physically touched. For eg. Land, houses, bikes, cars etc". Under "Intangible property", it lists: "• cannot be seen or touched," "• can be easily appropriated," and "• cost of reproduction is negligible". The slide footer includes the IIT Kharagpur logo, the NPTEL Online Certification Courses logo, and a small video inset of a woman in a red and yellow sari.

So, why we were so concerned about intellectual property? And why it is so important to protect it? Because it is an intangible property, now we will discuss why intellectual property is a intangible property.

So, tangible property is a property which can be touched physically. Like land, houses, bikes, cars, etcetera. Intangible property is something which cannot be seen or touched, which can be easily appropriated and cost of reproduction is negligible. Because of these 2 things like it can be easily appropriated, and cost of reproduction is negligible. It is very important to protect this intangible property, which is the like in intellectual property is an intangible property.

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Why Intangible property needs protection?

- ❖ High Expenditure in creation of new product or designs
- ❖ High research and development activities
- ❖ Avoiding free riding problems – usage of own property by others for free
- ❖ Maintaining loyal followers and inhibiting “me too” creations in grey markets
- ❖ To retain profits

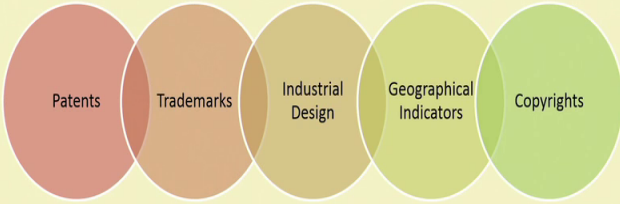


So, why this intangible property needs protection? Because there is an always an high expenditure in creation of a new producted design. It involves high research activities, to avoid free riding problems; like, usage of own property by others for free, maintaining loyal followers and inhibiting like me too type of creations in grey markets and to retain the profits.



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Managing Intellectual Property Rights Today



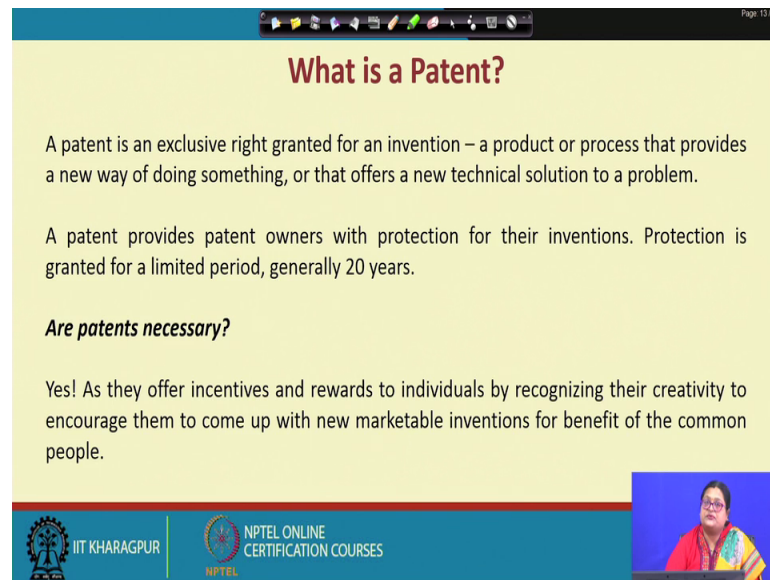
Patents Trademarks Industrial Design Geographical Indicators Copyrights



In this we see the different types of intellectual properties; patents, trademarks, industrial designs, geographical indicators and copyrights.

We will discuss the meaning of each and the details of each in the subsequent slides.

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What is a Patent?

A patent is an exclusive right granted for an invention – a product or process that provides a new way of doing something, or that offers a new technical solution to a problem.

A patent provides patent owners with protection for their inventions. Protection is granted for a limited period, generally 20 years.

Are patents necessary?

Yes! As they offer incentives and rewards to individuals by recognizing their creativity to encourage them to come up with new marketable inventions for benefit of the common people.

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We will start with patent. So, a patent is an exclusive right granted for an invention, a product or a process that provides a new way of doing something. Or that offers a new technical solution to a problem. So, this is what this; the word new is important over here. It provides it is granted for an invention, a product or process that provides a new way of doing something, or that it offers a new technical solution to a problem.

