Patent Search For Engineers and Lawyers
PFrof. M. Padmavati
Rajiv Gandhi School of Intellectual Property Law
Indian Institute of Technology, Kharagpur

Lecture - 06
How to read a patent document- Patent Anatomy

Today we will deal with the aspect of how to understand patent documents, the aspect of what we call Patent Anatomy.

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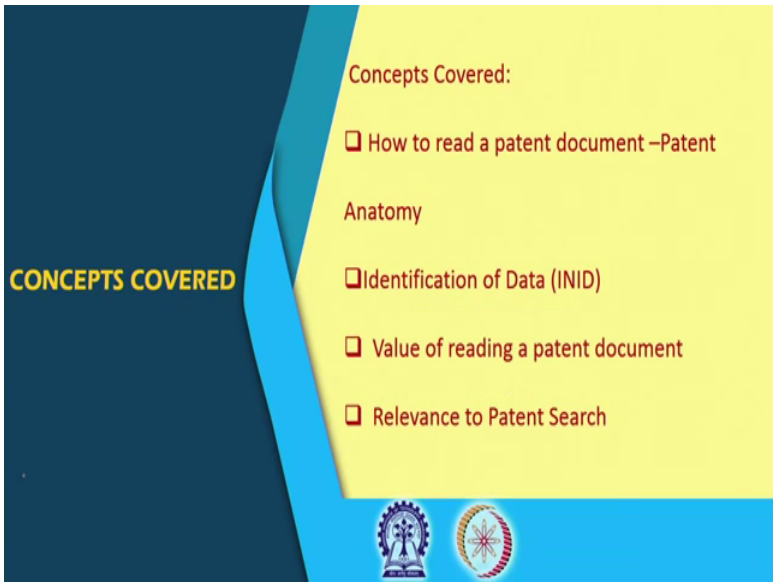

In this we will be covering different aspects of; one is how to read a patent document that is how to understand different parts of the patent document, in short what we call patent anatomy. The other aspect that we will be looking at is in terms of how patent are actually identified in terms of the specific categories and what which is what is called the INID codes. We will also understand in this lecture the value of reading patent documents and its relevance to patent search.

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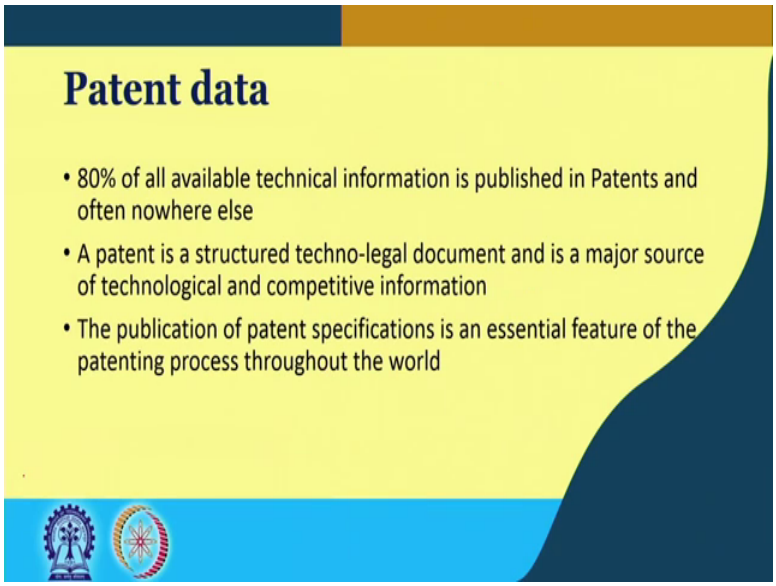

It is to be noted that patent data is one of the very important aspect of search, worldwide to access technical information; in fact, 80 percent of the available technical information is published in patents. Patents are structured techno-legal documents and therefore, form a major source of information for those who are working in the area of research and development. It is also to be understood that the publication of patents throughout the world essentially is the feature where we look at the access to documents at different databases.

Going on let us understand the different aspects of the patent document.

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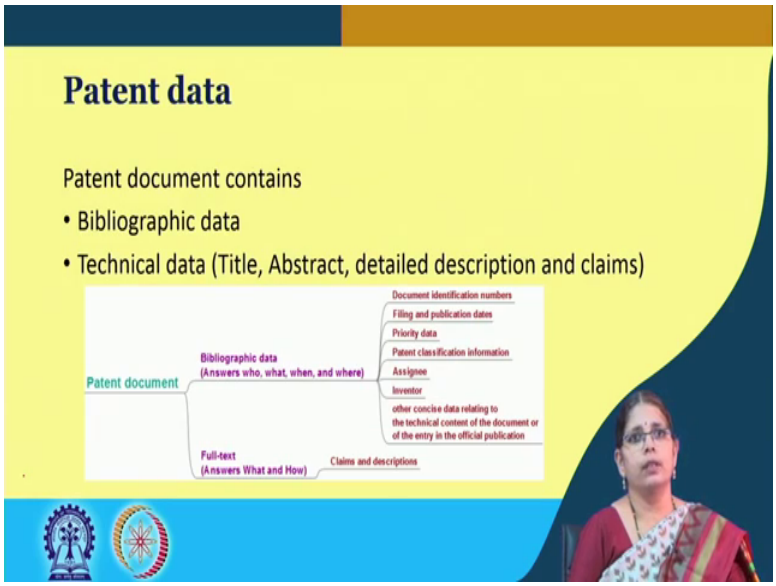

Every patent document essentially has two different types of data that are captured; one is the bibliographic data the other is the technical data. Now the bibliographic data is essentially the basic data in relation to the application, dates, who is the inventor, who is the applicant; whereas, the technical data in relation to the patent is essentially about the invention and the details of the invention. So, let us go on further to understand what are these data, that is actually captured in the patent document.

