

**Summary Sheet Containing Sample Documents of PBL
Implementations**

S.NO	DEPARTMENT	PBL COURSES
1	CSE	1.Object Oriented Programming System 2.Data Structures 3.Design Analysis of Algorithms 4.WebTechnologies 5.Computer Networks
2	ECE	1.Antennas and Wave Propagation 2.Electronic Circuit Analysis and Design Lab 3.Microwave Engineering
3	EEE	1.Electric Circuits 2.Instrumentation and Measurement Techniques 3.Power Electronics
4	CIVIL	1.Design of Reinforced Concrete Structures 2.Transportation engineering 3.Health Monitoring and Retrofitting of Structures



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CSE

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Department of Computer Science & Engineering

04/10/2021

Circular

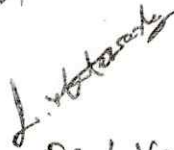
This is to inform that II B.Tech I semester students need to do some basic projects under PBL (Project Based Learning) activity. This project will be an added advantage to their career and can be done in following domains:

1. Java
2. Advanced Data Structures

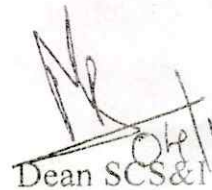
Course coordinators handling the above courses need to submit the list of interested students along with project titles to the coordinator Dr.K.Neeraja on or before 08/10/21.


HOD CSE
4/10/21

Dr. A. Sri Lakshmi





















Dr. L. Venkateshwarulu.


Dean SCS&I
04/10/21

Prof. V. Madhusudan Rao



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S.NO	FACULTY NAME	SUBJECT	section	Signature
1	P.Aparna	Data Structures	AIML	
2	P.Aparna	Data Structures	DS	
3	L.Venteshwarlu	Data Structures	CS	
4	G.Alekhyia	Data Structures	IOT	
5	Dr.M.Shanthi	Data Structures	A	
6	K.Padmaja	Data Structures	B	
7	Prof.V.Madhusudhan	Data Structures	C	
8	Dr.K.Ambedkar	Data Structures	D	
9	Dr.A.Gangadeep	Data Structures	E	
1	M.Lavanya	oopj	AIML	
2	M.Lavanya	oopj	DS	
3	G.Vijay kumar	oopj	CS	
4	G.Vijay kumar	oopj	IOT	
5	G.Praveen kumar	oopj	A	
6	A.Sree Lakshmi	oopj	B	
7	S.Ramanjaneyulu	oopj	C	
8	Dr.B.V.Swathi	oopj	D	
9	Preeti Prasad	oopj	E	

Dr. A. Kalpani

Note : Every student should either take up DS or OOPS PBL for this semester. PBL will be given weightage in lab internal assessment.

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PROJECTS COMPLETED IN OOP LAB UNDER PBL

S.No	Section	BatchNo	Roll No	Project Title	Guide
1	A	A1	20R11A051 5	College Management System	G.Praveen. Kumar
2			20R11A051 7		
3			20R11A0523		
4		A2	20R11A0501	JAVA QUIZ App	
5			20R11A0522		
6			20R11A0524		
7		A3	20R11A0528	TIC- TAC-TOE Game using JAVA	
8			20R11A0541		
9	B	B1	20R11A059 3	Application for automatic allocation of buses to staff and students as per the routes	Dr. A Sree lakshmi
10			21R15A050 6		
11		B2	20R11A056 9	Java application for Bhaswara Technical event	
12			20R11A056 7		
13		B4	20R11A057 5	Application for maintenance of students academic records.	
14			20R11A057 2		
15		B5	20R11A057 3	Application for maintenance of faculty research details.	
16			20R11A057 6		
17		B6	20R11A059 4	Application for maintenance of students academic records.	
18			20R11A058 2		
19		B8	20R11A056 3	Application for maintenance of student profiles	
20			20R11A057 8		
21	D	D1	20R11A05E5	Vaccine distribution data system	Dr.B.V.Swathi
22		D2	20R11A05G 6	Music Player Using JAVA	
23			20R11A05F7		
24		D3	20R11A05H 8	Application For Converting Value of Money From one country to other Country	
25			20R11A05G 5		
26			20R11A05J6		

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Department of Computer Science & Engineering

B.Tech Ilyr I sem

JAVA LAB PBL LIST(Completed)

Section - II CSE-B, Faculty: Dr. A SreeLakshmi

S No.	Batch No.	Roll No.	Project Title
1	A1	20R11A0593	Application for automatic allocation of buses to staff and students as per the routes
2		21R15A0506	
3	A2	20R11A0569	Java application for Bhaswara Technical event
4		20R11A0567	
5	A3	20R11A0562	Application for automatic allocation of buses to staff and students as per the routes
6		20R11A0568	
7	A4	20R11A0575	Application for maintenance of students academic records.
8		20R11A0572	
9	A5	20R11A0573	Application for maintenance of faculty research details.
10		20R11A0576	
11	A6	20R11A0594	Application for maintenance of students academic records.
12		20R11A0582	
15	A8	20R11A0561	Application for GCET Placement cell
16		20R11A0571	
17	A13	20R11A0563	Application for maintainence of student profiles
18		20R11A0578	
19	A12	20R11A0591	Java application for Bhaswara Technical event
20		20R11A0585	

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Department of Computer Science & Engineering

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JAVA LAB PROJECT LIST

COMPLETED Section - E

S No.	Batch No.	Roll No.	Project Title	Mobile No.	Email-ID
1	E1	21R15A0521	Hospital Management	7981556932	lovilylucky143@gmail.com
2		21R15A0522		6305049871	elakantivictoria@gmail.com
3		21R15A0523		9542205450	laharivutlapally14@gmail.com
4	E3	20R11A05K6	Pizza ordering system	9100878339	karthik.gogineni.1@gmail.com
5		20R11A05K9		9490774651	hariharisarada@gmail.com
6		20R11A05L7		8309162326	vansh.merugu@gmail.com
7	E6	20R11A05L9	Snake game in java	9347212717	mamidyaladeepika@gmail.com
8		20R11A05M1		9849598445	shoaib.insaner@gmail.com
9		20R11A05P4		8374362454	madhavanvarikolu2020@gmail.com
10	E7	20R11A05P9	Online book store	9494985273	20R11A05P9@gcet.edu.in
11		20R11A05N4		6300038873	20R11A05n4@gcet.edu.in
12		20R11A05P0		9490830131	singamsaikiran22@gmail.com
13		20R11A05Q0			20r11a05q0@gcet.edu.in
14	E13	20R11A05M3	Online movie ticket booking	8179501592	polunitheeshreddy@gmail.com
15		20R11A05M4		7023337988	riddhiaparajita@gmail.com
16		20R11A05M5		8074429832	muralikrishna66474@gmail.com
17	E16	20R11A05N9	Room Booking System	9000036225	Pavankirity@gmail.com
18		20R11A05N5		7680845998	vishoremudhiraj@gmail.com
19		21R15A0524		7095307261	bixam02@gmail.com

Signature of the Faculty

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PROJECTS COMPLETED IN OOP LAB UNDER PBL

Section -A

S.No	BatchNo.	Roll No	Project Title	Guide
1	A1	20R11A0515	College Management System	G.Praveen Kumar
2		20R11A0517		
3		20R11A0523		
4	A2	20R11A0501	JAVA QUIZ App	
5		20R11A0522		
6		20R11A0524		
7	A3	20R11A0528	TIC- TAC-TOE Game using JAVA	
8		20R11A0541		

Praveen

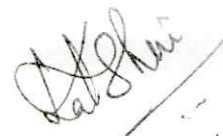
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Department of Computer Science & Engineering (4)
B.Tech Iyr I sem
PROJECTS COMPLETED IN OOP LAB UNDER PBL
Section -B

S.No	BatchNo.	Roll No	Project Title	Guide
1	B1	20R11A0593	Application for automatic allocation of buses to staff and students as per the	Dr. A Sree lakshmi
2		21R15A0506		
3	B2	20R11A0569	Java application for Bhaswara Technical event	
4		20R11A0567		
7	B4	20R11A0575	Application for maintenance of students academic records.	
8		20R11A0572		
9	B5	20R11A0573	Application for maintenance of faculty research details.	
10		20R11A0576		
11	B6	20R11A0594	Application for maintenance of students academic records.	
12		20R11A0582		
15	B8	20R11A0563	Application for maintenance of student profiles	
16		20R11A0578		





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Department of Computer Science & Engineering

B.Tech Iyr I sem

PROJECTS COMPLETED IN OOP LAB UNDER PBL

Section -D

S.No	BatchNo.	Roll No	Project Title	Guide
1	D1	20R11A05E5	Vaccine distribution data system	Dr.B.V.Swathi <i>Swathi</i>
2	D2	20R11A05G6	Music Player Using JAVA	
3		20R11A05F7		
4	D3	20R11A05H8	Application For Converting Value of Money From one country to other Country	
7		20R11A05G5		
8		20R11A05J6		

Swathi

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Department of Computer Science & Engineering

B.Tech Hyr I sem

PROJECTS COMPLETED IN DSLAB UNDER PBL

Section -D

6

S.No	BatchNo.	Roll No	Project Title	Guide
1	D1	20R11A05E5	Vaccine distribution data system	Dr.K AMBEDKAR <i>ambekar</i>
2	D2	20R11A05E6		
3		20R11A05E7		

ambekar

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Department of Computer Science & Engineering

B.Tech Iyr I sem

PROJECTS COMPLETED IN OOP LAB UNDER PBL

Section -A (AIML) (7)

S.No	BatchNo.	Roll No	Project Title	Guide
1	A1	20R11A6701	ATM INTERFACE	M LAVANYA
2		20R11A6705		
3		20R11A6708		
4		20R11A6713		
5	A2	20R11A6702	SCHOOL MANAGEMENT SYSTEM	M LAVANYA
6		20R11A6703		
	A3	20r11a6729 20r11a6725 20r11a6709	CUSTOMER SERVICES	M LAVANYA

Lavanya

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Geethanjali College of Engineering and Technology (AUTONOMOUS)

Department of AIML

B.Tech Iyr I sem

PROJECTS COMPLETED IN OOP LAB UNDER PBL

Section A DS

(5)

S.No	BatchNo.	Roll No	Project Title	Guide
1	A1	20R11A6607	TRAVEL AND TOURISM MANAGEMNT SYSTEM	M LAVANYA
2		20R11A6616		
3		20R11A6625		
4		20R11A6628		
5	A2	20R11A6649	BANKING APPLICATIONS	M LAVANYA
6		20R11A6631		
7		20R11A6636		

Lav

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Geethanjali College of Engineering and Technology (AUTONOMOUS)

Department of Computer Science & Engineering

B.Tech 2ndyr I sem

DS PROJECT BASED LEARNING

IOT

SECTION-A

Sno	Batch NO	Rollno		Project Title	Guide
1	A1	20R11A6942	Mr. PADIDALA ABHILASH	HOTEL MANAGEMENT USING DATA STRUCTURE	G.ALEKHYA
2		20R11A6943	Mr.PARASA SATHVIK		
3		20R11A6941	Mr. SAI ADITYA		
4		20R11A6952	Mr. VARUN		
5	A2	20R11A6940	Mr.NIDHISH	ATM MACHINE	
6		20R11A6960	Mr. ANVIK		
7		20R11A6934	Mr.MANIKIRAN		
8		20R11A6956	Mr. GIRIDAR		
9	A3	20R11A6919	Miss.GARIMELLA CHARSIHMA	ADVANCED CALCULATOR	
10		20R11A6921	Miss.JOEL ISHIKA		
11		20R11A6904	Miss.AKULA PALLAVI		
12		20R11A6905	Miss.AKENAPALLY SANJANA		
13	A4	20R11A6909	Mr.AKASH ARUPALI	SCHOOL BILLING SYSTEM	
14		20R11A6954	Mr.TATA TANISHQ		
15		20R11A6936	Miss .MANYAM KALYANI		
16		20R11A6932	Miss. K.AKSHITHA		

