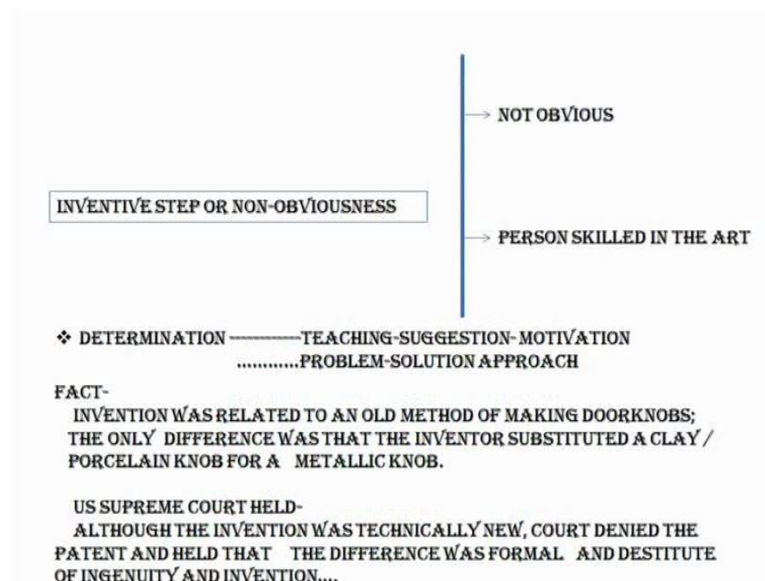


Introduction on Intellectual Property to Engineers and Technologists
Prof. T. K Bandyopadhyay
Department of Metallurgical and Materials Engineering
And
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur

Lecture – 08
Non-Patentable Invention

Last class I have given the different criteria required for independence and to be protectable. You got then an idea of say novelty, you got the idea of prior art, you got the idea of dominance or territory with we have consider that thing. As we have not able to discuss much about the inventive steps, I will continue the discussion of inventive steps and subsequently we go to the next part.

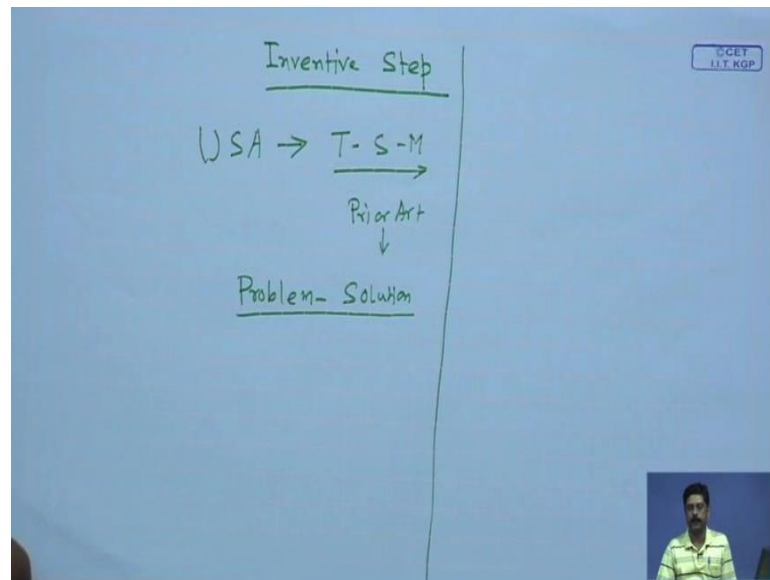
(Refer Slide Time: 01:03)



So inventive step, the things we already got inventive steps India will abolish non-obviousness. What are those things? Thing the components I referred already let us repeat that thing that not obvious or the obvious just like it is a obvious then water is fluid. It is obvious that water is fluid. It is obvious that kerosene is also fluid. So, similarly it is obvious that if a replace a metal doorknobs by say polymer doorknob by metal doorknob that property will ultimately alters with reference to that part, so not obvious.