The patent provides the patent owners with the protection for the inventions. Protection is granted for a limited period, generally for 20 years. Now it may a question arise in a mind like our patents necessary. Yes of course, it is necessary, because they offer incentives and rewards to individuals by recognizing their creativity and to come up with new marketable inventions for the benefit of the common people.

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Protection offered by patents


Patent protection implies that invention under patents cannot be commercially or otherwise used by the other persons for generating profits or any commercial returns.

And cannot be recreated, sold or shared without owner's consent


Patents are usually enforced in courts and courts can also cancel patents in case the claims of the third party are found right if any at a alter stage.




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The protections that are offered by patents are; the patent protection it implies that the invention under patents cannot be commercially or otherwise used by other persons for generating profits or any other commercial returns. It cannot be recreated sold or shared without the owner's consent. Patents are usually enforced in course and courts, can also cancel patents in the case the claims of the third party are found to be right if at any alter stage.

So, if it is found like I have like applied for a patent, but it is not an original idea that I have done and maybe I have taken portions from others ideas or you know inventions. And then we have incorporated it in our design and, we are claiming like it is a patent later on it may get rejected.

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Right of Patents owners

Patent owners have the right to decide who can or cannot use the patented invention. Owners have this right to give permission to or offer license to other parties on mutually agreed terms. Owners can also sell their rights to other person if they wish to do so who then becomes the new owner of the patent.

Patents in public domain

Once the patent expires, protection ends and it enters the public domain. This is also called as off-patent in which the current owner of the patent, no longer ceases to be the owner.

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The patent gives certain rights to the patent owners.

So, they have the rights to decide who can or who cannot use the patented invention. Owners have the right to give permission to offer license to other parties on mutually agreed terms. Owners can also sell their rights to other persons if they wish to do so. And then they become the new owner of the patent. Once the patent expires and the protection ends, then it has to enter into a public domain. This is also called off patent in which the current owner of the patent no longer ceases to be the owner.

And these patents in public domain, may acts in may act as inspiration for others to move with this invention forward, add new dimensions to it, and take up a research regarding it and improve in that.

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Continued

Role of Patents in our everyday life

Patents inventions have invaded our all aspects of day to day life. Even the shape and design of the coffee mug or the fans on the ceiling above our head could be patented. Like it is well known that in case of electric lightening (patents held by Edison and Swan) and sewing machines (patents held by Howe and Singer), and the iPhone (patents held by Apple), these are the things we see very normally in our surroundings.

All patent owners are required to share their information in public domain. This information can be used by the other people for carrying out derive inspiration for carrying out further creativity and innovation.

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Now, what is the role of patents in our everyday life? So, what we see like, every aspect of a day to day life has been surrounded by designs of products which are like patented. Like the shape and design of the coffee, mark of the fans on the ceiling above our head could be patented.

Like it is very known in the case of electric lightning. Patent held by Edison and swan and the sewing machine. Patents where hold by Howe and singer, and iPhone patents held by apple, these are things we see very normally in our surroundings. Now it is very important like the all the patent owners are required to share their information in public domain. These can be used by other people for carrying out derive inspiration for carrying out further creativity and innovation.

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What Kind of Inventions can be patent protected?

- Must be of practical use
- Must carry some novelty
- New characteristics must exist which is not a part of an existing knowledge


In many countries, scientific theories, mathematical methods, plant or animal varieties, discoveries of natural substances, commercial methods or methods of medical treatment (as opposed to medical products) **are not generally patentable.**




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Now, one of the very important question is can all the inventions be patented or there are certain there needs to be certain criteria, which the invention has to meet before like, it can be patented and patent protect. So, first is it must be of practical use. It second it must carry some novelty. Third new characteristics must exist which is not a part of an existing knowledge. In many countries, scientific theories mathematical methods plants animal's varieties discoveries of natural substances commercial methods and methods of medical treatment are not generally patentable.

Why? Because if we understand from this discussion. Like, if this is patented, then it stops like the further use of it to improve one it to criticize it and maybe add new qualities to it maybe for the next 20 years and the progression is start. So, these type of things which requires like newer versions to come up as quickly as possible so that in which is better for the like greater growth of the greater public in a society at large. So, that is why these are not generally patentable.

