Social Innovation in Industry 4.0
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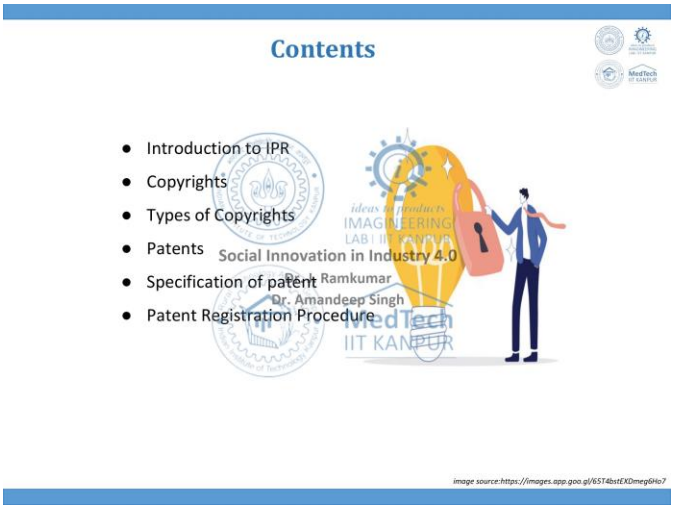
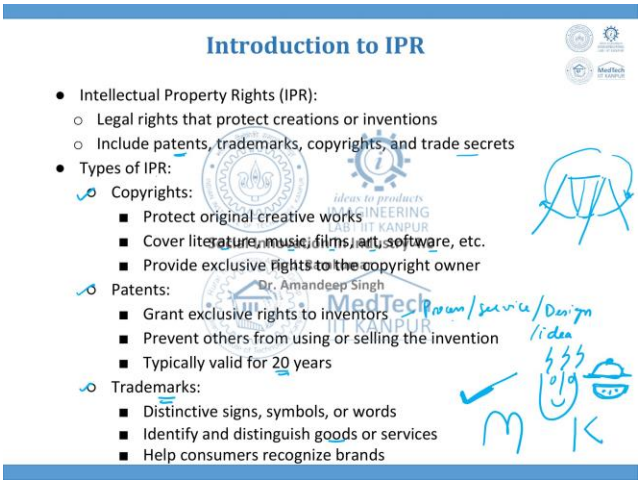
Lecture 31
Introduction to IPR (Part 1 of 2)

Welcome, to the next lecture on Introduction to IPR. This is a very important lecture, because today the world is always worried about protecting their intellectual property. And, when you are in the domain of innovation, this becomes very very important, protecting the rights. It is not only protecting the rights, and you also have a right to sell it to whomever you want. You can also have a partnership. So, how do you do it legally? The other question comes to your mind is, suppose if I apply in one country, what happens to my patent in the other countries? Should I country wise patent it or should I take something like universal, I take one and then do it.



So, that is what, we will be covering in this lecture called Introduction to IPR. The Content is Introduction to IPR, we will see Copyrights, Types of copyrights, Patents, Specification of Patents, and Patent Registration Procedure. Is it easy? Is it tough? Now, all the governments across the globe have put lot of initiative in making this process faster, both in terms of filing, then in terms of review, and last in terms of publishing. Saying that yes, you are the author of this IPR. So, this is also very important. So, we will try to cover in brief all these topics.



Intellectual Property Right. It is a legal right that protect creation or invention. It includes patents, trademarks, copyrights, and trade secrets.

So, today we look for patents. Patents can be in two forms. It can be a process patent, it can be an idea patent, it can be a design patent, etcetera. So, protecting your idea by giving a legal document against it, is Intellectual Property Right. So, type of IPRs, one is copyright.

Copyright protects the original creative work. For example, you draw or you sketch or you try to write a poem or you try to play a music. So, there is creativity and this creativity is original. So, then they try to protect the original work. So, when they try to protect the original work, it is called as copyright.

Literature, music, film, art, software, etcetera are part of copyright. If somebody owns a copyright and if you want to use it, it is better you write it to him and ask his permission. He can give you free permission or he might say please play an x amount for this, which is part of the deal, I allow you to use. Then, the third one can be, I will allow you to use it only once for which you pay x amount. One can be perpetual, one can be for every use.

So, you can try to have it. So, literature, music, film, art, software, etcetera can fall under copyright. For example, I try to take a photo of maybe a bird which is flying. Wonderful bird, it is trying to flap, I try to capture a photo. Now, the owner of the camera, maybe it is me, but the photograph is being taken by you.

So, now the copyright holds is only for you, and not for me. I had the camera, but there is nothing else I did, but the intelligence what you applied, the time and the effort you spent in understanding the bird and the flapping mode, and then you took it, that intellectual has to be protected. So, the bird which tries to flap and you try to take a photo of it. Now,

the photograph becomes a copyright which you can access. Now, people are becoming more and more aware of this Intellectual property right.

How do I legally use it? All these things, they are now trying to come into picture. It provides exclusive rights to the copyright owner. If there is a photo and there is a bird which is flapping in the photo, you have taken that, and now you hold the 100% right. It is left to you to say please give it to Ram, please give it to Sham, please give it to Seeta, Geeta, Nalini, whatever it is, you give. You can also say please do not give it to Ram, Sham, Reeta, Geeta and Nalini.

Leaving them, you can give it to all others, that is also possible. So, you hold the right to whom you can give and whom you need not give, whom you feel, they are a potential threat for you in the business. So, that is also possible. So, patents are grant exclusive right to the inventor. It can be processed.

For example, a service, you can get it done. Software can be done. A complete code which has lot of nitty-gritty's into it. If you want to hold the rights, you can have a copyright. So, process, service, and then you can try to have a design, and some countries also give it for idea.

So, it can be there. For example, there was a inventor who got his patent for swing. So, generally what we do is, we assume that a swing is there, the swing will go here to here. This gentleman came up with a new design and he said my swing will go just round 360 degrees. So, it will go up, and then it will come down.

So, this is an innovative idea which nobody has thought of, but up to an arc, yes many people have thought of. So, this is grant exclusive rights to inventors where process, service, design, idea can be done. Sometimes, you have a wonderful idea, you are not able to prove it, but you want to freeze the idea, it is possible idea, and then you can say, please give me time, I will prove it within one year time. So, then, that is called as provisional patent. For one year, the idea will be held with you, until the time you convert this idea into a original product or a process.

