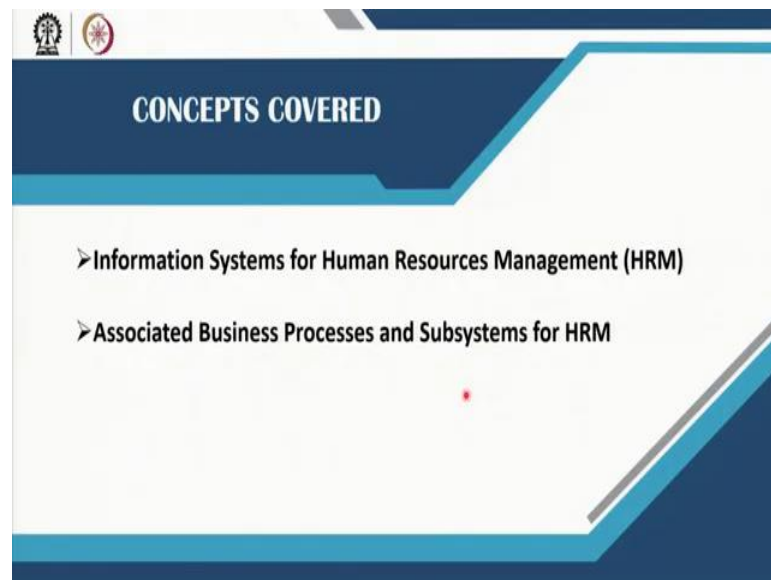


**Management Information System**  
**Prof. Kunal Kanti Ghosh**  
**Vinod Gupta School of Management**  
**Indian Institute of Technology, Kharagpur**

**Week – 06**  
**Module - 04**  
**Lecture - 28**  
**Information Systems for Human Resource Management**

Hi, welcome back to module 4 of the 6th week of our course on ‘Management Information Systems’!

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Today we will be dealing with ‘human resource information systems’. And the concepts that will be covered will be related to not only the HRM information systems for HRM but associated business processes and subsystems for HRM function.

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**Information Systems for Human Resource Management**

- ❖ Organizations need to,
  - find,
  - recruit,
  - motivate, and
  - train employees
- ✓ to achieve their objectives and succeed in their workplace

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Organizations need to find, recruit, motivate and train employees to achieve their objectives, so that they become successful in their workplace and thereby contribute towards fulfillment of corporate objective.

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**Information Systems for Human Resource Management**

- Human resources function is responsible for,
  - ✓ attracting,
  - ✓ developing, and
  - ✓ maintaining the firm's workforce

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The human resources function is primarily responsible for attracting, developing and maintaining the firm's workforce. Besides many other functions, but these are the prime responsibilities. And information systems for HRM help, helps HR managers in performing these tasks in an efficient and effective manner.

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**Information Systems for Human Resource Management**

- In order to retain high performers, it is necessary to know,
  - ☐ how people feel about their
  - ✓ work environments,
  - ✓ their compensations, and
  - ✓ growth prospects
- In addition, maintenance of workplace health and safety is a prime requirement

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In order to retain high performers, it is necessary for the HR managers to know: how employees feel about their work environment; how do they feel about the compensations that they receive? And what is the perception in their mind about their growth prospects. In addition to all this, the HR function needs to maintain the workplace in a healthy and safe manner. And for that they require lot of information which is being maintained by HR information systems.

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**Information Systems for Human Resource Management**

- Human Resources Information Systems (HRIS) support activities such as,
  - ✓ Identifying potential employees,
  - ✓ Maintaining complete records on existing employees, and
  - ✓ Creating programs to develop employees' talents and skills

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HR Information Systems acronymed as HRIS support activities; for example, identifying potential employees, maintaining complete records on not only existing employees but also employees who have left the organization; and they are also responsible for creating programs to develop employees' talents and skills.