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The image is a screenshot of a presentation slide. At the top, there is a navigation bar with various icons and the text 'Page 13/13'. The main content area has a light yellow background and is titled 'Trademark' in a dark red font. Below the title, there are three paragraphs of text. The first paragraph defines a trademark as a distinctive design for goods or services. The second paragraph traces its origin to ancient times. The third paragraph explains its modern function for consumers. In the bottom right corner, there is a small video inset showing a woman with glasses and a colorful shawl. The bottom of the slide features a dark blue footer with the IIT Kharagpur logo and the text 'NPTEL ONLINE CERTIFICATION COURSES'.

Trademark

Trademark is the distinctive design which identifies certain goods or services produced or provided by an individual company.

Its origin can be traced back to ancient times where weavers or craftsmen would mark their signatures or remarks on their artistic works.

These marks in the present scenario are called as trademarks. It helps consumers to identify and purchase a product or service based on whether its explicit characteristics and quality – as indicated by its unique trademark – meet their needs.

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Next we will discuss about trademark. A trademark is the distinctive design which identifies certain goods or services produced or provided by an individual company. So, trademark is the distinctive design which identifies certain goods or services produced or provided by an individual company. It is like a stamp that you get. Its origin can be traced back to ancient times where weavers or craftsman would mark their signatures or remarks on their artistic word; which gives it a sort of stamp you like this has been produced by me.

These marks in the present scenario are called trademarks, it helps consumers to identify and purchase a product or service based on whether it is explicit characteristics and quality as indicated by a unique trademark meet their needs. So, as it is claimed by the trademark about the qualities, and it may be the nature of the product and all. So, it is an assurance of that the, trademark is the assurance of that quality, and the nature of the goods and services. So, it gives a customer has the customer to identify and purchase a product based on that trademark.

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Purpose of Trademarks

Trademarks ensure that the people who own these trademarks have the right to use these to help others identify the goods and services and to also allow others to use these in return of a pre-determined payment.

In a broader sense, trademarks promote enterprises globally by rewarding their owners with recognition and financial profit.

Trademarks also protect someone's unique property from being used by others for creating counterfeit products (which use similar signs to sell fake products).

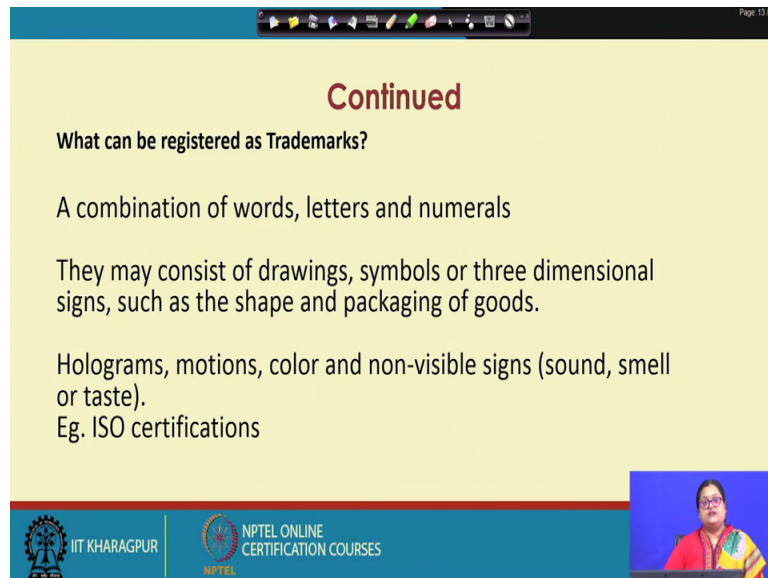
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Now, what are the purpose of a trademark? Trademarks ensure that the people who own these trademarks have the right to use these to help others identify the goods and services, and also to allow others to use this in return of a predetermined payment. In a broader sense, trademarks promote enterprises globally by rewarding their owners with recognition and financial profits. So, if you always go by a trademark then; obviously, we are giving recognition to the owners, and it brings a financial profit today.

So, trademarks also protect the unique property of someone of being like user copied by others for producing counterfeit products. So, like fake products. So, if we have a trademark, then it puts a restriction on others to create similar kind of things and like sell it in the; in by developing this localize, which may be poor a quality as compared to the original company who is having the trademark.