So, till that time, it is called as provisional patent. Suppose, one year passes away, and then you are still not able to do it. So, then this idea becomes to public domain, you do not have a opportunity to claim it. And, nobody else have the opportunity to claim it because now it has come into the public domain, the idea, and the drawing. Prevents others from using or selling the invention.

Typically, it is valid for 20 years, depending from country to country. this 20, some country is 25 some places it is 65, some places it is 10. So, why 65, why 25, some countries feel that 25 years is a enough time period for somebody to make money out of his invention, and rest he should open it to public. For example, when rapid prototyping

came into existence, the FDM process machines cost at few crores, few 100,000 dollars, but now the same machines, you are able to get it for maybe10,000 dollars, or 5,000 dollars, or 3,000 dollars, 50 dollars, a small version of it. We are able to get it, why, because this time period of 25 is crossed. Now, that comes into the public domain and anybody can use that idea in developing machines. So, till that time period of 20 years, they say, it is enough time given to a particular person, to take money out of it. So, that is why, they give 20 years, otherwise, they hold it for rest of the life. What are trademarks? Trademarks are distinct signs, symbols, or words. Identifying and distinguishing goods or services.

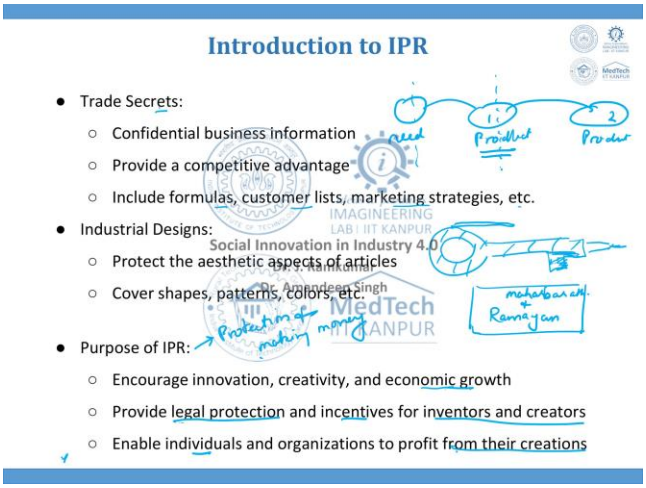
For example, Nike has something like a tick sign. Google has something, then you can say Microsoft has a logo something like this. So, distinctive sign, logo, symbol, or words, it can be there. Say for example, if some company says dare dream, that is it. dare dream, for best fortune or future, dare dreamers. So, all these things are words. You can make a word and also you can get a trademark for it, like a sentence, or a phrase, which is like a punch line, which can be used for impressing anybody. So, the advertising company what they will do is, they will buy those punch lines, and then they will try to use it in their advertisement for any product of their choice. So, identifying and distinguishing goods for or services from rest of the people. We just say for example, Nike it will be like this.

By just looking at the symbol, you know it is Nike. For example, you can also have a symbol like this, you can also have a symbol like this, you can have a symbol like this anything of your choice. You can have a symbol like this, and you can also have some cartoon or some sentences, I already told. And here, you make it like a army cap and here you can make something like this, whatever it is. So, this all these things can be put under trademark.

It helps consumers recognize the brand. So, wherever I see a tick brand, I know it is a Nike shop very very far of distance, I just have to put a tick, and then this becomes Nike

brand, this becomes McDonald's, this becomes some XYZ, this becomes something like KFC, this becomes like a bakery shop, whatever it is, a chain bakery shop across the country, maybe. So, all these things are called as trademarks. So, types of IPR, you can see copyrights, you can see patents and you can see trademarks. Copyright for literature, music, film, art, software, etcetera.

And, when it comes to trademarks, it can be symbols, design or words. Poems are copyrights.



Trade secrets, these are confidential business information, which provides a competitive advantage includes formula, customer list, market strategies etcetera. For example, Pepsi, Coke the formula,in which they make the Pepsi, Coke, Miranda, or the formula through which they make McDonald's, some chicken item, or formula through which they make a recipe for pharmaceutical company. So, these are all confidential business information, these are trade secrets.

So, this provides a competitive advantage. It is told that, at any given point of time, to open the locker of Pepsi trade secret whatever it is kept there, 6 or 7 of the CEOs will have to access to it, to get the trade secret out and nobody will know what is the key and other thing. So, some companies like pharmaceutical also does the same thing. Industrial design, it protects the aesthetic aspects of an article for example, shape, pattern, color, etcetera . For example, if you can see a key is a key is like this ok, this is a key.

What if I make a pen like this, you have a clip, and then here I put the tip, and then I remove this portion. So, here it is an article where the shape, pattern, color etcetera are protected and then you try to get it. The other thing is, suppose, you are trying to make a sari. In a sari, there are100 different types of saris and if somebody comes and says I will

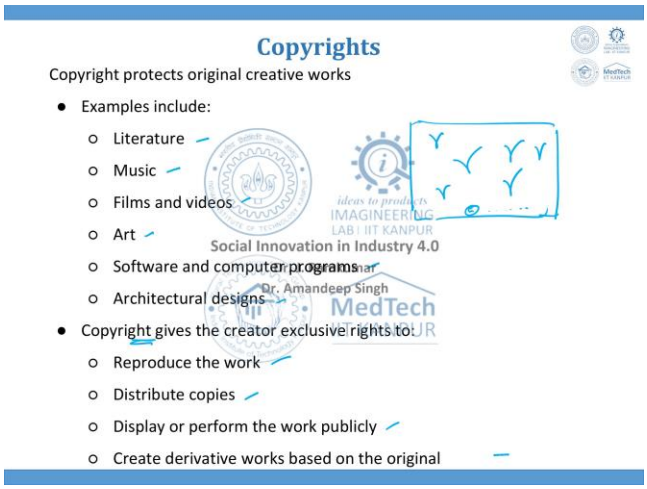
make the entire a peak of Ramayana or Mahabharata, then the shape, the pattern, and the color, you can apply for industrial design. If somebody makes a fan cleaner, industrial design.

