



## **UE18CS390A – CAPSTONE PROJECT APPROVAL**

# Intelligent Voice Interface For PESU

Project ID: PW23\_PB\_01  
Project Guide: Prof. Priya Badrinath  
Project Team: BRO code!

## Introduction

- **Voice control is a major growing feature that is changing the way people live**
- (from smart homes to smart tv to smart phone we have voice control)
- Problems With Website and App Include
  1. Have to Login After timeout or After Session Ends
  2. Interface Lags
  3. Experience Downtime
  4. Too much process to go through to get the desired result
  5. Old school(voice assistants are cooler)

## **Applications**

- 1. Login using account credentials**
  - 2. Fetch Courses, ISA Results ,Attendance ,Notifications etc.**
  - 3. Gives All kind info of particular student.**
  - 4. Plays AV Summaries**
- Apart From Academics It can also be used as personal Voice Assistant**

Hey pesu! Show me my courses

The screenshot displays the PES University website. At the top, there is a navigation bar with the university's logo and name. Below this is a sidebar menu with various links. The main content area features a large banner for 'Linguista' recruitment, which includes the text 'We're recruiting! Linguista brings recruitments for our core team. When: 6th-10th February Scan the QR code or click on the link'. To the right of the banner, there is a section titled 'Announcements' listing several events and their dates.

**Navigation Bar:**


- Home
- Online Payments
- My Courses
- NEFT/RTGS Details
- Examination Grievance Redressal System
- My Attendance
- Bank Consent
- Results
- Seating Info
- My Quizzes
- Video Archives

**Announcements:**

- M.Com - 4th sem ISA 1 Timetable  
Date: 02-February-2023
- Inter-Department sports fest CAMPUS CHALLENGE for SQUASH  
Date: 02-February-2023
- Inter-Department Sports Fest CAMPUS CHALLENGE  
Date: 01-February-2023
- Feb 2023\_B.TECH \_S&H\_Semester I\_Final Time Table  
Date: 01-February-2023

Result we will get!!!

Your courses are



Home

Online Payments

**My Courses**

NEFT/RTGS Details

Examination Grievance Redressal System

My Attendance

Bank Consent

Results

Seating Info

My Quizzes

Video Archives

Calendar

My Courses

Select SemesterSem-6

Course Code	Course Title	Course Type	Status	Action
UE20CS336	Digital Forensics	EC	Enrolled	
UE20CS346	Information Security	EC	Enrolled	
UE20CS351	Cloud Computing	CC	Enrolled	
UE20CS352	Object Oriented Analysis & Design with Java	CC	Enrolled	
UE20CS353	Compiler Design	CC	Enrolled	



WOW

## KEY FEATURES



## Scope

1. Easier access to PESU resources
2. Get The Latest Information about academics
3. Detect and respond to Owner Only
4. Tap talk and get wherever you wish in PESU academy
5. Personal voice assistant for students

## Capstone-I deliverables

### Requirements needed:

1. Python programming language
2. Speech to text API module
3. Speech Learning algorithm using NLP



## **Detailed Implementation Plan :**

We are waiting for the panel to accept our project, then only we can make detailed plan for everything

## **Database Design :**

We will create a dummy database from scratch to work with our front and backend or we will ask Respected chairperson to provide us one that we use for our college to make our project more compatible with PESU!!

## **Modules Used :**

We will be using python module ( ) to work with voice learning algo and google text to speech for voice recognition(as it supports English very well and is open source).