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Bibliographic data is one of the very important data in relation to patents. How does it help us understand more about the document; one is it tells us what is the type of document, what is the status of document, when was this patent application filed, is this patent application seeking priority with respect to another application based on convention mode. It also tells us when was this patent published, it also provides information on where is the international filing of this particular patent.

To that extent it also tells us, which is the country in which it is filed, it also provides us the basic information in relation to inventors and assignees not only that; it also provides us patent office information in relation to the prosecution of that particular application. For instance it also tells us the citations given by the examiner. So, it is possible that the examiner has identified certain documents which are relevant to this particular patent application and so, that also may be referred, which is referred to as examiner citations.

The cover page of a patent is a searchable category. So, therefore, the cover page of the patent is an important page for the purpose of search. So, therefore, the patent document also gives us the information relation to abstract and also the classification system. Moving on we will understand the different aspects of what is captured in the abstract, what are the different ways in which patents are classified.

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The other component of a patent data is the technical data, which is essentially the data in relation to the invention. So, the technical data begins with the title of the invention

which usually is in a phrase, not more than let us say 10 words. It also provides us the other data, is the field of the invention which tells us the broader area to which the invention belongs to. The third category is the background of the invention; now the background of the invention is an important area for researchers, for people who are searching to understand the relevance of the prior art in relation to the invention.

Often the background can be written in two different styles; one in which we it is written as their the sighted documents referred to as either patents or non-patent literature, which talk about the problems that have been solved in the prior art and how this invention is different from the existing prior art, which is the background of the invention. So, it is essential sometimes to understand the backdrop of where the development has begun with respect to the invention. So, therefore, this category is also very important.

The next category is the summary of the invention. Now, summary of the invention is what we call a mirror image of the claims of a patent, so which means that the summary of the invention captures the essential features of an invention. The next important category or the data that is captured is what we call the description of the invention. So, we have two different types of description of the invention; one is what we call the drawings the other is what we call the embodiments. One must understand that inventions are categorized into two different types based on the arts; one is called the predictable arts and the other is called the unpredictable arts.

The predictable arts are the areas where the inventions can be an researched in an illustrative mode, so the mechanical inventions, electrical inventions belonging to this particular category. Now, the unpredictable arts are the area is where the inventions belong to are from the pharmaceutical area and the biotechnology area, where a whole lot of factors are important for the implementation of the invention. For instance we are looking at pH, we are looking at pressure ranges, we are looking at an entire whole lot of factors which are involved with respect to the working of the invention.

Now, given the gamut of the different types of arts which is on one hand we have predictable arts, we have the unpredictable arts. The description would vary with respect to each of these areas, as mandated by the manual of patent practice with respect to the each of the patent offices. So, the detailed description essentially has the drawings on one hand and it also has the embodiments. Now, in the drawings especially if you look at the

mechanical area, at least one drawing must be filed in order to secure a priority date or a filing date; rather, which means drawing forms an essential part of the filing of the mechanical inventions.

Similarly if you are looking at an invention which is claiming a pharmaceutical compound, often you would have a structure of the chemical compound being shown. So, the type of drawings with respect to patents also vary; most often when we talk about drawings, we talk about the need for presenting what we call the isometric view of the invention. So, if you remember earlier in the talk we mentioned about the cover page and the importance of it in search.

Now, the examiner of a particular patent may decide that the best feature of an invention is may be shown by the cross sectional view of the invention; in which case the examiner may amend the cover page to include that particular drawing. So, therefore, drawings are also important to understand different features of the invention. And drawings are referenced to with respect to the description, which means the total number of drawings the way they are numbered must be tallied with the description of the invention.

Now, the detailed description of the invention is very important to understand the various embodiments. Simply speaking the working of the invention is shown in the embodiments. No matter what the invention claimed and how well the claims are written; it is imperative that the embodiments must be written in a proper context which means, the enablement or the operating part of the invention is what is given in the embodiments. So, often when we read claims and we are looking at the description, we look at the enabling feature of claims to be present in the embodiment.

So, detail description is one important aspect of the part of the patent data which is worth actually looking for in terms of the working of the invention. Usually the claims are placed at the end of the patent document, which actually define what we call the boundary of the right. So, the patent right is essentially coming from the claims. So, claims are an important part of the document.

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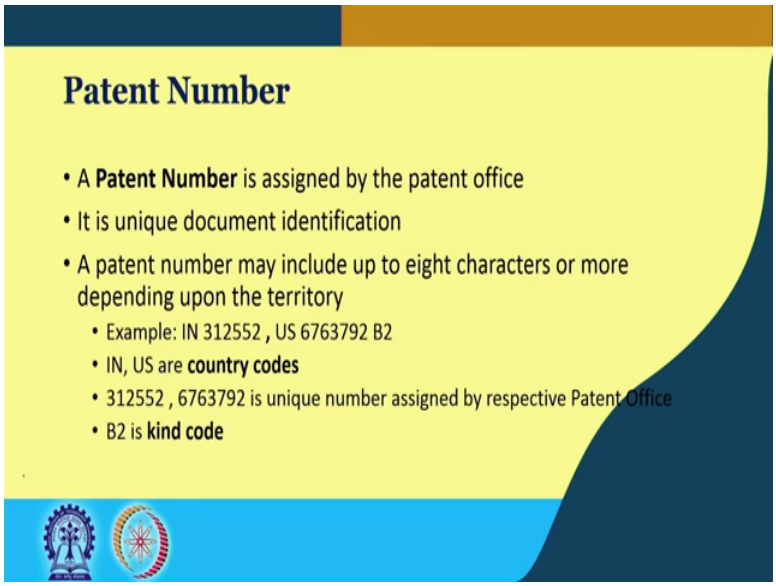