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B.Tech IIIyr I sem

CN LAB PROJECT LIST

Section - A

AY 2021-22
10

Sno	atch N	Rollno		Project Title	Guide
1	A1	19R11A0535	Mr. SAMBARI MANIKANTA	Gen Z office powered by IoT in LAN	Dr. K. Krishna Jyothi
2		19R11A0547	Mr. VATTURI PARITOSH		
3		19R11A0541	Mr. V ARUN VALLIAPPAN		
4		19R11A0536	Mr. SHAIK AASIM		
4	A2	19R11A0522	Miss MAMIDI LIKHITHA	Integration of Household Appliances Using wireless Network-IoT	
5		19R11A0512	Mr. GOVARDHANAM SREEMANT		
6		201R15A0503	Mr. BALABADRA SRIKANTH		
8	A3	19R11A0532	Mr. POTHUGANTI DHEERAJ REDDY	GNET	
9		19R11A0533	Mr. R MADHAVA SAI		
9		19R11A0538	Mr. SRIRANGAM VENKATA KRISHNA N		
11	A4	19R11A0524	Miss MAPATI BHANU SRI	IoT based Intelligent Household Security System	
12		19R11A0505	Mr. DUGGIRALA HIMAA SAMIIRR		
13		20R15A0506	Mr. VARUSA MAHESH CHANDRA		
14	A5	19R11A0517	Mr. KAMUJU NOVA	VPN Configuration using CLI in CPT	
15		19R11A0518	Miss KEMSARAM SOWMYA SREE		
15		19R11A0544	Miss VANKAYALAPATI VINITHA		
16		19R11A0548	Miss VUDHANTHI NEERAJA		
17	A6	19R11A0519	Miss KORAPOLU SRIYA	Smart Emergency Response System for Smoke Detection Using IoT Sensors	
18		19R11A0530	Mr. PEESARI DILEEP REDDY		
19		19R11A0539	Mr. T SHAILENDRA SAINATH		
20	A7	19R11A0501	Mr. ADIT S KUMAR	Smoke Anomaly Detection and Regulation	
21		19R11A0502	Mr. AKULA RAVI PRAKASH		
21		19R11A0540	Mr. TAMMALI SAKETH SAI		
21		19R11A0513	Mr. GOUTE BHANU PRAKASH		
20	A7	19R11A0519	Miss KORAPOLU SRIYA	Ethical Hacking for Intrusion Detecion using Wireshark	
21		19R11A0522	Miss MAMIDI LIKHITHA		
22		19R11A0524	Miss MAPATI BHANU SRI		

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CSE

GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY

A

PBL PROJECT ON

“Application for Maintenance of Student’s
Academic Records”

For the Course
Object Oriented Programming

Submitted By:

L.Bhanu Prasad (20R11A0594)

G.Dhruti (20R11A0582)

Under The Guidance Of:

Prof. Dr A Sreelakshmi

Department of:
Computer Science And Engineering



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1.ACKNOWLEDGEMENT

Our project report Application for maintenance of student's academic records would be incomplete without expressing our thanks to all those who have helped us in completing this project. We would like to thank our HOD, Prof. Dr. A Sreelakshmi for giving us this opportunity to study on a well-defined problem. We had always got great support and encouragement from her.

We would like to express our sincere thanks to Dr A. Sreelakshmi Mam HOD, Department of Computer Science, who has been guiding us throughout our study. She was there with us during the project, and always gave us the right piece of advice. It is with her support and guidance that today we could complete this project, our guide who always welcomed us for any sort of problems and helped us every time we approached.



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2.ABSTRACT

A number of problems associated with student academic record management include late release of students results, inaccuracy due to manual and tedious calculation and retrieval difficulties/inefficiency. In most cases data generated by academic institutions are usually created in non-delineated files for use by different departments/units within the institutions with the same data appearing on several of these files. This means that a simple change of address would have to be processed in two and probably three or four places, depending on the number of other files on which these data appear.

The development of database concept is the answer to these problems where the amount of redundant data is reduced and the possibility that data contained on a file might be inaccurate because they were never updated. This application discusses the implementation of maintenance of students' academic record. It also discusses the issues of selecting appropriate database model, interface design, system deployment and maintenance.

The main objective of this project is to build a student database system that will store academic records of students. It is purposed to reduce time spent on administrative tasks. The system is intended to accept process, generate students report on grades they secured. An academic record is a formal record of your academic history at the University. The student academic system maintains records of students, the courses and modules on which they are studying and the outcome of their studies. This information consists of students roll number, year of joining and their grades secured by them in each course and the total GPA secured by each individual.



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3. INTRODUCTION

3.1 About the Project:

This project "maintenance of student academic record" provides us a simple interface for maintenance of student academic performance. It can be used by educational institutions or colleges to maintain the record of student academic performance easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using this project. Throughout the project the focus has been on presenting the required information in an easy and intelligible manner. The project is very useful for those who want to know about student academic record management and want to develop software/websites based on the same concept.

This project reduces paperwork and facilitates the automating of the record generation process in an educational institution.

3.2 Problem Definition:

The design and implementation of a student academic record system and user interface is to replace the current paper records. In many institutes mentors are allotted to a set of students and our project application/objective helps the mentors/staff in viewing the academic records by a single click. This makes the user task very easy by getting the complete academic information of every particular individual. This application is also the safest way in viewing the details because this displays only the information necessary for an individual. All the data is stored securely in SQL. Our application makes the mentors task very easy and efficient during the PTM. This application helps in reclaiming the students' performance from their beginning of education. Our project "Application for maintenance of student's academic record" is designed to increase the efficiency of the colleges academic record management thereby decreasing the work hours needed to access and deliver student academic performance to users.

4.REQUIREMENTS ANALYSIS

4.1 Software Requirements

Operating System : Microsoft Windows 11
Coding language : Java
IDE : Eclipse
Database : MySQL

4.2 Hardware Used

Processor : Intel (R) Core (TM) i5-1035G1
CPU @ 1.00GHz 1.19 GHz
RAM : 8GB
Hard Disk : 1Tb
Monitor : 15.6 colour monitor



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5. TECHNOLOGIES USED


Now a days all are familiar with Internet, the worldwide network of computers, which thousands of computers all over the world. These network connections are day by day in a rapid rate, so the network traffic is increasing at a pulse rate computer connected to the net are from many different manufacturers, running on different operating systems and they differ in architecture, computing power and capacity. By considering this point SUN Microsystems Corporation felt the need for a new programming language suitable for this heterogeneous Environment and java was the solution. This breaks Users between different computers, chips and operating systems. Using java your application become compatible with all operating systems.

5.1 JAVA

Java is a general-purpose computer-programming language that is concurrent, class-based. Object-oriented, and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers write once, run anywhere" (WORA). Meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to "byte code" that can run on any Java Virtual Machine (JVM) regardless of the underlying computer architecture. The language derives much of its original features from Smalltalk, with a syntax similar to C and C+, but it has fewer low-level facilities than either of them. As of 2016, Java was one of the most popular programming languages in use. Particularly for client-server web applications, with a reported million developers.

As of now, that's really your only option for native applications. Java Is a very popular programming language developed by Sun Microsystems (now owned by Oracle). Developed long after C and C+. Java incorporates many the powerful features of those powerful languages while addressing some of their draw backs. Still, programming languages are only as powerful as their libraries. These libraries exist to help developers build applications.

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Some of the Java's important core features are:


- It's easy to learn and understand.
- It's designed to be platform independent and secure, using virtual machines.
- It's object oriented.
- Android relies heavily on these Java fundamentals

5.2 Database

In computing, a **database** is an organized collection of data stored and accessed electronically. Small databases can be stored on a file system, while large databases are hosted on computer clusters or cloud storage. The design of databases spans formal techniques and practical considerations including data modelling, efficient data representation and storage, query languages, security and privacy of sensitive data, and distributed computing issues including supporting concurrent access and fault tolerance.

A Database Management System (**DBMS**) is the software that interacts with end users, applications, and the database itself to capture and analyse the data. The DBMS software additionally encompasses the core facilities provided to administer the database. The sum total of the database, the DBMS and the associated applications can be referred to as a **database system**. Often the term "database" is also used loosely to refer to any of the DBMS, the database system or an application associated with the database.

Computer scientists may classify database management systems according to the database models that they support. Relational databases became dominant in the 1980s. These model data as rows and columns in a series of tables, and the vast majority use SQL for writing and querying data. In the 2000s, non-relational databases became popular, collectively referred to as NoSQL because they use different query languages.

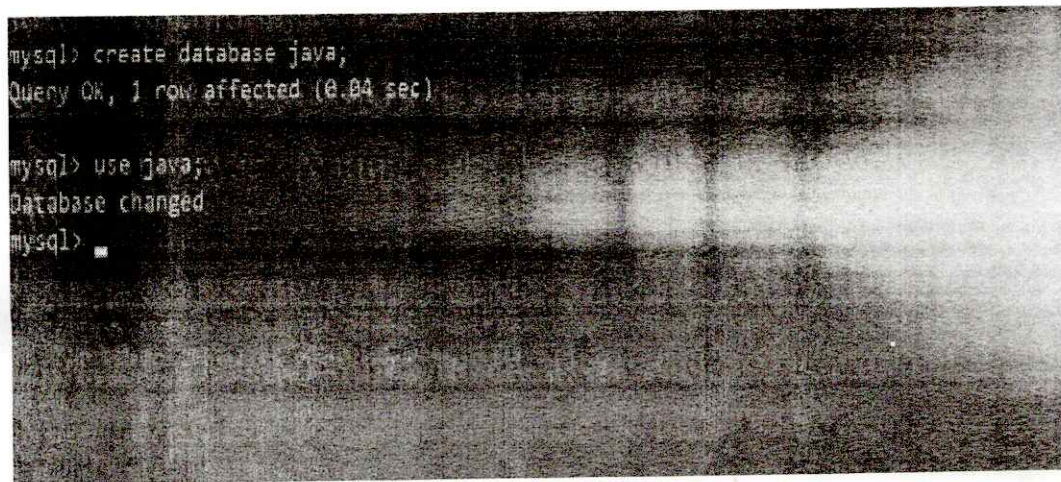

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6.IMPLEMENTATION

Implementation is the carrying out, execution or practice of a plan, to implement the project into our system we will need to perform the following operation:

Database Design and Development:

The first step was creating a database. Which is shown in the Figure below.



```
mysql> create database java;
Query OK, 1 row affected (0.04 sec)

mysql> use java;
Database changed
mysql>
```

A Database is created for storing the information of the courses taken by each individual and their academic performance for each individual is also stored.

Following that is to create the tables in the database.

We have created two tables in the database one for regular results and another table for supply results, this helps the user get two different memos which shows the improvement in their academic performance.

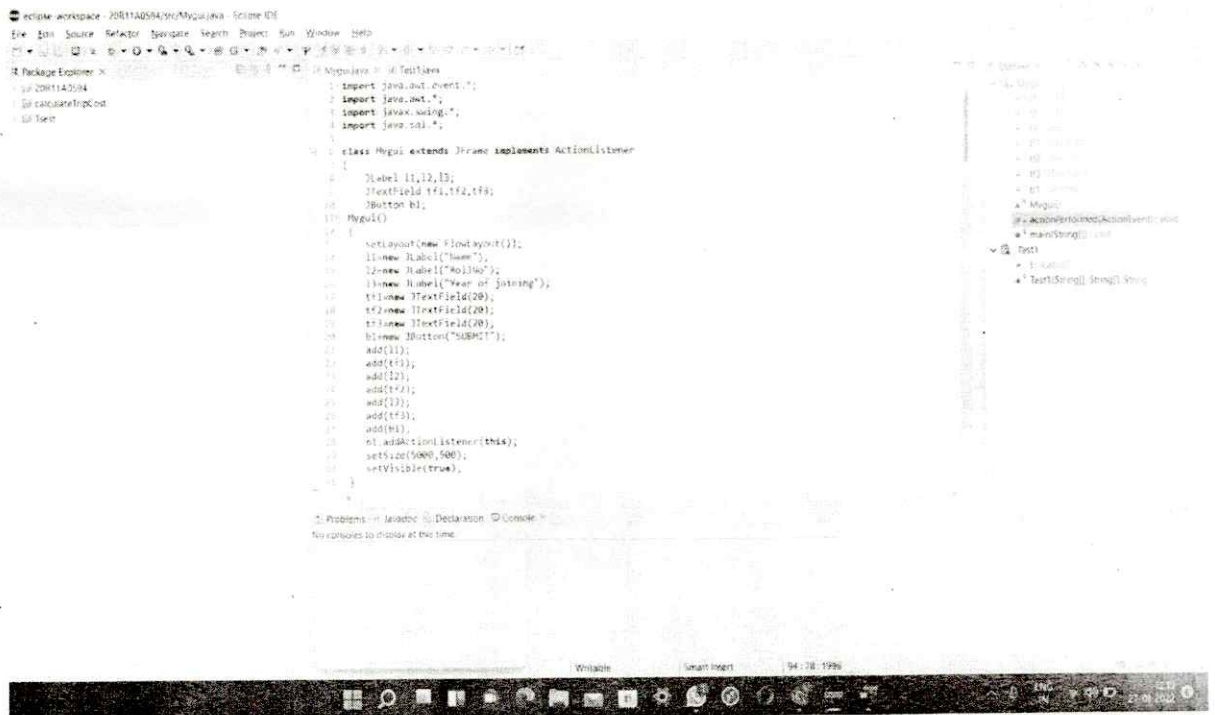

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Java GUI Frame Work:

A GUI (Graphical User Interface) is created to make user feel comfortable and make their task easy and appropriate. Our application displays Two GUI screens, one GUI displays the details to be entered by the user and another GUI displays the students' Academic performance as output which is required by the user.