Not obvious to whom to the person skilled in their art. So, skill in their art defined in the court it is not and subsequently art also try to mention that person having average knowledge in that field. So, what is a having average knowledge in that field means in that art. So already I referred that thing, it is ok.

(Refer Slide Time: 02:12)



So now; what are the different paste? just like a court has adopted time to time to different, because you are not very difficult to put up an objective criteria to determine the inventive steps. You may consider. It is very easy to create an a criteria for novelty because if I got a document which gives all the features of the invention, then it will not consider novel with reference to that features that was available prior to the handling of different application.

But how will you consider that inventive steps or non-obviousness things. So, different jurisdiction has created different paste to ultimately judge. Give some objectivity with reference to those criteria called inventive step or non-obviousness. Just like a USA they refer as that is called T S M; teaching suggestion motivation. If say prior art teach something, prior art means prior publish document or prior no later prior art means prior publish document teach us something and suggest us or motivate us to do that modification. And I am claiming that all the modification is my invention then with reference to that it will not qualify to having the criteria called Inventive Steps.

So, let say little bit elaborate that fact; teaching suggestion motivation. Let say prior art means a prior art means with prior publish document is stating that if you replaced a fluid means let say these are invention with reference to a fluid having less viscosity. And they are also referring that we pay instead of less viscous street if you go for a high viscous street then this type of property improvement will be there.

Let say I have considered that viscosity is a reverse of fluidity, so if you consider that let us say you want to say prior art setting if you want to decrease the surface tension of that liquid that surface tension or viscosity of this liquid then it is fluidity will be increase. So, a document let say a prior literature is suggesting that is like to a increase the fluidity of that just like a fluid consider a sometime. For lubrication purposes or for other purposes we use some vowel or some kinds of thing.

So, if prior art document is so suggesting this liquid can minimize the frictions and prevent vary and tears. Then you are telling I am invented a liquid which is having that ultraistic which we will provide better efficiency for a machines. But prior art is already telling you that this CPU you apply that will in a machines wear and tears of that machines will not be there. So, automatically these machines will run for longer time.

So, prior art is teaching you we use that well for that purposes. So you are telling I apply my vowel applying an vowel in an engine to increase the efficiency, so what is they improved well or improved an vowel for improving the efficiency of a machines. But well, what is property everything is available in the prior art. They are suggesting teaching you, but this while can be used, they suggesting you this while can be used, then motivating you to while use that vowel for a machine to prevent wear and tear so that application of that vowel or say increase in the efficiency of the engine will not considered to be patentable invention. So, it is because already teaching you, suggesting you, and motivating to you to use that vowel for increasing the life of the machines by preventing wear and tears. Got the things?

Then this is the USA approach now come to EP on Indian approach some time we call problem solution approach. Consider a problem sometime, so let say consider a problem. Let say we are considering that this just like in the classroom we are using black board chock and dusters. The problem with the chock and duster is that it is not say chock and duster that every time you have to erase whatever you are writing then problem is that it

is not permanently stores. And you will forget whatever you have written if somebody is taking the note if a teacher erase the thing weekly then he is also forget whatever teacher as written in the board. So, this is the problem.

Now what can be the solutions? For that problem is that people are not able to take their note teacher is writing it erasing it teacher is forgetting what he has wrote in one minutes before. So, the solutions maybe we can consider transient kinds of things just like a temporary storage. What about he is writing that can be layered wise let say; black board can be layered type of blackboard. One page just like consider the paper kinds of situation, one paper another paper kinds of situation and for the you know that is for internet and other or just like a virtual medium kinds of situation is there.

So, different types of solutions can be an invention, but the solution is obvious just like a doorknob kinds of a situation. The solution doorknob will give metallic doorknob will provide us thing. Then that solution is obvious, but this he will provide the just thing. Solution of that lubricant, lubricant automatically will give the prevent wear and tears, so that is the obvious, so that way the problem solution. So, always you have to consider a problem and solution, and solution should not be obvious then it will be considered a patentable invention. You got the thing? Solution is novel, but solution is should not be obvious then it will consider the qualified the two criteria inventive steps and also novelty; solution is novel.