Patents are searched for various purposes; one different aspect of patents which is important to note is what we call the patent number. So, understanding the details of the patent number is important and often you would find this on the right on the top of the cover page of the patent, which we will be saying further from a illustration. So, patent numbers are assigned by the patent office and they represent what we call the unique documentation identification; not only that the number itself gives us further information, one it tells us from which country the patent belongs to.

For instance IN means India, CN means China, EP means the European Union a patent at the EPC, US means the filing in the country code which is in the United States. Besides that you also have a unique number which is given by the respective patent office. Other types of letters that we find in a patent number is what we call the kind codes. And kind codes come by way of international classification different kind codes represent the different status of a particular patent application. As we move on we will understand more about these types of these different codes as well.

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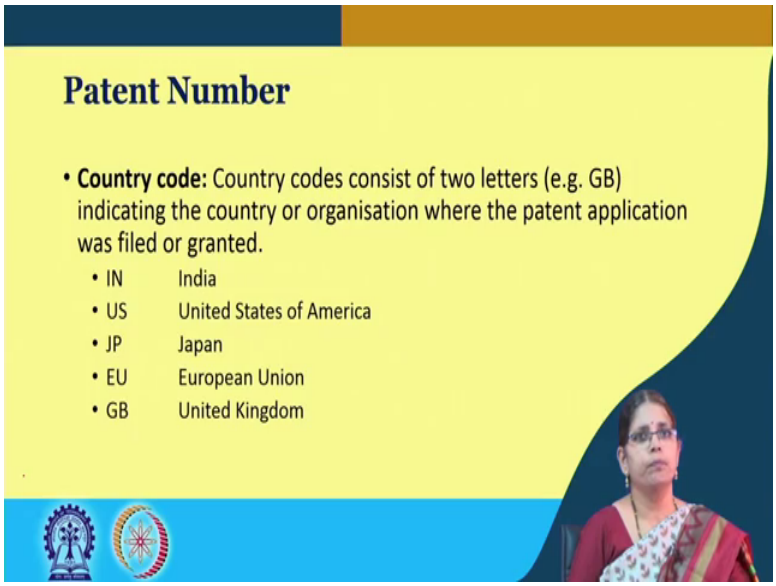

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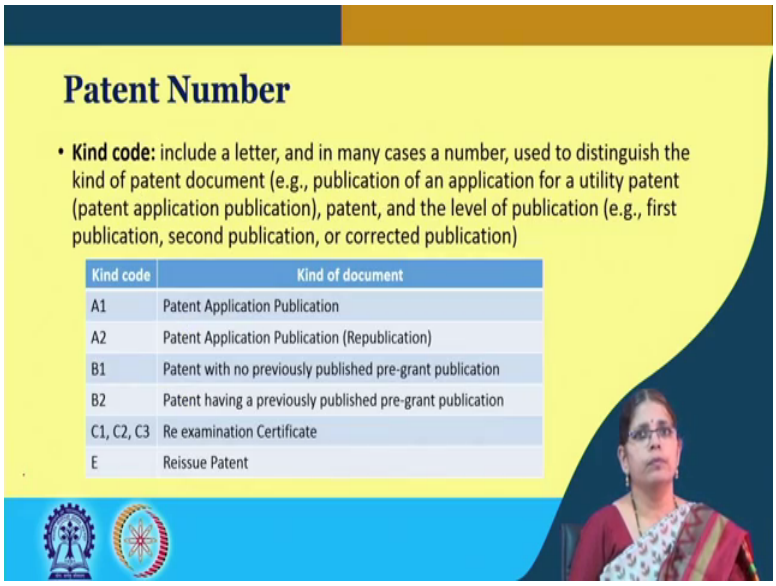

So, kind codes essentially are a mix of a number and a letter and often they tell us the status of the particular patent document whether it is published, whether it is reexamined, whether there has been a second publication of a particular document or was it a corrected document. So, accordingly you have different kind codes; for instance you have A 1 which is a case where the patent application is there for the first time published.

Now, A 2 represents a publication which is a republication, similarly you have different codes, often you also have these numbers called D numbers which essentially you give it

is which is given for designs. So, kind codes also tell us what we the patent status of a particular document.

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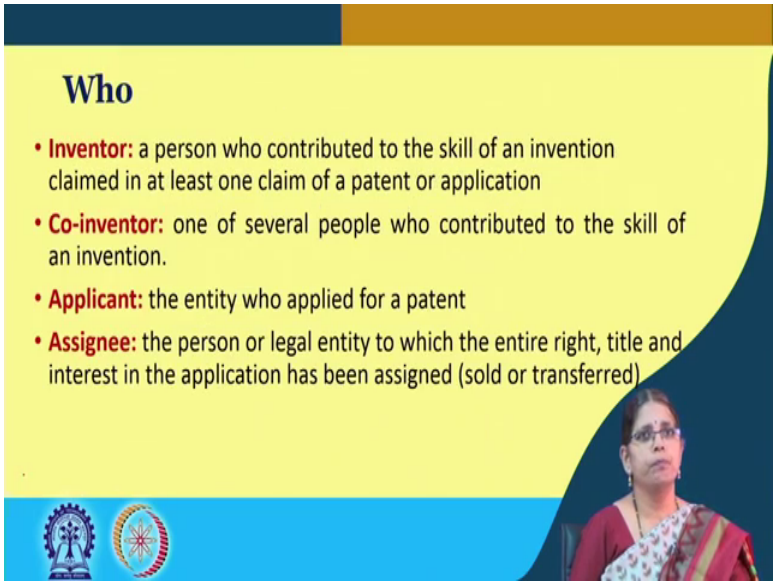