User should enter the valid Roll Number and the year of joining. After entering the required information there shows a submit button as shown below.

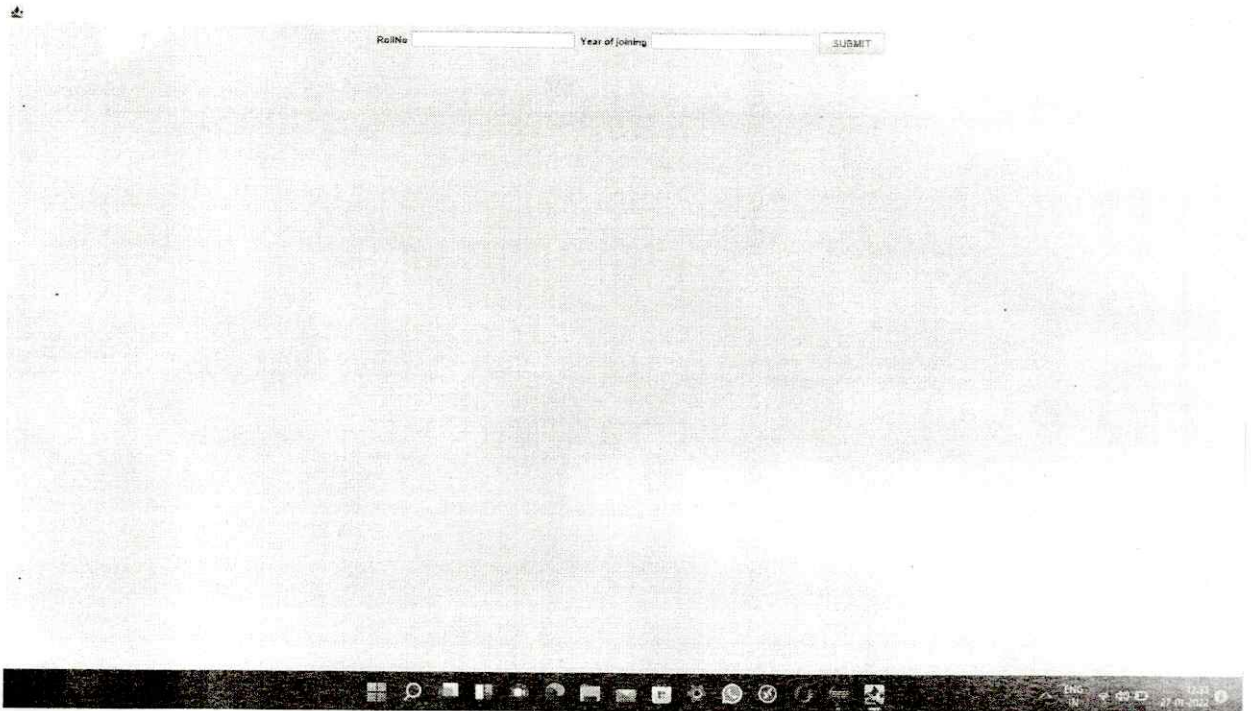
Code Block:



```
1 import javax.swing.*;
2 import java.awt.*;
3 import javax.swing.*;
4 import java.awt.*;
5
6 class Mygui extends JFrame implements ActionListener
7 {
8     JLabel l1,l2,l3;
9     JTextField tf1,tf2,tf3;
10    JButton b1;
11    Mygui()
12    {
13        setLayout(new FlowLayout());
14        l1=new JLabel("Name");
15        l2=new JLabel("Roll No");
16        l3=new JLabel("Year of joining");
17        tf1=new JTextField(20);
18        tf2=new JTextField(20);
19        tf3=new JTextField(20);
20        b1=new JButton("SUBMIT");
21        add(l1);
22        add(l2);
23        add(l3);
24        add(tf1);
25        add(tf2);
26        add(tf3);
27        add(b1);
28        bt.addActionListener(this);
29        setSize(500,500);
30        setVisible(true);
31    }
32 }
```


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GUI

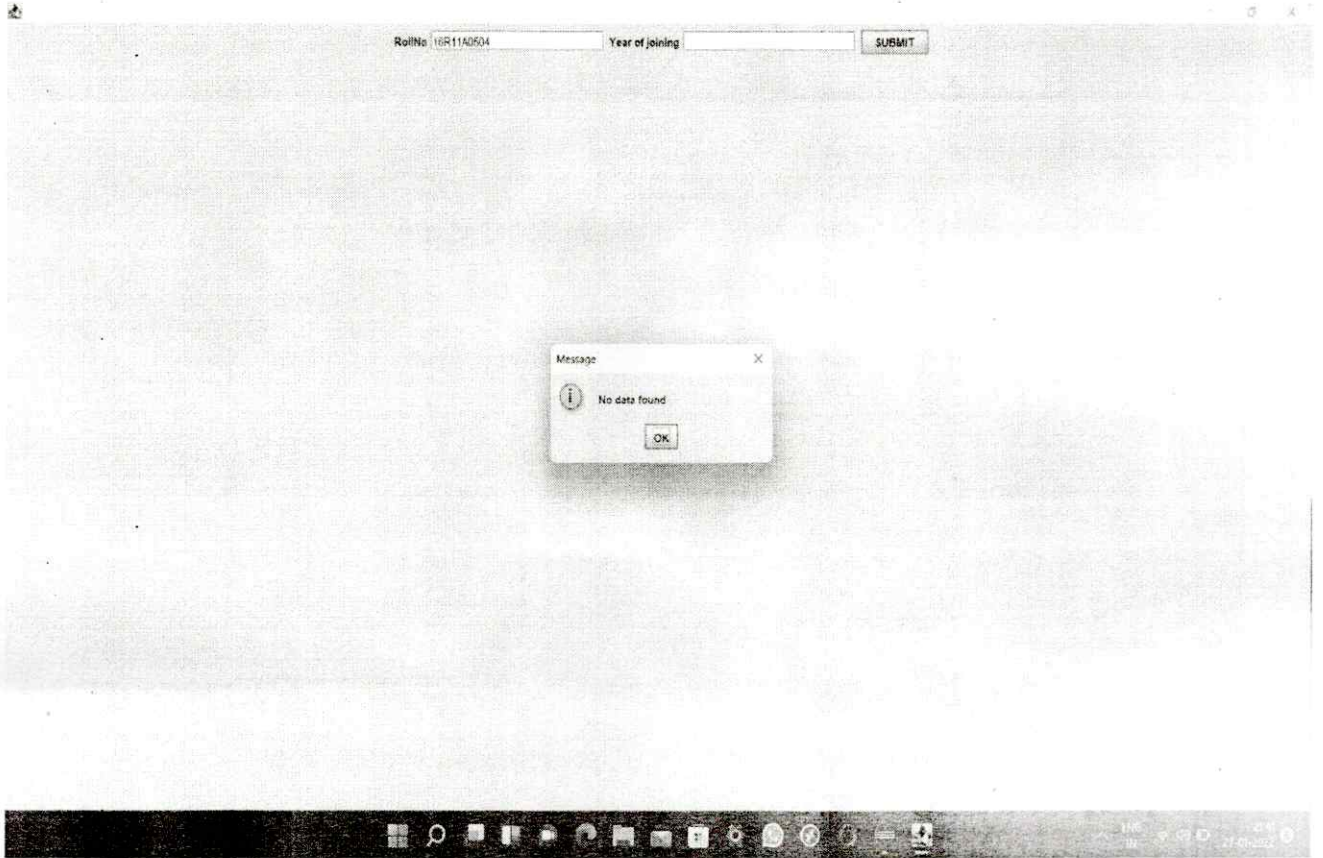


After successful entering of the required details and clicking the submit button it opens another GUI (Graphical User Interface) which will be showing the required output, which shows all the courses they are having in their academics and their performance for each course is displayed as it is shown in the memo. If user enter any inappropriate/invalid details then it opens a GUI (Graphical User Interface) with a message box showing No data found. This gives the user a detail message to re-enter the details correctly to get desired output.

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7.CODE

```
import java.awt.event.*;
import java.awt.*;
import javax.swing.*;
import java.sql.*;

class Mygui extends JFrame implements ActionListener
{
    JLabel l2,l3;
    JTextField tf1,tf2,tf3;
    JButton b1;
    Mygui()
    {
        setLayout(new FlowLayout());
        l2=new JLabel("RollNo");
        l3=new JLabel("Year of joining");
        tf2=new JTextField(20);
        tf3=new JTextField(20);
        b1=new JButton("SUBMIT");
        add(l2);
        add(tf2);
        add(l3);
        add(tf3);
        add(b1);
        b1.addActionListener(this);
        setSize(500,500);
        setVisible(true);
    }
    public void actionPerformed(ActionEvent ae)
    {
        String rollno= tf2.getText();
        String year=tf3.getText();
        Connection cn;
        Statement st;
        ResultSetMetaData rsmd1,rsmd2;
        ResultSet rs,rs2;
        String t[]=new String[61];
        String s[]{"1-1","1-2","2-1","2-2","3-1","3-2","4-1","4-2"};
        int arr[]={8,18,26,34,42,50,58,61};
        boolean fail=false;
        try
        {
            cn=DriverManager.getConnection("jdbc:mysql://localhost:3306/20
R11A0594","root","Bhanu@2204");
            st=cn.createStatement();
```

```


rs2=st.executeQuery("select * from exams where
RollNo='"+tf2.getText()+"");
rsmd2=rs2.getMetaData();

if(rs2.next())
{
    for(int i=4;i<=64;i++)
    {
        t[i-4]=rsmd2.getColumnLabel(i)+"-
"+rs2.getString(i);

        if(rs2.getString(i).equals("F"))
        {
            fail=true;
        }
    }

    new Test1(s,t,arr,"Regular Result");
}
else
{
    JOptionPane.showMessageDialog(this,"No data found");
}
if(fail)
{
    rs=st.executeQuery("select * from supply where
RollNo='"+tf2.getText()+"");
rsmd1=rs.getMetaData();
if(rs.next())
{
    int j=1;
    for(int i=4;i<=64;i++)
    {
        t[i-4]=rsmd1.getColumnLabel(i)+"-
"+rs.getString(i)+" ";
    }
    new Test1(s,t,arr,"Supply Result");
}
rs2.close();
st.close();
cn.close();
}
}
catch(Exception e)
{
    e.printStackTrace();
}
}


```


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```

    }
    public static void main(String args[])
    {
        new Mygui();
    }
}
class Test1 extends JFrame
{
    JPanel p[]=new JPanel[8];
    JLabel l[]=new JLabel[24];
    Test1(String s[],String t[],int arr[],String title)
    {
        for(int i=0;i<=7;i++)
        {
            p[i]=new JPanel();
            p[i].add(new JLabel(s[i]));
            p[i].setLayout(new GridLayout(4,4));
            add(p[i]);
            if(i%2==0)
            {
                p[i].setBackground(Color.white);
            }
            else
            {
                p[i].setBackground(Color.yellow);
            }
        }
        setLayout(new GridLayout(8,1));
        int j=0;
        for(int i=0;i<=60;i++)
        {
            p[j].add(new JLabel(t[i]));
            if(i+1==arr[j])
            {
                j++;
            }
        }
        setTitle(title);
        for(int i=0;i<=7;i++)
        {
            p[i].add(new JLabel(" "));
            p[i].add(new JLabel(" "));
            p[i].add(new JLabel(" "));
            p[i].add(new JLabel(" "));
        }
        if(title.equals("Regular Result"))
        {
            setLocation(0,0);
        }
    }
}

```


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```

else
{
    setLocation(500,400);
}
setSize(5000,500);
setVisible(true);
}
}

```

OUTPUT:

