

IP Management and Technology Transfer
Prof. Gouri Gargate
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur

Lecture - 12
What is IPMS?

(Refer Slide Time: 00:25)



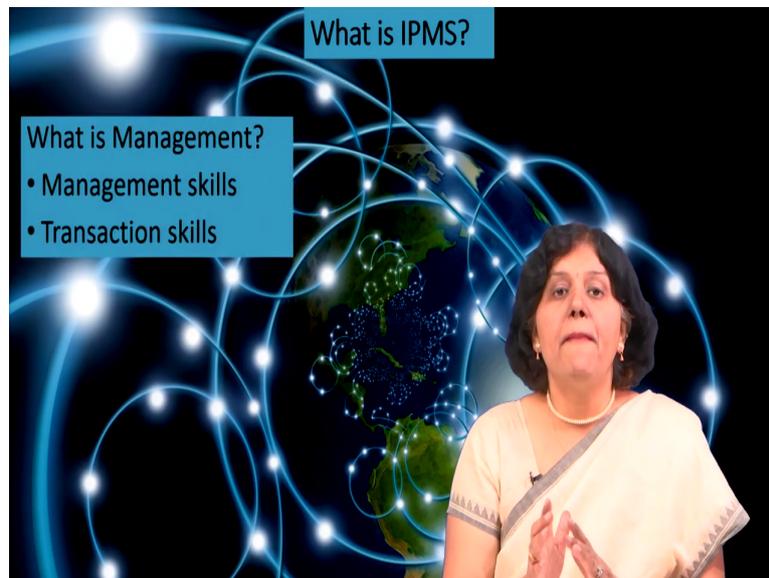
A very warm welcome in module 2 of week 3 of the course Intellectual Property Management and Technology Transfer titled what is IPMS? So, we know what is IP, we know what is IPM and now we are focusing on a IPMS. Now, when we talk about IP different types of IP coming to the mind and we know that there are 8 types of IP and week 2 we have dedicated for all these 8 types of IP.

We have quickly reviewed all these different types of intellectual properties and also, we have seen the jurisdiction wise differences between this IPs related legal system we can say maybe in USA how it works maybe in Europe, how it works and in India what is the system.

Because we know that when we say patent for maybe in US jurisdiction when you say the industrial design related thing you say that design patent is there, we call it as a industrial design registration. So, that difference we have focused in week 2, then in week 1 what we have covered is like to get the idea about what is IP, what is IPM and then we have also seen that is we are most of us probably are from a academic background in academic system.

So, we two sessions we dedicated to know what are the different types of intellectual property we as a in academic institute we are creating. And then now we have to manage that thing to create a wealth create wealth for from that different we can say it is a property and we have to use this property for a wealth creation. And now in this session we will focus on what is IPMS and then we are going into the details of different models of IPMS and then how IP policies helping. So, in coming sessions we will focus on that.

(Refer Slide Time: 02:26)



So, when we are talking about IPMS the things which are coming is like a intellectual property management system 4 words are there. Out of that 4 words we know what is IP. Now, if I want to focus on a management actually because we are the course title is also intellectual property management.

So, what we will do in this session we will try to understand little things or just brief understanding about the management and then we will see that what are the different components of a intellectual property management system.

So, when we are talking about a system what different components are there in that system we have to check. So, what is management actually? So, if I want to go into details of that we can say that there are management skills and there are a transaction skills. So, this you can just

check here that 2 skills we have written that management skill is there and then there is a transaction skills are there.

So, what are the management skills actually? When we are talking about a management skill just few things I can just mention. So, that you can get the idea that it is like a related to maybe policy statement in developing and protecting intellectual property we are focusing on intellectual property.

So, I will just say intellectual property, but you can apply it to any of the management field. But as we are focusing on intellectual property, we can say that management skills related to this IP will include a policy statement in developing and protecting intellectual property which is created in that organization or which is created in that or institution.

If you are academic institute academic institute, if you are a startup in the startup, if you are an industrial organization in that industrial organization whatever IP we are developing or protecting. Developing and protecting there is a difference we have to understand that.

So, many IP's probably before this attending that session or giving the focus on this IP probably you might not be knowing that this much IP, I am owning already it is there, but you could not able to gauge or you are not able to identify and this is IP I already own.

So, we can say that developing it is a constant process going on everywhere, identification of that and then the next step is a protection, protection of that protection decisions are very important. So, developing and protecting intellectual property which is created in that organization and then portfolio management. Now, portfolio management this word is very common when we say that ok wealth portfolio, I have this wealth portfolio and all that thing. And then you have mutual funds and you have maybe some share holdings are there some.

So, you are managing that thing and you say that this is a wealth portfolio. Now, here which portfolio we are talking about? We are talking about the intellectual property portfolio. So,

what it will include? It will include patent portfolio, it will include copyright related details of that, then it will include trademarks.