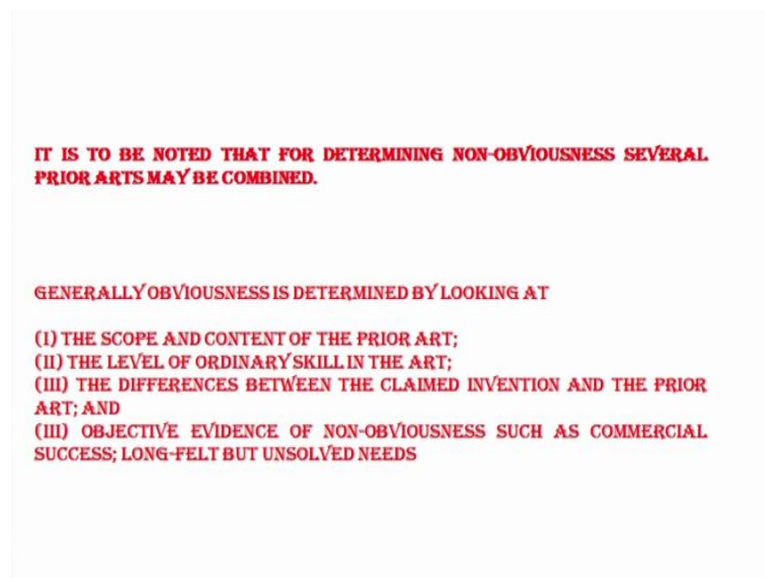
So, just like this invention was related to let say consider a situation that invention was related to an old method of making doorknobs, the only difference was that the inventor submitted substituted the substituted the clay porcelain knob a metallic knob. Now, US supreme court held that although the invention was technically new who denied that held at the difference was formal and destitute of ingenuity or an invention it is the. So, average persons can also think about that. So, we are willing that invention does not qualify to be a patentable invention on the grounds of inventive steps.

So that say, this is the integrities of the inventive step. Before destroying the novelty of invention all feature of invention should be available in a one single document. For destroying the inventive stock of somebody's invention somebody can club the documents, but how many document, what way that that will be consider situation to situation case to case basis. So, that way d 1 plus d 2 who generate d 3 as invention; if

any where the person can also in that field can also club d 1 and d 2 to generate the d t and d t will not qualify to be a patentable invention. But for restore and considering the novelty only single document will all the features of the invention should be available for considering the inventive step you make club different prior art and the prior art who will club average person if club and generate that invention then it will not qualified to be an let write up inventive step.

So, these two parts you got the things. Considering the examples of doorknob and considering the example of that lubricant.

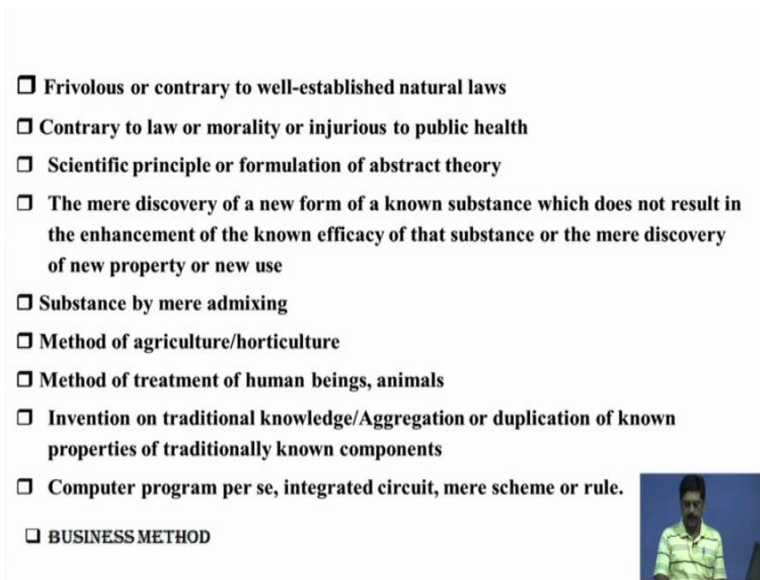
(Refer Slide Time: 11:45)