4TH YR STUDENT REGULAR AND SUPPLY RESULTS


Regular Result

1-1 ProgrammingForProblemSolving1-P EnglishLanguageCommunicationSkillsLab-P	English-P EngineeringChemistry-P	BasicEngineeringMathematics-P ProgrammingForProblemSolving1Lab-P	AppliedPhysics-P EngineeringChemistryLab-P
1-2 BasicElectricalEngineering-P ProgrammingForProblemSolving2Lab-P	SemiconductorDevices-P EngineeringGraphics-P BasicElectricalEngineeringLab-P	MultiVariableCalculus-P DiscreteMathematics-P EngineeringWorkshop-P	ProgrammingForProblemSolving2-P SemiconductorDevicesLab-P
2-1 DataStructures-P ObjectorientedprogrammingthroughjavaLab-P	AdvancedDataStructures-F Probabilityandstatistics-P	Digitaldesign-P AdvancedDataStructuresLab-P	Objectorientedprogrammingthroughjava-P ITworkshop-P
2-2 Theoryofcomputation-P DatabaseManagementSystemsLab-P	DesignandAnalysisofalgorithms-P Engineeringeconomicandcosting-F	ComputerOrganizationandAssemblyLanguageProgramming-P DesignandAnalysisofalgorithmsLab-P	DatabaseManagementSystems-P ComputerOrganizationandAssemblyLanguageProgrammingLab-P
3-1 Scriptinglanguages-P ArtificialIntelligenceLab-P	OperatingSystems-P Intellectualpropertyrights-P	Computernetworks-P OperatingSystemsLab-P	ArtificialIntelligence-P ComputernetworksLab-P
3-2 Cloudcomputing-P AdvancedEnglishCommunicationSkillsLab-P	WebTechnologies-P Buildingtechnology-P	SoftwareEngineering-P WebTechnologiesLab-P	InformationSecurity-P SoftwareEngineeringLab-P
4-1 Internetofthings-P InternetofthingsLab-P	Datanalytics-P DeepLearning-P	Humancomputerinteraction-P DatanalyticsLab-P	MachineLearning-P MachineLearningLab-P
4-2 DisasterManagement-P		SoftwareProjectManagement-P ProjectManagementandFinance-P	


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Supply Result

1-1	English-P	BasicEngineeringMathematics-P	AppliedPhysics-P
ProgrammingForProblemSolving1-P	EngineeringChemistry-P	ProgrammingForProblemSolving1Lab-P	EngineeringChemistryLab-P
EnglishLanguageCommunicationSkillsLab-P			
1-2	SemiConductorDevices-P	MultiVariableCalculus-P	ProgrammingForProblemSolving2-P
BasicElectricalEngineering-P	EngineeringGraphics-P	DiscreteMathematics-P	SemiConductorDevicesLab-P
ProgrammingForProblemSolving2Lab-P	BasicElectricalEngineeringLab-P	EngineeringWorkshop-P	
2-1	AdvancedDatastructures-P	Digitaldesign-P	Objectorientedprogrammingthroughjava-P
DataStructures-P	ProbabilityandStatistics-P	AdvancedDatastructuresLab-P	ITWorkshop-P
ObjectorientedprogrammingthroughjavaLab-P			
2-2	Designandanalysisofalgorithms-P	ComputerOrganizationandSecurityLanguageProgramming-P	DatabaseManagementSystems-P
Theoryofcomputation-P	Engineeringeconomicsandaccounting-P	DesignandanalysisofalgorithmsLab-P	ComplexOrganizationandSecurityLanguageProgrammingLab-P
DatabaseManagementSystemsLab-P			
3-1	OperatingSystems-P	ComputerNetworks-P	ArtificialIntelligence-P
ScriptingLanguages-P	IntellectualPropertyRights-P	OperatingSystemsLab-P	ComputerNetworksLab-P
ArtificialIntelligenceLab-P			
3-2	WebTechnologies-P	SoftwareEngineering-P	InformationSecurity-P
CloudComputing-P	BuildingTechnology-P	WebTechnologiesLab-P	SoftwareEngineeringLab-P
AdvancedEnglishCommunicationSkillsLab-P			
4-1	DataAnalytics-P	HumanComputerInteraction-P	MachineLearning-P
InternetofThings-P	DeepLearning-P	DataAnalyticsLab-P	MachineLearningLab-P
InternetofThingsLab-P			
4-2		SoftwarePracticeandTesting-P	
DisasterManagement-P		ProjectManagementandFinance-P	

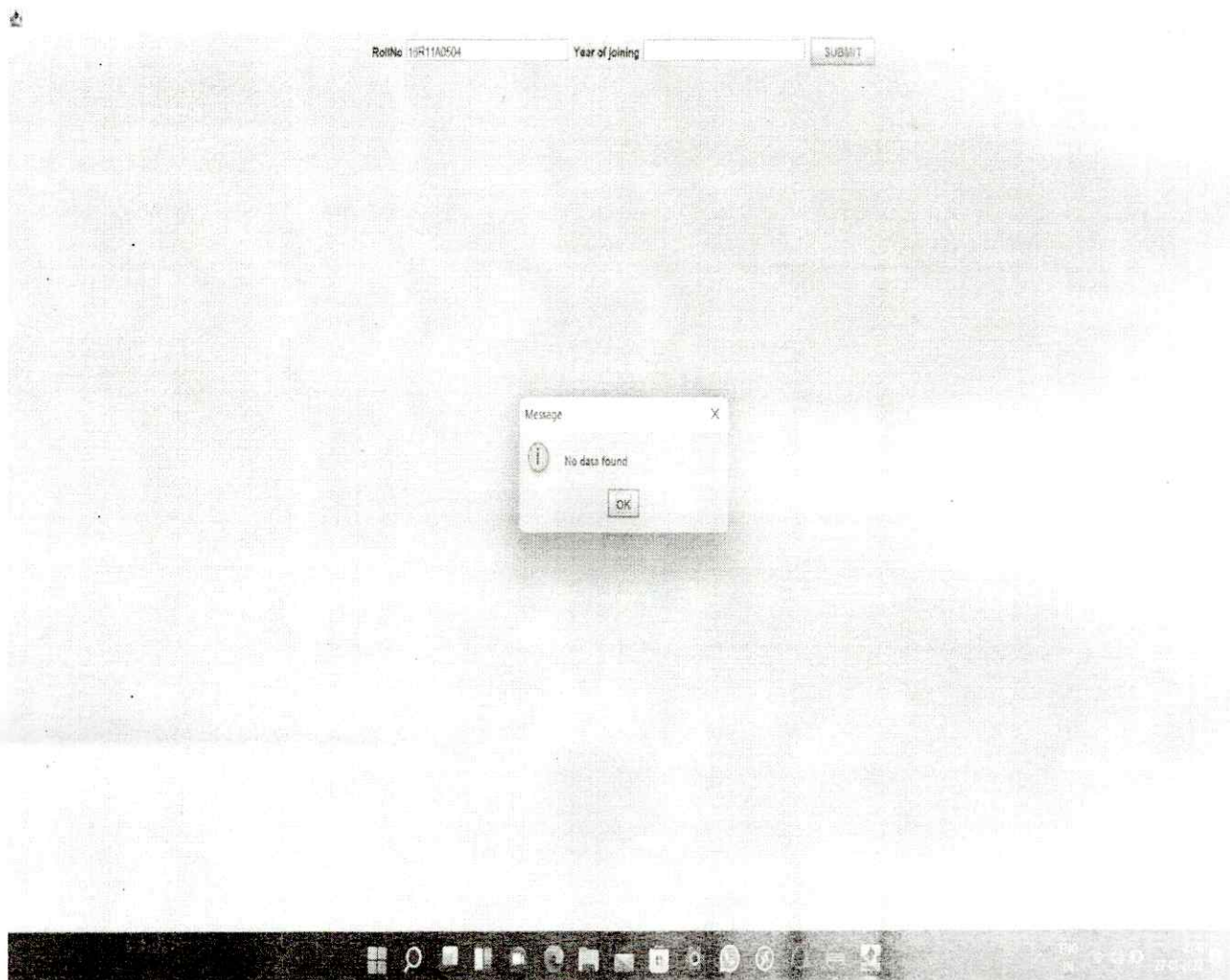

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2ND YR STUDENT REGULAR RESULT

1-1	English-P	Basic Engineering Mathematics-P	Applied Physics-P
Programming For Problem Solving I-P	Engineering Chemistry-P	Programming For Problem Solving I Lab-P	Engineering Chemistry Lab-P
English Language Communication Skills Lab-P			
1-2	Semiconductor Devices-P	Multi Variable Calculus-P	Programming For Problem Solving I-P
Basic Electrical Engineering-P	Engineering Graphics-P	Discrete Mathematics-P	Semiconductor Devices Lab-P
Programming For Problem Solving Lab-P	Basic Electrical Engineering Lab-P	Engineering Workshop-NA	
2-1	Advanced Data Structures-NA	Digital Design-NA	Object Oriented Programming Through Java-NA
Data Structures-NA	Probability and Statistics-NA	Advanced Data Structures Lab-NA	IT Workshop-NA
Object Oriented Programming Through Java Lab-NA			
2-2	Design and Analysis of Algorithms-NA	Computer Organization and Assembly Language Programming-NA	Database Management Systems-NA
Theory of Computation-NA	Engineering Economics and Cost Accounting-NA	Design and Analysis of Algorithms Lab-NA	Computer Organization and Assembly Language Programming Lab-NA
Database Management Systems Lab-NA			
3-1	Operating Systems-NA	Computer Networks-NA	Artificial Intelligence-NA
Scripting Languages-NA	Intellectual Property Rights-NA	Operating Systems Lab-NA	Computer Networks Lab-NA
Artificial Intelligence Lab-NA			
3-2	Web Technologies-NA	Software Engineering-NA	Information Security-NA
Cloud Computing-NA	Building Technology-NA	Web Technologies Lab-NA	Software Engineering Lab-NA
Advanced English Communication Skills Lab-NA			
4-1	Data Analytics-NA	Human Computer Interaction-NA	Machine Learning-NA
Internet of Things-NA	Deep Learning-NA	Data Analytics Lab-NA	Machine Learning Lab-NA
Internet of Things Lab-NA			
4-2		Software Project Management-NA	
Project Management-NA		Project Management Lab-NA	


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8.CONCLUSION

Application for maintenance of Students Academic record led to a better organization structure since the information management of student's performance in their academics is well structured and also lead to better as well as efficient utilization of resources.

Student Academic Management System can be used by education institutes to maintain the records easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using this project.

Our project "Application for maintenance of Students Academic record" was developed by two of us. We, as a team of two took a step-by-step approach in order to reach our goal. We applied the knowledge we gained during our learning period at Geethanjali College of Engineering and Technology.



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ECE

Project Based Learning (PBL)

Activities Carried out under PBL during 2019-20 – I semester

In an effort to bring innovation in Teaching-Learning-Process Project Based Learning is carried out in the following courses. Students with the help of faculty members completed the under-mentioned projects as part of PBL

Electronic Circuit Analysis and Design Lab (ECAD):

Three projects were submitted by II year students under project based learning (PBL) in Electronic Circuit Analysis and Design Lab (ECAD) by Group V (Analog Electronics) under the guidance of Dr.S.Suryanaraya.

Project titled “**Transient response of RC low pass circuit using MATLAB**”, submitted by C.V.G.Prasad Varma mentored by Ms.J.Mrudula.

Project titled “**Design of low cost half wave rectifier with filter for a given ripple factor of 0.9**”, submitted by M.Spandana, M.Srilekha and S.Sahithi mentored by Mr.U.Appalaraju.

Project titled “**Selection of operating point from transistor data sheet and hence designing and verification of a self bias circuit for a given stability factor of 15**”, was submitted by Ruchishawa mentored by Mr.U.Appalaraju.

Microwave Engineering:

Four projects were submitted by IV year students under project based learning (PBL) in Microwave Engineering by Group I (Fields and waves) under the guidance of Dr.R.S.Raju, Mr.R.V.N.R.Suneel Krishna and Mr.Ch.Suresh Kumar.

Project titled “**Design of a rectangular waveguide for X-Band Applications**”, by 48 students.

Project titled “**Design of E-Plane Tee for X-Band Applications**”, by 48 students.

Project titled “**Design of H-Plane Tee for X-Band Applications**”, by 48 students.

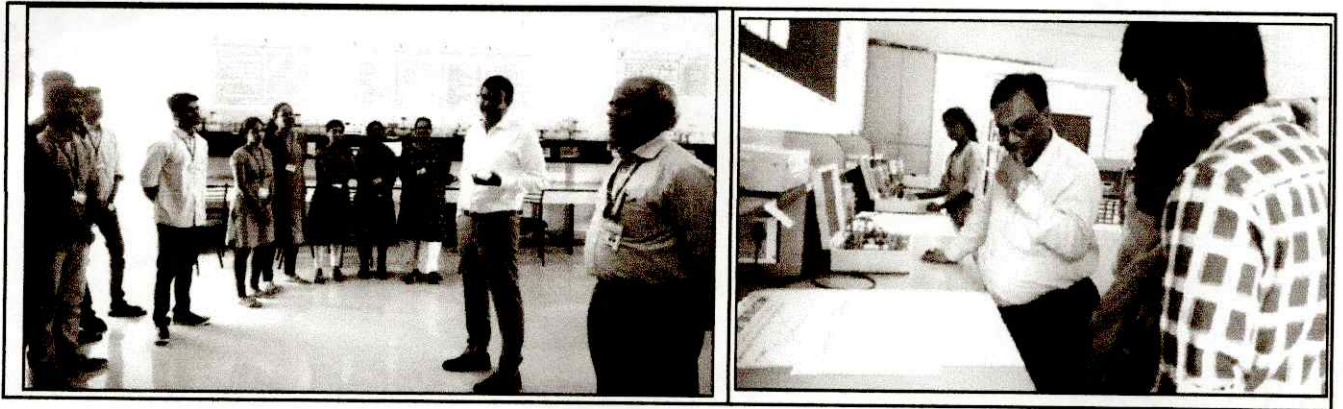
Project titled “**Design of Magic Tee for X-Band Applications**”, by 48 students.