So, in short, all these types of IP's are there probably trade secret related whatever details are there that will be; obviously, secret, but all other different 7 types of IP's if you are producing then all this will be coming under this portfolio and management of that portfolio.

So, developing, protecting and management of that portfolio then valuation that ok, I have this portfolio, but what is the value of that if there is any we can attach some value to that actually. So, then IP valuation related details come the procedures and all that. So, that IP valuation, mapping and mining that is again very important.

Because it is like you have to relate it with a innovation management, knowledge management, R and D management, technology management and whenever all these activities are going on you have to map the activities and during that mapping you have to mine the IP. Mining of IP just probably I can just give example if your cryptocurrency related mining probably many of the you might be knowing that you are doing the mining and all that things.

So, here what mining is doing? That the mining of a intellectual property. Developing is there, identification that is like very important. So, the mining activity happened. So, mapping and mining and then economics of IP in an organization, auditing practices, its enforcement, ok. So, all these activities whatever we are talking are it is like a management. So, you are creating, you are developing, you are protecting, you are identifying, you are mining, you are mapping and then you are valuing that particular IP auditing.

So, that you will check that whether you are on a right track auditing here not financial audit, we are talking about a IP auditing. So, process and performance audit it is and then the economics of IP because definitely it is affecting the economy not of your organization if you say the IP, I will say that there is a direct connection of IP with the economy. It may be

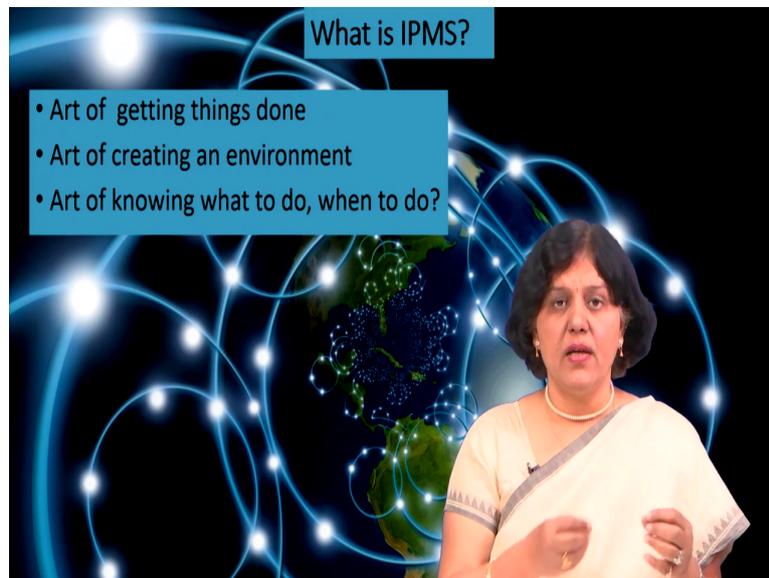
country economics, it may be organization economics, it may be individual economics, it may be startup related activities. So, there is a connection definitely.

So, do not get boggle up with all these things slowly when you go further you will understand that what is protecting, what is developing, what is mining, what is mapping and how it is related to wealth creation, what is auditing? So, next sessions you will get details about this particular words. So, that is all we will we can say that it is a management of a IP and then the next is like a transaction skill.

So, what is the transaction skill we are talking about? So, the methods, the procedures, the documentation, then the security related the procedures, negotiation, mediation all these kind of things which are there that is a transaction skill. Because we are now dealing with a technology transfer also.

So, obviously, we are doing negotiations, we are mediating all these things. So, all these skills are the transaction skills that is a technology is getting transferred from creator from one entity to another entity from one creator to somebody else who further may develop that particular the technology whatever receive, that is expected. So, this is what the management skills and a transaction skills are there.

(Refer Slide Time: 08:51)



Now, next like a if further if you want to understand about a management in general parlance we can say that it is a art of getting things done. Now, we got idea, ok these are the management skills, these are the transaction skills. Now, when as a IP management when a team is there and you are managing that team if you are a try to achieve the goal what exactly will happen? That you have to in a management it is a we say that it is a art of getting things done.

And obviously, the team building is there, team work is there and from that team everybody have a different skill and by using that skill we are creating that environment and we are achieving that particular goal whatever we have to or objective whatever is the we are achieving by management, ok.

