

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), e-learning resources etc. (Current Year data) (10)

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Sr.No	Name of the Faculty	Name of Department	E Resources & ICT Tools Used
1	Dr. Akilahmad Sheikh	Computer Science and Engineering	NPTEL Video,PPT,LMS
2	Prof. Roshani Talmale	Computer Science and Engineering	NPTEL Video,PPT,e-books, Youtube videos,LMS
3	Prof. Rajeshbabu Gangavarapu	Computer Science and Engineering	NPTEL Video,PPT,e-books,LMS,Google Class Room
4	Prof. Perraju Tetali	Computer Science and Engineering	NPTEL Video,PPT,LMS
5	Prof. Tirupathireddy Yengantiwar	Computer Science and Engineering	NPTEL Video,PPT,LMS
6	Prof. Neha Mogre	Computer Science and Engineering	NPTEL Video,PPT,e-books,LMS
7	Prof. Jiwan Dehankar	Computer Science and Engineering	NPTEL Video,PPT,e-books,LMS
8	Prof. Vijay Bagdi	Computer Science and Engineering	NPTEL Video,PPT,LMS
9	Prof. Gurdev Sawarkar	Computer Science and Engineering	PPT,LMS
10	Prof. Gulrukh Nazneen	Computer Science and Engineering	NPTEL Video,PPT,LMS
11	Prof. Prashant Ghulaxe	Computer Science and Engineering	NPTEL Video,PPT,LMS
12	Prof. Priyanka Bhende	Computer Science and Engineering	NPTEL Video,PPT,LMS
13	Prof. Nageshawari Sarade	Computer Science and Engineering	PPT,LMS
14	Dr. Prabha Nair	Computer Science and Engineering	NPTEL Video,PPT,LMS
15	Prof. Saiswapna Sirikonda	Computer Science and Engineering	PPT,LMS
16	Prof. Jayant Adhikari	Computer Science and Engineering	PPT,LMS
17	Dr. Mohan Gaikwad	Information Technology	PPT,LMS
18	Prof. Anup Gade	Information Technology	NPTEL Video,PPT,e-books, Youtube videos,LMS

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19	Prof. Sarvesh Warjurkar	Information Technology	NPTEL Video, PPT, e-books, LMS, Google Class Room
20	Prof. Revati Parate	Information Technology	NPTEL Video, PPT, e-books, LMS
21	Prof. Rashmi Bhat	Information Technology	NPTEL Video, PPT, LMS
22	Prof. Monika Jaiswal	Information Technology	PPT, LMS
23	Prof. Abhay Rewatkar	Information Technology	NPTEL Video, PPT, e-books, LMS
24	Prof. Sneha Padole	Information Technology	PPT, LMS
25	Prof. Hukesh Godbole	Information Technology	PPT, LMS
26	Prof. Monali Gainkar	Information Technology	NPTEL Video, PPT, LMS
27	Prof. Punam Dandare	Information Technology	NPTEL Video, PPT, LMS
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30	Prof. Jayant Rohankar	Information Technology	NPTEL Video, PPT, e-books, LMS
31	Prof. Mukul Pande	Information Technology	NPTEL Video, PPT, e-books, LMS
32	Prof. Sneha Deshmukh	Information Technology	PPT, LMS
33	Prof. Snehal Dongare	Information Technology	PPT, LMS
34	Dr. Roshani Singh	Electronics communication Engineering	PPT, LMS
35	Prof. Rohini Pochhi	Electronics communication Engineering	NPTEL Video, PPT, e-books, LMS
36	Prof. Mayur Nannaware	Electronics communication Engineering	NPTEL Video, PPT, LMS
37	Prof. Pranjali Lute	Electronics communication Engineering	NPTEL Video, PPT, e-books, LMS
38	Prof. Nagma Tabsum Sheikh	Electronics communication Engineering	NPTEL Video, PPT, e-books, LMS
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40	Prof. Madina Ali	Electronics communication Engineering	PPT, LMS
41	Prof. Sana Sheikh	Electronics communication Engineering	NPTEL Video, PPT, LMS
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46	Prof. Snehal Palliwal	Electronics communication Engineering	NPTEL Video,PPT,e-books, LMS,Google Class Room
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48	Prof. Tapas Pramanik	Electronics communication Engineering	NPTEL Video,PPT,LMS
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61	Prof. Shweta Mehar	Electronics Engineering	PPT,LMS
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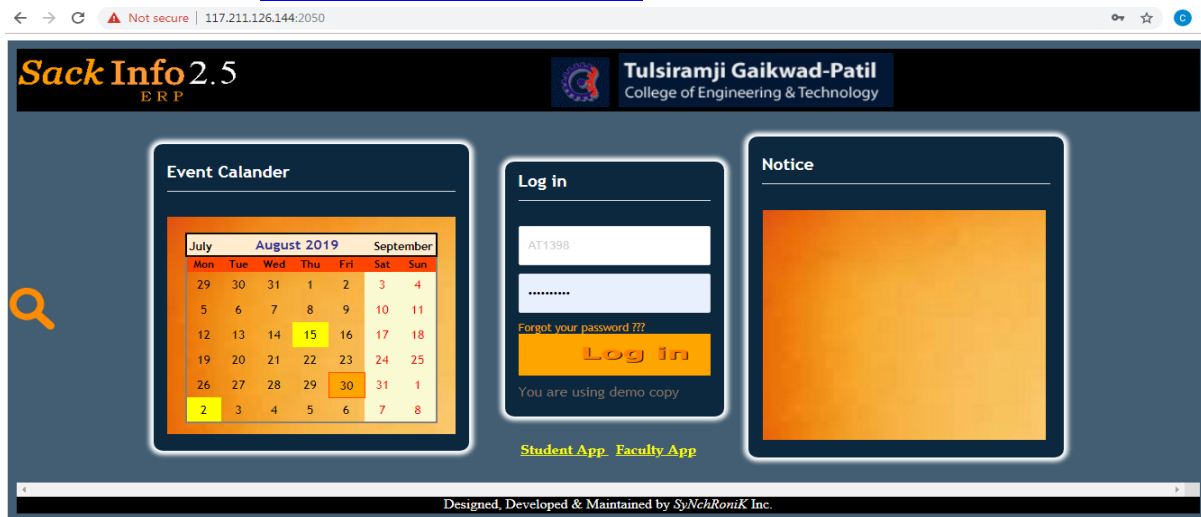
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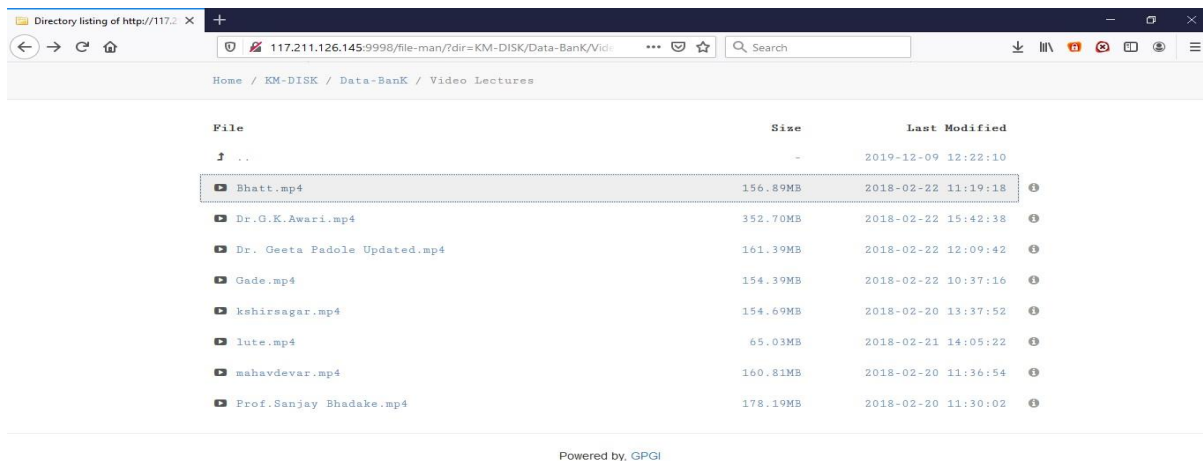