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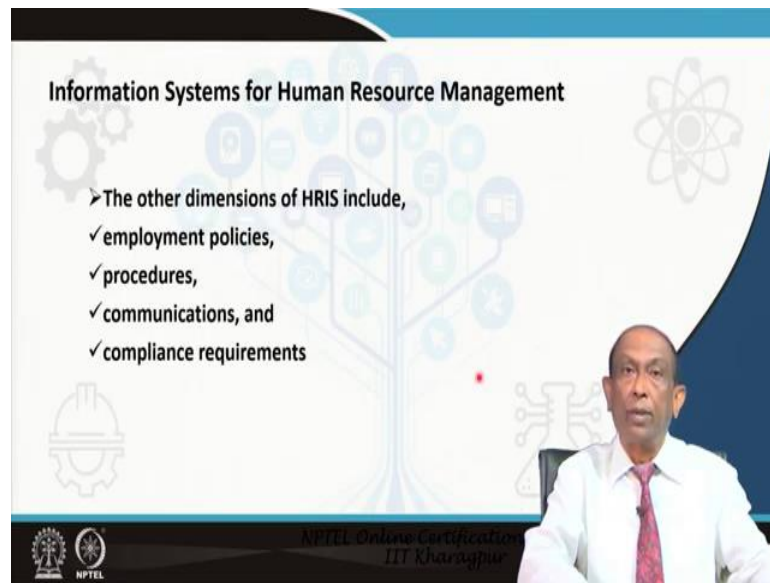
**Information Systems for Human Resource Management**

- Strategic HRIS identifies the employees' requirements such as,
  - ✓ skills,
  - ✓ education level,
  - ✓ type of position,
  - ✓ number of position, and
  - ✓ cost
- ☐ for meeting the firm's long-term business plan

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Strategic HRIS; that means that particular function of the HR which deals with identifying employees' requirements such as, skills, education level, type of position, the number of positions that need to be filled up or created, and cost related information in order that the firm achieves its long term business plans.

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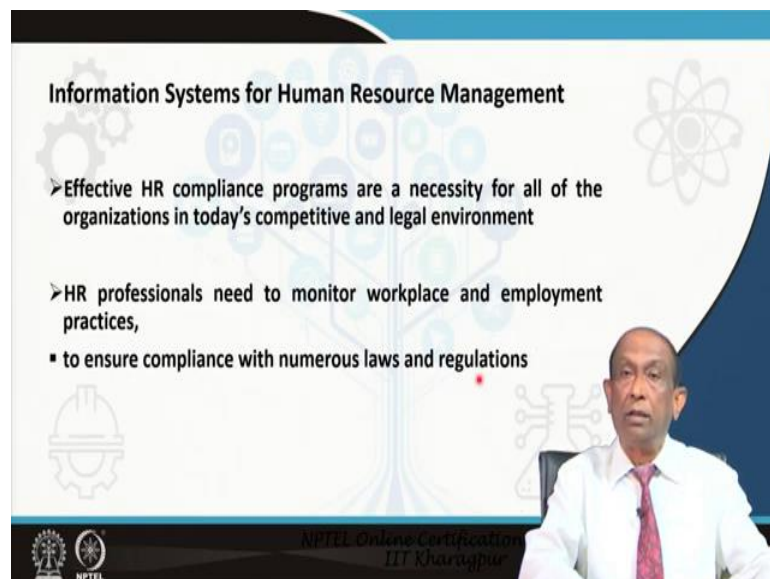
**Information Systems for Human Resource Management**

- The other dimensions of HRIS include,
  - ✓ employment policies,
  - ✓ procedures,
  - ✓ communications, and
  - ✓ compliance requirements

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The other dimensions of the strategic HR and the required information to support that include; employment policies, the different procedures, varieties of communications that need to be generated. And the HR managers also need to know the various kinds of information which must be maintained for enabling them to meet the compliance requirements.

