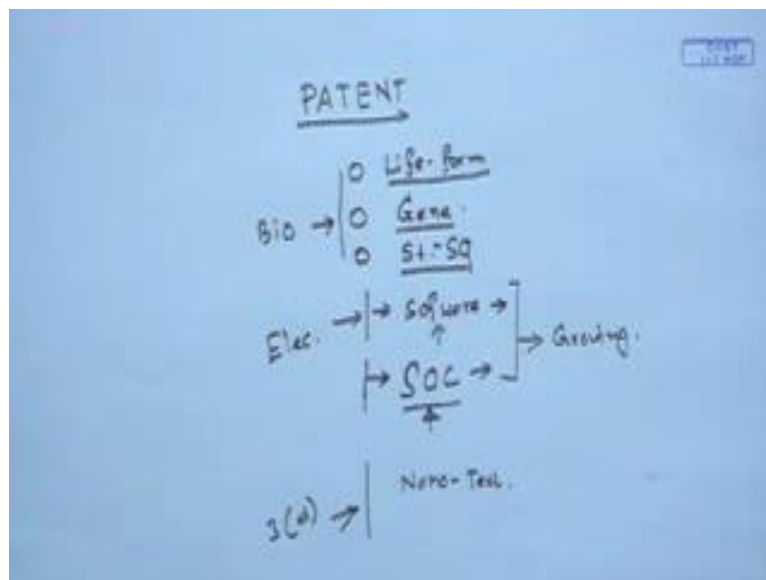


Introduction on Intellectual Property to Engineers and Technologists
Prof. T. K Bandyopadhyay
Department of Metallurgical and Materials Engineering
And
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur

Lecture - 16
Utility Model Protection

Good morning, all of you say last week we discussed about patent and you have got an idea that patents for takes what?

(Refer Slide Time: 00:38)



So, now, can somebody tell me that what are the criteria required for an invention to be patentable to get a patent what criteria invention is required and what is the procedure that that procedure that government or its particular patent office adopt to get the patent, what are whether it is a examination base system or simply registration base systems or what are say based on those answer again can you analyse that what are the drawback of the existing patent systems and further? What are the different emerging issues that have been coming in respect of invention and its patentabilities regard also ethical issues and technological that the spaces with the technology development have been occurring all those aspects? So, let us on that those drawback I will discuss today before going to actual discussion on another production mechanism, for invention that is utility model before going on that part I will try to give an overview of the different emerging issues in respect of patent then how you can

apply this utility model with reference to few of them that you will understand.

So, now let's see emerging issues with reference to the patent that are let's say patent to the reference to the life form means whether life form can be given patents or not. When I discuss the patentability criteria in India and then I have told you that naturally according to microorganism is not patentable in India. So, if you genetically engineered a microorganism that can be patented, but not unnaturally occurring microorganism. So, this is the issue with reference to the patentability of the life forms and I already told you that in the USA they told anything or everything under the sun made by man can be patentable and you should read that *Diamond versus Chakrabarty* case that is regarding the patentability of a genetically modified bacteria. Similarly another case in Indian context that is *Genetic Engineering Appellate Board versus Genetic Engineering Appellate Board* case that is regarding the patentability of a microorganism or we can consider the bacteria. So, regarding the life form patentability is the issue with reference to that let's say wheat, I can produce a wheat crop having higher yield value by genetic engineering. Promethus genetic engineering process you may have heard about the *Promethus* patents, that case incident and regarding different discussion with reference to that.

So, issue with reference to the ethical another source of issues with reference to the life form and patentability then, patent to the reference to the within the life form you can consider the patentability of the gene can be also an issue and would be with reference to the that that illegal and ethical issues with the reference to gene patentability. Similarly structure sequencing of structure sequences that structure and sequence, let's say structure and sequencing patentability all the reference to the DNA or DNA patentability structure sequence in patentability these are the emerging issues with reference to the biotechnology there legal issues an patentability issue and the procedural issues means regarding the examination part. How to examine or the patent such that data base in appropriate all those issues are there with reference to bio part.

