

# **REFINED RESEARCH**

## **A PROJECT REPORT**

*Submitted by*

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**BONAFIDE CERTIFICATE**

Certified that this project report titled “**REFINED RESEARCH**” is the bonafide work of “Avantika Suryavanshi (21BCE11350) , Saubhaggya Srivastava (21BCE10448), Asmi Snigdha (21BCE11450), Anshika Bhardwaj (21BCE11057), Manish Kumar (21BCE11084)” who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported here does not form part of any other project / research work on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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## **ABSTRACT**

Research is conducted to identify problems or to find answers to ‘uncertainties’.

Studies are conducted because there is uncertainty about a phenomenon that either has, or has not occurred. Research also aims to use the best method to solve problems, whether or not experiments are conducted. Meanwhile, the main purpose of writing and publishing is to disseminate research findings and to share new knowledge with other researchers in their respective fields. The most important product that should be highlighted is that the results of research should benefit the community.

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# **CHAPTER-1**

## **1.1 INTRODUCTION**

VIT Bhopal is one of a kind in the sense it has a fully doctorate faculty. With such a research driven faculty, research is one of the standing points at VIT Bhopal University. The professors at VIT Bhopal hence conduct a variety of research projects that require interns that are students mainly. Our purpose is to help ease the process of student recruitment in University. Hence we have decided to create a dedicated portal to showcase available and ongoing research projects for students to apply for as well as faculty to hire from.

## **1.2 MOTIVATION**

Manage time and work systematically. For example, in time management, a systematic timetable will make life more manageable. Software such as Google Calendar can be used for this purpose. Researchers must keep in mind that the main motivation in developing their research is their deep interest in the field, not because of money.

Every researcher must have a high degree of confidence and must never give up easily even at one time a research will seem to reach a dead end. However, if the researcher is sincere about gaining new knowledge, the research will eventually be a success.

Researchers should never keep quiet about their newly acquired knowledge and must always be willing to share information with their colleagues. Cooperation is an important asset for the success of a team project.

## **1.3 PROBLEM STATEMENT**

The statement of the problem is one of the first things that a colleague will read. With the vastness of the information available at one's fingertips in the online world, your work may have

just a few seconds to draw in a reader to take a deeper look at your proposal before moving on to the next option.

## **1.4 OBJECTIVE OF WORK**

The objective of this work is to implement a management system that will streamline the registration process, reduce administrative tasks and paperwork so as to improve the registration cycle process flow.



## **CHAPTER-2**

### **SYSTEM ANALYSIS**

#### **2.1 LITERATURE REVIEW**

A literature review for a Research website would involve exploring existing research and information about the researches which are going on . However, little research has been conducted to define the specific elements used in effective website and mobile application design. We attempt to review and consolidate research on effective design and to define a short list of elements frequently used in research. The design elements mentioned most frequently in the reviewed literature were navigation, graphical representation, organization, content utility, purpose, simplicity, and readability. This review and the resulting short list of design elements may be used to help designers and researchers for best practices for facilitating and predicting user engagement.

#### **2.2 OBSERVATIONS**

The data that are collected in research studies are often qualitative in nature but they may also be quantitative or both.

Case studies are typically used to collect in-depth information on a single individual.

## **CHAPTER-3**

### **SYSTEM DESIGN AND IMPLEMENTATION**

#### **3.1 Introduction**

System analysis is a method of problem-solving that deals with the breaking down of a system into components parts in order to study how well the individual parts work and interact to accomplish their purpose. It involves the process of enumerating the existing problems, analyzing the proposed system for costs and benefits, analyzing the system and user requirements and considering possible alternative system.

The proposed system is being designed in such a way that users only need to input their data which is then entered into a computer database. Then they will be assigned a specific id on registration.

#### **3.2 Disadvantages/Limitations in the existing system**

Limitations of research due to methodological problems can be addressed by clearly and directly identifying the potential problem.

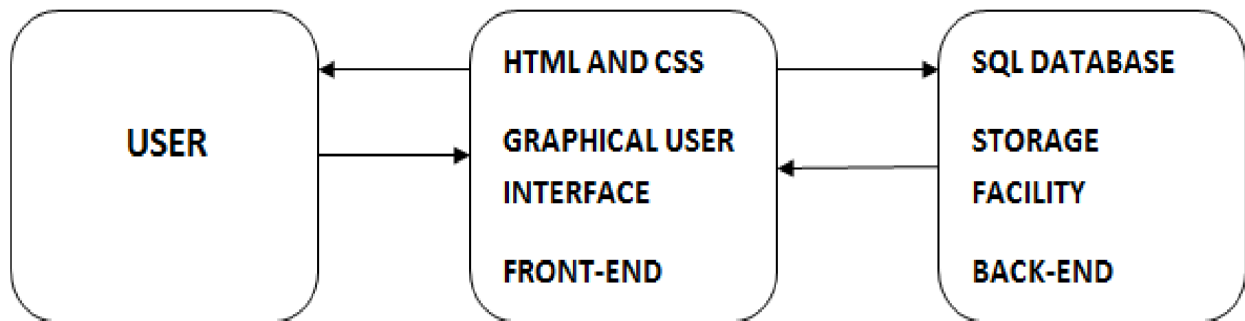
- Lack of security data
- Time constraints
- Lack of previous research studies on the topic.
- Limited access to data

#### **3.3 Proposed System**

A lot of students interested in the research field don't get the right opportunities because of lack of knowledge. Hence, we have decided to create a dedicated portal to showcase available and ongoing research projects for students to apply for as well as faculty to hire from.

It will be an interactive interface that will not only help students apply to research projects and professors hire research interns but also help keep track of the progress alongside a report of previous and ongoing projects. It will also contain blogs of published research papers and

renowned work in this field by the university to help encourage students to go forth in the field of research. We have planned to have a filter feature that will help students find projects in their domain of interest and skills.



**FIG 2.1-REPRESENTATION OF PROJECT**

## **Hardware Requirements**

Minimum Hardware requirements are as follows:

- Processor –Celeron (R) Dual –Core CPU T3100@1.90GHz 1.90 GHz;
- Installed Memory (RAM) – at least 350 MB;
- System type-32/64./86 bit Operating System;
- Model-Presario CQ42 Notebook PC;  
Resolution-1366/768;

# Software Requirements

## XAMPP

XAMPP is an easy to install Apache distribution containing MySQL, PHP and Perl.

XAMPP is really very easy to install and to use - just download, extract and start.

## XAMPP for Windows

The distribution for Windows 2000, 2003, XP, Vista, 7 and 8. This version contains: Apache, MySQL, PHP + PEAR, Perl, mod\_php, mod\_perl, mod\_ssl, OpenSSL, phpMyAdmin.