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**Information Systems for Human Resource Management**

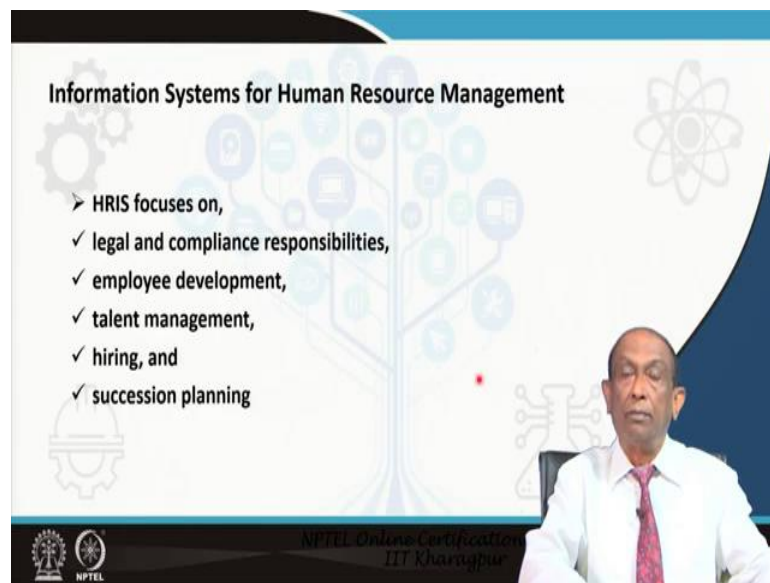
- Effective HR compliance programs are a necessity for all of the organizations in today's competitive and legal environment
- HR professionals need to monitor workplace and employment practices,
  - to ensure compliance with numerous laws and regulations

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Today effective HR compliance programs are a necessity for all of the organizations; because the environment has become highly competitive and, there are lot of legal restrictions that must be maintained.

HR professionals need to monitor workplace and employment practices. In order that they can comply with the numerous laws and regulations that must be maintained by the organization.

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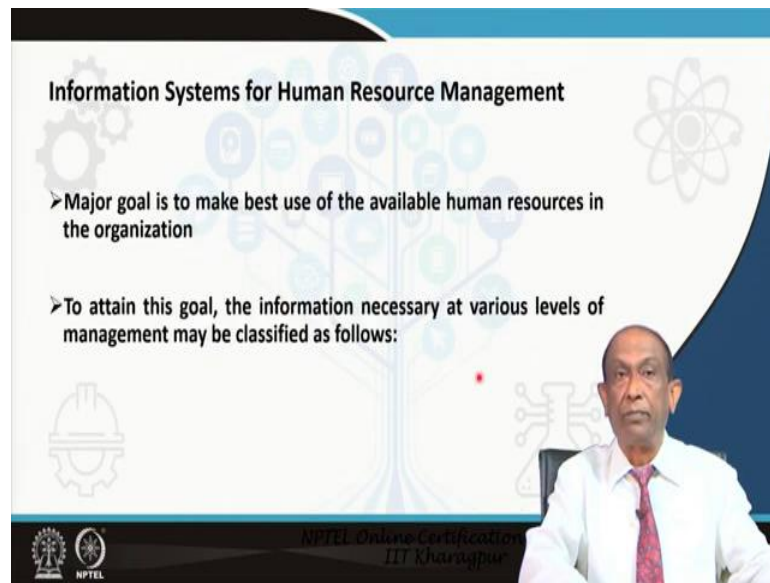
The slide is titled "Information Systems for Human Resource Management". It features a background with a stylized tree of icons representing various HR functions. The text on the slide is as follows:

- HRIS focuses on,
  - ✓ legal and compliance responsibilities,
  - ✓ employee development,
  - ✓ talent management,
  - ✓ hiring, and
  - ✓ succession planning

In the bottom right corner of the slide, there is a small inset video of a man in a white shirt and tie, who appears to be the speaker. At the bottom of the slide, there are logos for NPTEL and IIT Kharyagpur.

So, in summary, human resource information system focuses on legal and compliance responsibilities, development of employees, management of talents; the HRIS also supports hiring as well as succession planning activities.