The other important information that we get from the patent document is, who are the people who were involved with this invention? So, inventors are important with respect to patents. Now who is an inventor? Is a one who is contributed to the skill of the invention, so you may have one inventor, you may have many inventors. Normally Co-inventors are what we call as joint inventors are the several people who could have contributed to the invention.

And the threshold of this is; obviously, a joint inventor is one who has significantly contributed to the skill of the invention. Many a time you would find information relation to an applicant, that is who is the entity who has applied for a patent, was it a company, was it an institution. So, the other information that you get is in relation to an assignee, which is it could be as a company or an institution or even a legal in entity or who has interest in that particular patent application.

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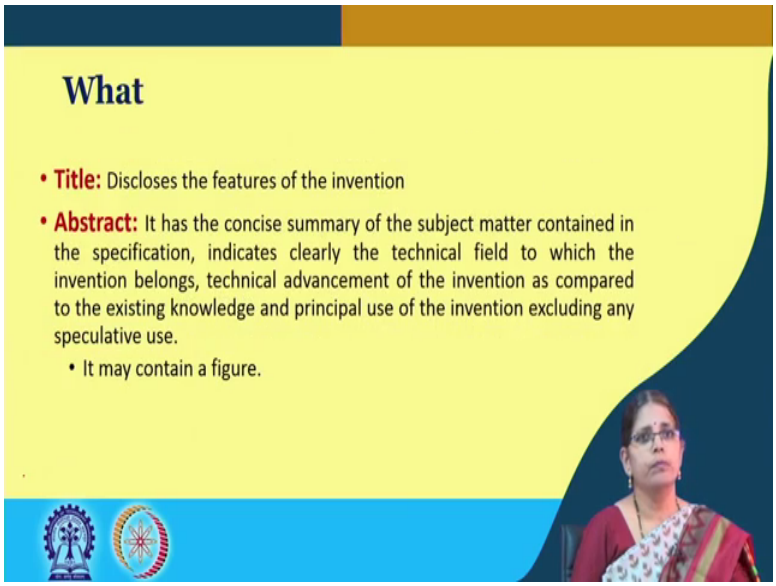

So, essentially when it comes to patents, the basic information that we usually search for is the title and the abstract. It tells us generally, what is this invention and what are the important features of this invention. So, when we talk about abstract; abstract is an important category for search. What does the abstract have; the abstract is essentially a summary of the subject matter that is claimed in an invention.

For instance, if it is a digital pen that is claimed, the features in the abstract would be about that it is a digital pen, what are the components of the digital pen, how these represent a technical advancement and at least one operable feature of the invention is usually presented in the abstract. The abstract may also contain a figure, as we discussed earlier in relation to mechanical arts and electrical arts.

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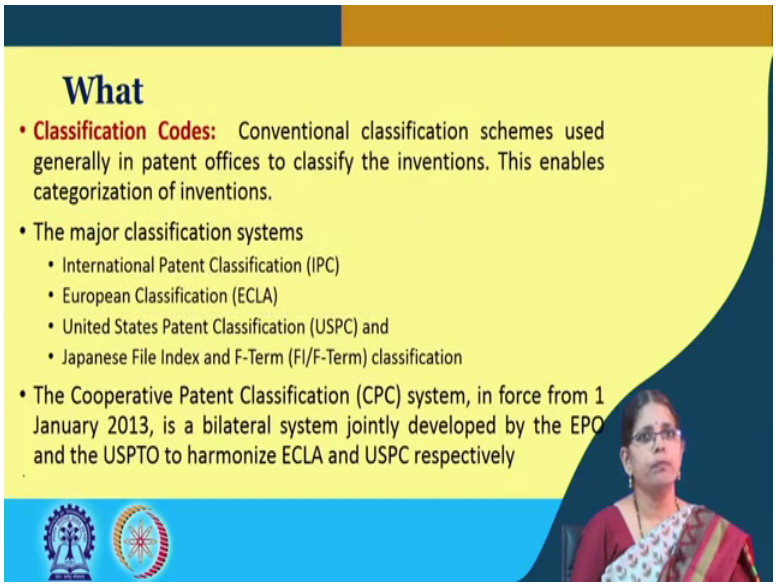

One of the important developments that has happened worldwide in relation to patents is what we call classification codes. Today we have many patent offices worldwide and patents are DOC are classified as per their country codes and also as per the international patent classification. So, the classification of patent documents as per classification codes helps enable the retrieval of information in a very uniform way.

The major classification systems that are available worldwide are the IPC which is the international patent classification, the European classification which is the ECLA in short, USPC which is the United States patent classification code and in the case of Japan you have F 1 F term classification. More recently in 2013 there was a joint development of what we call the cooperative patent classification system, which brought in the ECLA and the USPC into one harmonized category. Today most patent offices are also used are beginning to use this cooperative patent classification system.