Somebody makes a gyno inspection device, industrial design. And then, purpose of IPR is to encourage innovation, creativity and economic growth. Why economic growth? Because I design an idea, I design a solution for a needy people. Now, from that I try to convert it into a product, and that product can be sold. So, now by selling the product, you have an economic growth.

There are two ways of doing it. So, here is a need statement, here is a company which makes product, and here is another company which makes product. For example, I understand the need statement, I convert the problem into a good solution. Now, my solution is not perfect, such that I can take it to the market, then comes a company 1, or a company 2. This company 2, what it does is, it goes to company 1, and says please share me the idea, I will try to convert your idea into a product, which can be sold in the market. So, this person, who made the product in the first stage, will try to sell his idea to industry number 2, such that he gets his money and this person will start working on improvising the idea.

And many a times, there can be products, if it is a competitive product to company, what is there 2. Then, what they do is, they take 1, they buy 1, and then they kill 1, and make sure that the item number 2 is popular all the time. So, for that also they try to do it. So, economic growth, when you try to sell the product, or when you try to sell the patent, you make a profit.

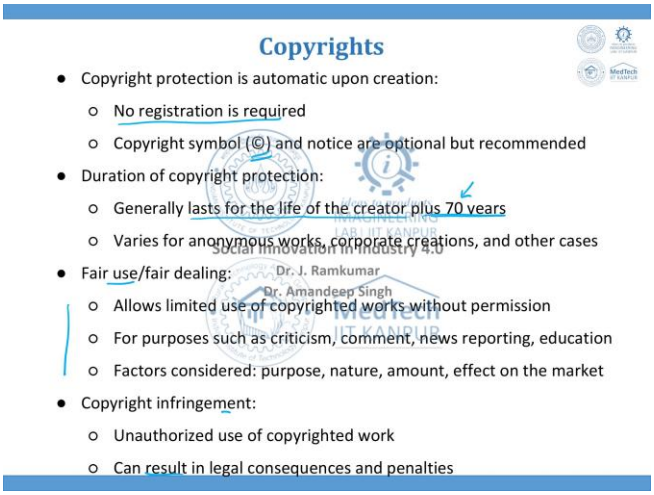
So, that is what is economical growth. The next one is provide legal protection and incentive for inventors and creators. It provides legal protection, and incentive for inventors and the creators. It enables individual and organizations to profit from their creation. So, IPR means, it is protection and making money in a legal fashion.



Next one is Copyright protection original creative works. Examples like literature, music, film, video, art, software, computer programming and architectural design. All these things are examples of Copyright. So, Copyright gives the creator exclusive right to reproduce the work. For example, you made a work.

So, maybe the birds are flapping. So, this is a photograph you took. Now, you allow this photograph to be used in various visiting cards, various calendars. So, then, that becomes a sale for it. So, that is, what is reproducing the work. So, many a times, you will see, they will put a copyright and say, whatever it is, Mr. XYZ at the year 2021 or something like that.

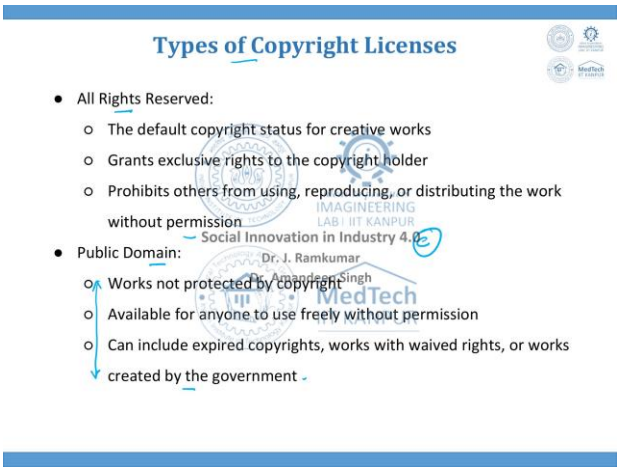
So, then, it is reproducing the work, distribute the copies, display or perform the work publicly, and the last one is create derivative work based on the original. So, for all these things the copyright gives a creator exclusive right. So, one to reproduce, distribute, display, and create derivative works based on the original.



Copyright protection is automatic upon type creation. No registration is required. Copyright symbol (©) and notice are optional, but recommended this one. Many companies do not put it, but it is always recommended that please put C, so that the rest of the world will understand that this idea has been copyrighted. Duration of copyright, generally lasts for life of the creator plus 70 years. Lasts for the life of the creator plus 70 years.

It also varies, this also varies from country to country. Then, varies for anonymous works, cooperate creations and other cases. It varies for anonymous works, corporate creations and other cases. Fair use and fair deal is allows limited use of copyright work without permission. They generally allow, for example, music. People try to take the music, and then they play in several parties.

So, allow limited use of copyrighted work without permission. For the purpose such as criticism, comment, news reporting, education, it is used. Factors considered are purpose, nature, amount, effect on the market is been taken to make it as a fair use or a fair dealing. The copyright infringement, moment you start breaching, it is called as infringement. So, unauthorized use of copyrighted work, which is not permitted, which is not ethical, can result in legal consequences and penalties.

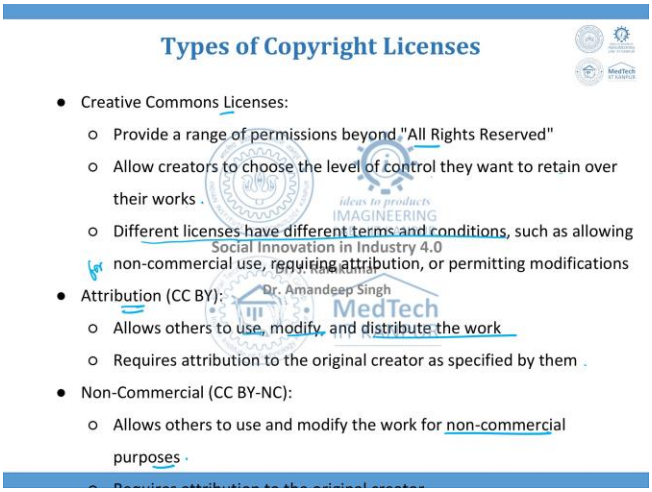


So, types of Copyright Licensing, there you will see always a statement called as 'all rights reserved'. So, the 'all rights reserved' are the default copyright status for creative work. And then, it grants exclusive rights to the copyright holder. Then, it prohibits others from using, reproducing, distributing the work without permission.