Webalizer, Mercury Mail Transport System for Win32 and NetWare Systems v3.32, Ming, FileZilla FTP Server, mcrypt, eAccelerator, SQLite, and WEB-DAV + mod\_auth\_mysql.

- Apache 2.4.9
- MySQL10.1.31MariaDB
- PHP 7.2.3
- phpMyAdmin 4.7.9

## Programming Language

- ❖ HTML
- ❖ CSS
- ❖ Bootstrap
- ❖ PHP
- ❖ MySQL

## CHAPTER-4

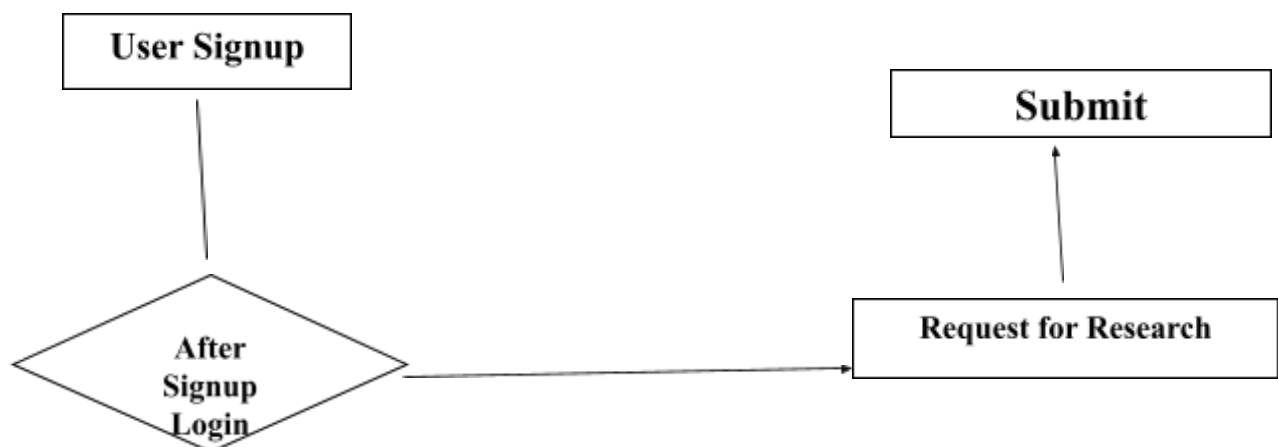
### SYSTEM DESIGN AND IMPLEMENTATION

#### 4.1 Module 1 design & implementation

- **User Module**
- **Faculty Module**

##### USER MODULE

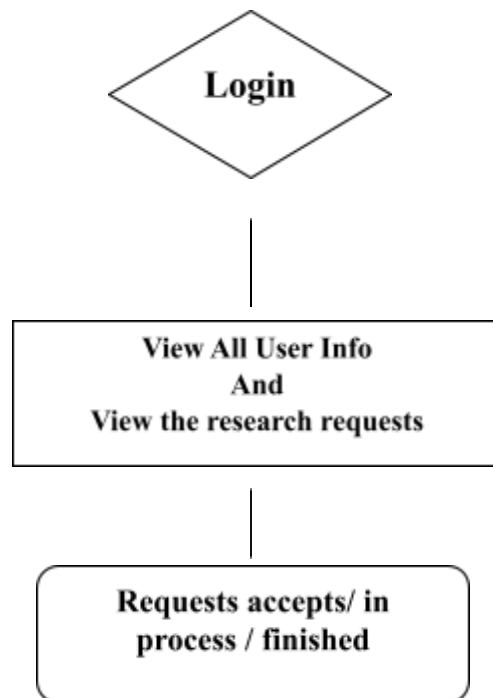
1. User Signup – In this section user can register himself. After successful signup, he/she can sign in into the system.
2. Dashboard: In this section, the user can view the status of his request ,applied for research.
3. Research Request: In this section, user can apply for research according to their interest by filling form.
4. Request Status: In this section, user can check his/her application request status which is done by admin which means his/her request is at what step.
5. A user can also update his/ her profile, change the password and recover the password.