Digital Design:

A Two day project competition was held in Digital Design under Project Based Learning on 10th and 11th October 2019 by Group IV (Digital Electronics) under the guidance of Prof.K.Somasekhara Rao, Mr.Ch.Sandeep and Mr.M.Anand.

S.No	Prize	Roll no.	Name of the student	Project Title
1	1 st	18R11A0428	K Tejaswi	Density based Automatic Traffic control system
2		18R11A0432	M Keerthana	
3		18R11A0446	Y Saketh	
4	2 nd	18R11A0488	S Ramya	Smart Office
5		18R11A0490	S Ruchishun	
6		18R11A0478	M Srilekha	
7	3 rd	18R11A0473	K Vishwesh	2 bit Password checker
8		18R11A0475	L Nithin	


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Antennas and Wave Propagation:

Five projects were submitted by III year students under project based learning (PBL) in Antennas by Group I (Fields and waves) under the guidance of Prof. B.Hari Kumar, Dr.B.L.Prakash, Mr.P.Naresh Kumar, Ms.A.Sowjanya.

Project titled “**Design of Monopole Antenna for X-Band Operation**”, by 183 students.

Project titled “**Design of Dipole Antenna for X-Band Operation**”, by 183 students.

Project titled “**Design of Loop Antenna for X-Band Operation**”, by 183 students.


Project titled “**Design of Horn Antenna for X-Band Operation**”, by 183 students.

Project titled “**Design of Microstrip Antenna for X-Band Operation**”, by 183 students.

The project based learning is successfully implemented in the course of Antennas and Wave Propagation by way of training the III ECE students in the HFSS software and MATLAB programming for the design and implementation of (i) Mono-Pole Antenna (ii) Dipole Antenna (iii) Horn Antenna (iv) Loop antenna (v) helical antenna (vi) Micro-strip patch antenna for X-band and (vii) Boe-Tie antenna. Some students are also trained in (a) Plotting the Radiation pattern of a Dipole Antenna using MATLAB (b) Plotting the Radiation pattern of a Loop Antenna using MATLAB and (c) Plotting the 3-D Radiation pattern of a Dipole Antenna using MATLAB.

The scanned copies of assigned batches and the projects that they have successfully implemented are given below. The summary of the role of the students and faculty is given below:

The designed antennas are fabricated with the help of ALRC-KLU, Vijayawada and theoretical results are compared with the practical results.


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<p><i>Design of Monopole Antenna for X-Band Operation</i> Guide: III ECE- A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar</p>	<p>The students will design the monopole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<ul style="list-style-type: none"> • Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 12 III ECE – B: 19 III ECE – C: 18 III ECE – E: 12 Note: Each batch contains 3 students
<p><i>Design of Dipole Antenna for X-Band Operation</i> Guide: III ECE- A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar</p>	<p>The student will design the dipole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<ul style="list-style-type: none"> • Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 12 III ECE – B: 19 III ECE – C: 18 III ECE – E: 12 Note: Each batch contains 3 students
<p><i>Design of Loop Antenna for X-Band Operation</i> Guide: III ECE- A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar</p>	<p>The student will design the loop antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<ul style="list-style-type: none"> • Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 12 III ECE – B: 19 III ECE – C: 18 III ECE – E: 12 Note: Each batch contains 3 students
<p><i>Design of Horn Antenna for X-Band Operation</i> Guide: III ECE-</p>	<p>The student will design the horn antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software</p>	<ul style="list-style-type: none"> • Status: Explained theoretical concepts. Design process using HFSS need to be explained. Manual

A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar	student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.	iii) Compare theoretical and practical results	preparation completed.
<i>Design of Helical Antenna for X-Band Operation</i> Guide: III ECE- A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar	The student will design the Helical antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.	i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results	• Status: Explained theoretical concepts. Design process using HFSS need to be explained. Manual preparation completed.
<i>Design of Microstrip Patch Antenna for X-Band Operation</i> Guide: III ECE- A: P Naresh Kumar B: A Sowjanya C: Prof. B. Hari Kumar E: P Naresh Kumar	The student will design the patch antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results. The deviations may be noted and analyzed.	i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results	• Status: Explained theoretical concepts. Design process using HFSS need to be explained. Manual need to be prepared .
Plotting the 2D Radiation pattern of a Dipole Antenna using MATLAB Guide: III ECE-D : Dr. B. L. Prakash	The students have written a program in MATLAB and plotted the 2D radiation pattern of the given Dipole antenna for any given dimensions	Understand mathematical analysis of Radiation pattern and implementation using MATLAB	Status: Explained theoretical concepts
Plotting the Radiation pattern of a Loop Antenna using MATLAB III ECE-D : Dr. B. L. Prakash	The students have written a program in MATLAB and plotted the Loop pattern of the given Dipole antenna for any given dimensions	Understand mathematical analysis of Radiation pattern and implementation using MATLAB	Status: Explained theoretical concepts
Plotting the 3-D Radiation pattern of a Dipole Antenna using MATLAB. III ECE-D : Dr. B. L. Prakash	The students have written a program in MATLAB and plotted the radiation pattern of the given Dipole antenna for any given dimensions	Understand mathematical analysis of Radiation pattern and implementation using MATLAB	Status: Explained theoretical concepts

Project Based Learning (PBL)

Activities Carried out under PBL during 2019-20 – II semester

As part of Innovative teaching and learning methodology, the Department of ECE has proposed **Project Based Learning** on the following courses in association with Vishwanikethan, Mumbai.

Analog Communications Lab for II year II Semester, Linear Integrated Circuits Lab for II year II Semester, Simulation Lab for II year II Semester, Switching Theory and Logic Design Lab for III year II Semester, Digital Signal Processing Lab for III year II Semester, VLSI Lab for III year II Semester. On 4th and 5th March, 2020, the associated faculty presented their PBL models about course level PBL to the faculty of Vishwanikethan. Dr. Santhosh Nemade, and Prof. Wagh Sharad Shesh Rao, faculty members from Department of E&TC of Vishwanikethan attended the session. Dr. P.Srihari, Dr. S.Spandana, Dr.S.Saritha, Prof. O.V.P.R.Siva Kumar, Mr. A.Subramanyam, Mr. P.Naresh Kumar, Mrs. M.Laxmi, Mr. Ch.Sandeep faculty from Department of ECE presented their PBL models about course level PBL to the faculty of Vishwanikethan on the above labs. Iyear and III year students of ECE attended these presentations and exhibited their projects to the Professors of Vishwanikethan.



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Project Name	Scope/Work involved	Outcome	Status and No of Students involved
<p>1.Design of Monopole Antenna for P-Band Operation</p> <p>Guide:</p> <p>III ECE-</p> <p>A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the monopole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 9 III ECE – B: 9 III ECE – C: 9 III ECE – D: 6 III ECE – E: 9 Note: Each batch contains 3 students</p>
<p>2.Design of Dipole Antenna for P-Band Operation</p> <p>Guide:</p> <p>III ECE-</p> <p>A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the dipole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 9 III ECE – B: 9 III ECE – C: 9 III ECE – D: 4 III ECE – E: 9 Note: Each batch contains 3 students</p>
<p>3.Design of Transmission line for X-Band Operation</p> <p>Guide:</p> <p>III ECE-</p> <p>A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the Transmission line mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 6 III ECE – B: 9 III ECE – C: 9 III ECE – D: 4 III ECE – E: 9 Note: Each batch contains 3 students</p>
<p>4.Design of Coaxial Feed Micosrtrip Antenna for X-Band Operation</p> <p>Guide:</p> <p>III ECE-</p> <p>A: Prof. B. Hari Kumar</p>	<p>The students will design the Transmission line mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 6 III ECE – B: 3 III ECE – C: 9</p>

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<p>B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>concepts learned theoretically and compare with the obtained results</p>	<p>iii) Compare theoretical and practical results</p>	<p>III ECE – D: 3 III ECE – E:9 Note: Each batch contains 3 students</p>
<p>5.Design of Edge feed microstrip Antenna for X-Band Operation Guide: III ECE- A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the dipole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 6 III ECE – B: 3 III ECE – C: 6 III ECE – D: 3 III ECE – E: 6 Note: Each batch contains 3 students</p>
<p>6.Design of Insert feed microstrip Antenna for X-Band Operation Guide: III ECE- A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the dipole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 3 III ECE – B: 6 III ECE – C: 6 III ECE – E: 6 Note: Each batch contains 3 students</p>
<p>7.Design of Stepped Impedance filter for X-Band Operation Guide: III ECE- A: Prof. B. Hari Kumar B: Mr .Ch suresh Kumar C: Mr.B Satish Babu D: Dr.B.Leela Prakash E: Mr .Ch suresh Kumar</p>	<p>The students will design the dipole antenna mathematically for selected frequency, then will test the parameter by drawing and simulating using HFSS software. Later student will analyze the concepts learned theoretically and compare with the obtained results</p>	<p>i) Understand mathematical analysis ii) Understand how to design using HFSS software iii) Compare theoretical and practical results</p>	<p>• Status: Explained the process to students and they are practicing individually • No of Batches: III ECE – A: 3 III ECE – B: 6 III ECE – C: 6 III ECE – E: 3 Note: Each batch contains 3 students</p>

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Students details involved in PBL

S.No	Name	Roll No	Sec	Project Name
1	Sreevani	19R11A0402	A	Design of Monopole Antenna for P-Band Operation
2	Sri Vathsa	19R11A0408	A	Design of Monopole Antenna for P-Band Operation
3	suryaamshu	19R11A0410	A	Design of Monopole Antenna for P-Band Operation
4	sowjanya	19R11A0414	A	Design of Dipole Antenna for P-Band Operation
5	Sravan	19R11A0415	A	Design of Dipole Antenna for P-Band Operation
6	Rakesh	19R11A0416	A	Design of Dipole Antenna for P-Band Operation
7	Salman	19R11A0417	A	Design of Microstrip Filters for X-Band Operation
8	Pavan	19R11A0418	A	Design of Microstrip Filters for X-Band Operation
9	Maheswar	19R11A0421	A	Design of Microstrip Filters for X-Band Operation
10	Bhargav	19R11A0423	A	Design of transmission Lines for X-Band Operation
11	Jyothi	19R11A0425	A	Design of transmission Lines for X-Band Operation
12	Harsha	19R11A0426	A	Design of transmission Lines for X-Band Operation
13	Varun	19R11A0428	A	Design of Microstrip Antenna for X-Band Operation
14	Abhinav	19R11A0431	A	Design of Microstrip Antenna for X-Band Operation
15	Bhairava Swamy	19R11A0432	A	Dipole Antenna for P-Band Operation
16	P. Vaishnavi	19R11A0433	A	Dipole Antenna for P-Band Operation
17	P. Bhavya Sai	19R11A0434	A	Dipole Antenna for P-Band Operation
18	Sai Teja	19R11A0436	A	Design of Monopole Antenna for P-Band Operation
19	Sujit	19R11A0438	A	Design of Monopole Antenna for P-Band Operation
20	Rohith	19R11A0441	A	Design of Monopole Antenna for P-Band Operation

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21	S. Vaishnavi	19R11A0442	A	Design of Microstrip Filters for X-Band Operation
22	T. Rohith	19R11A0445	A	Design of Microstrip Filters for X-Band Operation
23	Sravya	19R11A0448	A	Design of Microstrip Filters for X-Band Operation
24	B.Sai Chandra lekha	19R11A0452	B	Design of Microstrip Filters for X-Band Operation
25	B.Rachana	19R11A0453	B	Design of Microstrip Filters for X-Band Operation
26	C.Hemalatha	19R11A0456	B	Design of Microstrip Filters for X-Band Operation
27	Chepuri Lavanya	19R11A0458	B	Design of transmission Lines for X-Band Operation
28	CherlaVineela	19R11A0459	B	Design of transmission Lines for X-Band Operation
29	G. Gayathri	19R11A0462	B	Design of transmission Lines for X-Band Operation
30	G.Srividya	19R11A0463	B	Design of transmission Lines for X-Band Operation