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What can be registered as Trademarks?

A combination of words, letters and numerals

They may consist of drawings, symbols or three dimensional signs, such as the shape and packaging of goods.

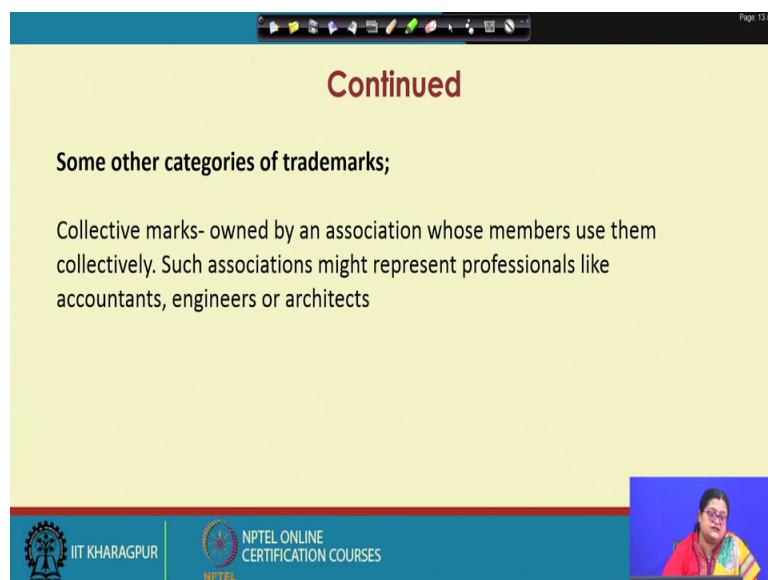
Holograms, motions, color and non-visible signs (sound, smell or taste).
Eg. ISO certifications

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Now we have to understand what all can be registered as a trademark. So, trademark can be a combination of words, letters and numerals. They may consist of drawings, symbols or 3 dimensional signs; such as the shape and sign of a packaging of goods, it can be holograms, it can be motions, colors and non-visible signs, like sound, smell or test.

So, these can be different things like iso certifications which can be used as registered as trademarks.

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Some other categories of trademarks;

Collective marks- owned by an association whose members use them collectively. Such associations might represent professionals like accountants, engineers or architects

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So, what are the other some categories of trademarks are? Collective marks, it is owned by an association, whose members use them collectively. Such associations might

represent professionals like accountants engineers or architects. So, this is like everyone has their own symbol, which speaks of certain things and certain values certain like vision mission. And it is represented by that picture or a trademark, and it defines clearly in the mind of the customers what to expect from these organizations based on the trademark what is given.

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Applying for Trade-marks

Application for registration of a trademark needs to be filed with the appropriate national or regional trademark office.

The application must contain a clear reproduction of the sign filed for registration, including any colors, forms or three-dimensional features.

Finally, the right applied for cannot be the same as, or similar to, rights already granted to another trademark owner.

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Next important question is how can we apply for a trademark. Application for registration of a trademark needs to be filled with the appropriate national or regional trademark office. The application must contain a clear reproduction of the sign field for registration including any colors forms a 3 dimensional features. Finally, the right applied for cannot be the same as similar to rights were already granted in granted to another trademark owner.

So, before granting a trademark a lot of cross checks is done lot of you know checks are seen to see like whether these are not already overlapping with the trademark that is given to another one.

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Industrial Design

It refers to the ornamental or aesthetics aspects of an article.

Design may consist of the shape of the article, pattern, size, color or two dimensional features.

Industrial designs are applied to a wide variety of products and handicrafts. These products may include medical equipments, watches, jewelry, luxury items, electrical items, house wares, textile designs and luxury goods etc.

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Next we will talk about industrial design. Industrial design talks of the ornamental or aesthetics aspect of an article. The design consists of the shape of the article, pattern, size, color or 2 dimensional features.

Industrial designs are applied to a wide variety of products and handicrafts. These products may include medical equipments, watches, luxury items, jewelry, electrical items, household, housewares textile design luxury goods etcetera. So, industrial design focuses mainly on the ornamental or aesthetic aspect of an article.

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To be protected, an industrial design must be;

New – should be different from designs already protected.

Non functional – technical features cannot be protected under designs, they can only be covered under patents.