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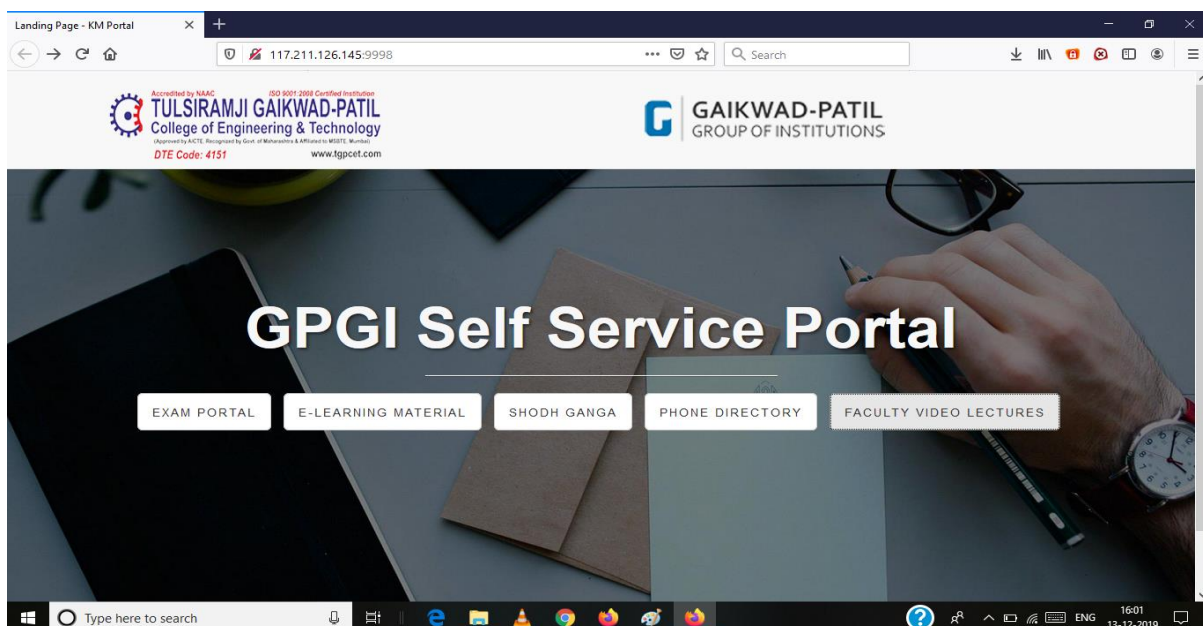
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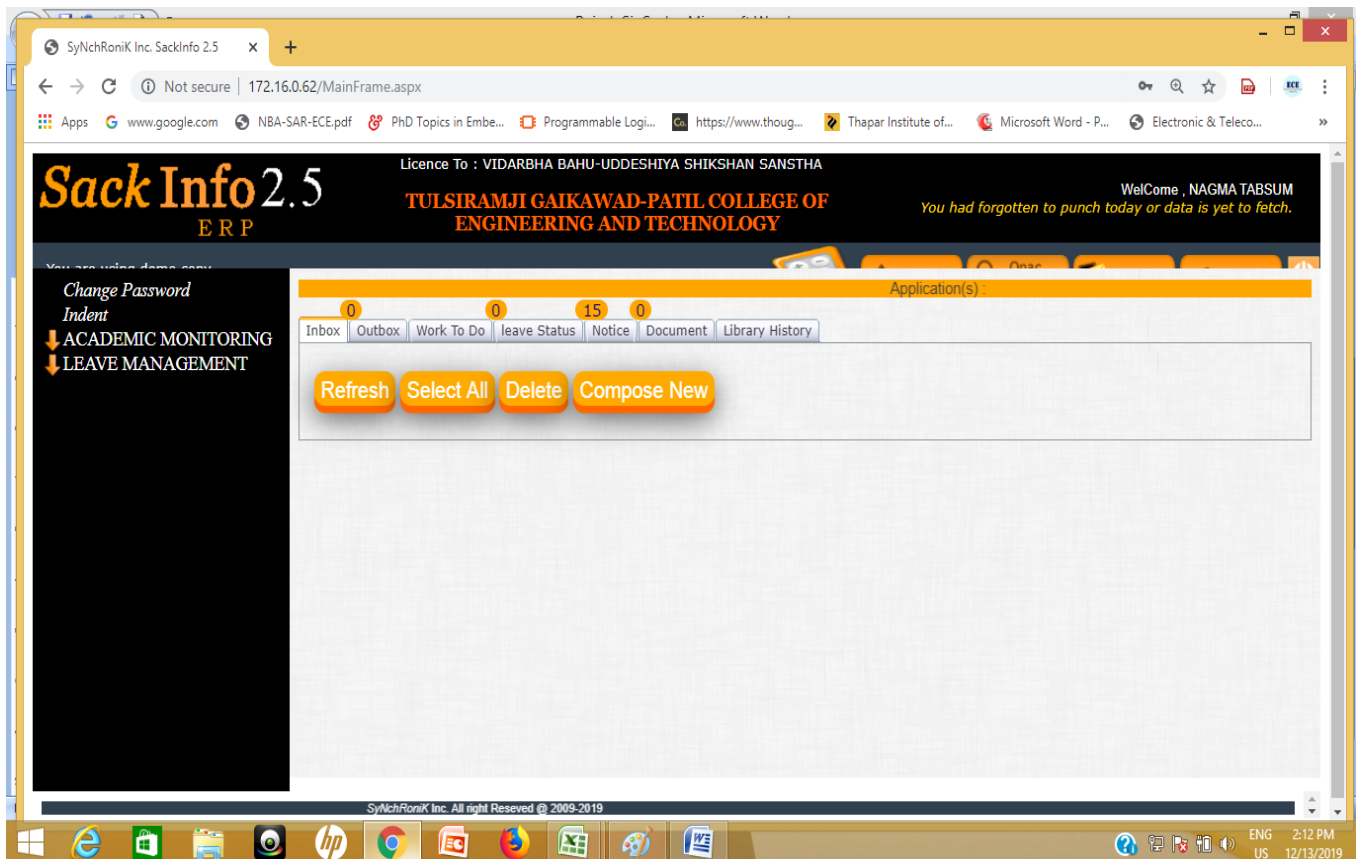
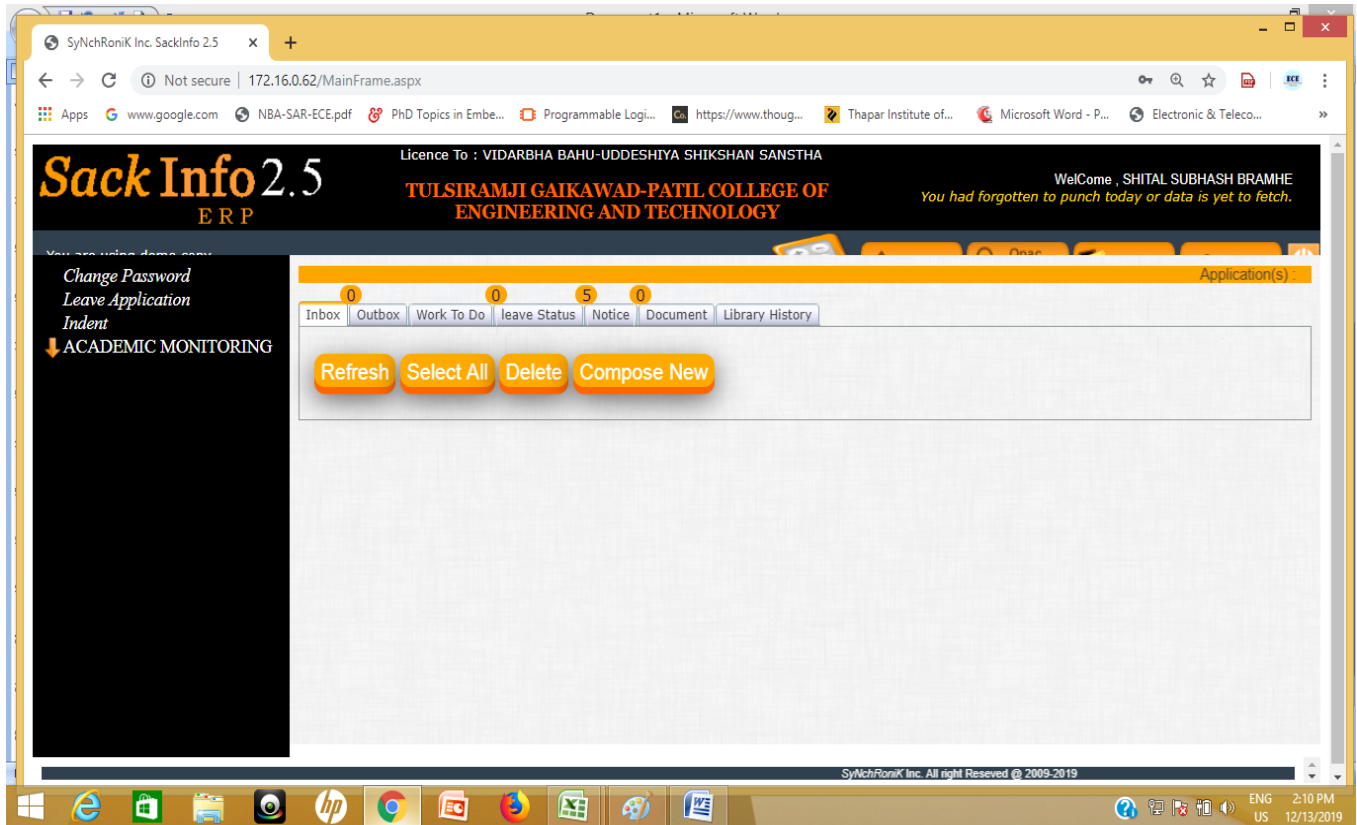