So, it always say 'all rights reserved'. That means to say, all rights are reserved only with the person who is holding the copyright. Public domain. Work not protected by copyright

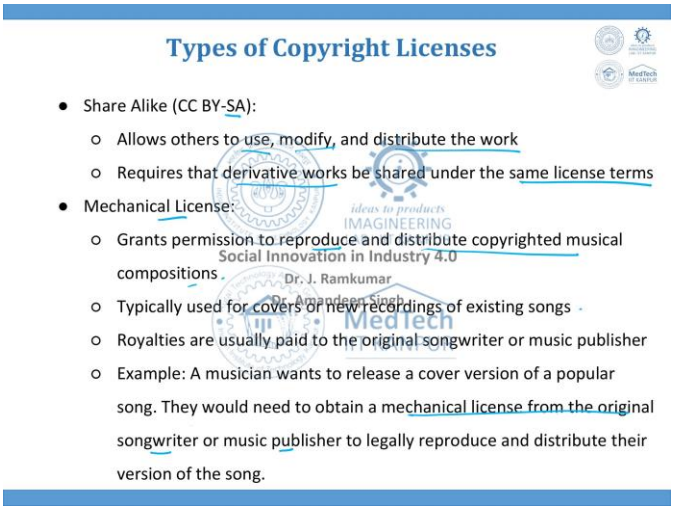
becomes public domain. You forgot to put 'C', then people will say no, it is not copyrighted. Then, available for anyone to use freely without permission, then it can include expired copyright, work with waived rights or works created by the government.

So, all these things come into the public domain over a period of time. So, can include expired copyrights, that is 70 years, works with waived rights, then also works created by the government, government also comes into the public domain.



So, what is the creative commons licenses? It provide a range of permission beyond 'all rights reserved', creative commons licenses. It tries to provide a range of permission beyond 'all rights reserved'. Then, it allows creators to choose the level of control they want to retain over their work, creative common licenses.

So, the different licenses have different terms and conditions, such as allowing for non-commercial use, requiring attribution, or permitting modification. So, all these things are different licenses have different terms and conditions.

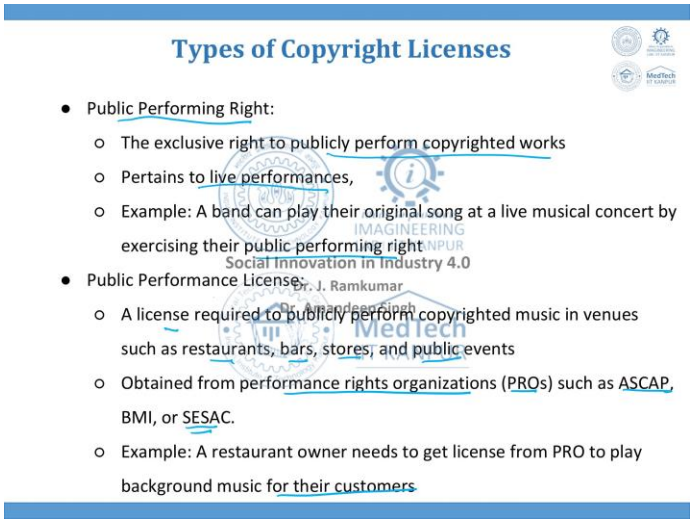


Attribution, which is CC BY, allows others to use modify and distribute the work which is called as attribution. The other one is, it requires attribution to the original creator as specified by them. So, it requires attribution to the original creator as specified by them.

Non-commercial CC BY-NC will be allows others to use and modify the work for non-commercial purpose. So, you can have CC BY-NC which is non-commercial purpose. Next it is, CC BY-SA, allows others to use modify and distribute the work, others to use modify and distribute the work. So, that is also possible here, allows to use modify and distribute the work, that is attribution CC BY. So, it provides that derivative work be shared under the same license terms.

So, that is called as CC BY-SA. So, under the same license terms you can try to do it. What is mechanical license? Mechanical license are, it grants permission to reproduce and distribute copyrighted musical compositions, that is called as mechanical license. Typically used as cover or new recording of existing songs. So, if somebody does a change in the music or change in the recording, that is called as mechanical license.

Royalties are usually paid to the original songwriter or music publisher. Examples of musician wanted to release a cover version of a popular song, they would need to obtain a mechanical license from the original songwriter or music publisher to legally reproduce and distribute their version of the song. If somebody does a modification of the song, then they have to get the rights from the company and then do it. A musician wanted to release a cover version of a popular song, they need to get the obtain mechanical license from the original songwriter and the publisher. So, these are all part of copyrights.



So, you have mechanical licenses, you have public performing rights. So, in public performing rights, the exclusive rights to publicly perform copyrighted work is called as public performing rights. So, the exclusive right to the publicly perform copyrighted or say for example, if you are trying to play a music in public. So, then, it is called as the exclusive rights to publicly perform copyrighted work is public perform writing. Then, pertaining to live performance. For example, if Michael Jackson sings a song and Michael Jackson is not there, then Ram Kumar wants to sing the song.

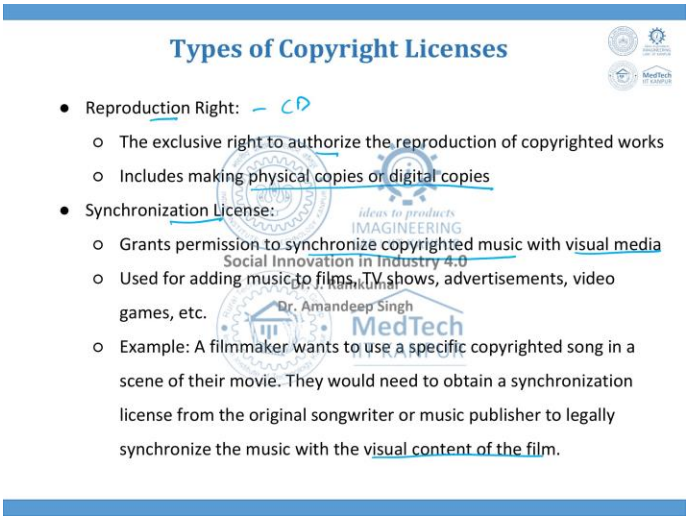
So, then, what we go is, we go and get the public performing right. So, here it is on a public performance right. Please understand, all these things are very important. If you breach it, then you are in trouble, anybody can sue you for the irresponsible behaviors. So, a band can play their original song at live musical concert by exercising their public performing rights.