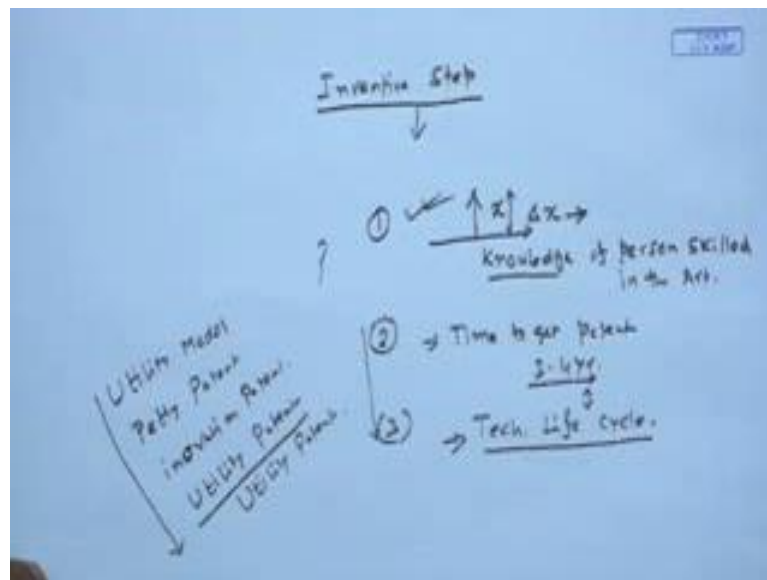
Similarly he already discuss with your software the issues are coming software parts, say is not patentable in India and software with reference to the technical contribution in India we can get patent in European countries and similarly in US they give patent on business methods also patent on business method also. So, those are the different issues coming with the reference to the patents and these are the emerging issues with the reference to the patents ok.

So, similarly another issues are coming up now it is you know that embedded system called structure resource system on that the life of the system or software s are very this area is have been growing very fast grow fast grow growing very fast. So, the problem with reference to that the life form from the technology is very short and the now patentability for the patentability criteria to get a patent all sorts of things whether they will really meet that all sorts of criteria of patentability that it, is another issues an whether and the time frame to get a patent is another issues and the long on time of production of the patents is another issues with reference to system on chefs and software.

So, these are the few of the emerging issues that I we should be hard of those kinds of situation just likes a software and patentability s what will be the appropriate production regarding to the software. So, I system on chiefs of or say s o c sometime we refer that and its production mechanism what are the patents will what are the irrespective patent production of s o cs and similarly for as a software part say, similarly structure sequencing DNA structure sequencing and patent abilities, it production mechanism.

So, life compatibility all those kinds are the various issues. So, bio technological issues domain issues refers to biotechnological electronic similarly this issues are already resolved and nano patentability. So, an initial issue with reference to nano technology patentability was all. So, their regarding ha patentability criteria regarding 3 d of our Indian pat ender or the disco these are the issues with reference to nano technology was also there. So, this is few issues that that to be addressed or have been address forum research paper or by judicial forum. So, that are the different emerging issues that I want to mention you as before going to the just a utility model part now, that like a in the beginning I have ask you few questions that like say for the patent the criteria, you know that novelty invent the state and it is a accumulate of industrial application that is the definition of invention, but the problem with reference to that the criteria of patent abilities means let say specifically the criteria second criteria that inventive steps the second criteria of patentability means inventive steps, just like say criteria patentability we may consider inventive steps inventive steps.

(Refer Slide Time: 08:53)



I already told you they are lies the problem that what are the problem with respective to inventive steps that say solution should not be problem issue solve the problem solution approach. Then solution should not be a obvious to the person feeling that if you follow t SMA approach that at in suggesting motivation motivate the parts in ordinary skill to do that ultimate formulate the invention what about you are trying to claim. So, means that your invention should have sufficiently over the what the knowledge of originally person or average knowledge of the person feeling that sufficiently means over sufficiently over the knowledge of person skill in that knowledge of person skill in; that means, person skill in that average knowledge person skill in that some time you call prosita, prosita skill in the art prosita. So, will be the prosita, prosita different case steps that average person having average knowledge in that field. So, should have let say sufficient leaf let say x leaf.

So, now the problem with x leaf its sufficient although that will be defined just to case basis, but if somebody have come which say delta x improvement over the over the knowledge of prosita then, whether he will be denied some right over the delta x improvement. So, this is the one questions that whether the x and delta is known as radical improvement or incremental improvement over the knowledge of the prosita knowledge of the person skilled in the art then, another problem I told you that whether they will be denied a question then let say technological improvement is happening.

So, fast, but patent procedural aspect suggested you should get a patent to take at least

minimum time to get patent time to get patent time to get patent which required at least 3 to 4 year depending upon then, express origin also at least, you will also have to wait for 3 to 4 years and also there is issues with reference to; that means, drivel do have a rights from the date of filing also date of may, from the date of application, but the issue reference to the legal title or the legal title means you really get the legal title this is the stages of prosecutions by means of. So, legal title or equitable title that s the issues that. So, time came to get the patents and third the technology life cycle technology life cycle. So, few technology; the life cycle is very short. So, 3 to 4 years if, see that technology have to wait to get a some right by virtue some patent then the problem like that time technology may be we consider absolute.