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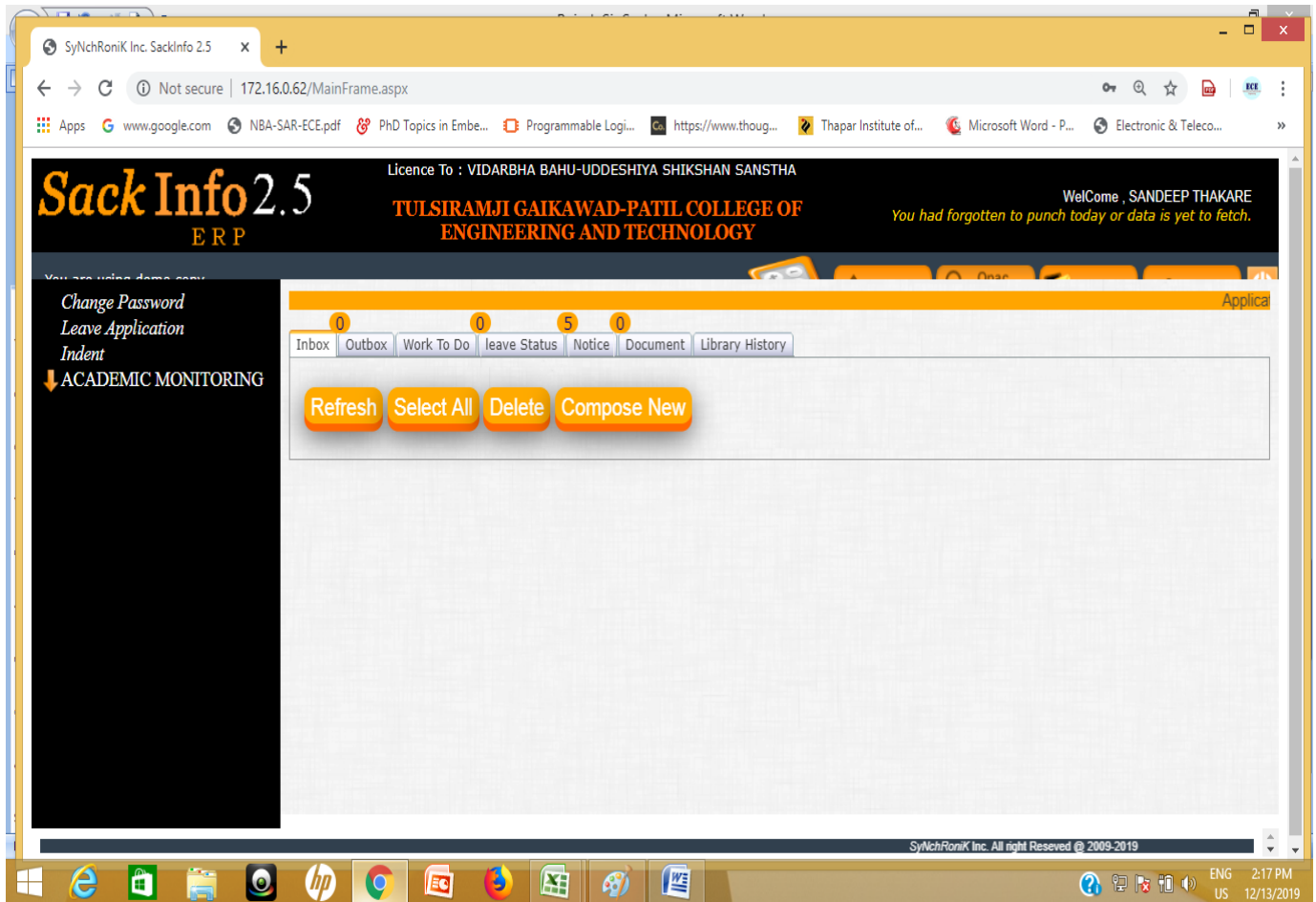
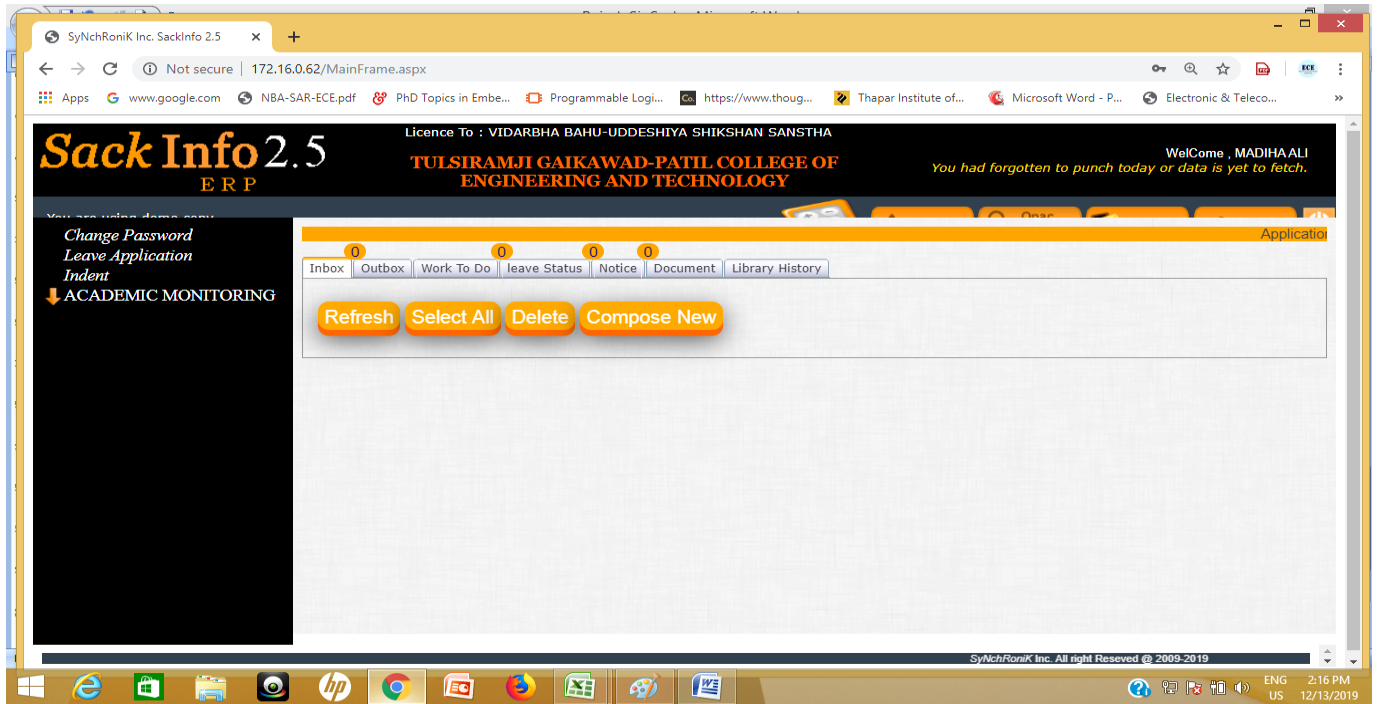
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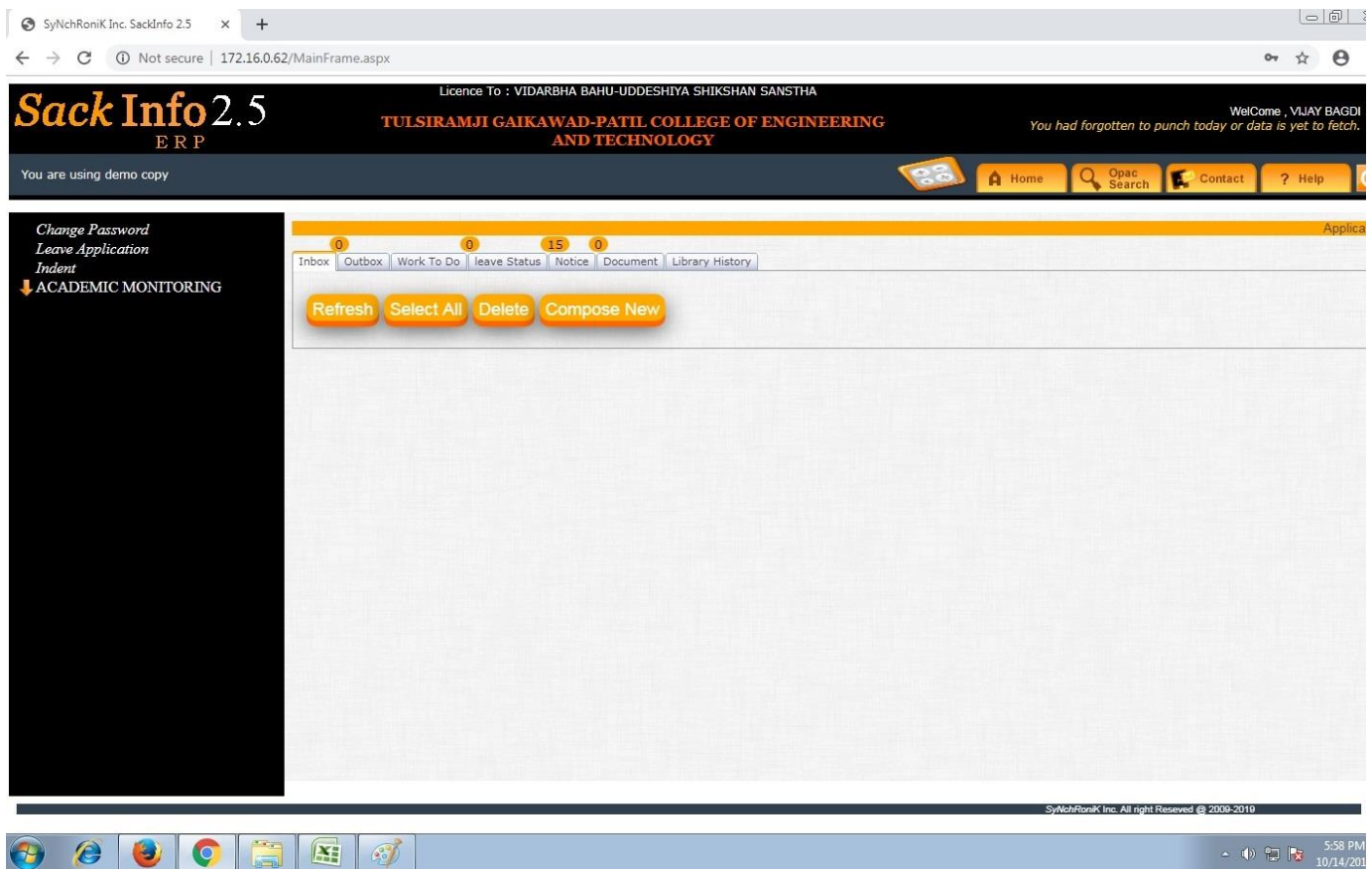
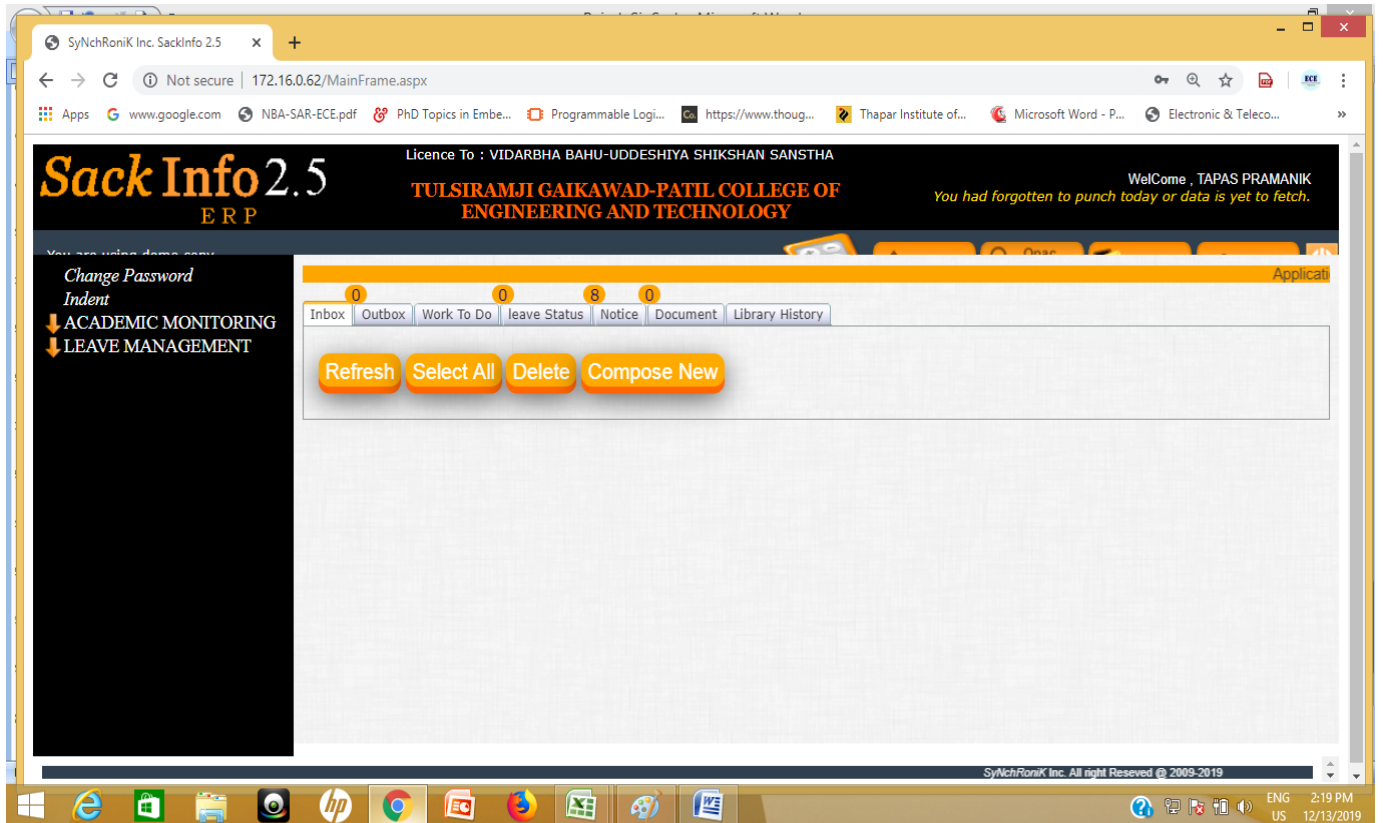