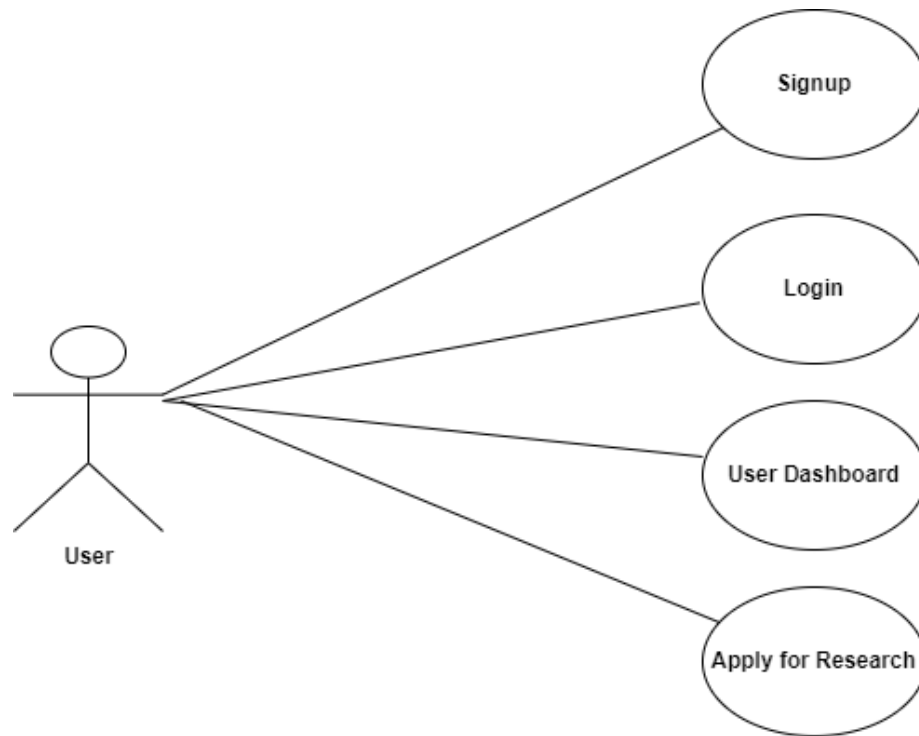
**FIG 3.1- USER FLOW CHART**

## **FACULTY MODULE**

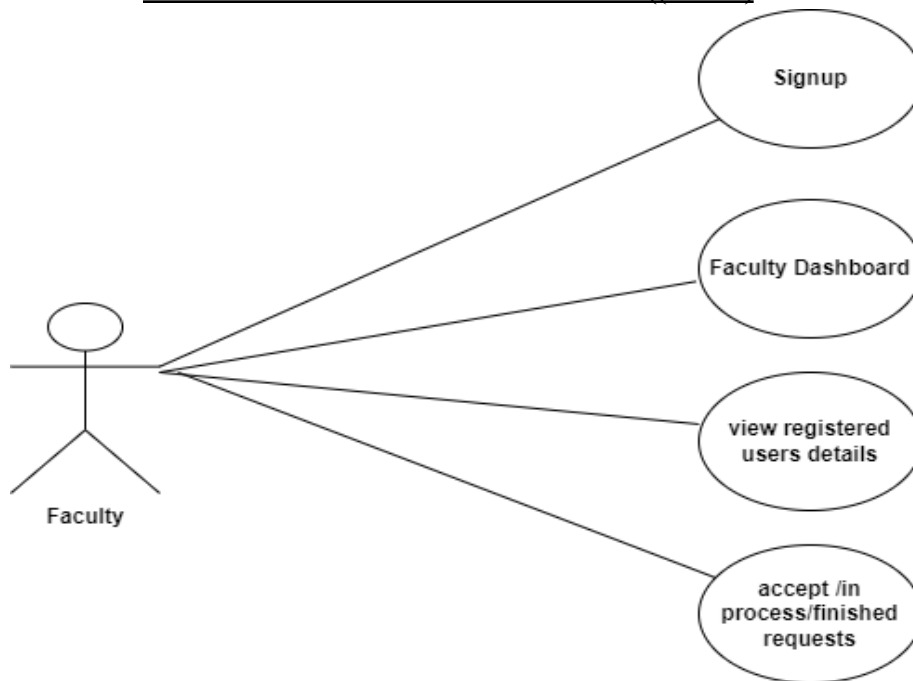
1. Dashboard: In this section, faculty can see request of all user(means how many are a new request, accept the request, in-process request and finish request) in brief.
2. Reg Users: In this section, faculty can view user detail and update user detail.
3. Reports: In this section,faculty can see the research application request according to dates and faculty can also count request on the basis of month and year.



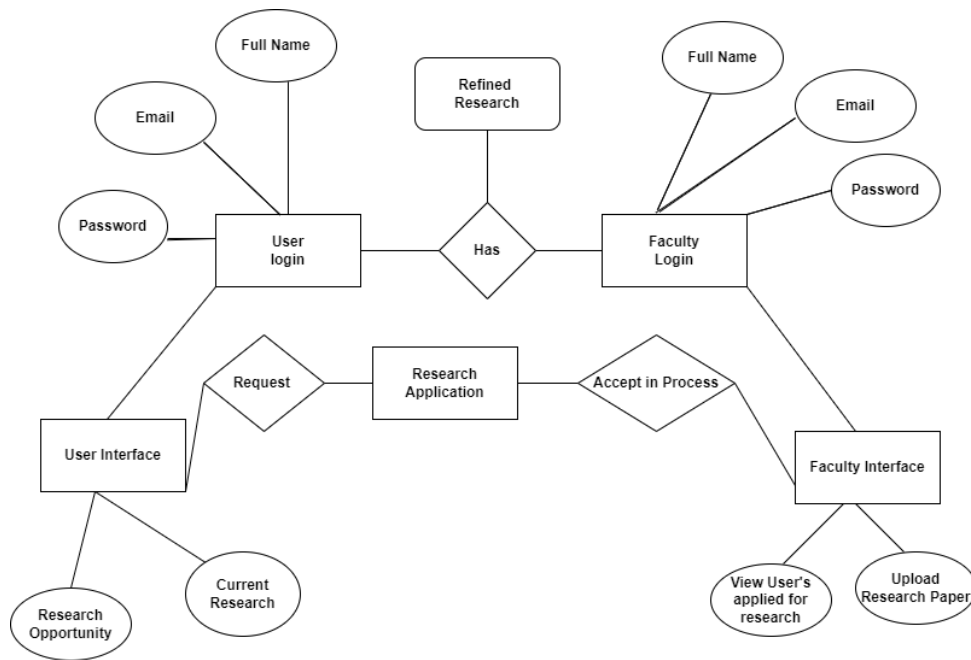
**FIG 3.2-ADMIN FLOW CHART**



**FIG 3.3 USE CASE FLOW DIAGRAM ((USER))**



**FIG 3.4 USE CASE FLOW DIAGRAM (Faculty)**



### **3.5 ER Diagram**

## **4.2 MODULE-2 DESIGN AND IMPLEMENTATION**

### **Database Design**

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MS Access database has been chosen for developing the relevant databases.



## **TOOLS**

### **Programming Language**

#### **PHP**

- ✓ PHP stands for PHP: Hypertext Preprocessor
- ✓ PHP is a server-side scripting language, like ASP
- ✓ PHP scripts are executed on the server
- ✓ PHP supports many databases (MYSQL, Informix, Oracle, Sybase, Solid, Generic ODBC, etc.)
- ✓ PHP is an open source software
- ✓ PHP is free to download and use

#### **MYSQL**

- ✓ MYSQL is a database server
- ✓ MYSQL is ideal for both small and large applications
- ✓ MYSQL supports standard SQL
- ✓ MYSQL compiles on a number of platforms
- ✓ MYSQL is free to download and use

#### **CSS**

- ✓ Cascading Style Sheets (CSS)
- ✓ Simple mechanism
- ✓ Easy for adding style (e.g., fonts, colors, spacing) to Web documents.