So, what thing say different things it is said that thing you have to be considered. So, how to consider the novelty? Just like say generally the obviousness is determined by looking at the scope and content of the prior art, the level of ordinary skill in that art, the differences between the claimed invention in the prior art, objective evidence of non-obviousness such as commercial success long felt and but unsolved needs. So, this is the different way that obviousness will be judged.

Now, this is the US perspective when India as say (Refer Time: 12:31) can Indian perspective also, so what do consider the scope and content of the prior art level of ordinary skill in that art then the difference so considering that as an non-obviousness will be decided.

(Refer Slide Time: 12:45)



Now, you got the idea about the things, what are say criteria and inventions should qualify in order to be patentable means novelty. In inventive step in India we call it is non-obviousness and capacity to be used an industry. So, whether you will able to now generate a patentable invention I think US. So, what approach will follow will approach for follow you should follow a problem solution approach. Means, try to find out what problem they are in the existing art. Just like say consider say if I thinking about the medical technology field, if we are considering that drug industry, if you are considering the waters and others this is a problem nowadays that that there will be crisis of water are in your futures.

So, how can you design some system that people can use what are judiciously. So, problem means that to prevent wasteful utilization of waters. So that how we can would design a tap or other kinds of system so that people should use the water know as per their requirement, so that the solution you may consider that way you can use a consider sensor system, you consider a different types of element. So, that way you can decide that solution now if it is a others in that filed also think about that solution that will not qualify the criteria of obviousness, so that will not. So, you have to think about a solution which is not obvious to the person in that filed you are providing a solution the simply sealing that tap anybody can do that. Sealing the tap anybody can in that field can think about. Others say then that you should think something different from that others then it will consider having the quality of inventive steps.

So now, these are the criteria of patentability, but now another element is there that is considering the public perspective and social perspective. So, government have created a list of invention which are not patentable why considering the law on the need of the societies, considering the social economical conditions of that country they have listed subject matters which are not patentable (Refer Time: 16:05). Now we are considering India.

We have a list of subject matters which are not considered patentable invention. So, if you invent in that field for that reason that will not consider to be given patent because that is consider the not patentable invention. So, what are those lists? I will read one by one and try to explain. Frivolous or contrary to well-established natural laws; what is that? So you are thinking about let say it is just around is magnetic. And since (Refer Time: 17:03) polymers or non magnetic. So, you are starting about something let say nonmagnetic things attacking nonmagnetic or nonmagnetic object will attacking a nonmagnetic material. So, magnetic magnet attack magnetic material is well-establish natural law. So, you are telling a nonmagnetic material is attacking nonmagnetrial object. So, it is taken as the well established natural laws.

You are stating that I have decided created invention with reference to a system where electricity is flowing from say low voltage to high voltage. You are stating I have created a system by virtue of which without intervention of third machines or something water is flowing from low voltage hut to high voltage hut. So, that system is against the well established natural laws. So, that will not consider to be patentable definitely. You may consider that is not feasible possible considering that they are thinking about that are not patentable which is against the say well established natural laws that is not considered to be patentable. Just like say nonmagnetic nonmagnetic attraction, current flows from say low voltage to high voltage, water without intervention flowing from low to high voltage huts. So, those type of things will be not consider is not come within the subject matter of patentable invention.