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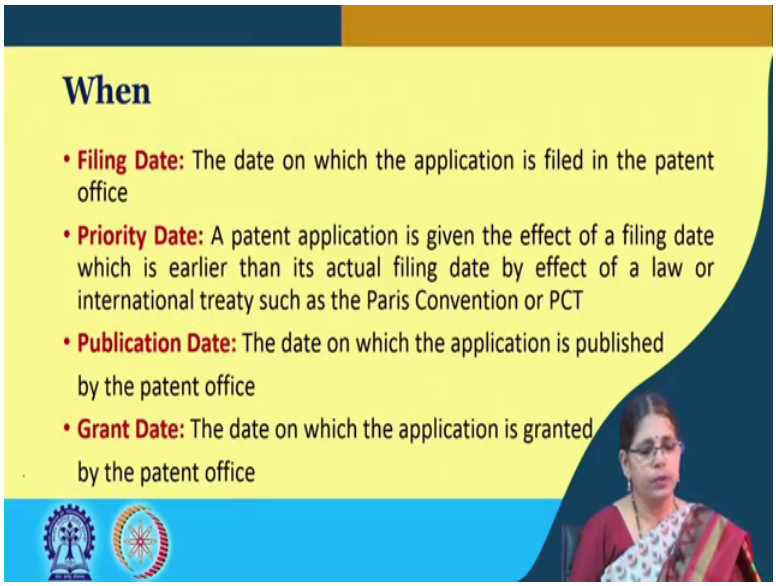

One of the important aspects of a patent document is the date; and why is it important let us realize through this particular aspect of understanding the different types of date a patent document may have. One is what we call the filing date; that is the date on which an application was filed at a particular patent office. The other date is what we call the priority date we use the word priority date whenever we talk about a convention mode or a PCT mode which is if you look at it from the point of view of Paris convention or PCT.

Once you file in a particular country 12 months' time is available for us to go and file in another country without losing what we call the priority; which means that the invention will be treated in the same way as on date as the earlier application. So, what does it mean, it preserves the what we call the novelty of the invention. So, priority date is an important date when it comes to patent applications. So, I may file today in India within 6 months if I file let us say in US I am preserving what we call the date of the application; that means, in the US that application will be treated as in the same way as it has been treated in India, that is on the same date. So, priority date is important.

The next one is what we call the publication date; often you would find published on, so you would find the date published with respect to that particular patent application. Now publication date is the date by when that this particular patent is available for all the public to view. In terms of patent rights you get what we call the provisional rights in relation to post the publication. Provisional rights are the rights which are operable from

the date of publication of an invention; which means subject to the grant of this particular patent your provisional rights are can be enforced.

So, let us say at this particular patent which we talk about, there could be a particular patent which would be eventually granted. And let us say someone was infringing from the date of the provisional. So, in an infringement suit what happens is from the date of provisional is what will be the relevance of that particular right, because it is already here a granted patent. The other date; obviously is the granted, which tells us the information about when was the application granted by the patent office.

So, filing date is important, we also have these different dates and normally the term of the patent is actually calculated from the date of the filing; from the date of filing 20 years is the patent right. So, dates are important in relation to patent application. In many other patent offices you will also have what we call the patent term extension. Typically one could say in the case of US that is those are the, so there is a normal publication date, there are possibilities where there delays from the patent office, some of the delays with respect to applicants, some of the delays with respect to the regulatory approval.

So, in many cases the patent date is also calculated, so as to provide for extension of the patent date. So, a patent could be extended by let us say 14 days by maybe a year. So, on the cover page of the patent you would also get this information on whether a patent is under patent term extension or not with respect to a specific jurisdiction. So, dates are; obviously important with respect to a particular patent.

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The other information that we today get is also what we call the patent family information and often patent family data is very important to understand the economics of a particular patent. Before we begin to understand what is patent family data? We need to know, what is a patent family? Simply put a patent family means inventions which belong to the same or similar area. Today there are a lot of databases which tell us beginning with a filing from one particular jurisdiction how this invention has been captured or rather filed in different jurisdictions.

So, from one node it pulls up other patents which are related to this particular patent and so therefore, that is a good representation of what the patent family data is. Today patent family data is very important to understand the strategy in relation to filing of inventions; it also tells us in many instances what are the kind of divisional that have been filed in relation to a particular patent or a patent of addition. Going forward in the lectures further, we will also understand how patent family data is also cataloged and what is the value that comes out of search in relation to patent family data?

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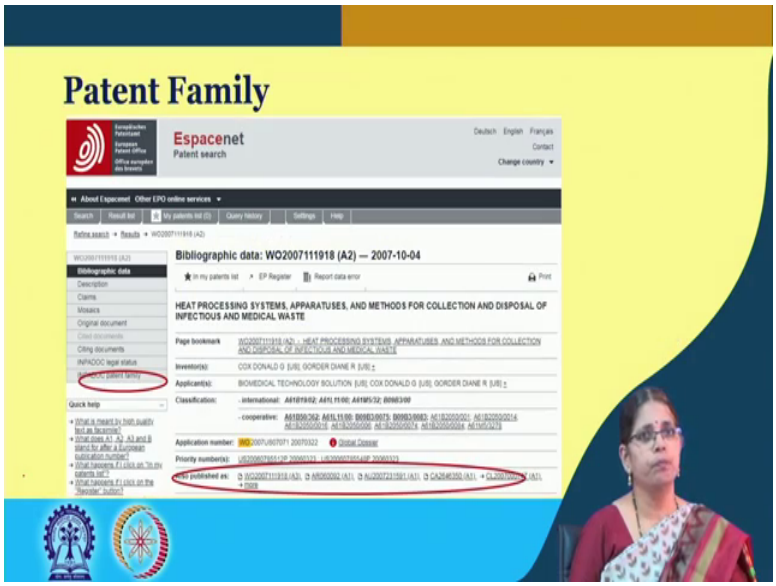

If you look at the databases public databases for instance any of the patent office databases, today they also provide you the patent family data. For instance if you look at this particular category which talks about INPADOC patent family data and down here you also find in the bubble the different patent documents that are also referenced to, these represent one single family of patent information. So, today most patent offices also provide this data.