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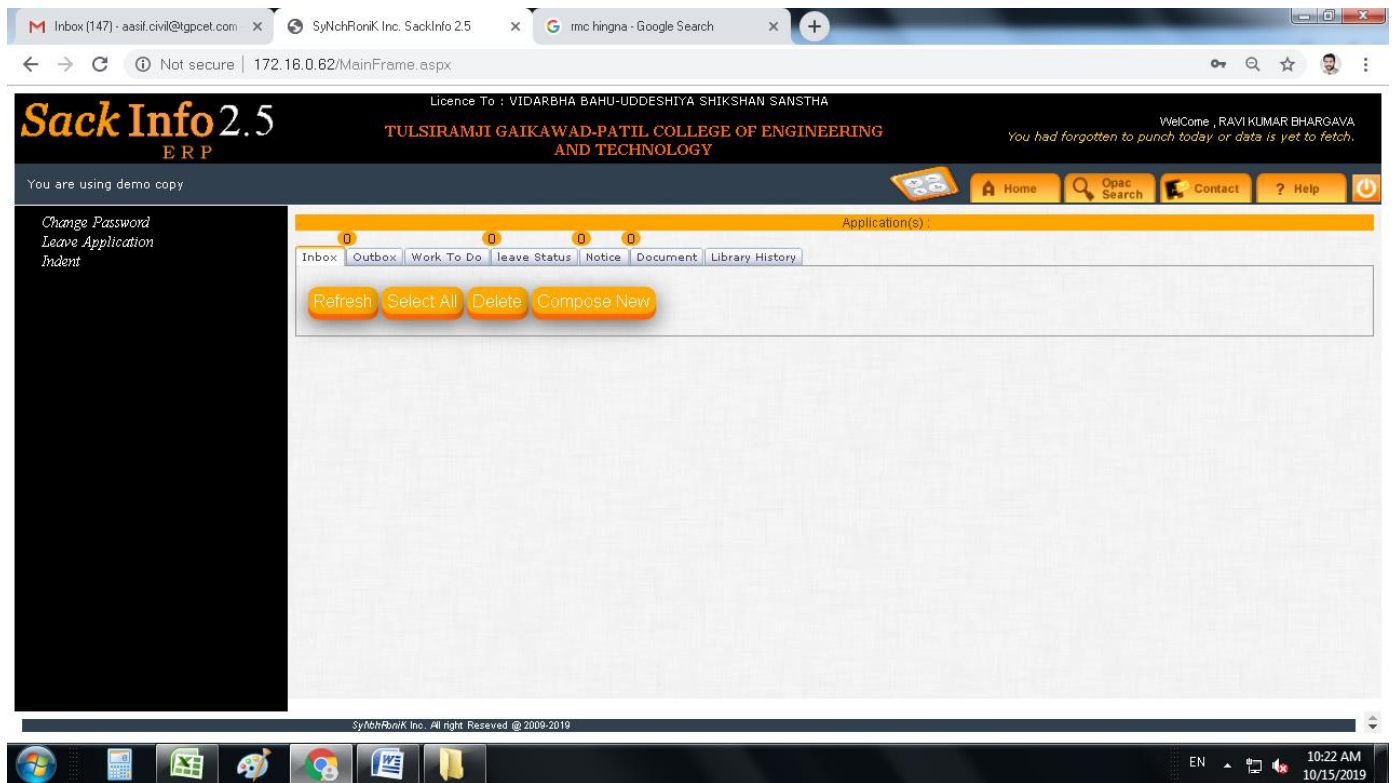
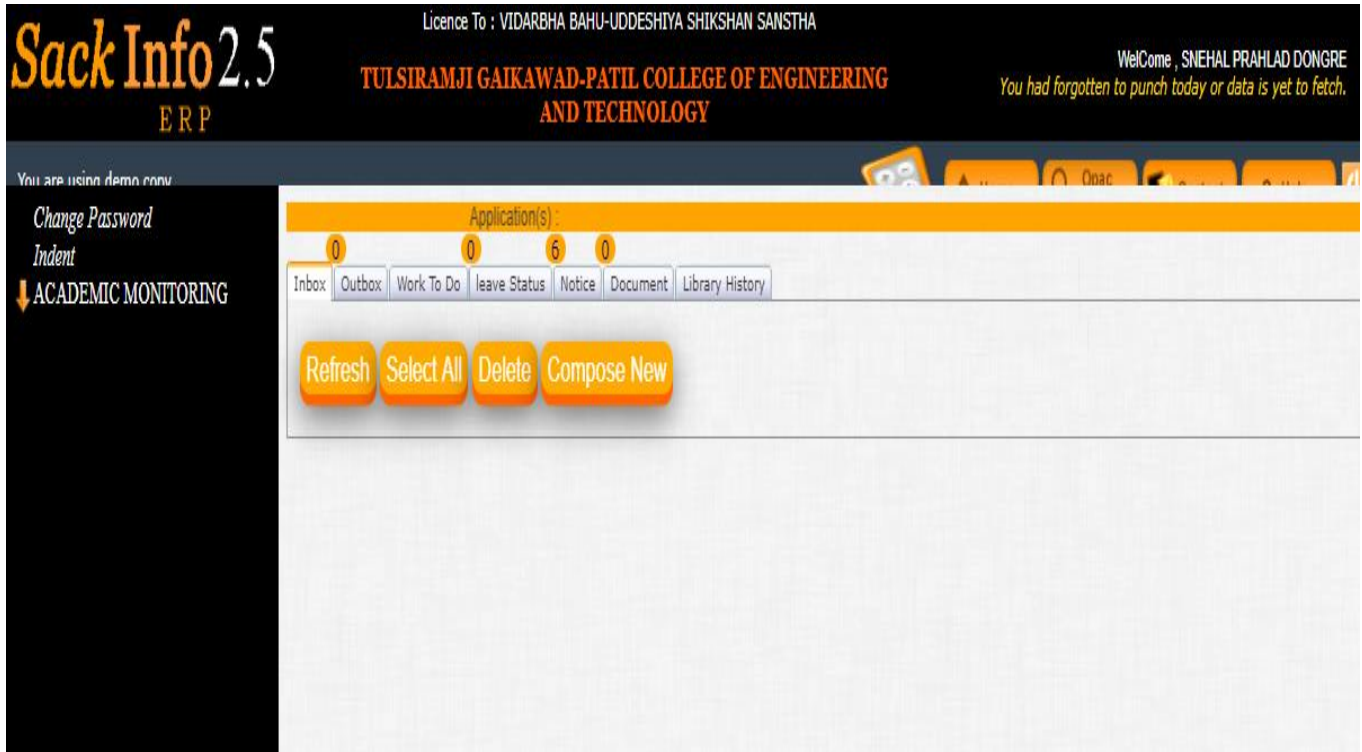
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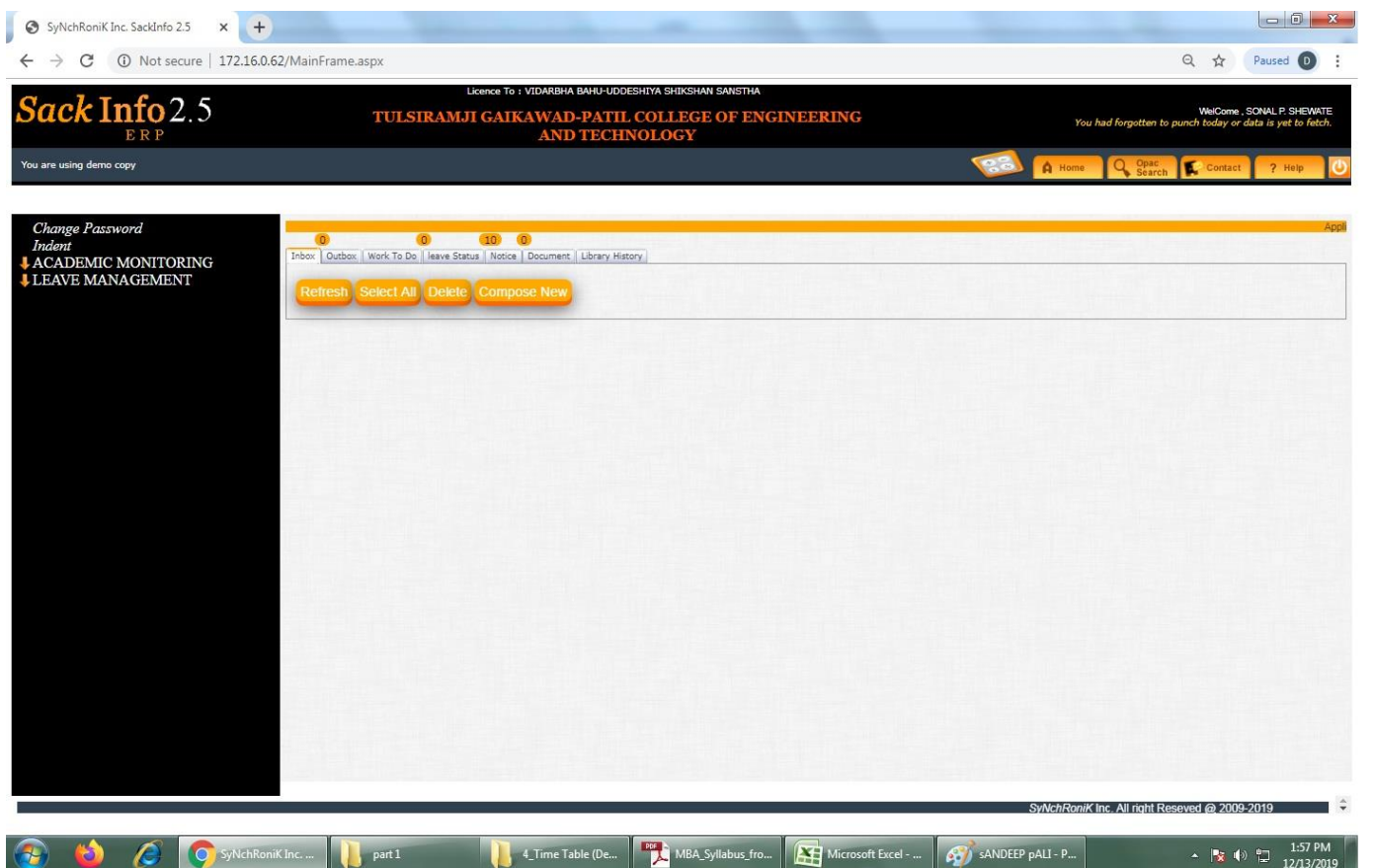
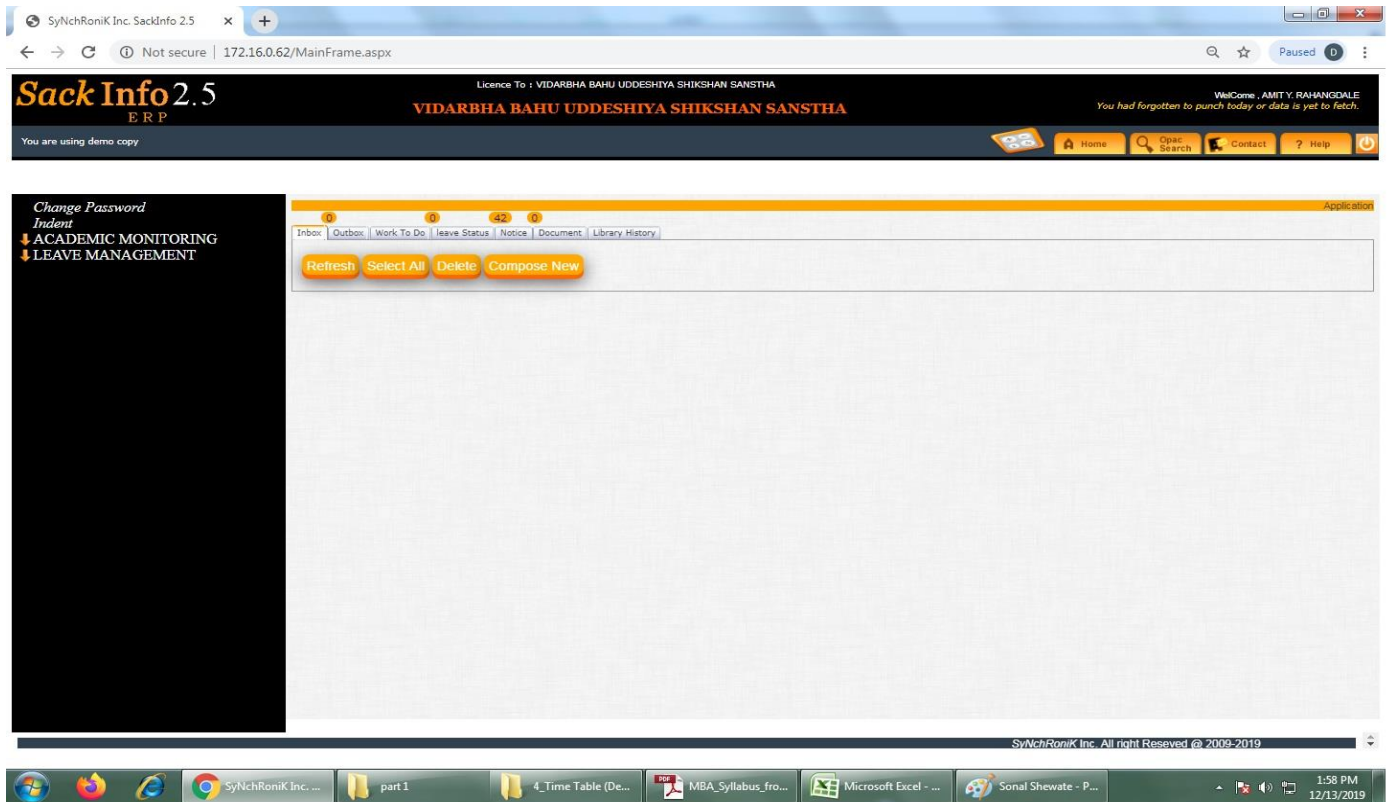