31	G. Kusuma clayton	19R11A0465	B	Design of Microstrip Antenna for X-Band Operation
32	G. Harini	19R11A0466	B	Design of Microstrip Antenna for X-Band Operation
33	K.Akash	19R11A0469	B	Design of Microstrip Antenna for X-Band Operation
34	K.PavanPrathiek	19R11A0471	B	Design of Microstrip Filters for X-Band Operation
35	K.NaithikaSree	19R11A0473	B	Design of Microstrip Filters for X-Band Operation
36	Mallela Akhila	19R11A0477	B	Design of Microstrip Filters for X-Band Operation
37	M.SaiSruthi	19R11A0480	B	Design of Microstrip Filters for X-Band Operation
38	N.Salman vali	19R11A0482	B	Design of transmission Lines for X-Band Operation
39	Paila Akshaya	19R11A0483	B	Design of transmission Lines for X-Band Operation
40	S.G.Surupa	19R11A0489	B	Design of transmission Lines for X-Band Operation
41	Sangolu Sriram Chary	19R11A0492	B	Design of transmission Lines for X-Band Operation
42	Thota Sai Tanush	19R11A0493	B	Design of Microstrip Antenna for X-Band Operation

43	V.Sumanthkumarreddy	19R11A0494	B	Design of Microstrip Antenna for X-Band Operation
44	V.KaushikRamkoteswar	19R11A0495	B	Design of Microstrip Antenna for X-Band Operation
45	Vurenuka Anusha	19R11A0496	B	Design of Microstrip Antenna for X-Band Operation
46	A.Prathyusha	19R11A0497	C	Design of Microstrip Antenna for X-Band Operation
47	A.Karthikeya	19R11A0498	C	Design of Dipole Antenna for P-Band Operation
48	A.Supreeth	19R11A0499	C	Design of Dipole Antenna for P-Band Operation
49	B.Niharika	19R11A04A2	C	Design of Dipole Antenna for P-Band Operation
50	B.Sharmila	19R11A04A3	C	Design of transmission Lines for X-Band Operation
51	G.Chandana	19R11A04A9	C	Design of transmission Lines for X-Band Operation
52	K.Udayasree	19R11A04C0	C	Design of transmission Lines for X-Band Operation
53	M.Sarathchandra	19R11A04C1	C	Design of Monopole Antenna for P-Band Operation
54	M.Aditya	19R11A04C2	C	Design of Monopole Antenna for P-Band Operation
55	M.Satwik Sai	19R11A04C3	C	Design of Monopole Antenna for P-Band Operation
56	MSV. Sampath	19R11A04C4	C	Design of Microstrip Filters for X-Band Operation
57	Taha Raheel	19R11A04C7	C	Design of Microstrip Filters for X-Band Operation
58	P.Nishanth	19R11A04D0	C	Design of Microstrip Filters for X-Band Operation
59	Shashi Vigneesh	19R11A04D1	C	Design of transmission Lines for X-Band Operation
60	S.Dheeraj	19R11A04D6	C	Design of transmission Lines for X-Band Operation
61	K.Tejaswi	19R11A04D7	C	Design of transmission Lines for X-Band Operation
62	Shruthi Singh	19R11A04D8	C	Design of Monopole Antenna for P-Band Operation
63	Siddanath Chandra	19R11A04D9	C	Design of Monopole Antenna for P-Band Operation
64	Tarang Harsha	19R11A04E0	C	Design of Monopole Antenna for P-Band Operation
65	T.Sahaja	19R11A04E1	C	Design of Monopole Antenna for P-Band Operation

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66	V.Jayasree	19R11A04E2	C	Design of Monopole Antenna for P-Band Operation
67	Y.Sandhya	19R11A04E4	C	Design of Monopole Antenna for P-Band Operation
68	B R Madhavi	19R11A04E5	D	Design of Dipole Antenna for P-Band Operation
69	Akshitha	19R11A04F0	D	Design of Dipole Antenna for P-Band Operation
70	Ashritha	19R11A04G3	D	Design of Dipole Antenna for P-Band Operation
71	Y.Praneetha	19R11A04K2	D	Design of Dipole Antenna for P-Band Operation
72	Anugu Sai Keerthana	19R11A04K4	E	Design of transmission Lines for X-Band Operation
73	AnumoluSathvika	19R11A04K5	E	Design of transmission Lines for X-Band Operation
74	B.N.Chandrika	19R11A04K8	E	Design of transmission Lines for X-Band Operation
75	Ch.Tulasi	19R11A04L2	E	Design of transmission Lines for X-Band Operation
76	G.Abhinav	19R11A04M0	E	Design of transmission Lines for X-Band Operation
77	G.AnuSree	19R11A04M1	E	Design of Microstrip Antenna for X-Band Operation
78	P. Harika	19R11A04M3	E	Design of Microstrip Antenna for X-Band Operation
79	K.Anju	19R11A04M4	E	Design of Microstrip Antenna for X-Band Operation
80	KVN Saikrishna Nikhil	19R11A04M5	E	Design of Monopole Antenna for P-Band Operation
81	Kanakari Akash	19R11A04M6	E	Design of Monopole Antenna for P-Band Operation
82	K.R.Priyanka	19R11A04M7	E	Design of Monopole Antenna for P-Band Operation
83	KVK Sai Sriharsha	19R11A04M9	E	Design of Microstrip Filters for X-Band Operation
84	M.K.Ramanuja Swami	19R11A04N1	E	Design of Microstrip Filters for X-Band Operation
85	Medikonda Rupa	19R11A04N3	E	Design of Microstrip Filters for X-Band Operation
86	R.Shyalaja	19R11A04N8	E	Design of Dipole Antenna for P-Band Operation
87	S.Likhitha	19R11A04P0	E	Design of Dipole Antenna for P-Band Operation
88	S.Anusha	19R11A04P1	E	Design of Dipole Antenna for P-Band Operation
89	V.Samhitha	19R11A04P2	E	Design of Microstrip Antenna for X-Band Operation
90	V.Sree Harsha	19R11A04P7	E	Design of Microstrip Antenna for X-Band Operation

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91	V.Shravani Reddy	19R11A04P9	E	Operation Design of Microstrip Antenna for X-Band Operation
92	Sandhya	20R11A0403	A	Design of Microstrip Antenna for X-Band Operation

93	M.Nanda Kishore	20R15A0412	C	Design of transmission Lines for X-Band Operation
94	P.Chaitanya	20R15A0413	C	Design of transmission Lines for X-Band Operation
95	R.Sumanth	20R15A0414	C	Design of transmission Lines for X-Band Operation
96	V.Vinay Kumar	20R15A0415	C	Design of transmission Lines for X-Band Operation
97	A.Shravani	20R15A0421	E	Design of transmission Lines for X-Band Operation
98	D.Preethi	20R15A0422	E	Design of transmission Lines for X-Band Operation
99	Y.Nikhitha	20R15A0423	E	Design of transmission Lines for X-Band Operation

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1. Design of monopole Antenna

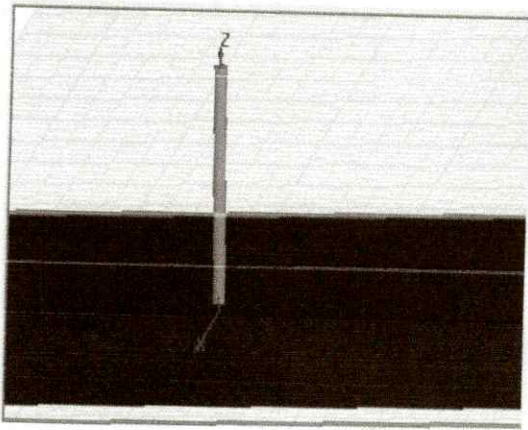


Fig.1(a) Monopole Antenna

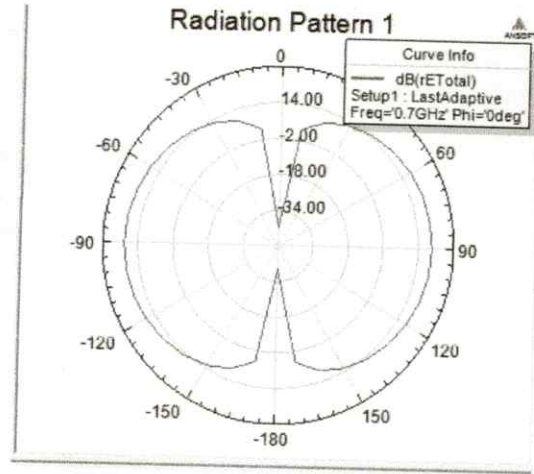


Fig.1(d) Radiation Pattern .

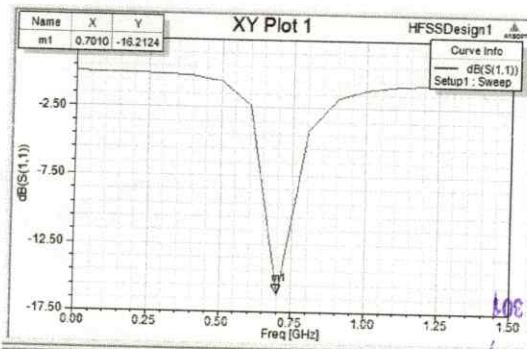


Fig.1(b) Return Loss Vs Frequency.

Conclusion: The Monopole antenna is designed in P-band and it is operating at 0.75GHz and obtained a gain of 2dB and radiation pattern as shown.

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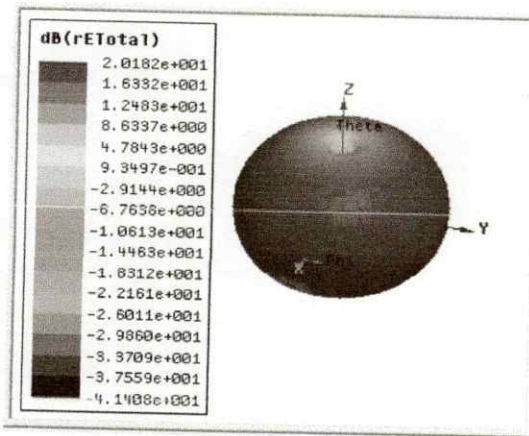


Fig.1(c) Gain in 3D plot

2.Design of dipole Antenna

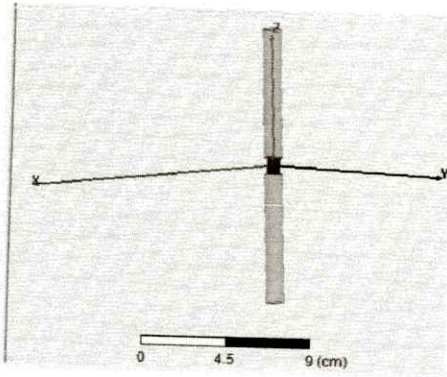


Fig.2(a) Dipole Antenna

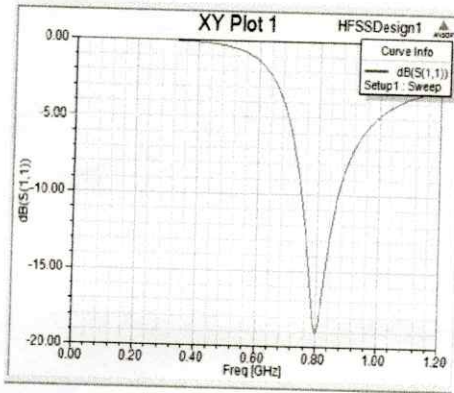


Fig.2(b)Return Loss Vs Frequency.

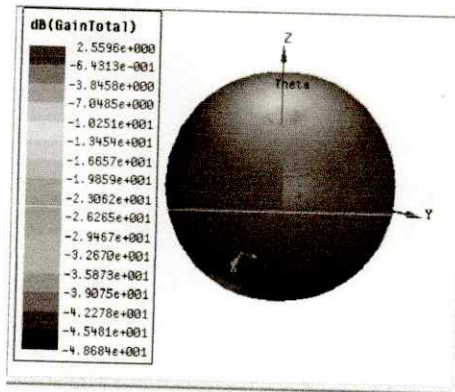


Fig.2(c) Gain in 3D plot

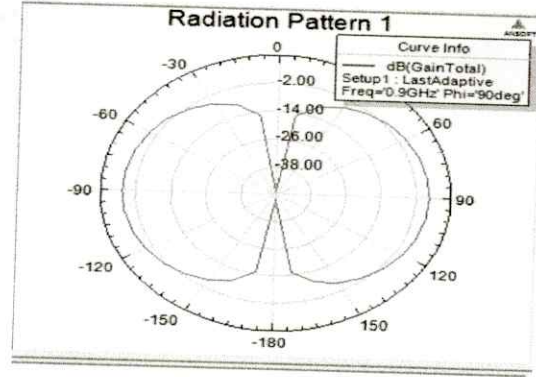


Fig.2(d) Radiation Pattern .