As I mentioned earlier patent documents are classified as per particular categories. And today that unification is helping us understand for a given category how the patents are actually available for classification retrieval as well as documentation. One of the important things with respect to patents is what we call the INID codes or the INID numbers. Let us understand further on what these mean.

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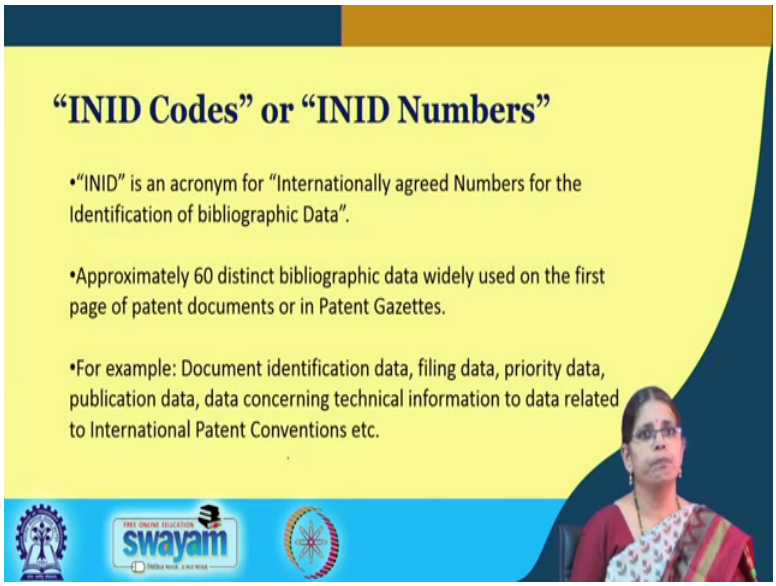

Now, INID codes are an abbreviation for Internationally agreed Numbers for the Identification of bibliographic Data. So, we mentioned earlier in relation to inventor there would be a particular number, filing date would have a particular number and often this is found in the left corner of the particular patent; where they are bracketed and they are given as numbers.

So, all information that is presented in relation to the cover page is documented in the form of what we call INID codes. For instance how is it important for a searcher? If I wait to find out what are all the titles that are filed in relation to a particular invention I may invoke that particular number in this search, in which case I get all the titles in relation to a particular week or let us say a particular month. So, it is important not only for the particularly important for the patent office when it comes to the INID codes.

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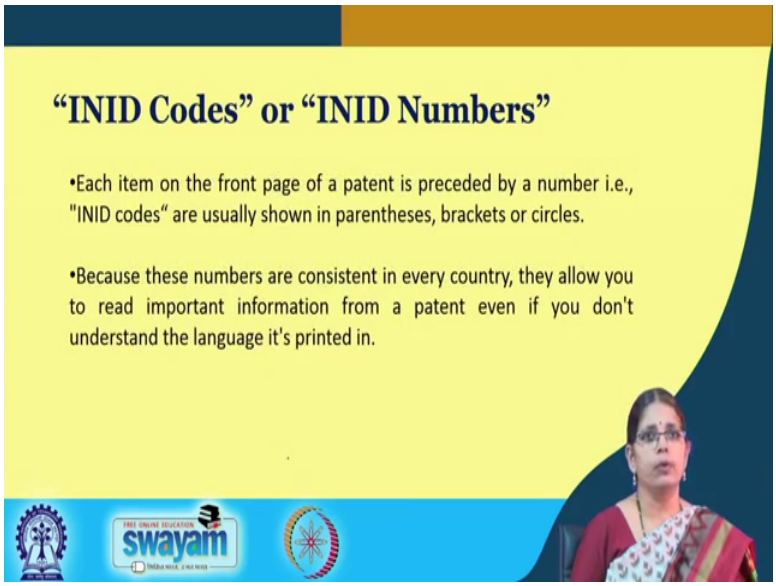

So, this is where they are important also in terms of the with respect to.

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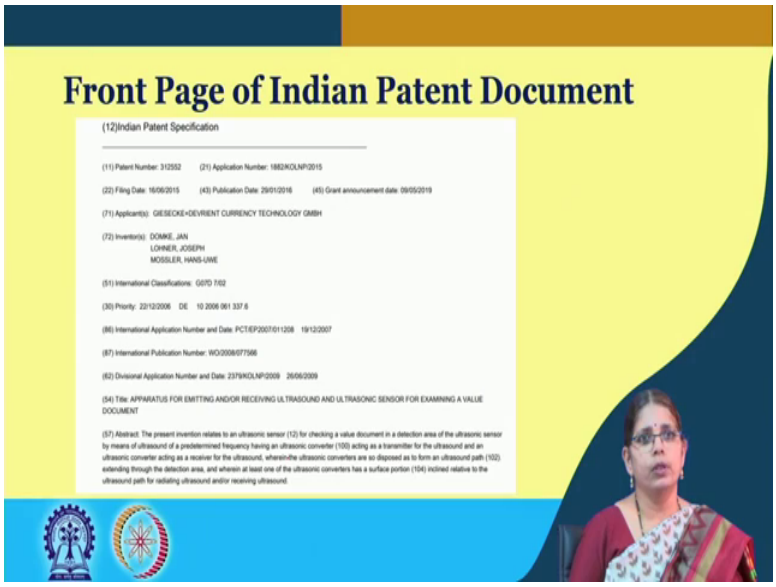