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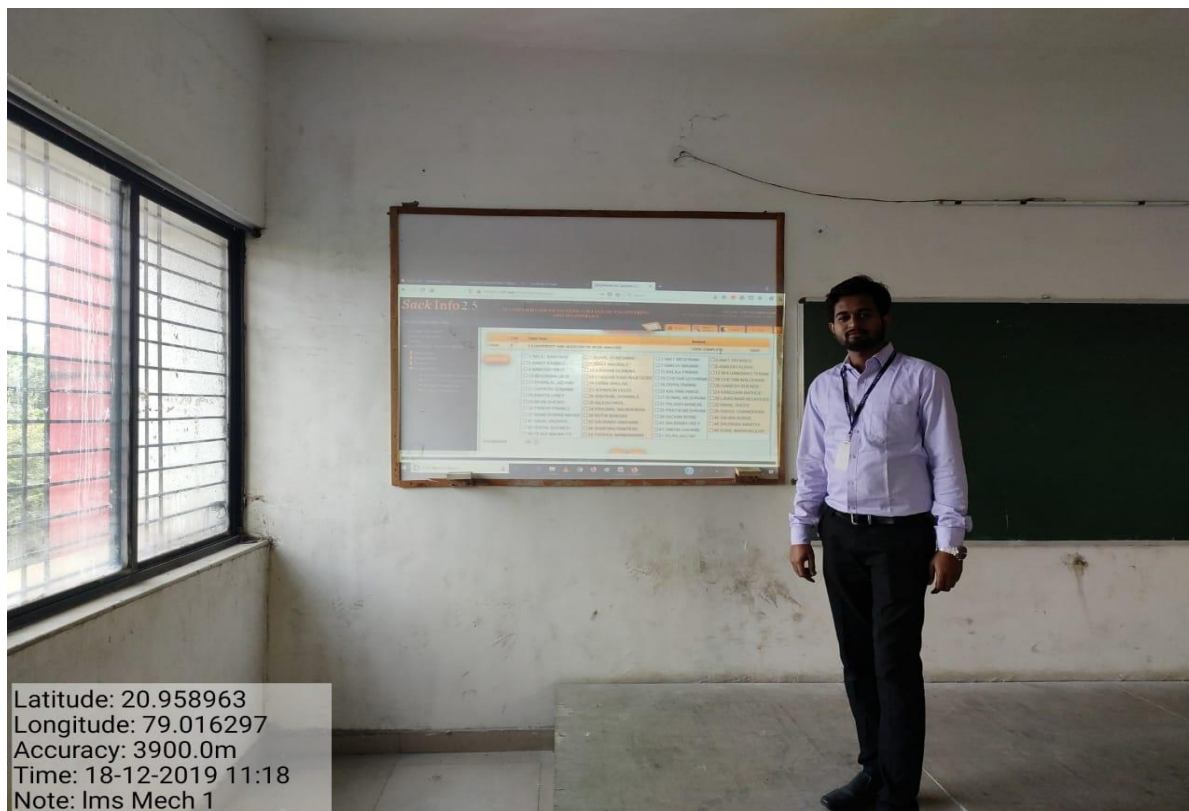
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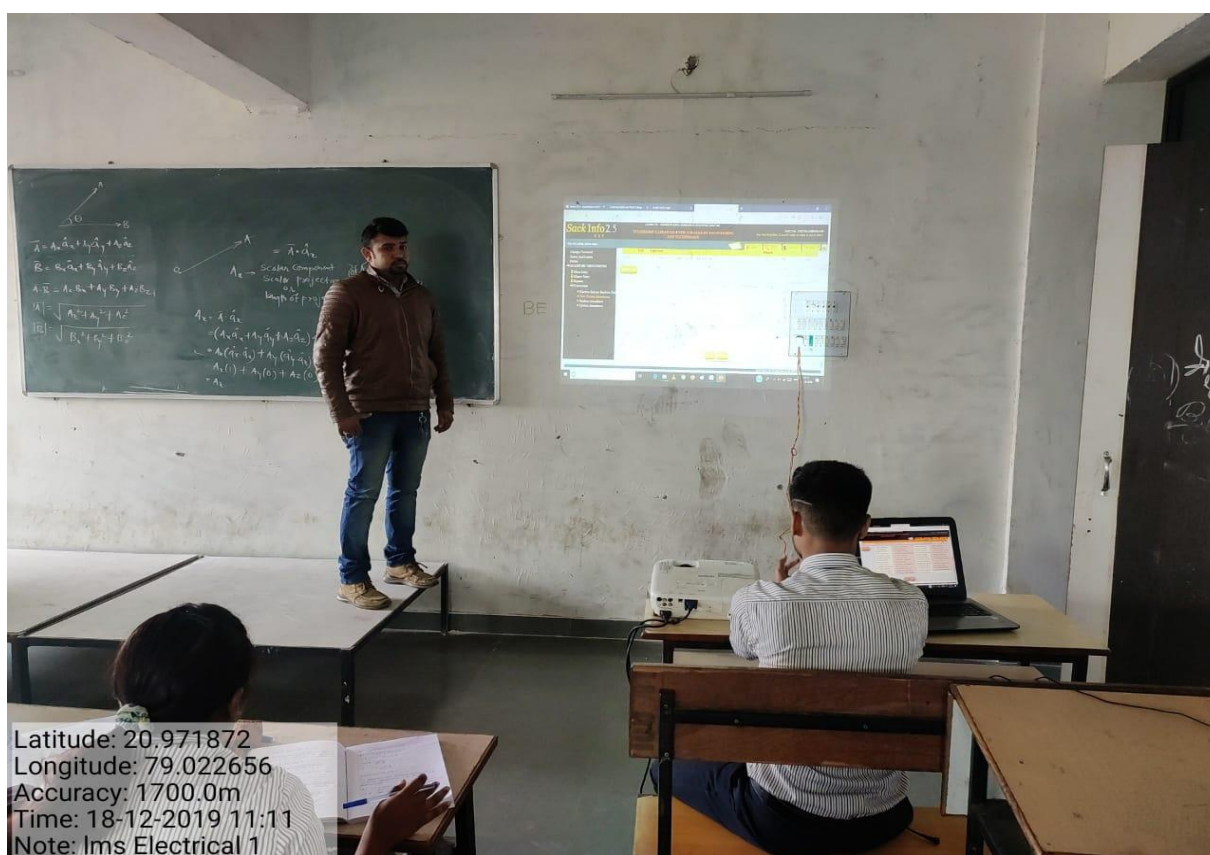
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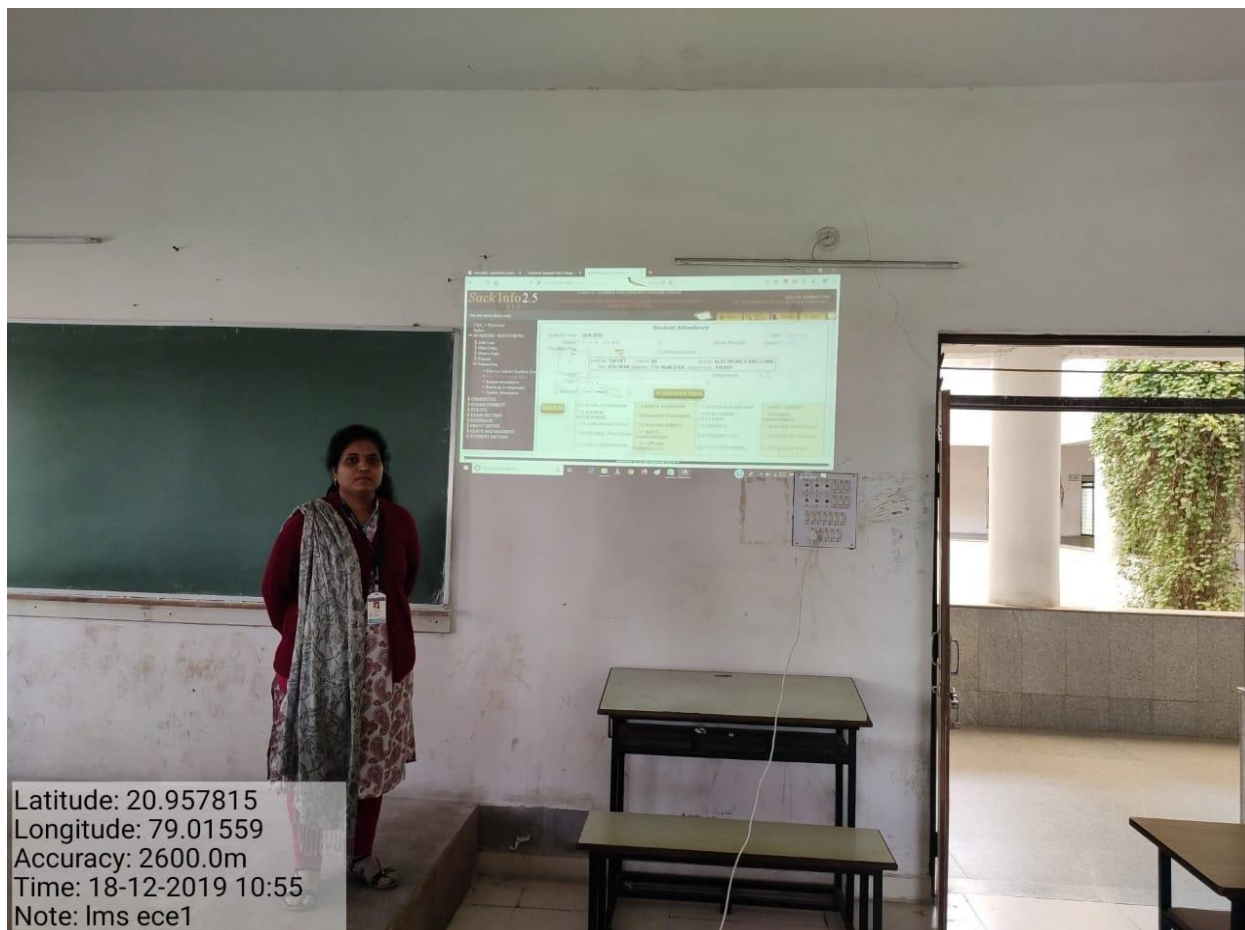