So, these are the few issues that may be with reference to that patent may be me consider these are may be the drawback with the reference to the patent protection of invention or specify invention. So, considering all those aspects, now, there is a is another tools or say some times you consider the a form of protection of intellectual creation is available in the form of utility module or some time we calling innovation patent or some time we call patty patent all those things try to protect a somehow, we can consider I have try to take care of the drawback whatever I mentions. So, the like the drawback means whether incremental invention or say time to get patents or technology life cycle. So, those are the drawbacks with reference to that patent systems patent systems I cannot say really draw back depends to the societal means let us a balance between the owner versus society.

But let see if I consider those are the drawback with reference to the inventor side. So, why not to give some sorts of protection in respect of delta is improvement. So, all those kinds of things lead to the another forms of protection that are we are telling that utility model I write here utility model or some country they will call as patty patent or innovation patent innovation patent or just like a utility model or utility patent use, the sometime called utility patent.

Utility a model patent utility patent all those things try to give protection with reference to take care of those features whatever I mention may be the within the overview of drawback of the existing system specifically reference to the also a which have been moving. So, fast just like say considered software and also some cases the improvement also. So, delta x improvement delta x improvement with reference to the code and it is applicability is.

So, that lead to that that another forms of protection just like utility model a protection patty

patent innovation patent and utility patent and just like a UK, USA they calling utility patents they denoted by u when you search they denote utility patent also they are the utility patents also they are. So, now, what a it is you got little bit idea why say utility model or patty patent or innovation patents just like a country like Australia they call its innovation patents some country they call it patty patents, China they call it in utility model protection USA utility patents. So, the history or jurisprudence suggested it as started from Germany to give protection with reference to the incremental innovations and say subsequently it has been adopted in other countries other countries. So, that is the jurisprudential aspect or historical aspect of the protection mechanism or incremental invention. So, when we are discuss you the invention.

(Refer Slide Time: 16:19)



Another mechanism just like say you may consider the protection or protection of the u t protection of the say invention including invention can be also protected by means of this source of tools regarding to country to country. Now, let say have given an example to country to country and now let say have given an example of let say the gear assembly here. So, gear assembly is a product. Now, some radical improvement to the reference to the arrangement in others that by had choke that say that in arrangement maybe in novel. So, arrangement of gear teeth little bit change or delta exchange of the gear teeth by had choke that, you will genetic a novel gear system. So, definitely it will be consider novel.

But the definitely it as also application in industrial process what may be whatever

improvement you are making that may be considered as a maybe considered may be considered of the gears or may not have sufficient lead forward the knowledge of the people have being on that knowledge of the people on that field. So, why to give a protection for that kinds of a situation then that, utility model will be the important tools just like say harries and study indicating like china they have been utilizing utility model very well because protection is, and the just like say semi specifically.

So, that company do not have invested much and they may go and take this route for protection of this type of invention. Now, criteria what have been say for you may consider now utility model also protect invention, but invention what about the invention definition we got it for the patent were the invention definition s its different just like say novelty will be there gear teeth arrangement that is novel means that type of arrangement is not available in the spare art then, now the issue is that novelty when revenue discuss with reference to the patents we have criteria of novelty with reference to somehow you can considered the absolute kinds of novelty. So, their also novelty criteria may refers from the country to country depending on the utility model protection mechanism.

So, we can follow the mix novelty with reference to the publication and use of those kinds of device or system in that country. So, novelty criteria may be referred compare to the novelty criteria referred may be referred with difference to the invention regarding patentability then major important difference is this less stringent or no inventive step criteria. So, invention to get a utility model protection may you cases do not require inventive step criteria. So, invention patty patent innovation patent then less stringent say delta x improvement just like a just do not required to judge with reference to the prosita and all source of things. So, less stringent inventive step criteria, easy to get the easy to get the meet the patentability the criteria all the reference to the inventive steps then, less stringent examination procedure just like you know that when I discuss to the patent prosecution or patent procedure with reference to the India.

I refer that what are the different mile stone that s like say first filing then publication then free kind of position then appeared and acceptance and post kind of position all sorts of things required time. So, few cases just like say here that few cases they follow registration they give register then subsequently examine few country or say they some cases examination procedure is less stringent that are, they do not go by the examination procedure followed or patent.