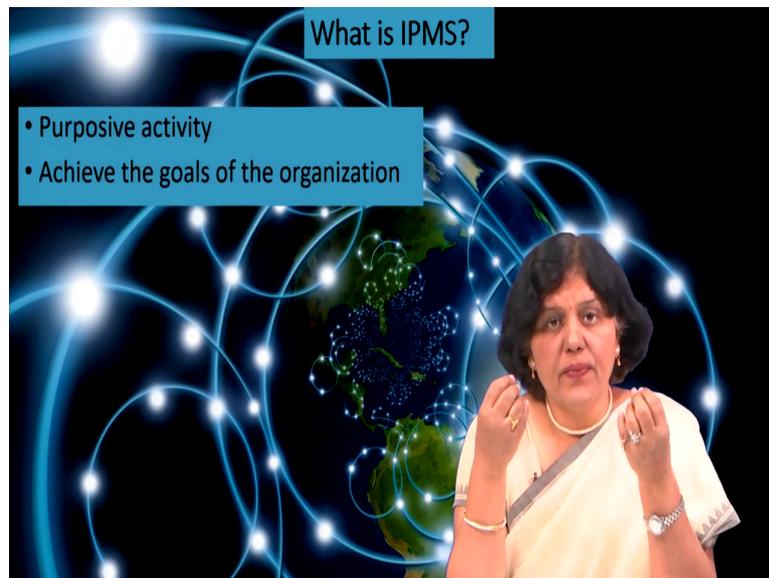
And according to you can say the Taylor F.W. Taylor according to him management is an art of knowing what to do, when to do and see that it is done in the best and a cheapest way? So, optimization whatever the common word we are using that is what is expected that when to do and what to do that is very important. It is a very crucial especially when you are taking a decision related to protection.

Because in patenting I can just give you give you the example probably you might have faced such kind of a situation that if you will not do the protection, IP filing patent filing in time in time means like a when to do is very important. That provisional arrangement is there, that why this arrangement is there? Because that timing is very important actually, because once the somebody files that application anywhere in the world, what will happen? The priority will be given to that particular inventor, that particular applicant, right.

So, when to do is a very important and what to do? So, these are the two things and how we have to do it in a best and a cheapest way because budget is budget management is again very important. And yes, we can say that when you start your IP management again just listen this carefully because at the starting time when you are talking about IP management fund flow is very important it is like a it becomes a cost kind of activity, it requires a budget.

Because unless until you invest in that protection you cannot reap the benefits of that particular IP and that will come after some time. So, definitely that best way and cheapest way is a very important when we are talking about a intellectual property management.

(Refer Slide Time: 11:42)



Now, this management we can just further add into that it is a purposive activity actually and we have to attain that particular we can say the certain we can say the determined goal we have to achieve that particular goal and we have to do it in a effective manner. And whatever resources are available within that resources with that resources only we have to handle the particular activity.

So, we cannot as a manager as a IP management person we have to we cannot say that we do not have this, we do not have this, we do not have this ok, you have different tools, you have different systems, you have different we can say the you can say the you can create your own we can say the tools and all that based on maybe probably this course may help you, that you can create your own databases, you will create your own maybe algorithms, you may create your own system obviously, by going through this particular sessions.

And by that using this particular we can say the processes methods and tools you will able to manage the IP creation and protection and obviously, the commercialization that is expected.

(Refer Slide Time: 13:00)



Now, when we are talking about this management, we can say that it is a conceiving, it is a initiating or bringing together the various elements. Because suppose if I taking sample of your academic institute simple that creators or faculty members, student, students then maybe staff they are like a stakeholder, they are creator of IP.

Now, the they are creating the IP, but probably they may not know what is IP and how to protect that. So, if you are in IP cell of the institute we have to contact as IP cell member we have to communicate with the faculty, we have to communicate with the staff, we have to give the helping hand we can say for the protection of their creation.

So, it is like a conceiving and then initiating and bringing together the various elements then coordinating, activating all these words are very important actually when we are doing the management. Integrating the diverse organization components while sustaining, we can say the viability of the organization that is very important.

When IP cell person many times what happens that you may get irritated as a IP cell personnel that irritated in the sense because I am sharing my experience. Because what happens I can tell you that if you go and somebody start say about intellectual property who probably do not know anything about IP, he may face a difficulty in accepting and imbibing that concept. Many times, people are like having that approach that they do not want to do the protection and all that.

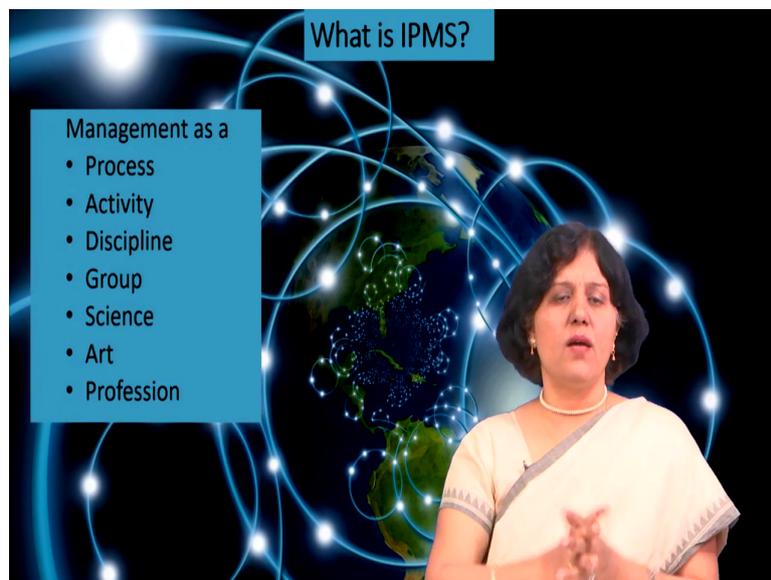
So, that convincing is very important actually. And that takes a little time you can say. So, we have to keep a patience if you are a IP cell person you have to keep a patience and then once you get kind of give some time, gives a the details about the activity, give the details that what are the benefits of that or advantages of this IP protection and then probably it will be easier for that creator to accept and maybe cooperate with you for the IP filing. So, that is like a very important actually, ok.