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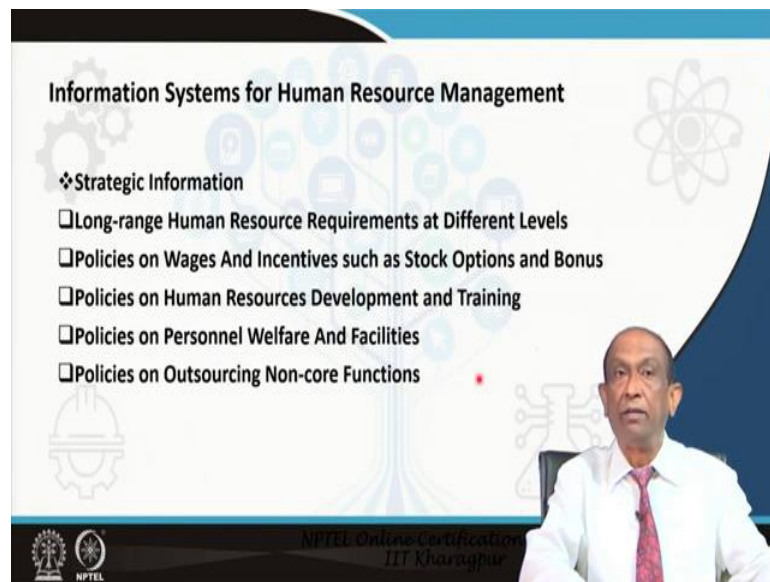
**Information Systems for Human Resource Management**

- Major goal is to make best use of the available human resources in the organization
- To attain this goal, the information necessary at various levels of management may be classified as follows:

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The major goal of any HR management is to make the best use of the available human resources in the organization. And to attain this goal, the various information necessary at different levels of management.

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**Information Systems for Human Resource Management**

- ❖ Strategic Information
  - Long-range Human Resource Requirements at Different Levels
  - Policies on Wages And Incentives such as Stock Options and Bonus
  - Policies on Human Resources Development and Training
  - Policies on Personnel Welfare And Facilities
  - Policies on Outsourcing Non-core Functions

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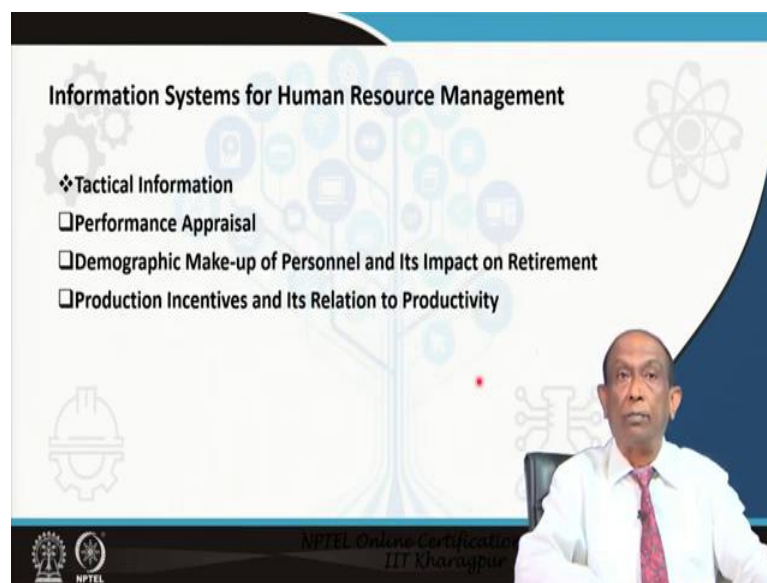
May be classified as strategic information under that; what we require; is the long range human resource requirements at different levels. We also need to know the different policies on wages; as well as incentives related to stock options, bonuses which are

basically you know given to the high performing employees, in order that they can be retained in the organizations for over a long period of time.

The HR managers they need to generate and deploy policies on human resources development and training. Policies on personnel welfare and the different kind of facilities that need to be provided to the employees. All these information have got implications over a long range, and the various kinds of information that is required are maintained by HRIS.

The HRIS, system also helps HR managers in deciding, what are those activities which can be offloaded onto outsourcing service providers? And these are mainly non-core functions or non-core activities that need to be outsourced. And hence policies on outsourcing non-core functions have to be generated and maintained for proper deployment. And this is being done by or supported by information systems for human resources management.