## CHAPTER-5

### PERFORMANCE ANALYSIS

#### 5.1 PERFORMANCE MEASURES (text and interface)

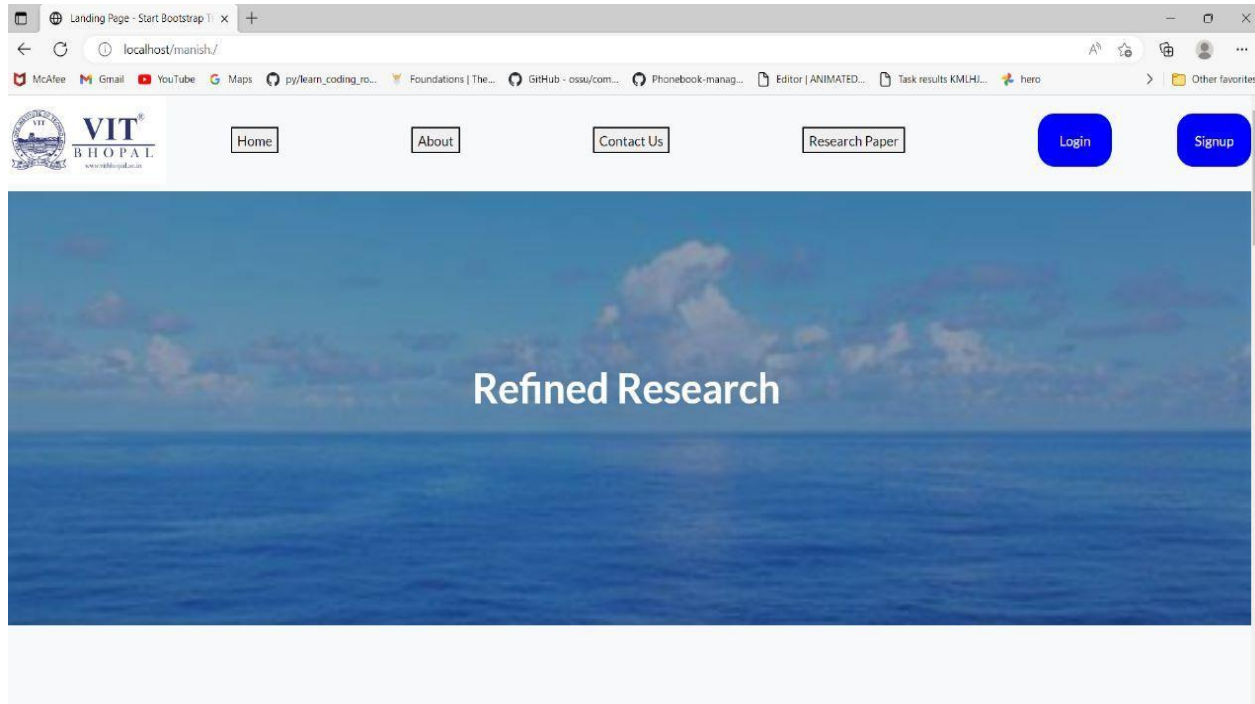


fig 5.1

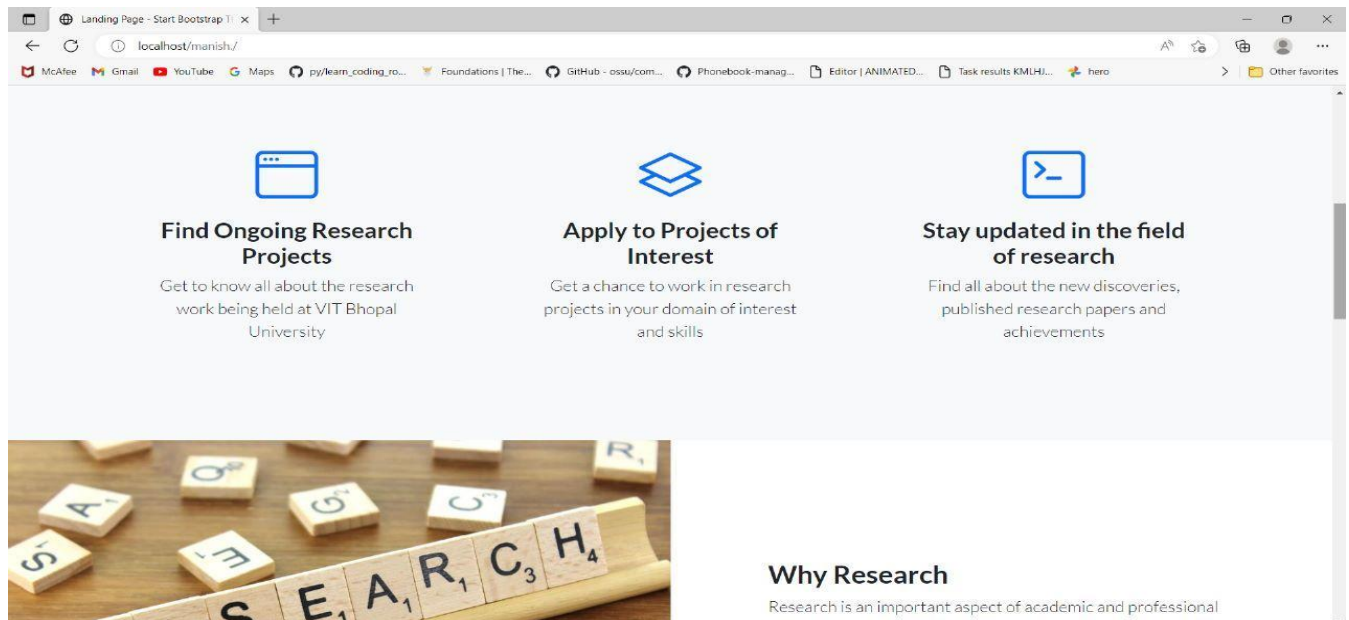


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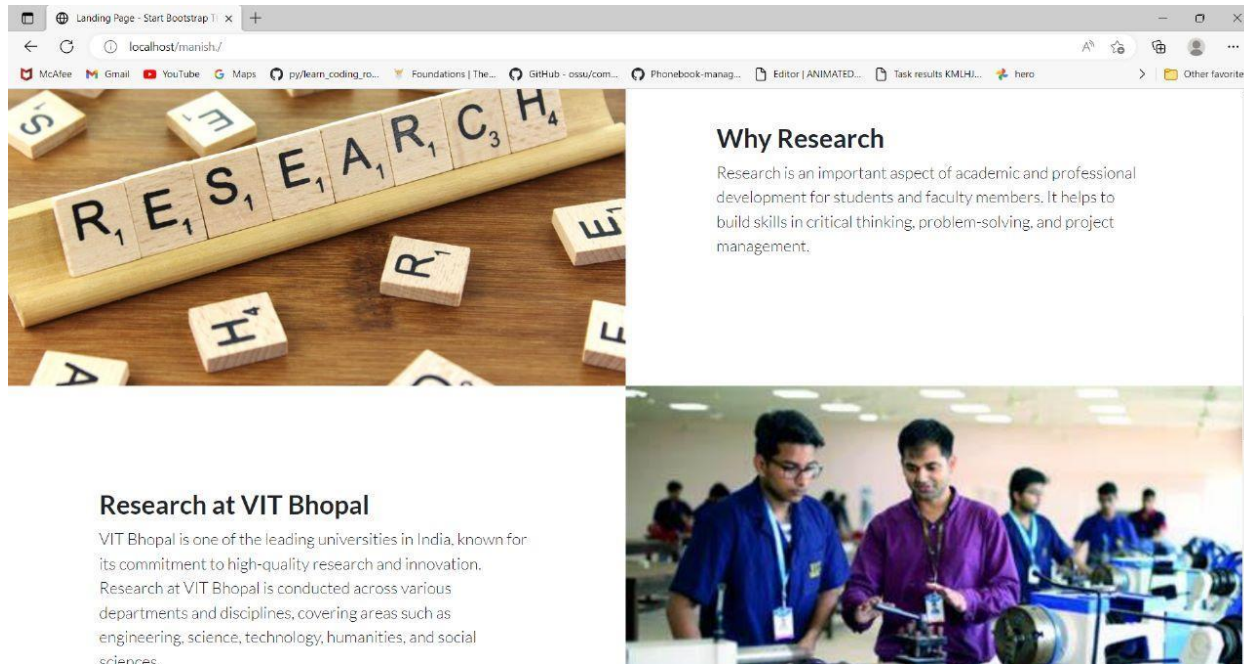