So, that conceiving then and then for conceiving and then initiating and bringing together component I will suggest you to go through a very classic case of a restriction endonuclease patent filing by Stanford University and Niels he was a technology officer. And he has we can say the done the great job we can say that the filing of that particular patent and I can just tell you that single patent then become a giant, they have created the startup and then genetic came and then the from that one patent that genetic started.

And it there was almost 11,000 plus patents this genetic created and then now later Roche acquired that genetic. That is a very classic example and you will appreciate whatever we are saying here you will appreciate when you go through this particular case study.

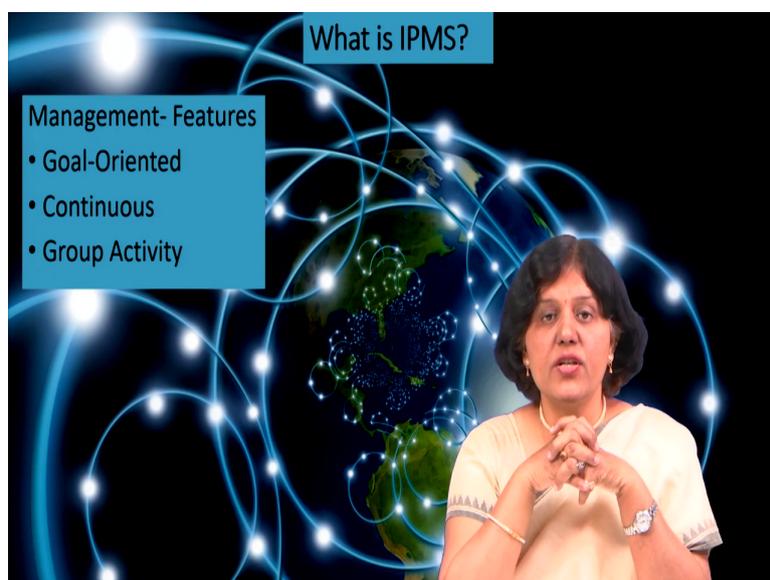
We have recorded this case study actually one of the course I guess it is in the roadmap for patent creation or entrepreneurship you have to check, but that case study is there probably that will help you to appreciate that conceiving and then coordinating and actuating the fantastic or classic example is a Niels example he is a technology officer of Stanford University.

(Refer Slide Time: 16:30)



So, let us move further and just few words I can say about a management you can just see here. That it is a process it is a activity, it is a discipline, it is a group it is a science, it is art, it is like a profession. So, whatever angle you are taking that management it is a perspective; obviously, and definitely that perspective is like it may be art, it may be science and you have to depending on the situation that perspective changes actually.

(Refer Slide Time: 17:07)

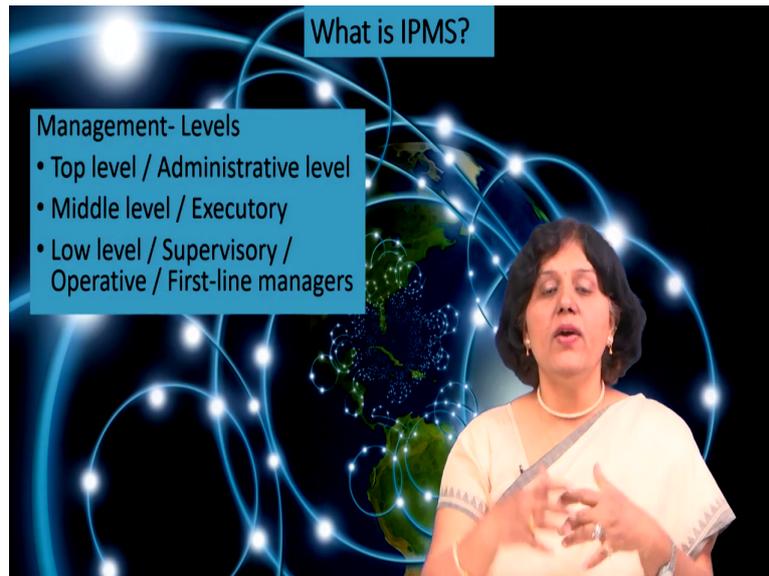


Now, moving further we can say that if I want to just list the features of the management you can just check here that it is a goal oriented, then it integrates human physical and financial resources because if I want to relate it with the IP management you can just say you somebody is creating that then obviously, the finance department account department is helping for the protection of that particular budget sanctioning and all, ok.