So, if you look at this some illustrations are provided to you in terms of the INID codes, this is one of the front pages of the Indian patent document. So, here when you look at the left corner, you can find the bracketed ones, these represent what we call the INID codes. So, uniformly worldwide patent number will be represented what by what we call 11 as a number. Similarly 51 is international classification. So, 51 is the uniform number used worldwide to represent what we call the international classification. We talked

about the abstract earlier right; now abstract is represented by the INID code 57. So, this is how we understand the different aspects of the value of the INID codes.

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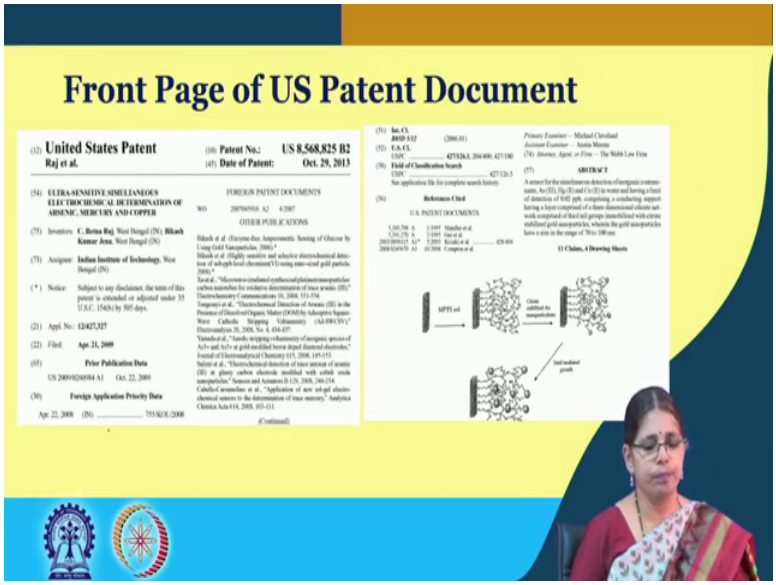

This is an illustration of a US patent application and you can see the INID codes in the left column at the extreme end of the page. If you remember we also talked about different aspects of the filing date you can see this filed on April 21 2009 it tells you what is the application number, who is the assignee, who are the inventors; it also provides you the prior publication data as well as the other publications in relation to a particular application.

Now, you may also notice this particular star that you find in relation to the prior data; these are nothing, but the examiner citations. And you may also note that there is a figure in this particular application and also the cover page tells you, what are the different claims filed in the patent. So, there are 11 claims and there are 4 drawing sheets in this particular application.

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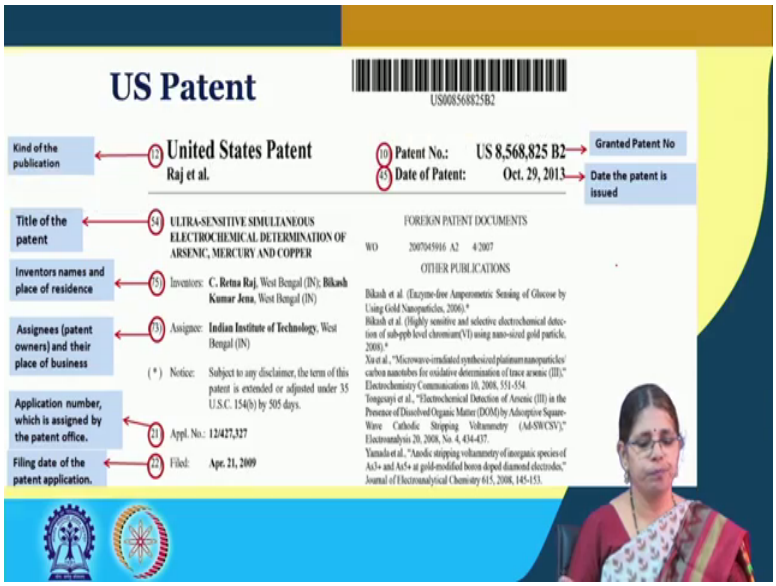

This is a marked page for you to understand, how the INID codes are actually available on a cover page of the particular patent which we just discussed.

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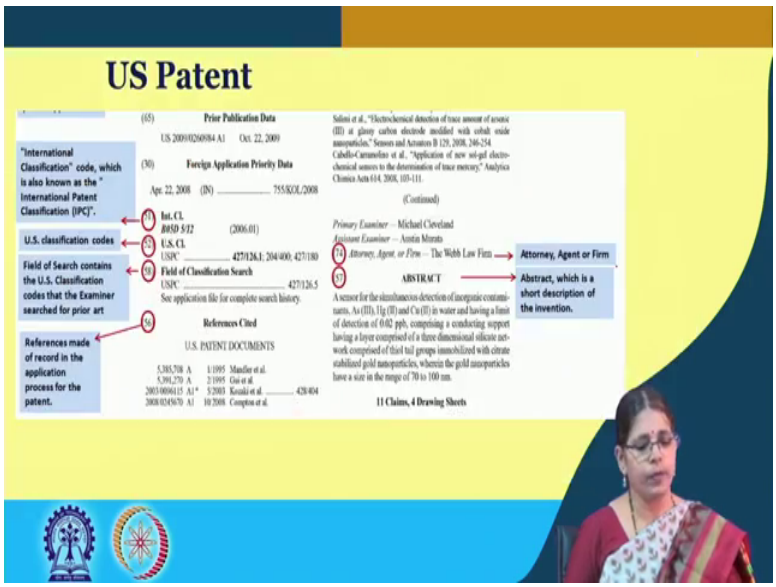

So, this gives you a clear view of the bibliographic data in relation to patent applications.