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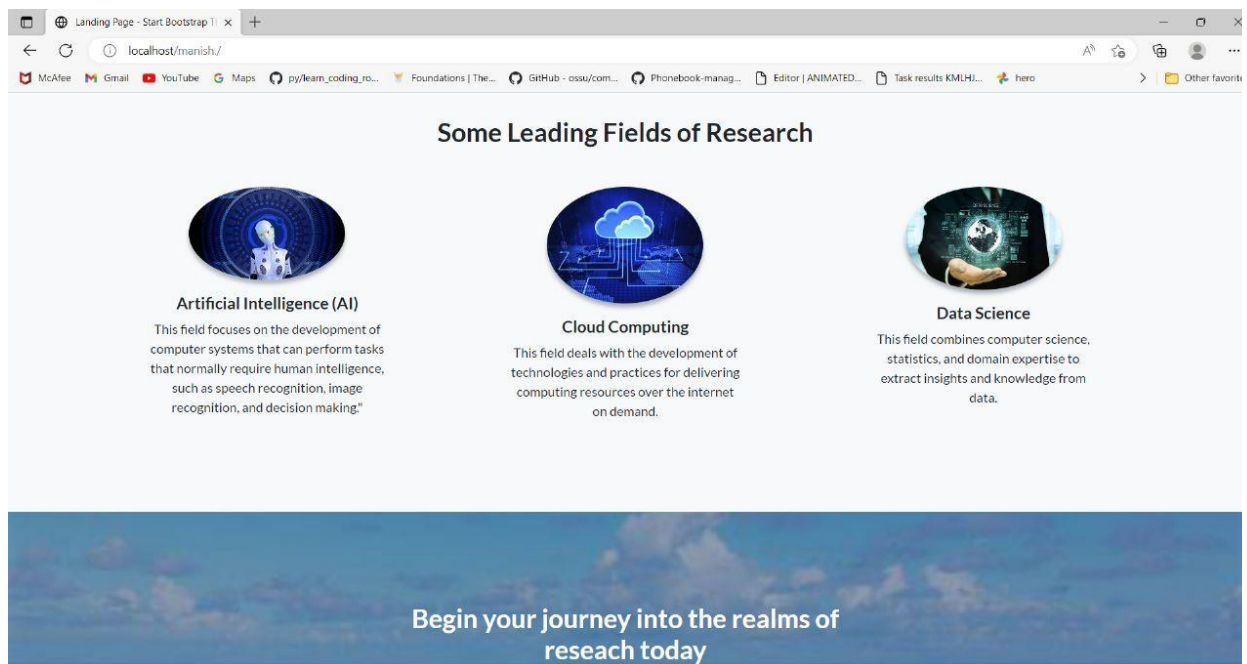