So, it is like a integrating of this particular resources actually, then it is a continuous process. Once you are developing that IP portfolio once you start developing that thing or suppose you are starting after this session you decided ok, we are starting our IPR sale and we will focus on IP management it will be continuous. Until the organization is there IP management will be the (Refer Time: 17:54) indispensable part I will say of the organization, ok.

So, that management is continuous and it is like a you can say it is a group activity, single person cannot do that particular thing obviously, it is coordination and a group activity is a it is like a very integral part of a IP management.

(Refer Slide Time: 18:14)



Now, when we are dealing with a management there are if I want to put it you can just check here that it may be top level, it may be middle level or a low level. So, you can say that broadly we can classify it into the three levels actually. And if I want to keep these three levels in the diagrammatic way you can just check here that administration and management.

(Refer Slide Time: 18:37)

The slide contains a diagram illustrating the relationship between Administration and Management across three levels. A diagonal line runs from the bottom-left to the top-right. The area above the line is labeled 'Administration' and the area below is labeled 'Management'. To the right of the diagram, three levels are listed: 'Top Level' at the top, 'Middle Level' in the center, and 'Lower Level' at the bottom. The slide also includes a woman in a white sari in the bottom right corner.

So, and if you see here very carefully you can say that administration it is like a top level then management and administration equally, we can say in the middle level and management it is like a low level. What it indicates actually what it depicts this particular presentation?

It says that management when we are doing that management is like getting things done execution is very important actually. And when you are doing this execution actually you are dealing with, we can say that the very micro details you are dealing with because you have to actually implement that particular decisions of the administration.

So, top level you can just see here that there is a administration and administration is like a you can if I want to put it I can say that IP strategy part will come more in the administration and IP management is coming in the part under the management. So, strategizing is like a it is

a blueprint that ok, next 5 years or next 10 years where my company, where my startup, where my academic institute will stand considering the IP management.

So, that is a strategizing that what steps I will take further to achieve that particular goal that after 10 years or after 5 years I want to see I see the organization to be here then I will create the blueprint for that particular thing and that is the administration talk. And when I want to administration has decided that blueprint and now, I have to achieve this in that given time I will have to have implemented and management rule comes into that.

So, micro level we can say the arrangement or resource planning or we can say the actual the micro details of all activities will be taken care by the management. And that is a task when we can say it is like a low level or middle level and I am just comparing it is as a administration and management.

I am not comparing like a management is low level and all that just I am comparing here administration and management. And I guess this is a classic representation to get the difference between IP strategy and IP management because these are the two very different subjects.

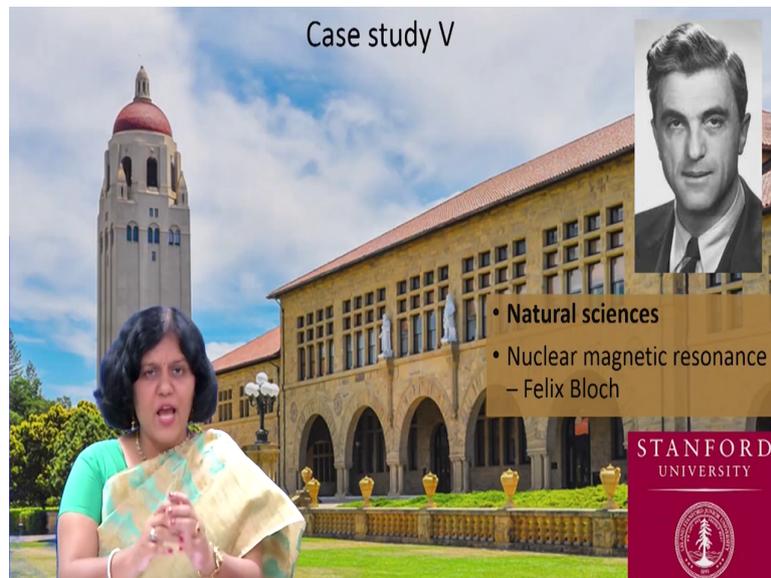
When we are talking about strategy, we are probably we have to we if you see these two words actually strategy and management, in strategy we are thinking of future mode, in management we are focusing on the current day to day activities to achieve that particular thing. So, that is very important, ok.

So, I guess you can understand the difference. So, now we are talking about IP management and technology transfer. So, we will see that ok, what is the process, what is the method, what are the tools so that I can achieve my daily whatever activities are there very carefully so that the strategy whatever is decided by the company and we know that IP strategy is depending on a business strategy.

So, to achieve that how I as a manager, how as a my management person, how I can achieve that particular thing, ok. So, that is what the administration and the management actually,

fine. Now, I feel that we should we should take a break here and we can watch a video here and then we will move further into the few more details about the management.