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Slide 1: Tulsiramji Gaikwad-Patil College of Engineering & Technology
Wadhwa Road, Nagpur-461 001
Department of Civil Engineering
BE Fourth Year (VII Semester)
Course BECE 701T: Advanced Concrete Structures
Unit No. 4: Retaining Walls
By: Mr. Anoop Mishra, Assistant Professor & HOD, Civil Engineering Department, TGPCTE, Nagpur.

Slide 2: Scheme of Teaching & Examination

Unit	Topic	Theory Marks	Practical Marks	Internal Marks	External Marks	Total Marks
1	Introduction	10	10	10	10	40
2	Types of retaining walls	10	10	10	10	40
3	Forces on retaining walls	10	10	10	10	40
4	Stability criteria of retaining walls	10	10	10	10	40
5	Design of retaining walls	10	10	10	10	40

Slide 3: Contents

- Introduction
- Types of retaining walls
- Forces on retaining walls
- Stability criteria of retaining walls
- Design of retaining walls

Slide 4: Introduction

- Retaining walls are usually built to hold back soil masses.
- Can also be constructed for landscaping purposes.
- Examples:
 - Embankment involved in construction
 - Building basements
 - Bridge abutments

Slide 5: Types of Retaining Walls

- Gravity retaining wall
- Cantilever retaining wall
- Counterfort retaining wall
- Precast concrete retaining wall
- Precast concrete retaining wall

Slide 6: Definitions

- Backfill:** The soil placed behind a wall.
- Backfill slope:** Often the backfill slopes upward from the back face of the wall. The slope is usually expressed as ratio of horizontal to vertical (e.g. 2:1).
- Batter:** The slope of the face of the stem from a vertical plane, usually on the inside (earth) face.
- Dowels:** Reinforcing steel placed in the footing and bent up into the stem a distance at least equal to the required development length.
- Footing (or Reinforcement):** That part of the structure below the stem that supports and transmits vertical and horizontal forces into the soil below.