fig 5.4

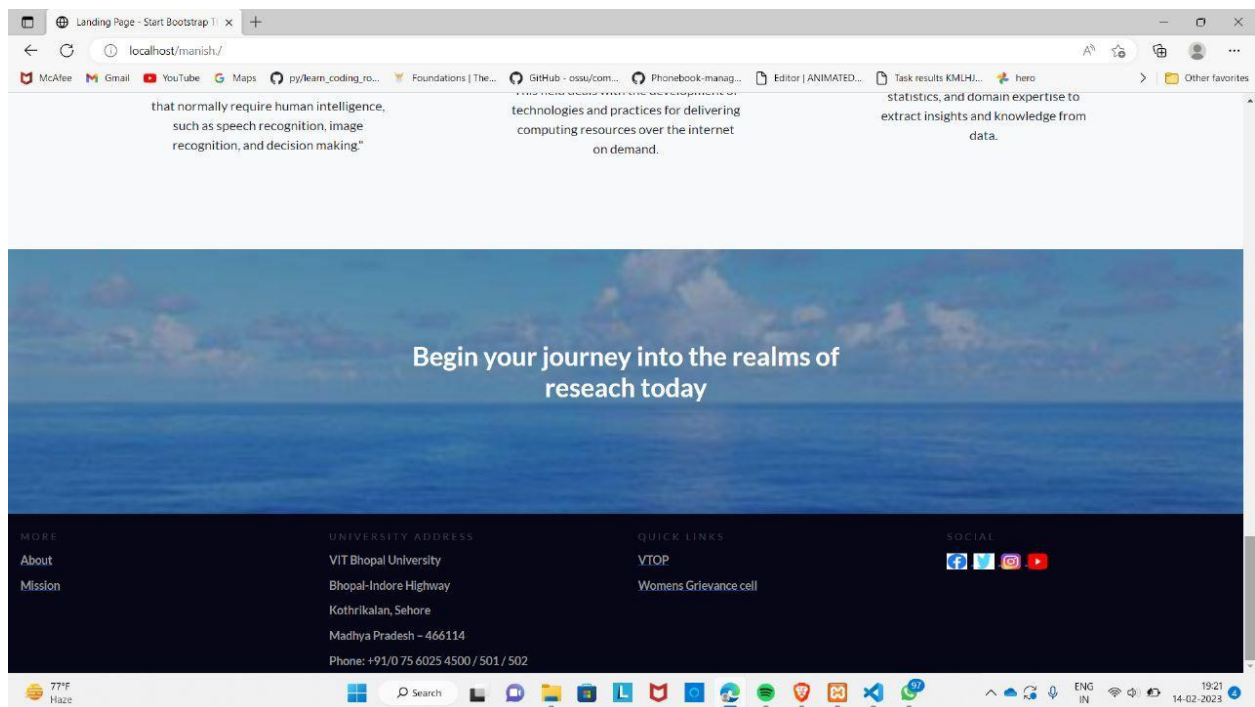


fig 5.5

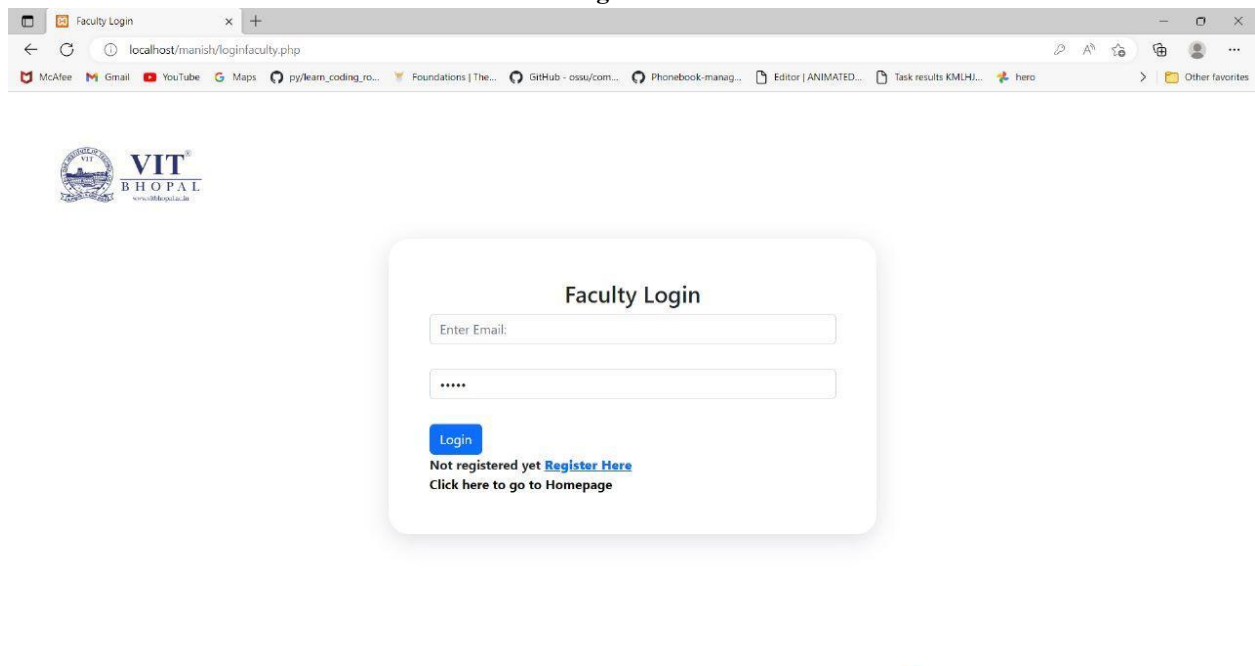


fig 5.6

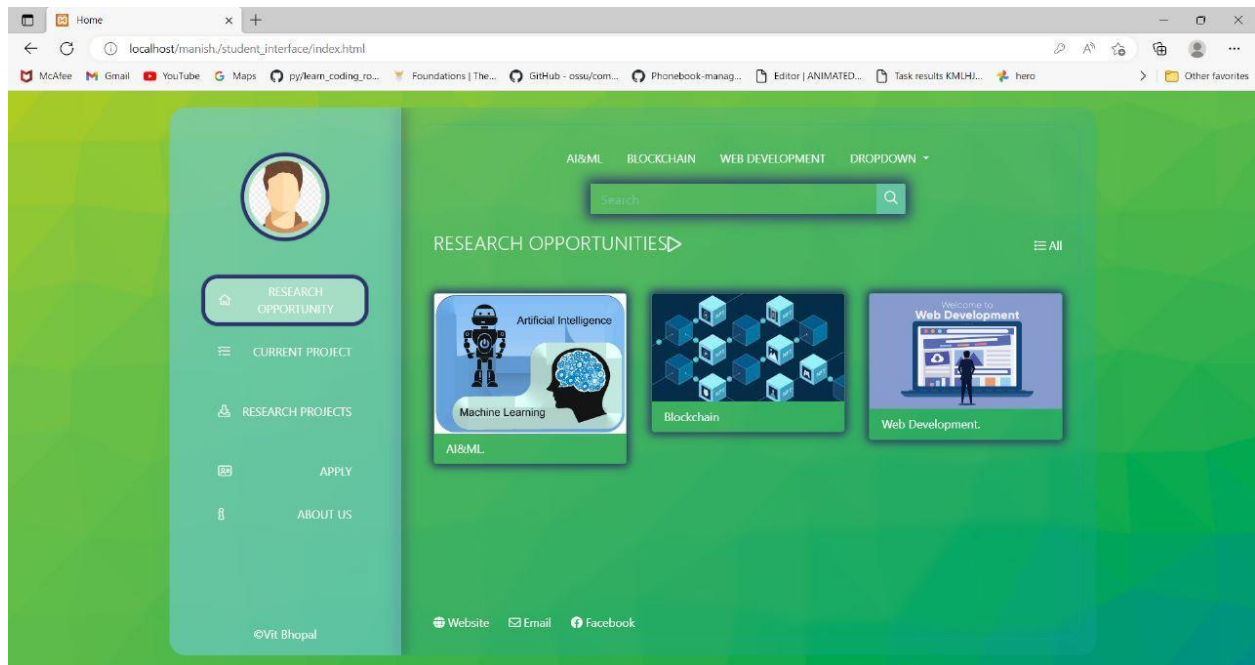


fig 5.7

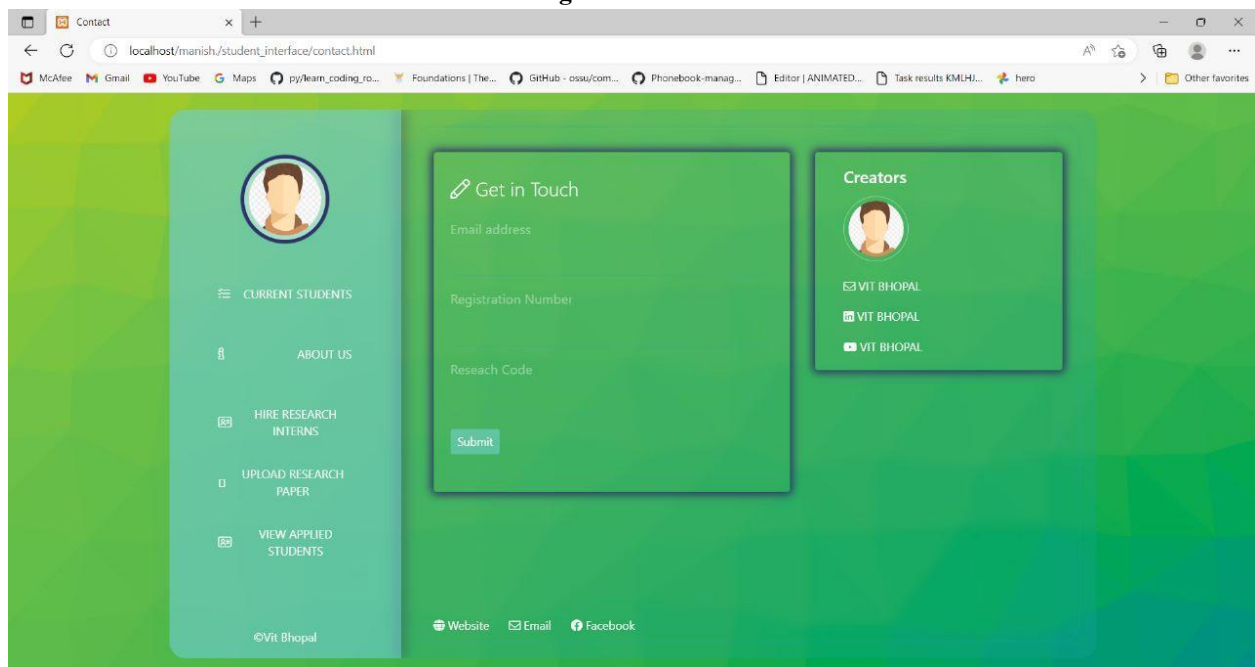


fig 5.8





**Student Login**

Not registered yet [Register Here](#)  
Click here to go to Homepage