Keep that in mind, public performing rights. So, before that, we saw mechanical rights. So, they would need to obtain a mechanical license from the original songwriter or music player for legally reproducing it. So, this is mechanical. When we talk about the share alike, it requires the derivative work be shared under the same license.

Next one is public performance license. A license required to publicly perform copyrighted music in venues, such as restaurant, bars, stores and public events. So, live performance, public performance. So, here it is public performance license means, a license is required to perform in a restaurant, bar, stores or public. Obtain from Performance Right Commission (PROs), such as ASCAP, BMI and SESAC.

So, these are the companies which tries to give the performance rights operations. The example is, a restaurant owner needs to get a license from PRO (Performance Right

Organization) to play a background music for their customers. Look at it, I do not know, whether we follow it very stringently, but all these licenses has to be taken, such that you can use this new music in public. So, a restaurant owner needs to get license from PRO to play background music in his restaurant for the customer.



Reproduction rights, the exclusive right to authorize the reproduction of copyrighted work. For example, if somebody has published something, you try to get the license, and then you try to reproduce. It includes making special copies or digital copies. So, reproduction right means, I try to make multiple versions of the same audio CD, and then I release it in the market.

So, includes making physical copies or digital copies. Next is synchronization license. Synchronization license is grant permission to synchronize copyrighted music with visual media. So, you try to get the music, but you have a visual. So, what you do is, you try to synchronize the copyright music with visual media. Used for adding music to films, TV songs, TV shows, advertisements, video games, etcetera.

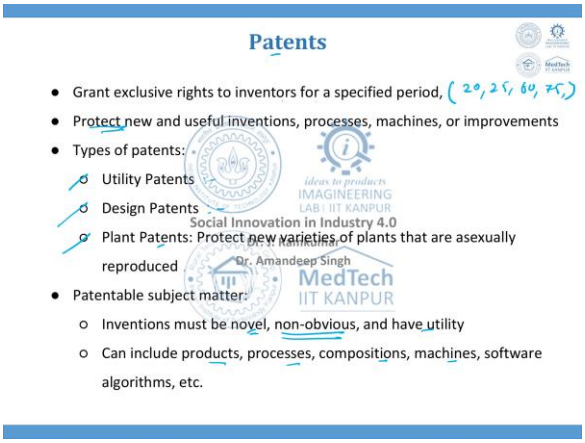
So, synchronization license is there. A filmmaker wants to use a specific copyrighted song in a scene of their movie. They would need to obtain a synchronization license from the original songwriter or music publisher to legally synchronize the music with the visual content of the film. So, we try to get synchronization license. Let us take a pause, we have seen so many licenses, let us go around and see what are they.

So, creative common license. This is taken to create to choose the level of control they wanted to retain over their work is creative common license. Next one is attribution. Use, modify, distribute is attribution CC BY.

Then, it is non-commercial CC BY. It is not for commercial work Then, it is share alike. Same license which can be also used for a derivative work will be the share alike. Then, you will have mechanical license, where in which you try to get to reproduce and distribute the copyrighted composition, you do it.

Then, you try to do public the copyright on a public forum. Then, public performance license. So, here public performance licenses in a bar, in a restaurant, in a store you try to do. The next one is going to be copyrights. It is an exclusive right to authorize the reproduction of a copyrighted work. Here, the physical copies are made.

Here, it is like CDs, we used to copy it, and then sell it. That is reproduction right. Synchronization right is with visual. You see so many licenses are there for copyrights.



Next is Patents. Grant exclusive rights to inventor for a specified period. Specified period, it can be 20, 25, 60, 75, etcetera. Some countries have some different things. So, grant exclusive rights to investigator for a specified period. It tries to protect new and useful inventions, processes, machines, or improvement.

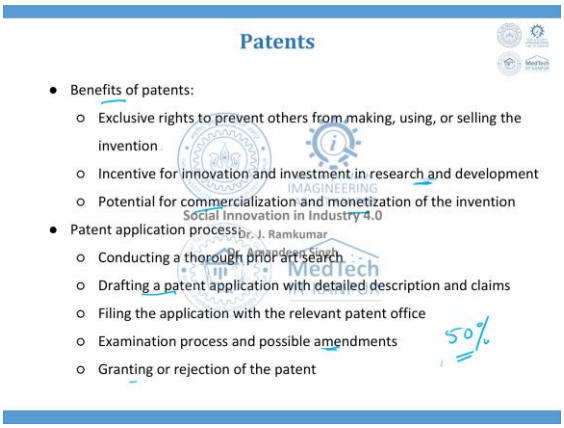
There we apply for Patent. In Patent, you have three types. One is utility patent, process patent. Design patent, which is only design. And then, it is a plant patent. Plant patent is, because now you have lot of grafting, gene therapy is given, seedless grapes are coming into existence, seedless apples are coming. So, all these things are plant patents.

So, protect new varieties of plant that are asexually reproduced. So, that is plant patent. An example for plant patent. Suppose, you want to make a wheelchair, and you try to redesign the wheelchair, that becomes a design patent. If you come out with a technology where in which you try to drive a wheelchair, then that becomes a utility patent.

Then, patentable subject matter. The invention must be novel, non-obvious, and having

utility. That should be non-obvious. It has to be non-obvious to a person who is using it. For example, if somebody comes with a cigarette lighter, and the cigarette lighter switching on and switching off is done by blowing a air. First time you blow, it starts catching fire, next time you do, it stops.

So, here the blowing switching off is known, but blowing switching on is not known. So, here it is novel, it is non-obvious for even a person who is using lighter to blow and set the fire up, and then it has a utility. So, it can include products, processes, composition, machines, software algorithms, etcetera.



The benefit of patent is, it holds exclusive rights to prevent others from making, using, or selling the invention without the persons knowledge. It prevents ,you cannot do, it is illegal. If I have protected a right and I hold the right for me, you can come to me and ask me to give permission, such that I can use it for which I get royalty or I get one time settlement.