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HRIS also provides tactical information required for performance appraisal of employees to find out demographic makeup of personnel and its impact on retirement. The various kinds of production incentives and its relation to productivity need to be studied and maintained in the system.



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The slide is titled "Information Systems for Human Resource Management". It features a list of tactical information categories, each with a checkbox. The categories are: Tactical Information (indicated by a diamond icon), Morale of Personnel, Absentee Reduction, Policies on Leave and Overtime, and Policies on Personnel Deployment. The slide also includes the NPTEL logo and the text "NPTEL Online Certification IIT Kharagpur" at the bottom. A speaker is visible in the bottom right corner of the slide frame.

- ❖ Tactical Information
  - Morale of Personnel
  - Absentee Reduction
  - Policies on Leave and Overtime
  - Policies on Personnel Deployment

Tactical information related to human resource management also comprises maintenance of information related to morale of personnel or employees; employee morale. It also requires information to reduce the level of absentees; the subsystem maintains policies on leave and overtime. And HRIS also supports HR managers to generate policies on personnel deployment.

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The slide is titled "Information Systems for Human Resource Management". It features a list of operational information categories, each with a checkbox. The categories are: Operational Information (indicated by a diamond icon), Routine Assessment, Skills Inventory, Loans / Advances and Recoveries, Attendance Record, and Overtime Assignment. The slide also includes the NPTEL logo and the text "NPTEL Online Certification IIT Kharagpur" at the bottom. A speaker is visible in the bottom right corner of the slide frame.

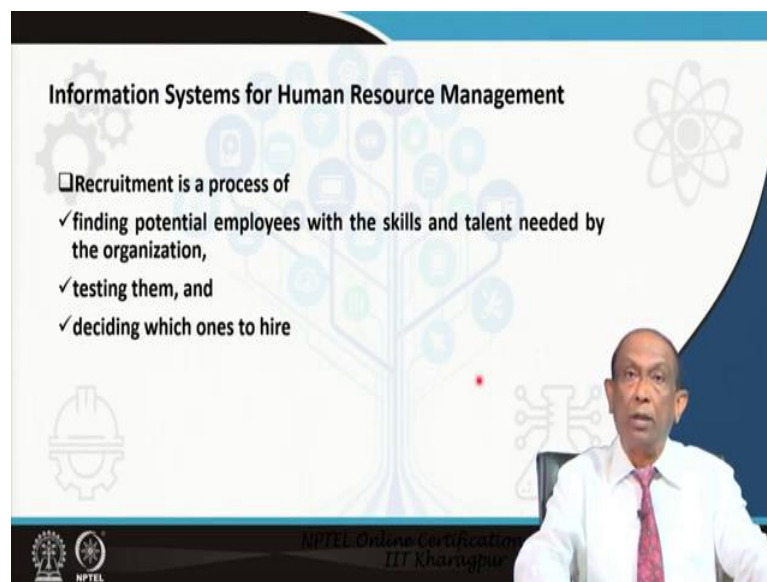
- ❖ Operational Information
  - Routine Assessment
  - Skills Inventory
  - Loans / Advances and Recoveries
  - Attendance Record
  - Overtime Assignment

The operational information provided by the human resource information systems, help HR managers in their routine assessment of employees performance. In building skills

inventory; that means they required to maintain data on each and every employees with respect to the different skill sets that each of these employees have. So that whenever a new project or a new assignment or a new requirement comes up in the organization, the right kind of employees with the right skill set can be put in for that particular project or for that particular work or assignment.