fig 5.9

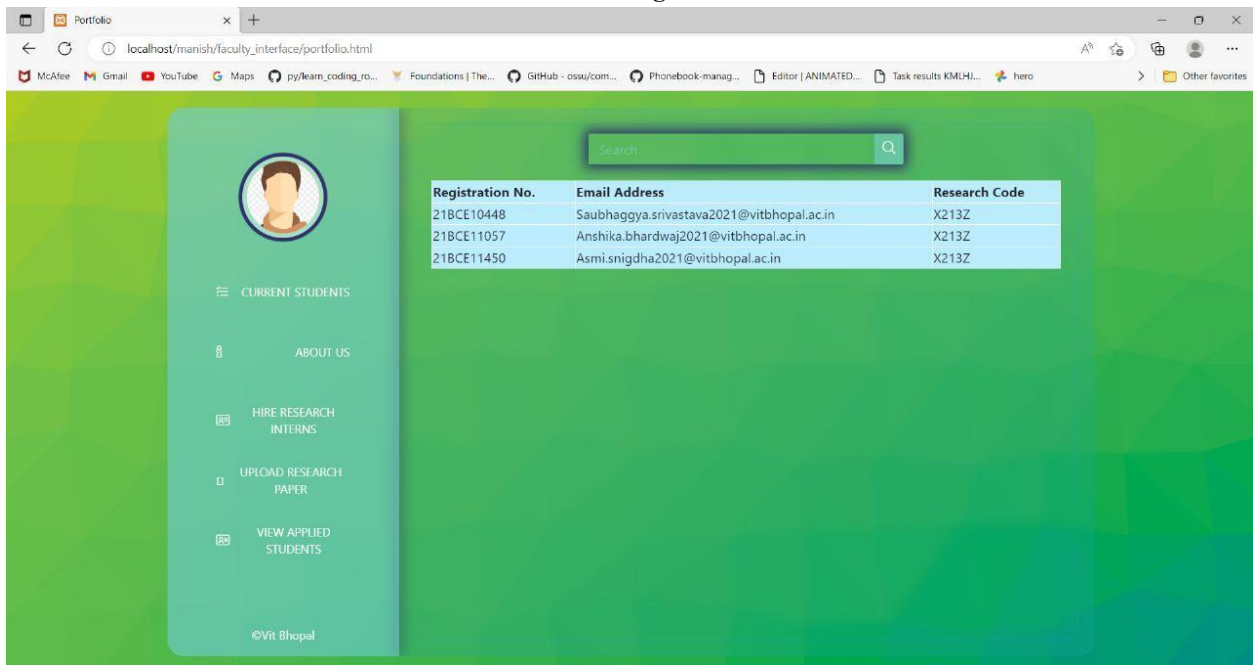


fig 5.10

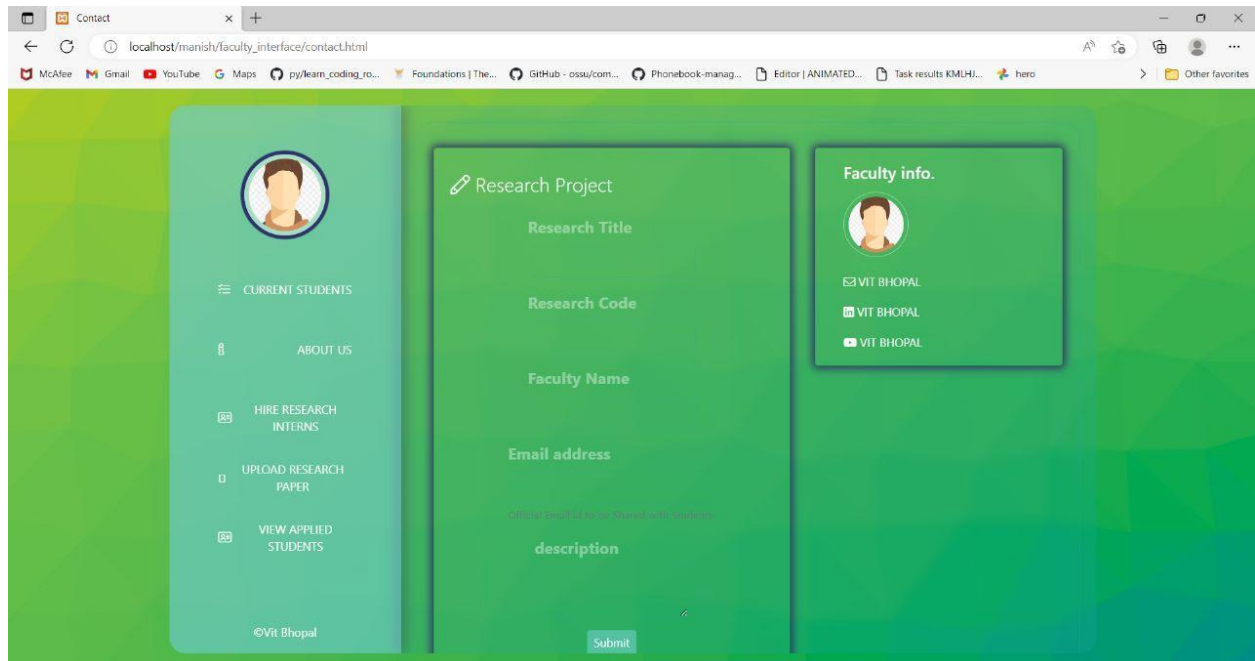


fig 5.11



## **CHAPTER-6**

### **FUTURE ENHANCEMENT AND CONCLUSION**

#### **6.1 LIMITATION / CONSTRAINT OF THE SYSTEM**

Due to the constraint of time it is clear that there are limitations in this project.