So, royalty means, every time when I try to sell it, I get royalty, but many a times the royalty business is not working, because the company modifies the product, and then they make it as their processes. So, then you do not get the royalty. So, many people try to sell it at one shot, a big grand sum. You settle the deal, and then you take the money and close the product, go for another product. So, incentive for innovation and investment in research, and R and D can be done by selling a patent and making money.

The potential for commercialization and monetarization of the invention is a benefit of applying for patent. So, commercialization and monetarization. The patent application process. There is a long well-established, well-laid patent application process. So, it conducting a thorough prior art search is important.

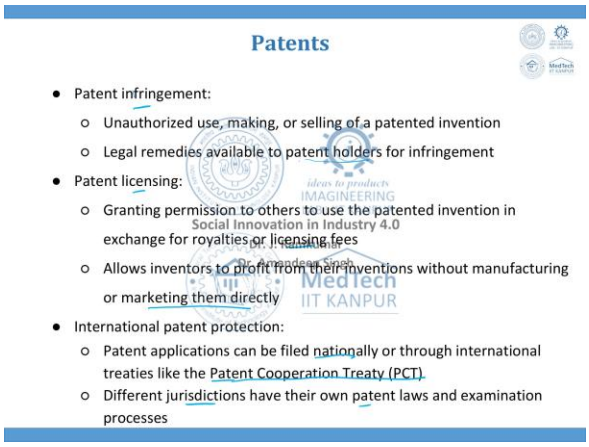
So, first the inventor himself does it, then it comes to the attorney, it comes to the lawyer. The lawyer once again does a thorough search, and then he tries to write it in a way, such that it can be defended in the court. So, then the patenting attorney goes through the comments, goes through the evaluation and then he says let us put it in public domain for some time to see if there is anybody confronting on your claim. So, if somebody confronts, then they try to say, sorry we will not be able to provided you patent, you sort out this query, if you are not able to sort out, it goes away. The other way around is, that is used.

So, then after 6 months time, or 1 year time, or 2 year time, depending upon country to country. Then, if nobody comes and claims that it is their idea or something. then what they do is, they try to officially declare and publish a patent for you, saying that Ram you have made this particular process, this is a title, and the patent right for this process rise with you or with your team. So, first is state of the art has to be done. That will be done by the inventor and that will be also done by the lawyer.

Next is the drafting a patent application with detailed description and claims. So, the patenting lawyer tries to help you in drafting the patent application, such that it can be defended in the law of court. Then, filing the application with the relevant patent office, then examination process and possible amendments. There are corrections, then the corrections are made it as amendments.

And finally, you get granting or rejecting of patents. Whatever you file, it need not be granted. So, the grant rate. Majority of the time in good countries, it will be around about 50 percent. So, what people apply and what they get granted is 50 percent only. People are now trying to work hard, they are moving from 50 to 80, 80 to 90. Some countries as and when you file, whatever is filed is new of it is kind, the patent is granted.

So, the 6 steps or the 5 steps are going to be, conducting a thorough state of the art, then drafting an application, then filling the application and submitting at a relevant office, then examination and publish, and then there might be corrections, which are amended granting or rejection of the patent, can happen.



What is patent infringement? Somebody trying to copy the idea without the knowledge of me, or that is illegal breaching. So, that is called as patent infringement. So, unauthorized use, making, or selling of a patented invention is patent infringement. Today, there is a huge business when people see somebody else infringing it.

So, then they make a fortune by filing a case against them. That is why, patent applying also is very challenging. Suppose, I and you start working on a similar idea from different parts of the world. We start working together and then finally, at the end of the day both of us are trying to make a similar prototype or patent application.

We both are doing it. At that point of time, the attorney calls both of us, and then they say that please share your lab manual, or lab notebook ,or whatever it is, where you have recorded step by step, when you are applying for patent. So, it is always important, when you are thinking of a novel idea that you are going to patent it start entering it in a diary, and when you start entering in a diary, you sign, and then get somebody else to sign along with your mentor.

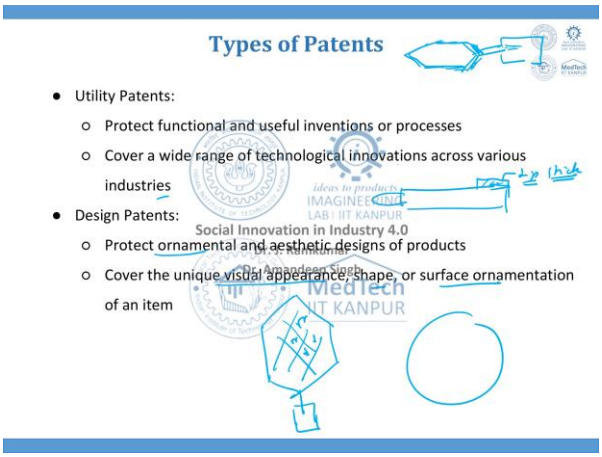
So, the somebody else is a third party who does not belong to your lab. He also signs it with a date. So, now, this becomes a legal document. When there is a clash, you can throw this book or the notebook in front of the attorney, saying that see sir I have been working on it much senior to him or much elderly to him on the same area. So, the patent has to be given to me. So, at that point of time the patent is granted to the person who has a document which says very clearly that he worked in it.

The patent infringement is unauthorized use and legal remedies are available to patent holders for infringement. So, the patent licensing is granting permission to others to use the patent invention in exchange of royalty or licensing fee is possible. So, people would nowadays prefer only licensing fee, one time settlement.

They make a money, and then they say end of the deal they go away. So, it allows inventors to profit from their invention without manufacturing or marketing them directly is patent licensing.

It allows inventors to profit from their inventions without manufacturing or marketing them directly, you make money out of it. So, the international patent protection. The patent application can be filed nationally or through international treaty, such as PCTs which is nothing, but Patent Cooperation Treaty (PCTs). So, that means to say, the patent can be filed country wise, it can be filed different countries. You will have to go to different countries, file an application and get it, so that you try to protect your idea getting stolen in those countries.