(Refer Slide Time: 22:04)



This is like a few examples of very great contribution from the Stanford University. Now, we will move further and we will see the entrepreneurial related contributions by this university.

(Refer Slide Time: 22:18)



So, if we see the companies which have founded by that Stanford alumni, if we see the revenue which is generated and that revenue it is a more than just listen carefully it is more than 2.7 trillion dollars in annual revenue that we are talking about and which is we can say if we want to compare it is equivalent to 10th largest economy in the world. That is a kind of scenario, single university and this is the outcome.

(Refer Slide Time: 22:55)



(Refer Slide Time: 23:09)



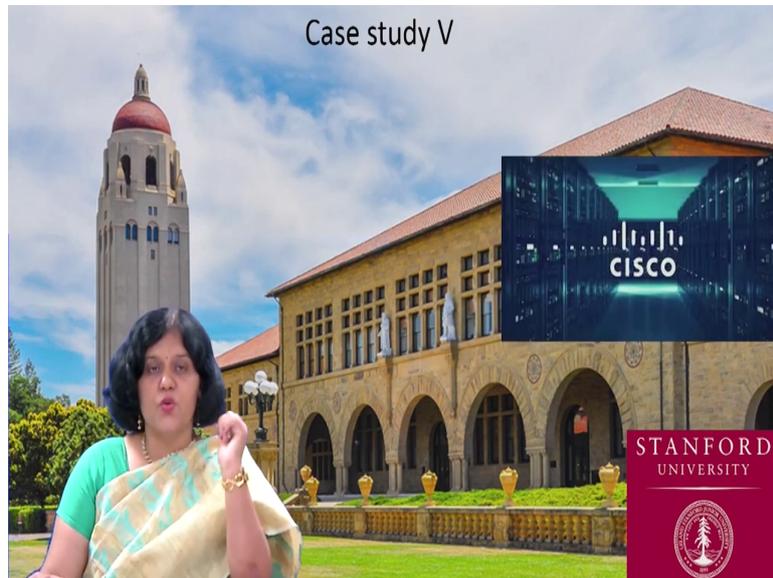
Now, if we see the few examples and here is the example you see, that HP when we are talking about this HP you are very well aware about this company it is started here 1939 and co-founders are the alumni of this particular institute. Next is like a silicon graphics. If we see the silicon graphics example it is an outcome of this university.

(Refer Slide Time: 23:24)



Next you see the sun microsystem yes you know who is a founder for it? Vinod Khosla is a founder for this and the he has along with his colleagues he has started this sun microsystem.

(Refer Slide Time: 23:40)



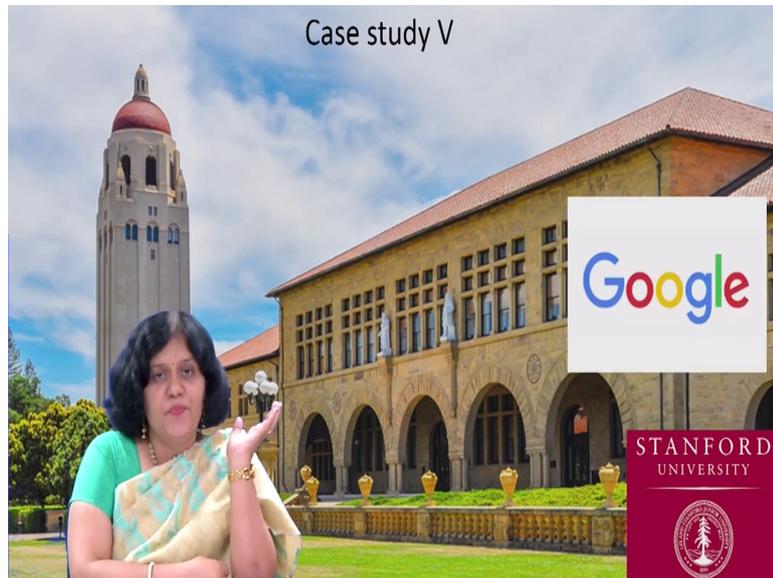
Now, the next example is a Cisco. Now, if you see the Cisco example founder is from this university, he is a Leonardo and along with his co-founders he has started this company.

(Refer Slide Time: 23:57)



The next example here you can see is a Yahoo and it is in 1994 started in this campus and inventories who is inventor? Jerry, yeah. So, co-founders are Jerry and David these are the co-founders.

(Refer Slide Time: 24:15)



Another example next example Google, ok. So, Larry Page and Brin when they were doing PhD 1998, they have started this organization and this is from Stanford University.