So, for that reason less stringent procedure of granting the ready model, people will be more attracted to take that route for protection of incremental invention then less time period for protection just like a patent protection is every level for 20 years irrespective of any field of technologies just like say you told at if I consider bio tech invention. If I consider software along with immediate system related invention all are great thing predicted for 20 years, but if I consider the with reference to the investment with the reference to the technological progress just likes a how much investment progress just likes a how much investment you have to the made you to made with the reference to that of or development of single API or a drug or some drug or a p I basically for biotech or pharmaceutical related invention same type of investment may not required for your software related invention.

So, I software related invention. So, software inventions so understood that and also another part that we called let us a say for drug again you have to farm a you have to require to drug to put in the market, you have to again follow the another you have compile with the another regulatory bodies criteria drug controllers. So, then approval from drug controller then only you can put that thing in the market. So, some cases that are return on investment to get return on investment with respect to drug or pharmaceutical research require more time, but with reference to software you can consider not much I can say that not the investment may be less compare to the what about investment you have to do for a API or pharmaceutical invention including process of product. So, then also life cycle of the software you understood that have been changing rapidly including communication device and communication protocol all source of things. So, unnecessarily 20 years monopoly rights provided to a patentee may block others people to use that invention for other purposes whether that lead to the some sort of market inefficiency that the question lies there.

So and also less time period for a protection, their lives the issues innovation patents, if I give less time period for a protection for the less stringent examination procedure and less stringent inventory criteria related invention. So, for the reason generally they country to country or utility modal or patty patent or invention patent they protect for 7 to 10 years. 7 to 10 years a period have been provided to protect that this type of invention in important which invention in come to that utility modal patent modal for or utility patent or innovation patents or utility modal protection. So, less time came have been am provided because considering that that like technology progress definitely life cycle is less and also let say some source of aquive right for at least 7 to 10 years for that incremental innovation to attack that

incremental invention the invention. So, they are allowing that utility modal although India do not have in that utility modal protection considering that let say till in that skill in the radical improvement or say incremental improvement and use it considering that is a public good.

So, let us time throughout for protection easy to obtain because few country I told you that day just a registered then examination may do subsequently. They examine some cases they may they some cases they examine, but not following the stringent requirement then I also already told you it protect incremental invention that the some incremental with reference to increment incremental invention with reference to above increment with reference to an invention can be protected by means of that utility modal parts then it is a may be useful for SME can be useful for SME. So, useful for a SME just like a I already told you definition of in invention will refers to utility modal for USA, they issued for invention of a new and useful process machine manufacture or composition of matter or a new and useful improvement there of new and useful improvement of a process machine or manufacture or composition of matter may come within the far view of a utility patent in USA.

So, let see you got an idea that why I discussed this two of this thing to you because technologist or engineers some time during working specifically to do lots of improvement or modification improvement or modification that improvement and modification can be and can be an intellectual property. If utility modal type of protection mechanism is available in India, but are the question allies there whether, this type of incremental invention will ultimately create social or market efficiency or not that is the that their research require to be carried out specifically considering the social economical situation a India. So, if I ask you now with reference to software whether this type of mechanism will be useful just like I told you that software parts say is not patentable in India software means software is such is not patentable.

But you know that software like having say some source of software is useful software just like say defiantly in perfect software that generated useful process just like a sensor algorithm them for sound system algorithm then, all emergency algorithm then generating an useful process and I told you that and software that judging the inventive steps and also novelty part very challenging task that with reference to change done in the novelty and inventive steps part reference to software. So, software examination challenge then, whether we can go for this type of mechanism for protection of software say that is the questions I will put before new just the what about how can you apply this type of mechanism you can reference to the

software similarly as a say same systems and others areas or whether technology have been progressing is.

So, fast whether 20 years period of protection is enough or not that now the we have to thought about it. So, now, let summarise. So, I all discussing about the utility modal I tell I have or told you differencing emerging issues with reference to that patent protection just like say software life forms then d a structure sequencing its based structure sequencing all those things then I try to be, when an idea about the another farm of say intellectual property protection say protection mechanism in the form of patents or just like a utility patents or patty patents or innovation patents that have been have been have been in practice in different jurisdiction including Australia, Canada, Germany, China, as we are considering this IPU in the fore view of costly traditional aspects also.

So, you should one should have should have knowledge with reference to practice and methods also just like say if somebody ask me whether, utility modal protection available in India whether I can go and 5 utility modal utility patent in USA or not I will say definitely you may have to take permission follow, but 39 question lies there 39 is applicable for patent act. So, whether it is also applicable for utility part their life, but you have to take permission from government for finding the utility patent that that part. So, I just like say ending it hares for with reference to utility modal part let us read all those kinds of things and we can further discuss those elements.