Then contrary to law or morality injurious to public health; this is the ground have been created just like say which is injurious to public health let say to consider it to protect the societies or something like that way. Just like say cigarette are related invention maybe considered against the injurious to the public health, the tobacco related invention maybe

considered against that public health. So, may be not to be qualified to be a patentable invention. So, it is injurious to the public health.

In the other radioactive related invention maybe may not come within the purview of patent. But you may consider people are working on that field that so definitely that is the other part, but when we considered in the patent part I have to consider the public health perspective. So, public health perspective is something is injurious to the public health that will not qualify to be patentable.

Scientific principles or formulation of abstract theory; so if something is scientific principle you are thinking about just like say he is holding MC square or some abstract theories you are proposing because we are considering patent I already referred earlier that technology. Technology means application of science. So, science part is not come within the purview of patent part application of science will come within the purview of technology in the purview of product and process. So, scientific principle and formulation of abstract theory they kept if out of the patent because it can apply that science to generate the product that product can be a patentable or inverse patentable invention.

So, scientific principle they do not put within the purview of patent or some abstract theory you generated. The theory can generate some product, what the reason abstract theory they can cover as not been come within the purview of patent. So, scientific principle of working of a some machines, some fluid, some abstract theory you are thinking about for working of some just like say consider peoples are working on the concept called autumn, nuclei nuclear, nuclei nucleon, neutron all those principles. So, what are the abstract theory they are thinking about that neutron, positron and others part.

That will not come within the purview of patent because that left them in the form of a theory or principle. People can use those principle and theory for other purposes. So, now that way that not consider to a patentable. Similarly, mere discovery of a new form of a known substance which does not result in the enhancement of known efficacy of that substance or the mere discovery of new property or new use it is that is also not qualified to be patentable just like say consider the mere discovery of new form just like a you have a alpha crystalline form of triennia. And another person has come up with beta

crystalline form of triennia. And he is telling that alpha crystalline form of triennia beta crystalline form of triennia both are giving the same result, then the beta crystalline form of triennia will not qualified to be patentable.

With reference to alpha crystalline form of triennia if does not give some source of if alpha crystalline form of triennia with beta crystalline form of triennia which is invented later is having some efficiency with reference to that a bit alpha crystalline form of triennia then may be, but if it is does not increase the efficacy means sometimes in medical technology, he called therapeutic efficacy sometimes efficacy means availability of that things so just like a wound healing property or something availability of that drug or something like this way. So that way if efficacy is not improves, so new form of known substance will not qualified to be patentable.

So, ultras of alpha, beta, criteria sometime peoples thought thinking about the nano form of materials. So, nano form generally having the higher efficacy considering that it is considered to be patentable. But in nano form of compare to the micro form available in the in that material if nano form does not give efficacy then it also hit that clause that they are discovery of new form of non substance without efficacy then it will not consider to be a patentable invention.

So known efficacy, enhancement of known efficacy you have to consider that the enhancement of known efficacy new form of known substance which does not result in enhancement of known efficacy. Known efficacy means what way alpha crystalline form is having therapeutic efficacy, if the beta crystalline forms having also same type of therapeutic efficacy then beta crystalline form will not qualified to be an invention then. So, it will be very process because no what is case. We remember Supreme Court has given the judgment. We also refer the therapeutic efficacy. So, please read what case is in this regard to consider this. So, judgment of Supreme Court with reference to this case therapeutic known efficacy means therapeutic efficacies.

Similarly mere discovery of new property of luine or new use mere discovery simply discovery of new property just like you found what are simply discover a or that property was already there just already there you simply discover that property. Just like water can be used for a particular. What is fluid, so automatically water can be use to say somehow prevent taking oxygen because water will block the oxygen if you put in a nose. So,

somehow you are telling water for killing people. So, that is some of the other that is actually injurious to public, but if you consider mere discovery of new property you are thinking about that is also will not consider to be patentable.