- System is only in one language (English).
- May show some glitches in future versions of web browsers.

#### **6.2 FUTURE ENHANCEMENTS**

- App development possibility
- Enhancement in user experience
- Can be available in regional languages

#### **6.3 CONCLUSION**

The package was designed in such a way that future modifications can be done easily. The following conclusion can be deduced from the development of the project.

1. Automation of the entire system improves efficiency.
2. It provides a friendly graphical user interface which proves to be better when compared to the existing system.
3. It provides a friendly graphical user interface which proves to be better when compared to the existing system.
4. It gives appropriate access to the authorized users depending on their permissions.
5. It effectively overcomes the delay in communications.

6. Updating information becomes so easy.
7. System security, data security and reliability are the striking features.
8. The System has adequate scope for modification in future if it is necessary.

## APPENDICES

ALL THE CODES FILES OF OUR PROJECT ARE ATTACHED HERE IN THIS LINK .

**Google Drive Link:-**

**[https://drive.google.com/file/d/1kvhlRi5zaidZyX83Uo0M\\_dEZmY4uE5AI/view?usp=sharing](https://drive.google.com/file/d/1kvhlRi5zaidZyX83Uo0M_dEZmY4uE5AI/view?usp=sharing)**

```
manish > index.php
1  <!DOCTYPE html>
2  <html lang="en">
3    <head>
4      <meta charset="utf-8" />
5      <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
6      <meta name="description" content="" />
7      <meta name="author" content="" />
8      <title>Refined Research</title>
9      <!-- Favicon-->
10     <link rel="icon" type="image/x-icon" href="assets/favicon.ico" />
11     <!-- Bootstrap icons-->
12     <link href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.5.0/font/bootstrap-icons.css" rel="stylesheet" type="text/css">
13     <!-- Google fonts-->
14     <link href="https://fonts.googleapis.com/css?family=Lato:300,400,700,300italic,400italic,700italic" rel="stylesheet" type="text/css">
15     <!-- Core theme CSS (includes Bootstrap)-->
16     <link href="stylemainpage.css" rel="stylesheet" />
17   </head>
18   <body>
19     <!-- Navigation-->
20     <nav class="navbar navbar-light bg-light static-top">
21       
22       <button type="button" onclick="window.location.href='index.php'">Home</button>&nbsp;
23       <button type="button" onclick="window.location.href='https://vit.ac.in/about-vit'">About</button>&nbsp;
24       <button type="button" onclick="window.location.href='#footer'">Contact Us</button>&nbsp;
25       <button type="button" onclick="window.location.href='https://research.vit.ac.in/publication'">Research Paper</button>&nbsp;
26       <div class="dropdown">
27         <button class="dropbtn">Login</button>
28         <div class="dropdown-content">
29           <a href="login.php">Student Login</a>
30           <a href="loginfaculty.php">Faculty Login</a>
31         </div>
32       </div>
33     </nav>
34   </body>
35 </html>
```

```

manish > student_interface > connect2.php
1  <?php
2      // $Name = $_POST['Name'];
3      $Email_address = $_POST['Email_address'];
4      $Registration_Number = $_POST['Registration_Number'];
5      $Research_Code = $_POST['Research_Code'];
6      //database connection
7      $conn = new mysqli('localhost','root','','faculty1');
8      if($conn->connect_error){
9          die("Connection Failed :". $conn->connect_error);
10     }else{$stmt = $conn->prepare("insert into studentapply( Email_address,Registration_Number, Research_Code) values( ?, ?,
11     $stmt->bind_param("ssi", $Email_address, $Registration_Number, $Research_Code );
12     $execval = $stmt->execute();
13     echo $execval;
14     echo "Registration successfully...";
15     $stmt->close();
16     $conn->close();
17
18     }
19
20 + ?>

```

```

manish > login.php
1  <?php
2  session_start();
3  if (isset($_SESSION["user"])) {
4      header("Location: index.php");
5  }
6  ?>
7
8  <!DOCTYPE html>
9  <html lang="en">
10 <head>
11     <meta charset="UTF-8">
12     <meta http-equiv="X-UA-Compatible" content="IE=edge">
13     <meta name="viewport" content="width=device-width, initial-scale=1.0">
14     <title>Student Login</title>
15     <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css" integrity="sha384-Zenh87qX5JnK2118vWa8Ck2rdkQ2Bzep5IDxbcnCeu0Xjz"
16     <link rel="stylesheet" href="loginstyle.css">
17 </head>
18 <body>
19 <div class="header">
20     
21 </div>
22
23 <div class="container">
24 + <h3 align="center">Student Login</h3>
25 <?php
26     if (isset($_POST["login"])) {
27         $email = $_POST["email"];
28         $password = $_POST["password"];
29         require_once "database.php";
30         $sql = "SELECT * FROM users WHERE email = '$email'";
31         $result = mysqli_query($conn, $sql);
32         $user = mysqli_fetch_array($result, MYSQLI_ASSOC);
33         if ($user) {
34             if (password_verify($password, $user["password"])) {
35                 session_start();
36                 $_SESSION["user"] = "yes";
37                 header("Location: student_interface/index.html");
38                 die();
39             }

```

```

39         }else{
40             echo "<div class='alert alert-danger'>Password does not match</div>";
41         }
42     }else{
43         echo "<div class='alert alert-danger'>Email does not match</div>";
44     }
45 }
46 ?>
47 <form action="login.php" method="post">
48
49     <div class="form-group">
50         <input type="email" placeholder="Enter Email:" name="email" class="form-control">
51     </div>
52     <div class="form-group">
53         <input type="password" placeholder="Enter Password:" name="password" class="form-control">
54     </div>
55     <div class="form-btn">
56         <input type="submit" value="Login" name="login" class="btn btn-primary">
57     </div>
58 </form>
59
60 <div><b>Not registered yet <a href="registration.php"><b>Register Here</b></a></b></div>
61
62 <a href="index.php" class="hlink"><b>Click here to go to Homepage</b></a>
63 </div>
64 </body>
65 </html>

```

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