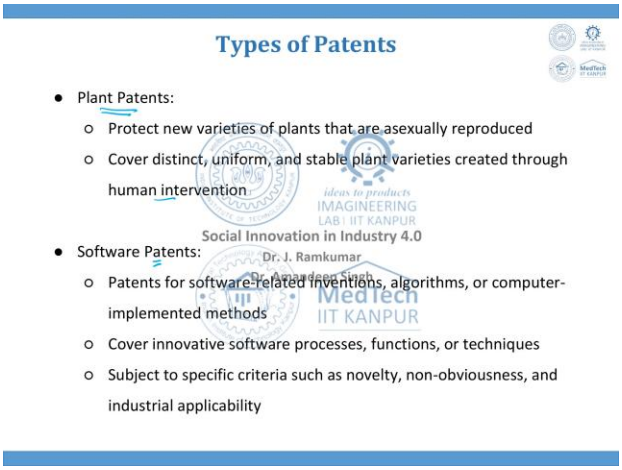
So, for that internationally what we do is, we try to always go for Patent Cooperation Treaty. So, the patent application can be filed nationally or through international PCTs. So, the different jurisdiction have their own patent laws and examination process. You cannot say the patent got approved in India. So, when I apply in US, please approve it based on Indian application, Indian approval, they will say no, we fall under a different category, we will re-examine the patent, and then we will try to give. So, different jurisdiction have their own patenting laws.



So, what is a utility patent? Utility patent is protect functional and useful invention or process. For example, if somebody tries to design a pan like this. A pan which is not circular, but it is in a hexagonal shape.

Due to hexagonal shape, now, what will happen is, this is a functional product. Generally, if you say pan, it is always circular. Now, what if I make it like this? So, here the protect functional. So, this is a functional and useful invention or process. So, there they always go for utility patent. It covers a wide range of technological innovations across the various industries.

Design patent is, it protect ornamental or aesthetic design of the product. For example, on this, if I make color patterns like this. So, then what happens is, it protects ornamental and aesthetic designs of products. It covers the unique visual appearance, shape, surface ornamentation of an item. So, compared to utility, it works more on function. Here, it looks for superficial, that is protect ornamental, then unique visual appearance, shape, or surface ornamentation.



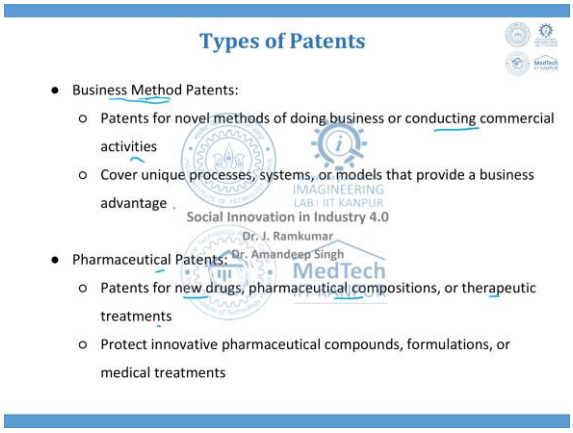
Plant patents are those patents which used to protect new varieties of plants, that are asexually reproduced, not sexually reproduced, asexually reproduced.

So, these patents are very much useful only in plants, where in which they talk about new variety, new diversity, etcetera. It cover distinct, uniform, and stable plant variety, where it is created through a human intervention. What is software patent? So, till now we will we have seen three.

So, one is utility patent, design patent. Design patent is all ornamental. For example, if you patent a pencil with lipstick here. So, here it is a design patent. Design patent means, tomorrow if somebody changes the flame, changes the flame size, changes the flame shape, changes the square box into a cuboidal box or a circular one. So, then it is called as design patent. Suppose, the entire work is novel of its kind, you apply for a patent, then it is called as utility patent.

So, cover the unique visual appearance, shape, or surface ornamentation of an item. Plant we have seen, now, let us move to software. The patents for software-related invention, algorithms, or computer-implemented methods fall under software. There is a very subtle line difference between software getting patented and software getting copyright. So, patents for software-related inventions, algorithms, or computer-implemented methods are part of software patents. It covers innovation, software processes, functions or other techniques.

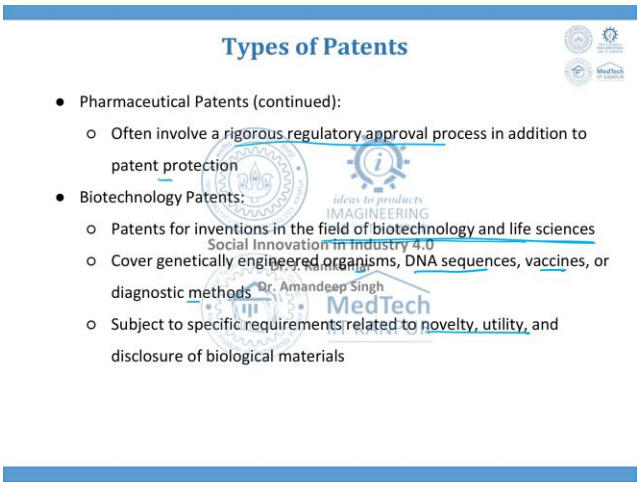
So, the last one is going to be subject to specific creation, such as novelty, non-obviousness and industrial application. There we always go for software patent.



There is also business method patent and pharmaceutical patent. The business method patent is, generally, given for patents for novel methods of doing business or conducting commercial activities. For example, if somebody say, plays in the market, dances, and then sells a chocolate.

So, then it is conducting commercial activities and this is a novel way. So, the patents for novel methods of doing business or conducting commercial activities falls under business method patent. So, it covers unique process system or models that provide a business advantage. So, business advantage if it is there, then we go for business method patent, and many companies are not involved in business method patent.

As far as innovative patents are concerned, we always look for design patent and process patent. These are the two places where in which we get. If you are trying to do for agriculture, then it is different story. Then, pharmaceutical patents for new drugs, pharmaceutical composition and therapeutic treatments, what is to be done, are done under the heading of pharmaceutical patent. The protect innovation, pharmaceutical compound, formulation, and medical treatments can be done by using pharmaceutical type patents.