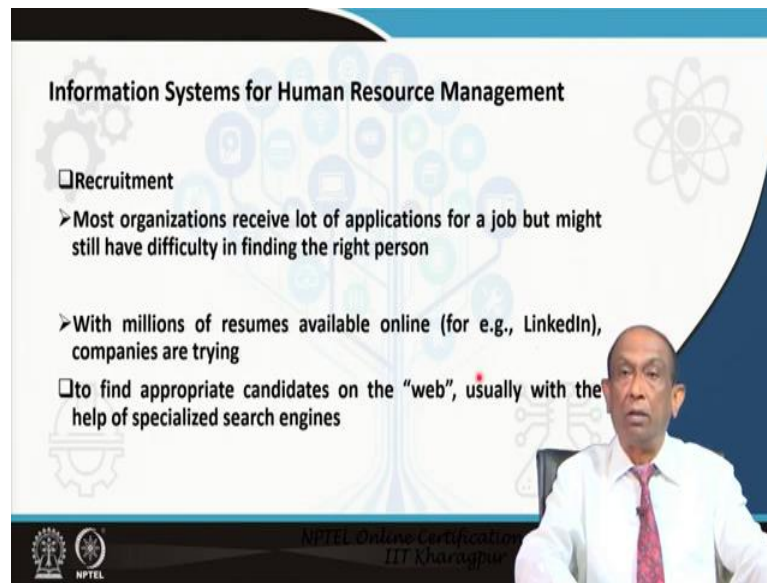
Operational information, in terms of the various loans taken by the employees, the advances given to them and the recoveries that have been affected in their; through their salaries or other means; attendance record of employees, overtime assignment given to employees and performed by them; all this information; these are all operational information which are maintained in HRIS.

(Refer Slide Time: 16:55)

The image shows a presentation slide titled "Information Systems for Human Resource Management". The slide content includes a definition of recruitment: "Recruitment is a process of" followed by a bulleted list: "finding potential employees with the skills and talent needed by the organization," "testing them, and" "deciding which ones to hire". The slide features a background with a stylized tree of icons and a gear icon. In the bottom left corner, there are logos for NPTEL and IIT Kharagpur. A man in a white shirt and pink tie is visible in the bottom right corner, appearing to be the speaker.

HRIS supports recruitment of employees. Now, this recruitment process is very important because it helps HR managers in finding potential employees with the skills and talent needed by the organization. Is not only identifying those potential employees; but to conduct interviews and test their abilities, their skill set and then decide who are those employees, who should be hired by the organization.

(Refer Slide Time: 18:11)



**Information Systems for Human Resource Management**

- Recruitment
  - Most organizations receive lot of applications for a job but might still have difficulty in finding the right person
  - With millions of resumes available online (for e.g., LinkedIn), companies are trying
  - to find appropriate candidates on the “web”, usually with the help of specialized search engines

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What happens is that, most organizations they receive lot of applications for a job, but still may find it very difficult to find the right person. With millions of resumes available online today; for example, in LinkedIn you know lots of applications are there. Companies they try to find the appropriate candidates on the web, usually with the help of specialized search engines..

So, there is now application of artificial intelligence in finding out those kind of employees who have placed their applications, now put in their applications in you know websites like websites or LinkedIn and many other sources. Whether their skill sets match the organizations requirements or not and once that is found out, then only these potential employees may be called for the interview.

So, majority of the workload is being taken away by the search engines. A lot of applications of artificial intelligence is now coming out for helping HR managers in the recruitment process. And those kind of algorithms are also built in HRIS which are now embedded inside ERPS.

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**Information Systems for Human Resource Management**

- Recruitment
  - Companies also advertise thousands of jobs on the Web
  - Online recruiting can reach more candidates, which may bring in better applicants at a lower cost compared to traditional recruitment methods

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Companies they advertise thousands of jobs on the web and in the process, online recruiting can reach more candidates which may bring in better applicants at a lower cost compared to traditional recruitment methods.

(Refer Slide Time: 21:11)

**Information Systems for Human Resource Management**

- Recruitment
  - HRIS is connected to online job portals and through these job portals,
    - HRIS downloads and shortlists candidates (-via- screening and testing) for likely suitable positions in the organization
  - The subsystem also helps in work force planning and in managing bench

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HRIS is connected to online job portals and through these job portals, HRIS downloads and shortlist candidates via screening and testing for likely suitable positions in the organization. Thereby, recruitment subsystems within the HRIS helps in workforce planning and management of workbench.