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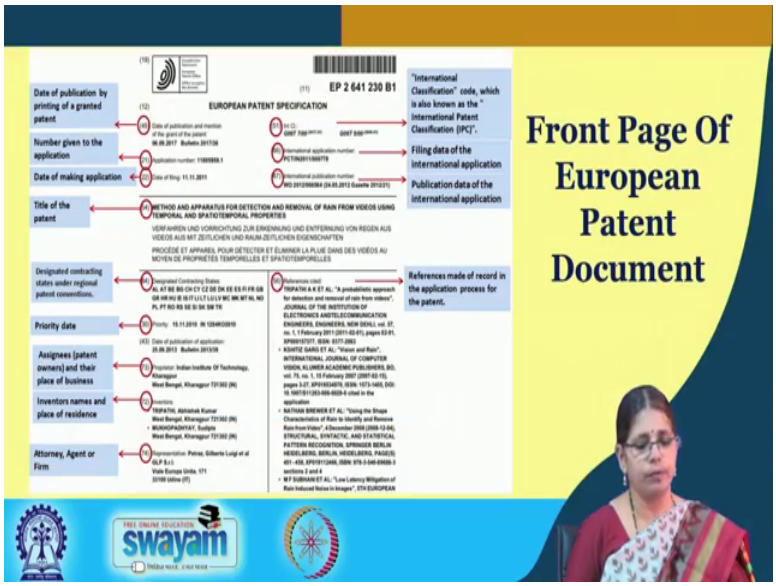

This illustration is a front page of a European patent application and you can see the INID codes marked in this particular application.

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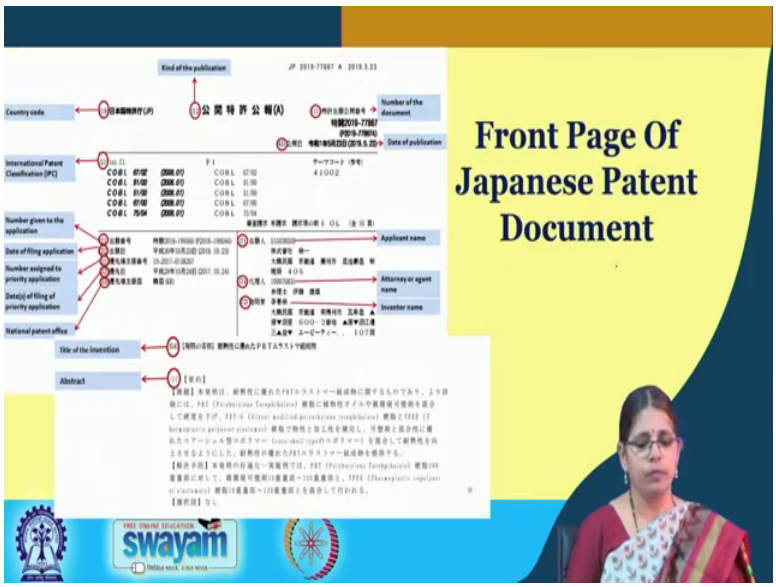

We talked about a Japanese patent document and how they use the F terms. This is one particular illustration of the front page and how they have used the different categories as you see the country code, the international patent classification, the date of filing, the national patent office, the abstract which is in Japanese and then the different classification codes and the date of publication of this particular document.

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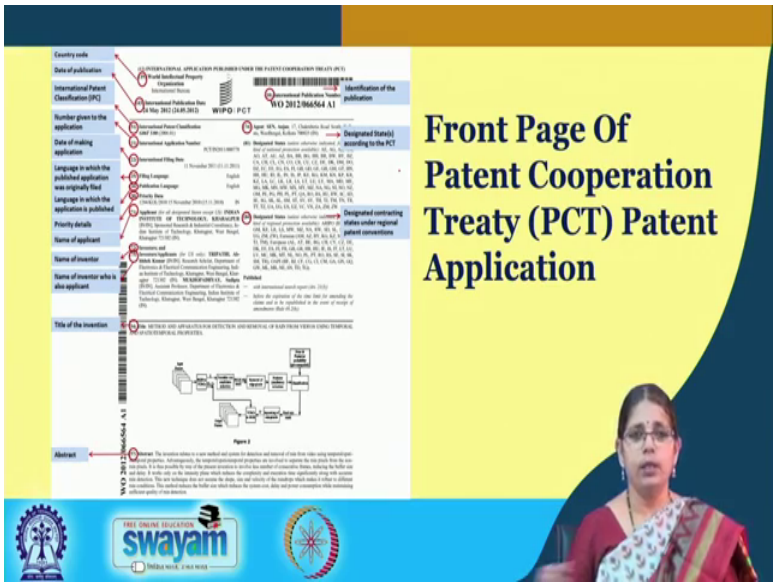

So, we must realize that the value of patent data is so important and there are now newer methods coming up in terms of making the classification system better for classifying patent documents.

So, in the next lecture we will talk about the continuation of the aspects of the patent document and patent data.