Similarly, new property or new use new property or new use. New property or new use of a non substance is not qualified to be patentable. So substance made by admixtures if you get a substance by mixing just like salt water or similarly to sand water. Now you are mixing and the mixtures does not providing a (Refer Time: 25:39) gastric effect. Because while mixing if you get property which is different from the properties of the two components which ever you are mixing, then it may qualified to be patentable. But the mixtures also the properties of the two components whatever you mixing remain intact then it will not qualified to be patentable.

So, substance produced by admixing means a plus b. In ab you are getting ab in ab also, all the property of; you are getting all the properties of b you are also getting. So, substance produced by mere admixing, then ab will not qualified to be a patentable invention. So, it not qualified to be a qualified to be patentable invention. Similarly in India method of agriculture or horticulture considering the social perspective because India is agriculture base country method of agriculture means what do mean by method of agriculture, so way new way of cultivating let say paddy new cultivating jute. So, those kinds of thing we will not qualified to be patentable India why considering the social perspectives. So similarly horticultures, new way of horticulture also will not be qualified to be patentable.

Similarly method of treatment of human being or animal, because right just like a health is a essential things for human being. And health is method of treatment if it is patentable it will be costlier. So, considering that method of treatment of human being or animals is not patentable. But how can you make these things patentable so that in method we have not studying system or device. So, if you create diagnostic kits it can be considered to be a patentable. But diagnostic method or method of treatment method is not patentable, but device system can be patentable. So, if you want to consider something patentable you consider just like a in the form of a device kits then it will be consider just like blurt testing kits will be patentable. Blurt testing method will not be patentable, but blurt testing kits will be patentable.

So, similarly invention related to traditional knowledge is not patentable is something is available in the traditional knowledge form just like a basmati healthy Ayurvedha related thing that is not patentable. Similarly computer program parse such parse means as such parse inter medicine is as such is contributing computer program as such means computer program has it is not patentable. If you computer program if you club along with hardware. And improve the efficiency of that performance of the hardware along with new guideline suggesting that something new in the hardware if you able to create along with your algorithm or computer program then it will qualify patentable in the form of embedded systems.

Integrated circuits mere scheme of rule art and drawing it is separate subject matter is not patentable. Similarly, business method what you mean by business method of that the e-commerce nowadays had been coming up. So, e-commerce related invention will not qualify to be patentable. So, new way of doing business how can you attract the client, how can you do advertisement all sorts of thing will be consider in the form of business method. Just like say you have heard about Amazon one click patent. So, one Amazon click patent means, by simply clicking somebody design an algorithm by virtue of that you can give an order from n number of e-commerce website.

So, the placing order based on that algorithm you will be consider is a business method and that will not qualified to be a patentable. So what I discussed? I discussed about the subject matter which are not patentable in India.

(Refer Slide Time: 29:34)

SECTION 3 (A) ...AN INVENTION WHICH IS FRIVOLOUS OR WHICH CLAIMS ANYTHING OBVIOUSLY CONTRARY TO WELL ESTABLISHED NATURAL LAWS;


SECTION 3 (B)..... AN INVENTION THE PRIMARY OR INTENDED USE OR COMMERCIAL EXPLOITATION OF WHICH COULD BE CONTRARY PUBLIC ORDER OR MORALITY OR WHICH CAUSES SERIOUS PREJUDICE TO HUMAN, ANIMAL OR PLANT LIFE OR HEALTH OR TO THE ENVIRONMENT

SECTION 3 (C).....**THE MERE DISCOVERY OF A SCIENTIFIC PRINCIPLE OR THE FORMULATION OF AN ABSTRACT THEORY OR DISCOVERY OF ANY LIVING THING OR NON-LIVING SUBSTANCE OCCURRING IN NATURE**