Slide 7: Retained height

The height of the earth to be retained, generally measured upward from the top of the footing.

Slide 8: Surcharge

Any load placed in or on top of the soil, either in front or behind the wall.

Slide 9: Weep holes

Holes provided at the base of the stem for drainage. Weep holes usually have gravel or crushed rock behind the openings to act as a sieve and prevent clogging. Poor drainage of weep holes is the result of weep holes becoming clogged with weeds, thereby increasing the lateral pressure against the wall. Perforated pipe surrounded with gravel and encased within a geotextile can be used to provide drainage of the backfill.

Slide 10: Gravity Retaining Wall

- Constructed in heavy masonry, stone masonry and plain concrete.
- proportional in such a manner that dead load of wall provides required stability against overturning.
- No tensile stresses develop in any section because of section size.

Slide 11: Cantilever Retaining Wall

- Made of RCC walls.
- May be in inverted T or L shape.
- Extends up to a height of 6m.
- Consist of:
 - Stem
 - Base slab
 - Backfill
- with reinforcement in designed.

Slide 12: Butressed Retaining Wall

- Identical to counterfort.
- Counterforts are provided on both side.
- Counterforts are subjected compressive forces.

Slide 13: Forces on Retaining Wall

Diagram showing forces on a retaining wall: H (horizontal force), V (vertical force), P (pressure), Q (weight), R (resultant), S (soil pressure), T (tension), U (uplift), W (weight), X (horizontal force), Y (vertical force), Z (pressure), A (area), B (base), C (center), D (depth), E (effective), F (factor), G (gravity), H (height), I (inertia), J (joint), K (key), L (load), M (moment), N (normal), O (origin), P (pressure), Q (weight), R (resultant), S (soil pressure), T (tension), U (uplift), V (vertical force), W (weight), X (horizontal force), Y (vertical force), Z (pressure).

Slide 14: Stability criteria

Diagram showing stability criteria: H (horizontal force), V (vertical force), P (pressure), Q (weight), R (resultant), S (soil pressure), T (tension), U (uplift), W (weight), X (horizontal force), Y (vertical force), Z (pressure).

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Department of Computer Science & Engineering
B.E. Second Year (III Semester)

Course: RECSENSE: Theoretical Foundations of Computer Science

Unit No. 1: Mathematical preliminaries

By
 Mr. Harish Bhoir
 Assistant Professor
 Computer Science Engineering Department
 "GATEWAY", Nagpur.

Alphabet and Strings

- An **alphabet** is a finite, non-empty set of symbols.
 - $\{0,1\}$ is a binary alphabet.
 - $\{A, B, \dots, Z, a, b, \dots, z\}$ is an English alphabet.
- A **string** over an alphabet Σ is a sequence of any number of symbols from Σ .
 - $\emptyset, 1, 01, 001, 010101$ are strings over $\{0,1\}$.
 - Cat, CAT and comparable are strings over the English alphabet.



Empty String

- An *empty string*, denoted by ϵ , is a string containing no symbol
 - ϵ is a string over any alphabet.

Length

- The length of a string x , denoted by $\text{length}(x)$, is the number of positions of symbols in the string


```

Let  $z = \langle a, b, \dots, t \rangle$ 
 $\text{length}(\text{substring}(z, 1, 3)) = 3$ 
 $\text{length}(\text{concatenate}(z, z)) = 12$ 
 $\text{length}(z) = 6$ 
      
```
- $x[i]$ denotes the symbol in the i^{th} position of a string x , for $1 \leq i \leq \text{length}(x)$.



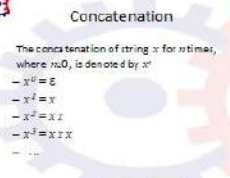
String Operations

- Concatenation
- Substring
- Reversal

Thank you for watching!

Concatenation

- The concatenation of strings x and y , denoted by $x \cdot y$ or xy , is a string such that:
 - $2(i) = x(i)$ for $1 \leq i \leq \text{length}(x)$
 - $2(i) = y(i)$ for $\text{length}(x) + 1 \leq i \leq \text{length}(x) + \text{length}(y)$
- Example
 - $\text{automatic.computation} = \text{automatic} \cdot \text{computation}$



Concatenation

The concatenation of string x for n times, where $n \geq 0$, is denoted x^n

- $x^0 = \varepsilon$
- $x^1 = x$
- $x^2 = x x$
- $x^3 = x x x$

Substring

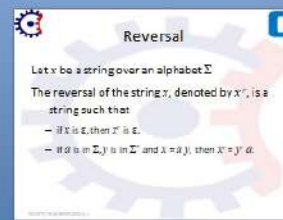
Let T and Y be strings over an alphabet Σ .

The string x is a substring of y if there exist strings W and Z over Σ such that $y = Wxz$.

- ε is a substring of every string.
- For every string x , x is a substring of x itself.

Example

- c , *comp* and *computation* are substrings of *computation*.



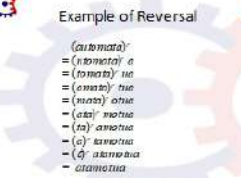
Reversal

Let x be a string over an alphabet Σ

The reversal of the string x , denoted by x^r , is a string such that

- If x is ϵ , then x^r is ϵ .
- If x is ax_1 is in Σ^* and x_1 is y , then $x^r = y^r a$.


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Example of Reversal

(aibmota)³
 = (aibmota) a
 = (aimbota) ie
 = (aimbota) nie
 = (aimbota) otie
 = (aimbota) motie
 = (aimbota) amotie
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 = (aimbota) amotie

Source: <http://www.mathworks.com/matlabcentral/answers/10140>



Σ^*

- The set of strings created from any number (0 or 1 or ...) of symbols in an alphabet Σ is denoted by Σ^* .
- That is, $\Sigma^* = \epsilon, \Sigma, \Sigma^2, \dots$
 - Let $\Sigma = \{0, 1\}$.

- The set of strings created from at least one symbol (1 or 2 or ...) in an alphabet Σ is denoted by Σ^+ .
- That is, $\Sigma^+ = \omega_1 \omega_2 \dots \omega_n \Sigma^n$
 $= \cup_{n=1,2,3,\dots} \Sigma^n$
 $= \cup_{n=1,2,3,\dots} \Sigma - \{\epsilon\}$

Languages

- A language over an alphabet Σ is a set of strings over Σ .
 - Let $\Sigma = \{0, 1\}$ be the alphabet.
 - $L_0 = \{w \in \Sigma^* \mid \text{the number of 1's in } w \text{ is even}\}$.

Relations

- A, B: two sets
 - $A \times B$ (Cartesian product of A and B) is the set of all ordered pairs $\langle a, b \rangle \mid a \in A \text{ and } b \in B$.
 - Examples:
 - $A: \{1, 2, 3\}, B: \{1, 5, 6\} \Rightarrow A \times B = \dots$
- $A1, A2, \dots, An \ (n > 0)$: n sets
 - $A1 \times A2 \times \dots \times An = \{ \langle a1, a2, \dots, an \rangle \mid a1 \in A1 \wedge a2 \in A2 \wedge \dots \wedge an \in An \}$



Types of Proofs :

1. **Proof by contradiction:**
 Theorem 2.22: For each real number x greater than 2, there exists a 3-gonal graph with x vertices.
 Proof: done in class.
2. **Proof by contradiction:**
 Theorem 2.24: Square root of 2 is irrational.
 Proof: done in class.
3. **Proof by induction:** Useful for proving statements for infinite sets, such as, $\forall n \in \mathbb{N}$, induction on steps of an inductive construction.

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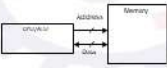
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Tukaramji Chakradhar College of Engineering & Technology
Wadhwa Road, Nagpur-461 001
NAAC Accredited
Department of Electronic and Communication Engineering
B.E. fourth Year (V Semester)
Course: ECE70101: DSP Processor & Architecture
By: Mr. Rakesh Bhosale, Assistant Professor, Electronic and Communication Engineering Department, TQCEET, Nagpur.

UNIT-1
What makes a DSP chip a DSP?

- Conventional microprocessors use the Von Neumann architecture: program and data all in a single memory. Address and data buses are shared between instruction and data fetches.



UNIT-2
Architecture of TMS320C54X

Central Processing Unit (CPU)

The C54x CPU contains:

- 40-bit arithmetic logic unit (ALU)
- Two 40-bit accumulators
- Barrel shifter
- 17 x 17-bit multiplier
- 40-bit adder

Arithmetic Logic Unit (ALU)

The C54x processor's accumulator consists of a 40-bit arithmetic logic unit (ALU) and two 40-bit accumulators (A and B).