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To be protected like what can be protected as industrial design is, it should be new; like, it should be different from design which is already protected, and should be non functional.

So, under industrial design we cannot protect for technical features. We can only be covered under patents. So, why we are discussing this finer things is, sometimes we are not able given a condition, sometimes you are not sure to understand whether to file for a patent or trademark or you know like industrial design or a copyright. It may so happen these are very overlapping concepts it was one another, and we get confused about it were there are certain fine threads fine lines which define that if this is the case then you go for this.

One such thing is this non functional aspect of the industrial design which is mentioned like technical features cannot be protected in the designs. They can be only covered under patents.

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Continued

Why protect Industrial designs

Designs make a product appealing and increases its marketability so must be protected.

When an industrial design is protected, the owner which could be an individual or a firm are assured an exclusive right against unauthorized imitation of the design by others.

This helps the owners to assure a fair return on investment.

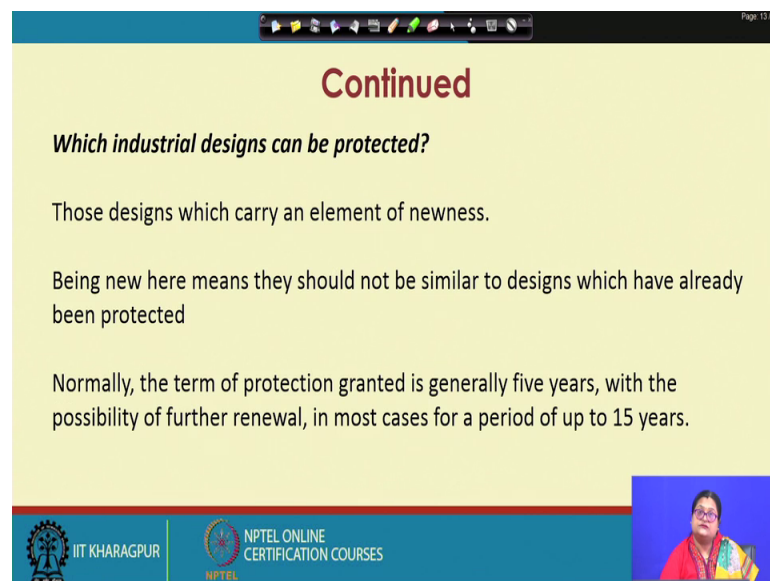
It also promotes fair competition and honest trade practices.
It helps to promote creativity as people feel assured that their designs will not be stolen.

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Then why it is necessary to protect industrial designs. Designs make a product appealing and increase his marketability so it must be protected. When an industrial design is protected, the owner which could be an individual or a former assured an exclusive right against unauthorized imitation of the design by others.

This helps the owners to assure a fair return on investment. It also promotes it also promotes fair competition and honest trade practices. It helps to promote creativity as people feel assured that their designs will not be stole. So, if we are in the fear of things getting stolen, then it may not like we may not be able to express our ideas in a in it is fullest form. But, when given for this protection of this creativity and these aesthetic aspects and maybe the minor things which increases the worth of these things, then it helps to promote creativity further.

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Which industrial designs can be protected?

Those designs which carry an element of newness.

Being new here means they should not be similar to designs which have already been protected

Normally, the term of protection granted is generally five years, with the possibility of further renewal, in most cases for a period of up to 15 years.

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Next which all industrial designs can be protected? So, those designs which carry an element of newness. New here, means they should not be similar to designs which have already been protected. Normally, the term protection granted is generally for 5 years with the possibility of further renewal in most cases up to 15 years.

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Geographical Indication


It is a sign used on goods that denotes the belongingness of the goods or reputation to a particular geographical location.

Commonly, it consists of name of the place of the origin of the goods.


Geographical indications have been most commonly used in case of agricultural products. Like here in India, people are very much willing to pay a extra price for apples that hail from Himachal or globally Swiss chocolates command an extra price as they are produced in Switzerland.



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Next we will discuss about geographical indications. Geographical indications is about the signs which are used on goods to design which is the belongingness of the good to a particular idea, particular region or particular location. We will discuss details of it.

We will try to discuss how it is different from copy trademarks. We will discuss about copyrights and the details of the like world intellectual property organization in the next class.

Thank you.