(Refer Slide Time: 24:29)



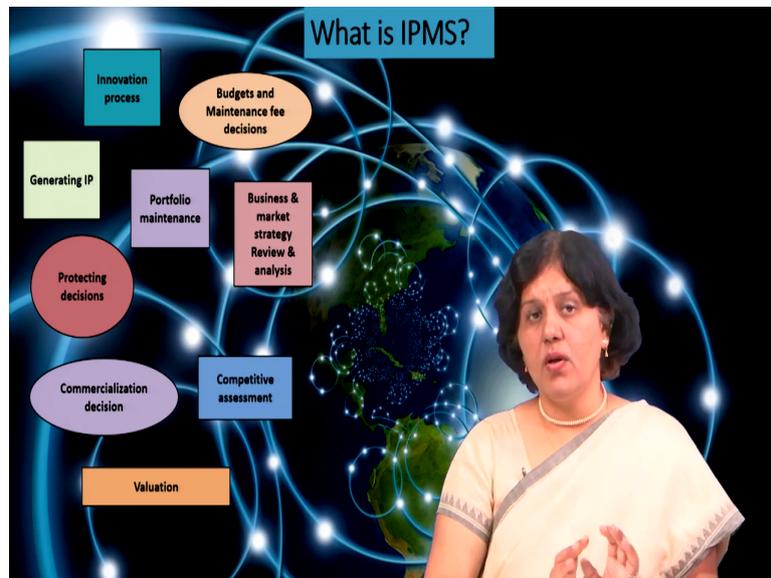
So, I hope you enjoyed the video. And what exactly the management is if I want to say that I am doing the IP management, my goal will be getting maximum results with a minimum efforts actually. I have to increase the efficiency; obviously, then I have to give the maximum we can say the prosperity to employer as well as employee.

So, that is like a we have to remember that with the activities of that IP management employer and employee both the ends we can say should flourish should get they get the prosperity and then the obviously, the social angle is definitely there that when you are doing all these activities; obviously, we are expecting human betterment and the social justice which is the we can say the default in IP system.

And when we see the rational of IP system, we have seen it in one of the sessions earlier when we see how this is the history of IP system and why this system is evolved, you can just

say that yes, human welfare and social justice or social welfare is a very very important when we are talking about IP management, ok.

(Refer Slide Time: 25:56)



So, further if now we want to focus on the IP management and the different components actually. Because we understood what is management, what is administration, what are the different motives or a goals or a what are the features everything we know now. Now, we will focus on that ok, if I want to do IP management what are the different components are there?

So, you can just check here that there is a first important thing is a generation of IP. I will just say here that already probability is a very high that already there is IP generation step is already automatically happening, identification is very important. We have we have to when we say in the earlier, we can say we have started and we say that mining and mapping.

So, that mining and mapping is very important part actually. So, that it will go into the one of the other component is a portfolio development. So, when you do generation of IP, you do mapping and mining and you are taking the protection decisions about that particular IP. Now, I do not want to get go into more details now.

Because protection details the one word looks very simple, but if big organization is there say for example, 3 lakh plus employees are there you just imagine the creativity because such a huge intellectual capital is there, so much creativity will be there and so much IP invention disclosures will be there. And at that time, it becomes a challenge which to choose and which to reject and that time that protect protection decisions are very we can say that challenging task for the IP management.

So, the team which is working they have to create a different parameters to choose which is which you have to. Because again the decision is important. It is like a if you miss the decision if you take a you just say that suppose this x IP is not important according to your parameters and if she have rejected that the possibilities like that it may happen if the activity is not done very carefully sometimes.

And there are examples of that. That sometimes this IP goes into with the public and company faces or a startup or individual may face a losses. Because that particular IP has created a huge, we can say the product portfolio further based on that particular technology. And if we do not identify that particular thing very carefully then we may have a we may face a losses.

So, that protection decision is very important. Generation IP, protection decisions, portfolio development. Portfolio development again I just give the one liner here because again that is a big topic that which IP we have to keep? Because when maintaining IP comes again, we have to give the maintenance fee.

So, which IP we have to hold, protect, maintain that decision is again very important. Because when Dow chemical done the IP audit activity first time in 1994, they have decided that ok,

this x number of IP did not require the protection. Because they are not losing that thing and they have saved so many we can say the value women's they have saved the money which is going for the protection. So, that decision is again the very important next is like a valuation.

So, valuation intermittent internal evaluation of the portfolio is very important. Because that will give us idea that how my IP is performing, what is the value, what are the asset I have and that internal valuation if you do probably you can wait your portfolio that particular IP whatever is their IP you can wait that IP. Ok, this IP is very important for me, this may be I can have it, but maybe I can use it for cross-licensing some decisions are there.

So, that valuation that is one I can say example I have shared, but there are very different we can say the benefits of valuing and knowing the value of that particular asset, ok. Then you can say that there is a competitive intelligence or competitive analysis is there. Now when we are talking about that competitive analysis like ok, I am doing my work of creating and protecting IP.

But definitely I have to keep watch on the market. That ok, what my competitor is doing, what is his offering in the market, whether his offering is affecting my IP, whether it is affecting my services or products? So, that and that we have to do in advance, it is not like after coming market into the product and definitely this is done by patent analytics. So, that particular competitive intelligence and competitive analysis, that database or that related analysis detail study obviously, it will come under the IP management.