Conclusion: The dipole antenna is designed in P-band and it is operating at 0.8GHz and obtained a gain of 2.5dB and radiation pattern as shown.

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3. Design of Transmission Line

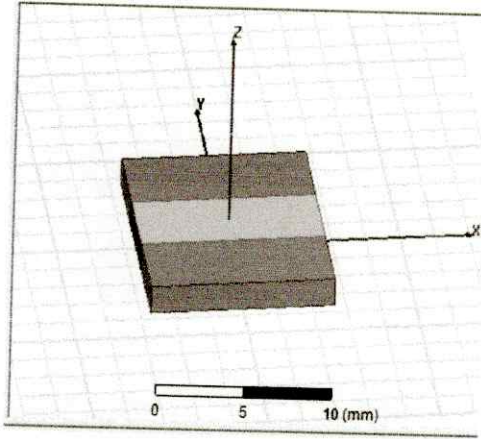


Fig.3(a) Transmission Line

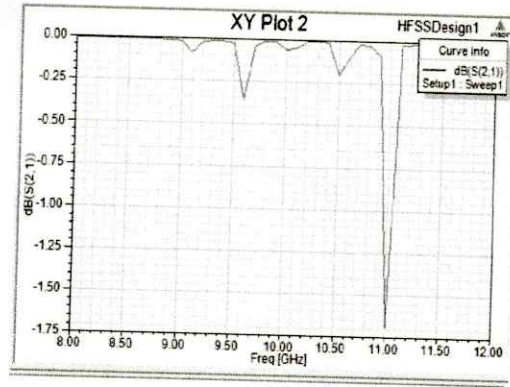


Fig.3(c) Transmission Vs Frequency.

Conclusion: 11 GHz frequency Micro strip transmission line is designed

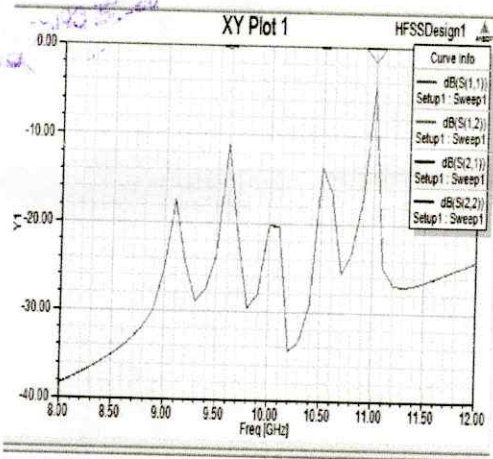


Fig.3(b) Return Loss Vs Frequency.


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4. Coaxial Feed Microstrip Patch antenna

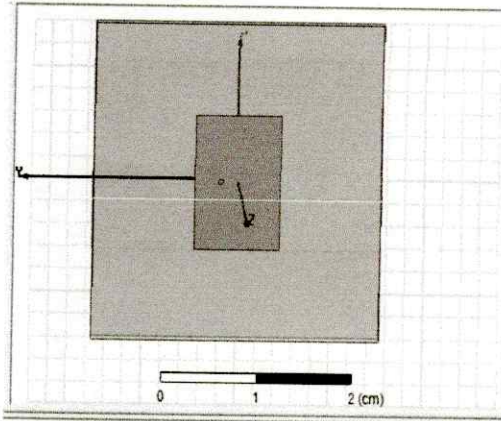


Fig.4(a) Microstrip patch with coaxial feed

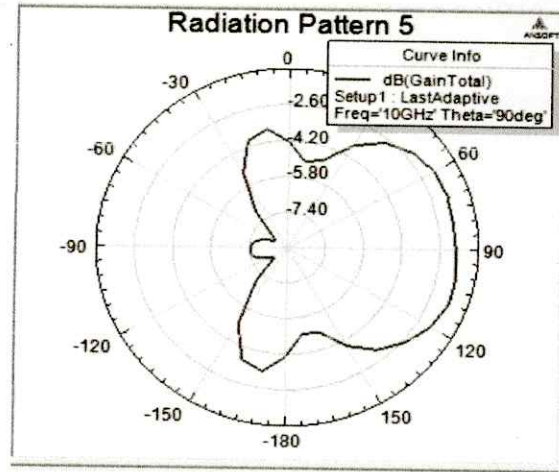


Fig.4(d) Radiation Pattern

Conclusion : Microstrip patch antenna with coaxial feed is designed to obtain the operating frequency 9.5GHz with gain 8.22 dB which can be used for X-Band applications.

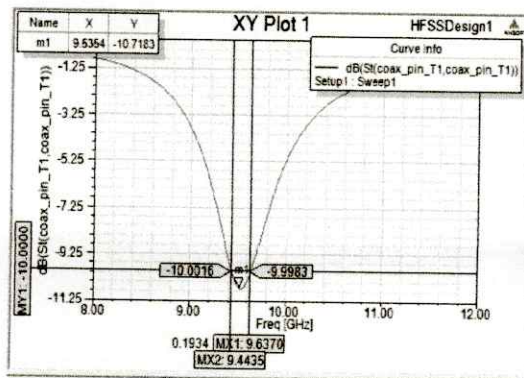


Fig.4(b) Return Loss Vs Frequency.

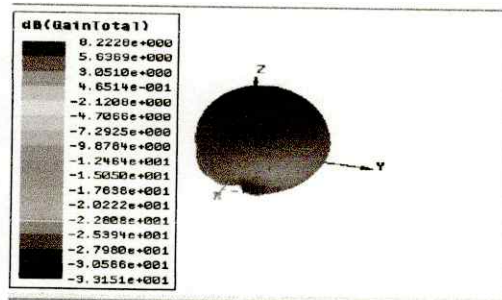
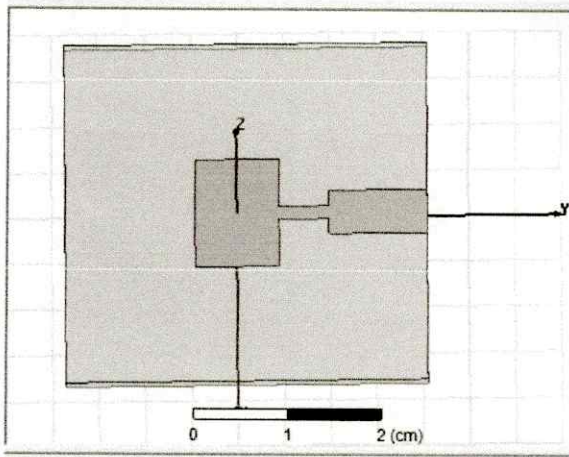


Fig.4(c) Gain in 3D plot

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5.Design of Edge feed Microstrip Antenna



Conclusion : Microstrip patch antenna with edge feed is designed and used a quarter wave transformer to obtain impedance matching between microstrip and patch and operating frequency 9.8GHz with gain 4.52 dB which can be used for X-Band applications.



Fig.5(a) Edge feed Microstrip Antenna with Edge feed

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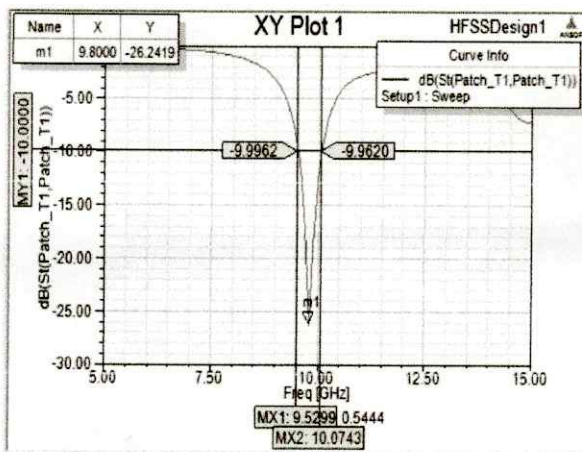


Fig.5(b) Return Loss Vs Frequency.

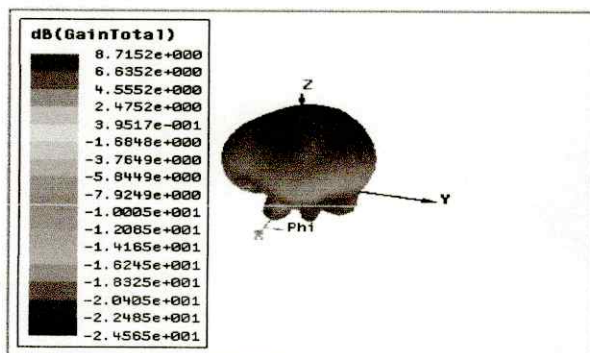


Fig.5(c) Gain in 3D plot

6. Design of Insert Feed Micro strip Antenna

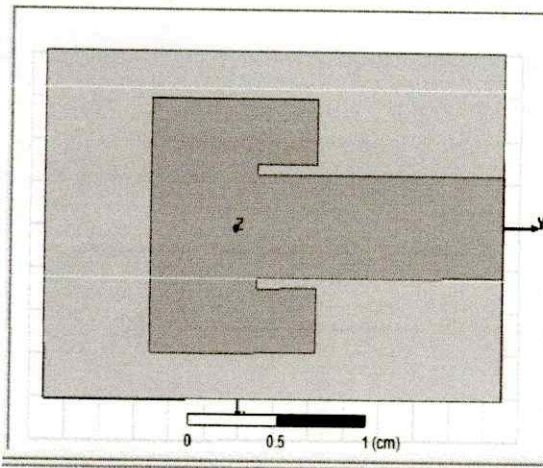


Fig.6(a) Insert feed Microstrip Antenna

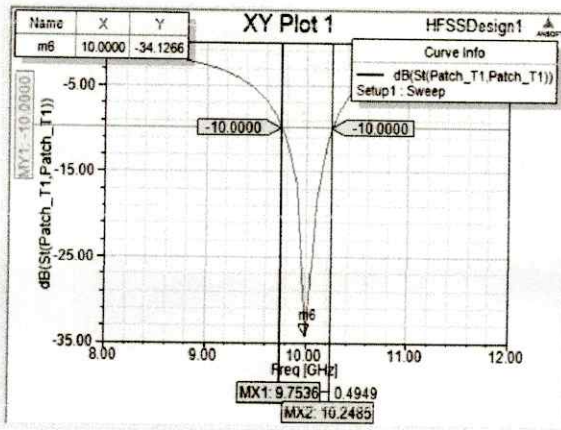


Fig.6(b) Return Loss Vs Frequency.

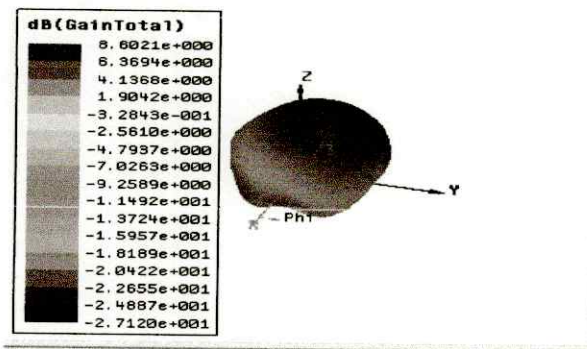


Fig.6(c) Gain in 3D plot

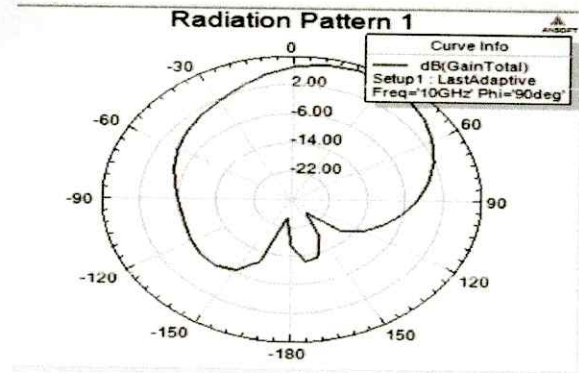


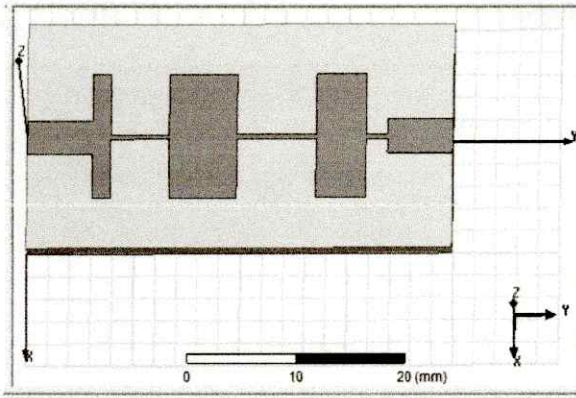
Fig.6(d) Radiation Pattern .