SECTION 3 (D)..... **THE MERE DISCOVERY OF A NEW FORM OF A KNOWN SUBSTANCE WHICH DOES NOT RESULT IN THE ENHANCEMENT OF THE KNOWN EFFICACY OF THAT SUBSTANCE OR THE MERE DISCOVERY OF ANY NEW PROPERTY OR NEW USE FOR A KNOWN SUBSTANCE OR OF THE MERE USE OF A KNOWN PROCESS, MACHINE OR APPARATUS UNLESS SUCH KNOWN PROCESS RESULTS IN A NEW PRODUCT OR EMPLOY'S AT LEAST ONE NEW REACTANT**

SECTION 3 (E)....**A SUBSTANCE OBTAINED BY A MERE ADMIXTURE RESULTING ONLY IN THE AGGREGATION OF THE PROPERTIES OF THE COMPONENTS THEREOF OR A PROCESS FOR PRODUCING SUCH SUBSTANCE**

SECTION 3 (F).... **THE MERE ARRANGEMENT OR RE-ARRANGEMENT OR DUPLICATION OF KNOWN DEVICES EACH FUNCTIONING INDEPENDENTLY OF ONE ANOTHER IN A KNOWN MANNER**



Similarly, the such methods just like say I saying thing I am repeating here, just read all those things just like it is been the section c of the Indian Patent Act, I now clearly explaining all those things here these are not patentable in India.

(Refer Slide Time: 29:47)

SECTION 3 (H) **A METHOD OF AGRICULTURE OR HORTICULTURE [DEVICE/SYSTEM IS PATENTABLE]**

SECTION 3 (I) **ANY PROCESS FOR THE MEDICINAL, SURGICAL, CURATIVE, PROPHYLACTIC DIAGNOSTIC, THERAPEUTIC OR OTHER TREATMENT OF HUMAN BEINGS OR ANY FOR A SIMILAR TREATMENT OF ANIMALS RENDER THEM FREE OF DISEASE OR TO INCREASE THEIR ECONOMIC VALUE OR THAT OF THEIR PRODUCTS [MEDICAL DEVICE OR SYSTEM IS PATENTABLE]**

SECTION 3 (J) **PLANTS AND ANIMALS IN WHOLE OR ANY PART THEREOF OTHER THAN MICROORGANISMS BUT INCLUDING SEEDS, VARIETIES AND SPECIES AND ESSENTIALLY BIOLOGICAL PROCESSES FOR PRODUCTION OR PROPAGATION OF PLANTS AND ANIMALS**

SECTION 3 (K) **A MATHEMATICAL OR BUSINESS METHOD OR A COMPUTER PROGRAMME PER SE (AS SUCH) OR ALGORITHMS; [COMPUTER PROGRAMME EMBEDDED IN A HARDWARE MAY BE PATENTED; CONSIDER A SYSTEM CLAIM]**


Similarly all those things I referred already and how it can be make patentable I already also explain that thing.

(Refer Slide Time: 29:54)

Invention not Patentable in USA & EP

✓USA
Abstract Idea, well established natural law, Art

✓EP
The following in particular shall not be regarded as inventions within the meaning of paragraph 1: (a) discoveries, scientific theories and mathematical methods; (b) aesthetic creations; (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; (d) presentations of information



So, now in respect of USA they told abstract idea well established natural law and art is not patentable. In EP they are telling that following are not discoveries scientific theories, mathematical method, aesthetic creations, schemes rules, method of performing mental act, playing games business and program presentation of information these are not patentable invention.

So we discussed now little bit horribly, what are not patentable in India? What are not patentable in USA? What are not patentable in EP? So, you can make a comparison what are the patentable in India, what are not patentable in USA, what are not patentable in EP. Somebody sometimes people tell anything and everything under the sun made by man is patentable in USA. So, accept abstract idea well established natural laws art and say used to something those are not patentable in USA.

So, we are finishing it here, with the discussion of criteria of patentability with reference to inventive steps and also what are not patentable subject matters in India, USA and EP. So, you try to compare those things in respect of India, USA and EP to get a holistic idea of patentable subject matters and what are the patentable criteria.

Thank you.