Then again budget is a very important that how you are managing your finances related to IP. Because every IP filing it is like a you can say that it is a particular budget you have to allow to that again if it is a PCT the budget will increase. So, it is a national phase filing or if it is a PCT filing or if it is a international phase of patent or if it is a trademark or following Madrid protocol or not.

So, these words you will come to know later in the course. But this decisions like a budget allocation again that management is again important. So, I have just given you the few

glimpses of the different components of the IP related that management. So, when we say IPMS actually all these components are there.

And now you have to relate that components you have to use this components very carefully to develop your IPMS very strong actually. And again, we have to remember it is a dynamic in nature, it is not like a once I have decided this in this way it will be like lifelong it will go in this way, no. We always say that it is a very dynamic and it will keep on changing and it is always the fact.

Because there are so many external and internal factors are there that affect the management decision, but these components will be there definitely, but the weightage of that component and the focus of that component may change actually eventually. So, we have to remember that when you are talking about a IPMS Intellectual Property Management System we know IP different types of that and we are talking about that 8 types of IP's and we are very clear that we are focusing on that 8 types only then we are managing it.

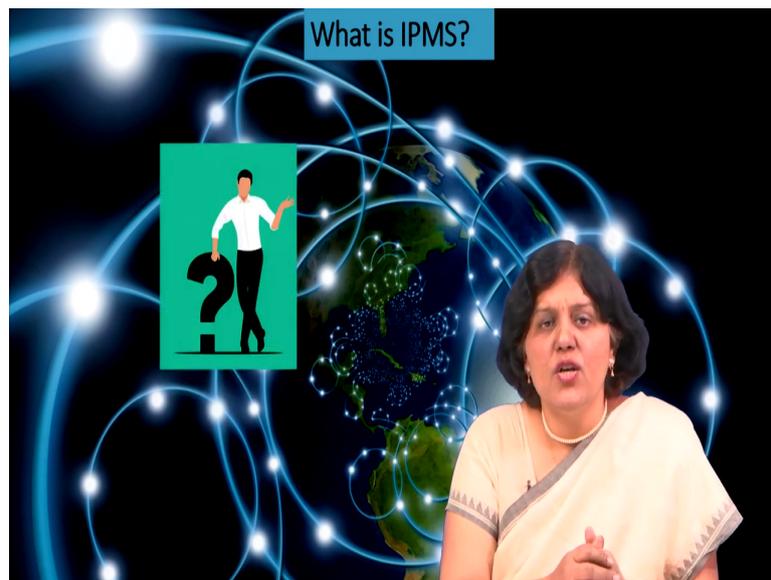
So, we know the management, what is management? We know the difference now between management and strategy, we know the difference between management and administration and then we know the what is exactly the IP management related components we have just seen that thing.

And then now when we say what is IPMS? This is the component and when you use this components by using this components we are creating the system and by using that system you are efficiently managing the intellectual creation of your organization or your startup of or maybe as a individual to create the good portfolio which will obviously, give you the financial returns.

That is expected IP is not like a we have to remember always very clear. IP is for a wealth creation it is not like for a bio data creation some benefits obviously, are there. If it goes into bio data, but we have to commercialize that thing. So, IP commercialization is a very very important integral part of that IP system.

So, enforcement decision, commercialization these are the different components of IP management, ok. So, this is we can say that this this is just take as a primer for that IP MS and we are going into details of the this IP management system also we are sharing with you the IP management system some case studies. So, that we can easily develop that system, ok.

(Refer Slide Time: 34:14)



So, I guess with this we are coming to the end of the session, but before a quiz time actually. So, what I suggest you as a two activities I will suggest you. First activity is that wherever you are now associated with I will just in request you to identify 5 components which are followed related to IP management in your institute.

If you are academic institute there as a starter you check that, if you are individual, you just check that whether you are having something that any component related to IP management

just check that, ok. And just write down that 5 components related to that IP management and you write down in the comment box ok, that is the first activity.

Second activity what I will suggest to that just try to study understand that how exactly the IP management or IP creation activity is done in your organization for your understanding, maybe in a little detail that ok, these are the processes and these are the methods and then how it is going on who is doing that activity, in my organization who is taking care of that particular thing?.

So, just try to identify that. So, probably that will help you if you are doing project activities suppose you are a student you will know that ok, where I to contact for my IP protection, ok. So, in the comment box you are writing the 5 components which are there in whatever organization you are working, which are the 5 components of IP management system are followed there, ok.

(Refer Slide Time: 35:48)

What is IPMS?

References :

- <https://www.wipo.int/portal/en/>
- <http://www.ipindia.nic.in/>
- <https://www.google.com/>

The slide features a woman in a white sari on the right side. The background is a dark blue globe with glowing blue lines representing connections. Logos for NPTEL, Swayam, and a tree are visible on the left side.

So, with this we are coming to the end of the session.

Thank you.