Conclusion : Microstrip patch antenna with Insert feed is designed to obtain operating frequency 9.7Ghz with gain 8.62 dB which can be used for X-Band applications.

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7. Stepped Impedance Low Pass Filters

Conclusion: Stepped impedance low pass filter is designed to allow low frequencies of from 1-2.5GHz.



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Fig.7(a) Stepped Impedance Low Pass Filters

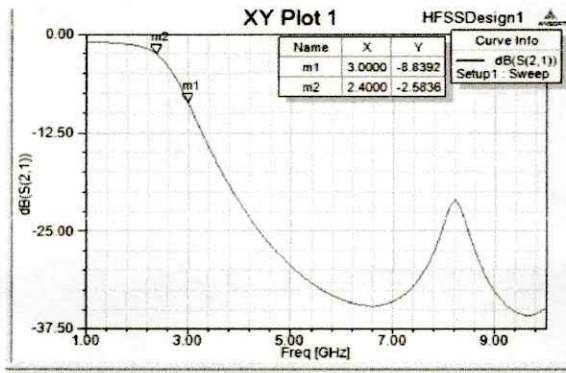
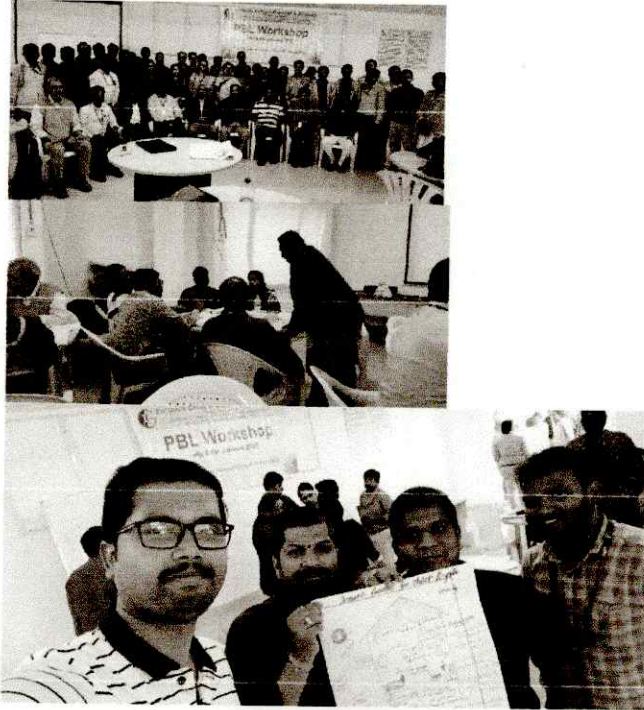


Fig.7(b) S21 Loss Vs Frequency.



Fig.7(c) Return Loss Vs Frequency.

3. Ms. V. Padmaja
4. Mr. Poorna Chander Rao
5. Mr. Raghuram Chandra
6. Ms. E. Himabindu



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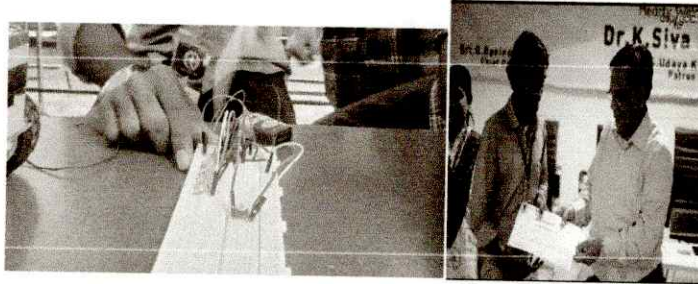
Project Based Learning

EEE

The following courses implemented course project based learning for enabling students to learn while doing:

- i. Electric circuits II year I semester
- ii. Instrumentation and Measurement Techniques III year II semester
- iii. Power Electronics III year II semester

The students displayed their projects in project exhibitions organized as part of Electrika 2019 (30 September and 1 October 2019).



The following are some of the project details:

B.KrishnaTeja 16R11A0209 A.Dathathreya 16R11A0201 G.Pranoy Krishna 16R11A0221	H-Smart
V.G.SHaraschandra 16R11A02A5 M.N.Kashyap 16R11A0285 M.Shashank 16R11A0286 C.Nikhil Chandra 16R11A0263 G.Shailendra 16R11A0276	Design of Solar Powered Inverter
Sai Vikas 17R11A0210	Design of Buck chopper

To inculcate the learning while doing culture in faculty, Geethanjali College of Engineering and Technology is association with Vishwaniketan PBL Center of Excellence started training faculty in Problem based learning. The following faculty from EEE attend the first two level of workshops held on 4th and 5th January 2020 and 24 and 25 January 2020:

1. Dr.MadhuriBayya
2. Mr.N.V.Bharadwaj


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PROJECT BASED LEARNING

Design of One-Way Slab using C programming

Academic Year: 2020-2021

Under the Guidance of Sampath Kumar

Project Execution by: 18R11A0104, 18R11A0114, 18R11A0122

Description: Implemented a program for the design of the One-Way Slab.

Advantages: Avoids Manual designing process, Output generation within in less time, Work made easy.

Language: 'C'.

Specifications:

Type of Structure: Concrete

Type of Slab: One Way

Type of Method: Limit State

Input: A simple RCC slab, to be designed for room 3m&8mwidth of supporting wall -- 300mm weight of weathering tiles (floor-filling) Live load on the slab is 2kN/m. Design the slab using M20 grade & hysd bars, check the design for stiffness

Programming in 'C'

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
#include<string.h>
```

```
#include<math.h>
```

```
int main ()
```

```
{
```

```
float x, y, d, c, overalldepth, fos, clearspan, supportwidth, effectivespan1, effectivespan2;
```

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PROJECT BASED LEARNING

```
float deadload, designload, totalload, shearforce, effectivespan, bendingmoment, value, concrete, rebars;
```

```
float mindepth,s,s1,s2,s3,ast,ast1,grossarea,t1,t2,t3,bendingmoment1,overalldepth1,d1;
```

```
int liveload, densityofconcrete, floorfinish, diameter2,diameter,b,value2;
```

```
char method[40];
```

```
int q1,q2,q3,t;
```

```
printf("\nHey!!You are in.....\nLet's start your Designing Process");
```

```
printf("\nEnter the method with which you have to proceed : ");
```

```
scanf("%s", method);
```

```
if(strcmp (method, "limitstate") == 0)
```

```
{
```

```
fos = 1.5;
```

```
printf ("Your factor of safety is : %f\n", fos);
```

```
}
```

```
else if (strcmp (method, "workingstress") == 0)
```

```
{
```

```
fos = 3;
```

```
printf ("Your factor of safety is : %f\n", fos);
```

```
}
```

```
else
```

```
{
```

```
printf ("\nError\n You are logged out");
```

```
exit (0);
```

```
}
```

```
printf ("\nEnter the values of x and y in 'mm'");
```

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Chittoor (V), Karnataka

PROJECT BASED LEARNING

```
scanf ("%f%f", &x, &y);  
  
if ((y / x) >= 2)  
{  
  
printf ("\nLet's proceed, it's one way slab");  
  
printf ("\nEnter the value of Effective Cover in 'mm'");  
  
scanf ("%f", &c);  
  
d = x / 25;  
  
printf ("\nThe Assumed Effective Depth in 'mm' is : %f", d);  
  
d1=d/1000;  
  
printf ("\nThe Assumed Effective Depth in 'm' is : %f", d1);  
  
overalldepth = d + c;  
  
printf ("\nThe value of overalldepth in 'mm' is : %f", overalldepth);  
  
overalldepth1 = overalldepth / 1000;  
  
printf ("\nOverall Depth in 'm' is %f", overalldepth1);  
  
printf ("\nEnter the values of clearspan and supportwidth in 'mm'");  
  
scanf ("%f%f", &clearspan, &supportwidth);  
  
effectivespan1 = clearspan + supportwidth / 2 + supportwidth / 2;  
  
effectivespan2 = clearspan + d;  
  
if (effectivespan2 > effectivespan1)  
{  
  
effectivespan = effectivespan1 / 1000;  
  
printf ("Effective span is %f", effectivespan);  
  
}  
  
else  
{
```

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PROJECT BASED LEARNING

```
effectivespan = effectivespan2 / 1000;

printf ("\nEffective span in 'm'is %f", effectivespan);
}

printf ("\nIt's time for the calculation of Loads");
printf ("\nEnter the value of liveload in 'KN/m2' :");
scanf ("%d", &liveload);
printf ("\nLiveload is : %d", liveload);
printf ("\nEnter the value of Density of Concrete in 'KN/m3' :");
scanf ("%d", &densityofconcrete);
printf ("\nCalculation of Deadload ");

    deadload = overalldepth1 * densityofconcrete;
printf ("\nThe deadload in 'm' is : %f", deadload);
printf ("\nEnter the value of Floor Finish in 'KN/m2'");
scanf ("%d", &floorfinish);

totalload = liveload + deadload + floorfinish;
printf ("\nThe Total load is : %f", totalload);

designload = totalload * fos;
printf ("\nThe Design load in KN/m2 is : %f", designload);
printf ("\nCalculation of Shearforce and Bendingmoment");

shearforce = designload * effectivespan;
shearforce = shearforce / 2;
printf ("\nThe Shearforce in 'KN' is : %f", shearforce);

bendingmoment = designload * effectivespan * effectivespan;
bendingmoment = bendingmoment / 8;
printf ("\nThe Bendingmoment in KNm is : %f", bendingmoment);
```

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PROJECT BASED LEARNING

```
bendingmoment1=bendingmoment*1000000;
printf("\n The Bendingmoment in 'mm' is %f",bendingmoment1);
printf("\nCalculation of Min depth");
value = 0.138 * 0.02 * 1;
mindepth = (bendingmoment / value);
mindepth = sqrt (mindepth);
printf ("\nThe value of Min Depth in mm is :%f", mindepth);
if (d >mindepth)
{
printf ("\nLet's proceed !! as the value ofmindepth is less than assumed depth");
}
else
{
printf ("\n Error\n Correction required");
}

printf ("\n Enter the grade of Concrete and Rebars");
scanf ("%f%f", &concrete, &rebars);
printf ("\n Calculation of Main Reinforcement");
printf("\n enter the value of b");
scanf("%d",&b);
ast1=294.01;
printf ("\nThe Main Reinforcement required in 'mm' is %f", ast1);
printf ("\n Enter the Diameter of the Bar");
scanf ("%d", &diameter);
ast = 3.14/4;
```

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```
ast =ast*diameter*diameter;

printf("\nThe value of ast is %f",ast);

s1=ast/ast1;

s1=s1*1000;

s2=3*d;

s3=300;

if(s1<s2&& s1<s3)
{
s=s1;
}
else if(s2<s1&& s2<s3)
{
s=s2;
}
else
{
s=s3;
}

printf("\nProvide %dmmDiameterBar at %f from Center to Center",diameter,s);


printf("\n Calculation of Distribution Reinforcement");

if(rebars==415||rebars==500)
{

grossarea=(0.12/100);

grossarea=grossarea*1000*overalldepth;

}
```


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PROJECT BASED LEARNING

```
else
{
grossarea=(0.15/100);
grossarea=grossarea*1000*overalldepth;
}

printf("\n Enter the Diameter of the Bar");
scanf("%d", &diameter2);
ast = 3.14/4;
ast =ast*diameter2*diameter2;
printf("\n The value of ast is %f",ast);
t1=(ast/grossarea)*1000;
t2=5*d;
t3=450;

printf("-----%f %f %f",t1,t2,t3);

q1=(int)t1;
q2=(int)t2;
q3=(int)t3;

printf("-----%d %d %d",q1,q2,q3);

t=(q1<q2&&q1<q3)?(q1):(((q2<q3&&q2<q1)?q2:q3));

printf("\n Provide %d Diameter Bars at %d Center to Center",diameter2,t);
printf("\n The result is as follows : ");
printf("\n Provide %d DiameterBar at %f from Center to Center",diameter,s);
printf("\n Provide %d Diameter Bars at %d Centerto Center",diameter2,t);
printf("\n YOUR DESIGN PROCESS IS SUCCESSFULLY COMPLETED\n
THANKYOU,VISIT AGAIN!");
```

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PROJECT BASED LEARNING

```
}  
Else  
{  
Printf ("Not Applicable");  
}  
return 0;  
}
```

Output:

1. Provide 10mm diameter bars at 270mm center to center for Main Reinforcement
2. Provide 8mm diameter bars at 290mm center to center for distribution Reinforcement

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