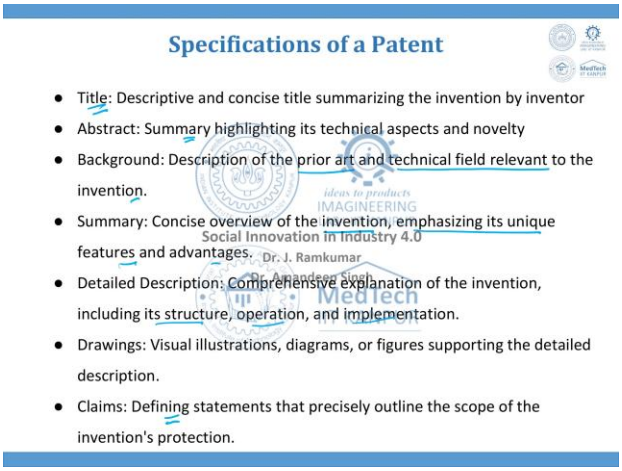


Often involved a rigorous regulatory approval process in addition to patent protection, because something happens, this gets into the body, and it is life or death.

So, we will always look for non-invasive. Then, often involves a rigorous regulatory approval process in addition to the patent protection, whatever it is. That is called as pharmaceutical patent. The next one is going to be biotechnology patent.

So, here in the field of biotechnology and life sciences. So, here it was pharma, and here it is field of biotechnology and life sciences. It covers genetically engineered organisms, DNA sequence, vaccination and diagnostic methods. So, all these things are part of biotechnology patent. So, here we try to do in the field of biotechnology and life sciences. Next is subject to specific requirements related to novelty, utility and disclosure in the area of biology.

So, if you see the different types of patents, here, you will have national patent, international patent, international patents are called as PCTs. Then, the different types of patents are going to be utility patent, design patent. Design patent, it is very easy to take. And, anything and everything small modification delta x you will get a design patent, but truly challenging what we want is, utility patent. So, the next one is plant patent, then software patent, then it is biotechnology patent, then business model patent. So, we keep moving, then pharmaceutical and biotechnology.



Now, let us see the Specification of a Patent. The patent is almost like a paper writing, you will have a title. This title describes and concise title summarizing the invention by the inventor is given. So, it is almost like giving a name to the baby.

So, descriptive and concise title summarizing the invention by innovators is given in the title form. Then, there is a small abstract. We are supposed to write about 100 or 150 words, stating that what is that we are going to do. Summary highlighting it is technical aspects and novelty is done. The third one is going to be background. So, here we try to describe the prior art and the technical field relevant to the invention.

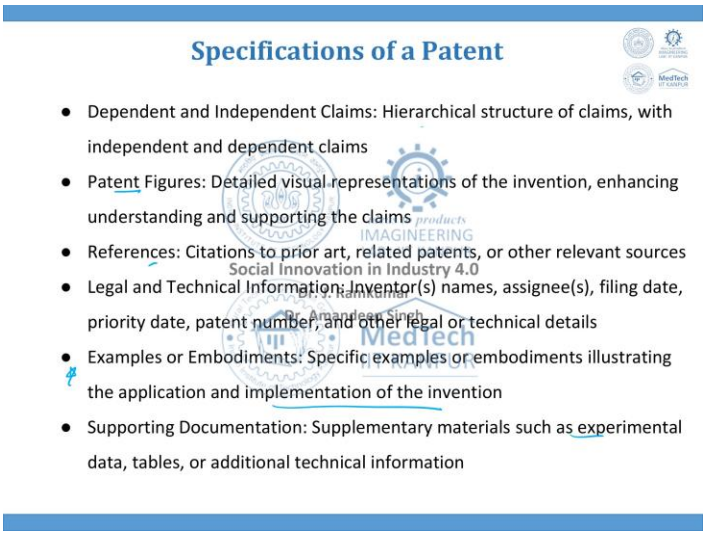
We try to write out prior art and the technical field relevant to the invention we try to do. Then, summary concise overview of the invention, emphasizing the unique features and advantages are done. Invention and emphasizing its unique features and advantage. Next, a detailed description summary. Background, and then summary you write, then you have a detailed description, which talks about the possible result, or possible way, or possible invention, you say.

A comprehensive explanation of the invention, including its structure, operation, and implementation is done. We will also have drawings. With these drawings which visual illustration, diagrams, or figure supporting the detailed description will be there. However, by looking at the drawing, you cannot make it out, how is the product look like, but smart people make it up.

Then, claims. These are our claims you have to say. So, defining statements that precisely outlines the scope of the invention protection. So, the specifications are, first you give a title, then you try to give an abstract. After doing the abstract, you try to give them a state of the art. That means to say, a prior art search, then you try to say, what is the solution

you have in a superficial manner. Then, you try to give a detailed solution, then after you give a detailed solution, you have to consolidate, and once you consolidate, then you try to say, what are your claims.

So, claims are defining statements that precisely outlines the scope of the invention. So, if you see abstract and claims to some extent will overlap.



So, there are dependent claims and independent claims. So, hierarchical structures of claims with independent and dependent claims can also be given. So, you make a claim and that claim can be independent. It is stand alone or this claim can have a prior claim as a as a dependent claim.

There is one claim you did, and the next claim you do, and if you take it stand alone, the next claim becomes null and void. So, you try to take a previous one, and then try to link it. The patent figures. Detailed visual representation of the invention, enhancing the understanding and supporting the claim will be there in the patent figures. References, you have to give references, because the references play a very important role to cross verify.

So, citations of prior art, related patents, or other relevant sources have to be added to the reference section. So, legal and technical information. Investigator names, assignee, filling date, priority date, patent number, and other legal or technical details are part of legal and technical information. Then, examples or embodiments. Here, it talks about specific examples or embodiments like illustrating the application and implementation of the innovation. So, these are not mandate, but if you give it is good, but all the other things are mandate. Then, the supporting documentation will be supplementary material,

that can be experimental data, table, additional into information, whatever you want, you give, it is possible.

So, when we try to look at the specification of the patent. So, you will try to have a title, abstract, background, summary, detailed description, then drawing, then claims. The claims can be two parts. It can be independent, dependent. Patent figures, then once everything is done, we talk about referees, then legal and technical information has to be given. Then, they try to take the examples or embodiments. And then, finally, they try to space for supporting documents through which you did some experiments.

Thank you very much.