(Refer Slide Time: 22:08)

The slide is titled "Information Systems for Human Resource Management". It features a background with a stylized tree of icons representing various HR functions. The text on the slide is as follows:

- Recruitment
- Once recruited, the employees become part of the corporate HR talent pool, which needs to be maintained and developed
- Several activities are supported by IT through the following subsystems:

The slide also includes the NPTEL logo and the text "NPTEL Online Certificate IIT Kharyagpur" at the bottom.

Once recruited, the employees they become part of the corporate HR talent pool and their details need to be maintained and developed in HRI, through the HRIS. Several activities are supported by information technology through the following subsystems, which are a part of HRIS.

(Refer Slide Time: 22:55)

The slide is titled "Information Systems for Human Resource Management". It features a background with a stylized tree of icons representing various HR functions. The text on the slide is as follows:

- ❖ Performance Evaluation
- This subsystem maintains important measures of performance for each employee so that the performance of the employee can be rated

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One of the important subsystem is the performance evaluation subsystem. Performance evaluation subsystem maintains important measures of performance for each employee, so that their performance can be rated accordingly.

(Refer Slide Time: 23:32)

The slide is titled "Information Systems for Human Resource Management" and features a background with various icons like gears, a tree, and a person. The text on the slide is as follows:

- ❖ Performance Evaluation
- Corporate managers can then analyse employees' performances with the help of intelligent systems,
- ❑ which provide systematic interpretation of performance over time

A man in a white shirt and red tie is visible in the bottom right corner of the slide, appearing to be speaking. The NPTEL logo and "NPTEL Online Certification Course IIT Kharsgpur" are visible at the bottom.

Corporate managers can then analyze the performances of these employees with the help of intelligent systems. And this business intelligence systems may also provide systematic interpretation of the performance of the employees over time, and which can significantly influence the growth, prospect and promotion related decisions of all these employees.

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The slide is titled "Information Systems for Human Resource Management" and features the same background as the previous slide. The text on the slide is as follows:

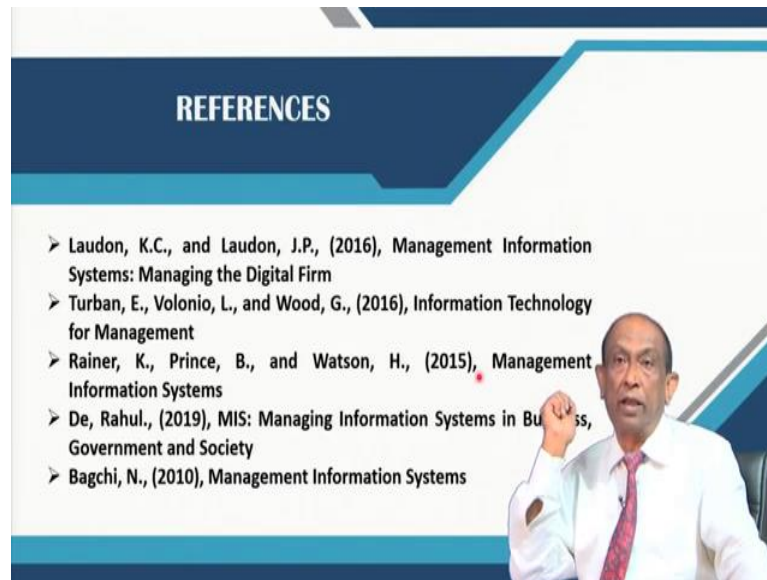
- ❖ Performance Evaluation
- The high performers can then be rewarded and the low level performers can be taken care of by appropriate training and development, or transfers in some of the cases
- This type of information is very important for taking decisions on career planning of employees

The NPTEL logo and "NPTEL Online Certification Course IIT Kharsgpur" are visible at the bottom.

The high performers based on this performance appraisal or performance evaluation can be rewarded. And the low level performers can be taken care of by appropriate training,

right kind of development measures and maybe in some cases transfers or even layoffs. This type of information is thereby very important for taking decisions on career planning of employees.

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These are the references that I have used in preparing this module. And thank you all for your patience! The next module will also deal with some other aspects of human resource information systems.

Thank you!