The ALU can perform sixteen operations.

The ALU has three inputs:

- The accumulator A
- The accumulator B
- The 17-bit multiplier

The ALU has two outputs:

- The 40-bit result
- The 17-bit multiplier result

Arithmetic Logic Unit (ALU)

Arithmetic Logic Unit (ALU) Functional Diagram

Architecture

C54x DSP architecture has eight major 16-bit buses (four program/data buses and four address buses).

- The program bus (PB) carries the instruction code and immediate operands from program memory.
- Three data buses (DB, DL, and DS) interconnect to various elements, such as the CPU, data address generation logic, program address generation logic, on-chip peripherals, and data memory.
- The DB and DS carry 16-bit operands that are read from data memory.
- The PB carries the data to be written to memory.
- Four address buses (AB, CAB, DAB, and SAB) carry the addresses needed for instruction execution.

UNIT-3
Internal Memory Organization

- C54x memory is organized into three individually selectable spaces: program, data, and I/O space.
- The C54x device can contain RAM and ROM.
- The CPU ROM is a part of the processor.

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1.1. DATA COMMUNICATIONS

The term **telecommunication** means communication at a distance. The word **data** refers to information presented in whatever form is agreed upon by the parties creating and using the data. **Data communications** are the exchange of data between two devices via some form of transmission medium such as a wire cable.

Topics discussed in this section:

- Components of a data communication system
- Data Flow

1.2

Figure 1.1 Components of a data communication system

1.3

Figure 1.1 Data flow (simplex, half-duplex, and full-duplex)

1.4

1.2. NETWORKS

A **network** is a set of devices (often referred to as **nodes**) connected by **communication links**. A node can be a computer, printer, or any other device capable of sending and/or receiving data generated by other nodes on the network. A link can be a cable, air, optical fiber, or any medium which can transport a signal carrying information.

Topics discussed in this section:

- Network Criteria
- Physical Structures
- Categories of Networks

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Tukaramji Chakradhar College of Engineering & Technology
M.B.A. Second Year (III Semester)
Course: M.B.A.
Unit No. 1- Performance Appraisal and Performance Appraisal System
Dr. Pradip Kulkarni
Assistant Professor
Master of Business Administration
BUPCTE, Nagpur.

PERFORMANCE APPRAISAL
Objectives
Methods
Process
Having

CONTENTS

- Concept & Definition of Performance Appraisal
- Benefits of Performance Appraisal
- Evolution of Performance Appraisal
- Planning Performance Appraisal System
- Types of Performance Appraisal
- Approaches to Performance Appraisal
- Sources of Performance Appraisal

TIME FOR REVIEW

INTRODUCTION

- In the present highly competitive environment, organizations have to ensure peak performance of their employees continuously in order to compete at the market place effectively.
- Traditionally, this objective was attempted to achieve through employee performance appraisal, which was more concerned with telling employees where they lacked in their performance.
- Though this served the purpose to some extent, it was not considered enough to raise the employee performance at the most desirable level. Performance management has overcome this problem to some extent.

CONCEPT OF PERFORMANCE APPRAISAL

- Appraisal is the evaluation of worth, quality or merit. In the organization context, performance appraisal is a systematic evaluation of personnel by superiors or others familiar with their performance.
- Performance appraisal is also described as merit rating in which one individual is ranked as better or worse in comparison to others. The basic purpose in this merit rating is to ascertain an employee's eligibility for promotion.

EMPLOYEES WANT TO KNOW.....

WHAT AM I SUPPOSED TO BE DOING? HOW WELL AM I BEING DOING IT? WHAT DO YOU THINK OF MY PERFORMANCE? HOW WELL AM I BEING DOING IT? HOW CAN I IMPROVE MY PERFORMANCE?

MEANING OF PERFORMANCE APPRAISAL

- Performance appraisal is the systematic evaluation of employees with respect to their performance on their job and their potential for development.
- Performance appraisal is an evaluation done on an employee's job performance over a specific period of time.
- The words performed by the different employees differ in many aspects due to the difference in their background, experiences, knowledge, skills, abilities, and aptitudes. Such differences determine the need for training and development activities.

Contd..

- It is the equivalent of a report card on an employee and how their manager assessed their performance over the previous year.
- So, it is necessary for management to identify such differences so that employees having better job performance ability, skills and knowledge can be rewarded in one hand, and the wrong placements of the employees may be checked through transfer or punishment on other hands.

DEFINITIONS

- Berch has defined performance appraisal as follows:
- Performance Appraisal is the systematic evaluation of the individual with regard to his or her performance on the job and his potential for development.
- According to Dale Yoder:
- Performance Appraisal includes all formal procedures used to evaluate personnel and contributions and potential of group members in a working organization. It is a continuous process to secure information necessary for making correct and objective decisions on employees.

OBJECTIVES OF PERFORMANCE APPRAISAL

- To review the performance of the employees over a given period of time.
- To judge the gap between the actual and the desired performance.
- To help the management in exercising organizational control.
- To help in strengthening the relationship and communication between superior - subordinate and management - employees.

Contd..

- Provide information to assist in the other personnel decisions in the organization.
- Provide clarity of the expectations and responsibilities of the functions to be performed by the employees.
- To judge the effectiveness of the other human resource functions of the organization such as recruitment, training, development, etc.

TYPES OF APPRAISAL

- General Appraisal
- Technological Performance Appraisal
- Employee Self-Assessment
- Manager Performance Appraisal
- Project Evaluation Review

APPROACHES TO PERFORMANCE APPRAISAL

- The Casual Approach:
The casual approach of performance appraisal was perhaps the most commonly used one in the past. It however, had the probability with the need for quantitative and qualitative measurement of output (or process).
- The Traditional Approach:
This approach is used to evaluate:
(a) Employee characteristics,
(b) Employee contributions, or
(c) Both.

THANK YOU!

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Tukaramji Chakradhar College of Engineering & Technology
Wardha Road, Nagpur-441 101
Department of Master of computer applications
M.C.A Final Year (V Semester)
Course: SC5A1 : Data ware housing and mining
By
Miss. Sonam Radhakumar
Assistant Professor
M.C.A Department
TCET, Nagpur

Syllabus

UNIT I
Characteristic of a data warehouse, Data Mart, types of Data mart, loading a data mart, metadata for a data mart, maintenance of data mart, Nature of data for data mining, type of components for data mart, Metrics to data mart, reference data, Performance issues, Monitoring requirements for a data mart, security in data mart.

UNIT II
OLAP & OLAP systems, data modeling, star schema for multidimensional view, multiple stars schema, subtypes of OLAP, data managed query environment (DMQ), query processor, 10 data fusion joins, why data ware, information advantage with OLAP, OLAP languages (SQL, etc), key technology OLAP tools & the Internet.

UNIT III
Data mining: introduction, from data warehouse to data mining, steps of data mining, data mining algorithm, database representation, predictive modeling, link analysis, tools for data mining.

UNIT IV
Developing a data warehouse, building a data warehouse, data warehouse architecture examples, design considerations, data content, metadata, distribution data, tools for data warehouse, performance considerations, crucial decisions in designing a data warehouse, various technological considerations.

SUMMARY LAYOUT

Unit 1 Introduction, what is data ware housing?

Unit 2 Characteristics of a data warehouse, Data Mart, types of Data mart

Unit 3 Loading a data mart, metadata for a data mart

Unit 4 Maintenance of data mart, Nature of data in data mart

Unit 5 New components for data mart, Metrics in data mart, Reference data

Unit 6 Performance Issues, Monitoring requirements for a data mart, security in data mart.

A producer wants to know....

What are our best-selling products?
What is the most effective distribution channel?
What product's profit comes from the best repeat purchasers?
What aspects of our products/services have we received good ratings?

What are our customers saying about our service?
Which customers are most likely to go to the competitor?
Which customers are most likely to go to the competitor?

Data, Data Everywhere yet ...

- I can't find the data I need
- data is scattered over the network
- many versions, subtle differences
- I can't get the data I need
- need an expert to get the data
- I can't understand the data I found
- available data poorly documented
- I can't use the data I found
- results are unexpected
- data needs to be transformed from one form to other

What is a Data Warehouse?

A single, complete and consistent store of data obtained from a variety of different sources, made available to end users in a way they can understand and use in a business context.

[Bany Devlin]

What are the users saying...

- Data should be integrated across the enterprise
- Summary data has a real value to the organization
- Historical data holds the key to understanding data over time
- What-if capabilities are required

What is Data Warehousing?

Information

Process of transforming data into information and making it available to users in a timely enough manner to make a difference

Data Warehouse

- A Data Warehouse is a
- subject-oriented
- integrated
- time-variant
- non-volatile
- collection of data that is used primarily in organizational decision making.
- Data Warehouse is a

Characteristic of Data Warehouse

- A data warehouse has significantly different features from other enterprise-wide systems, particularly in how data is stored, managed and manipulated.
- There are four key characteristics which separate the data warehouse from other major operational systems:
- 1. Subject Oriented
- 2. Integrated

Data Warehouse Architecture

Source Systems → Extract, Transform, Load → Data Warehouse Engine → Analysis Tools

Benefits of warehouse

- A data warehouse provides a common data model for all data of interest regardless of the data's source.
- Information in the data warehouse is under the control of data warehouse users so that, even if the source system data are purged/empty over time, the information in the warehouse can be stored safely for extended periods of time.

Data Mart

- A subset of a data warehouse that supports the requirements of a particular department or business function.
- A data mart is a simple form of a data warehouse that is focused on a single subject (or functional area), such as sales or finance or marketing

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III SEMESTER (EE)(NA)

Electrical Engineering



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