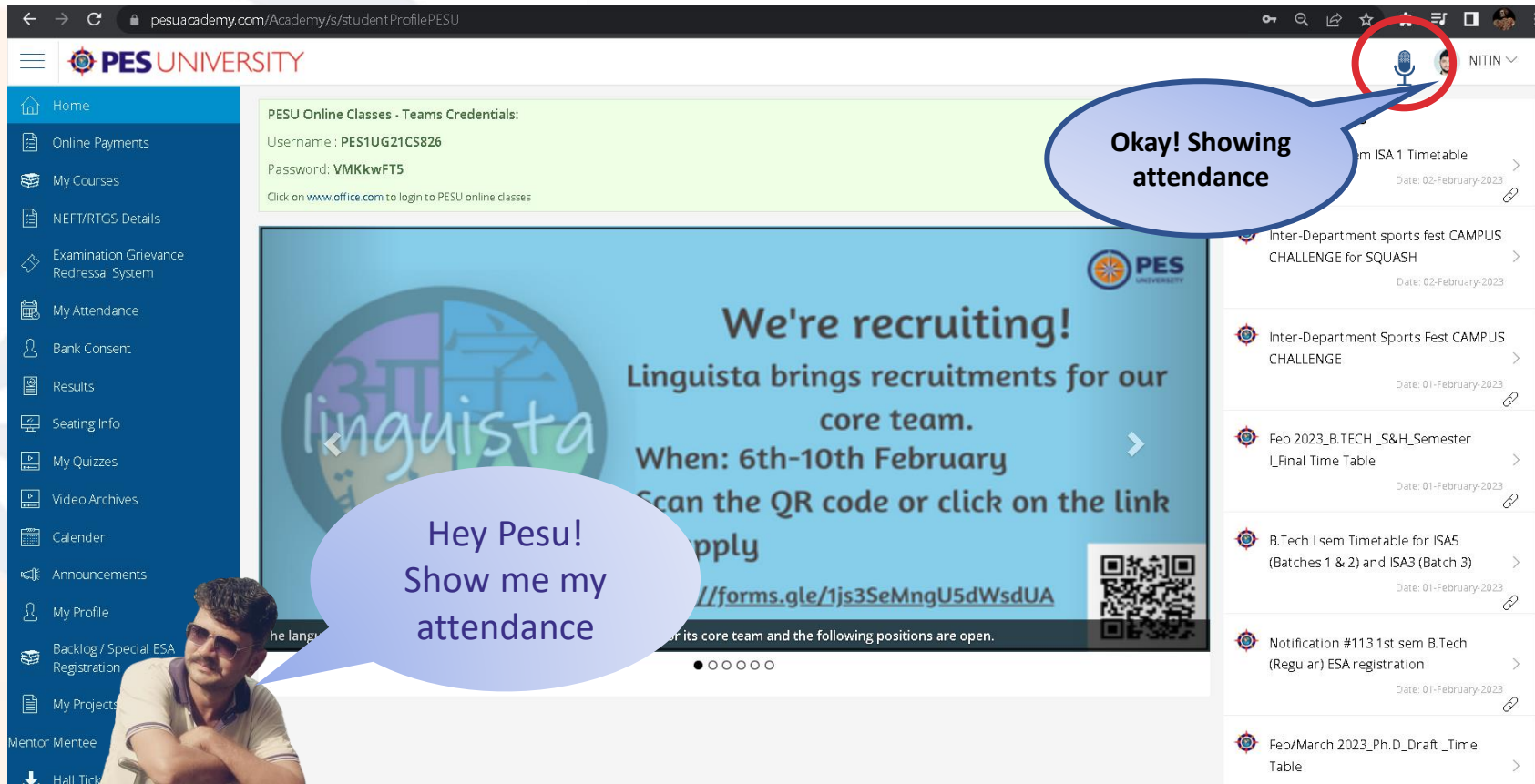
## **Capstone II deliverables**

- 1. End Product will be made**
- 2. Documentations of everything will be done i.e. srs and report making will be done**
- 3. Research Papers will be made and published**
- 4. Database Documentation will also be done**
- 5. Monitoring and Control of Documents will be as having CIA triad in mind**

## **Challenges we are going to face :**

1. Biggest Threat to our project is Maintaining Student Data And their Privacy
2. The algorithm should work properly while its phase for learning of one's voice
3. Proper authentication is tough to implement as it may hamper the key features
4. Making The assistant understand between similar sounding words
5. The vastness of project and promise of deliverables itself
6. PESU Should allow us to Scrap [www.pesuacademy.com/Academy/](http://www.pesuacademy.com/Academy/) Website for it to be implemented for pesu academy portal

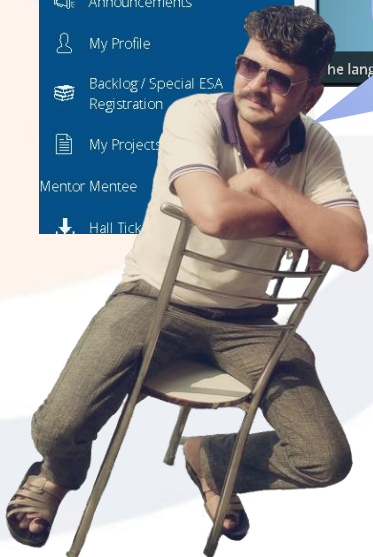
## Some examples how things will be after we implement this to pesu academy



The screenshot shows the PESU Academy student profile page. The left sidebar contains a menu with items: Home, Online Payments, My Courses, NEFT/RTGS Details, Examination Grievance Redressal System, My Attendance, Bank Consent, Results, Seating Info, My Quizzes, Video Archives, Calender, Announcements, My Profile, Backlog / Special ESA Registration, My Projects, Mentor Mentee, and Hall Ticket. The main content area displays 'PESU Online Classes - Teams Credentials' with Username: PES1UG21CS826 and Password: VMKkwFT5. Below this is a large blue banner for 'Linguista' recruitment, stating 'We're recruiting! Linguista brings recruitments for our core team. When: 6th-10th February. Scan the QR code or click on the link //forms.gle/1js3SeMngU5dWsdUA'. A QR code is visible in the bottom right of the banner. The right sidebar lists various announcements, including 'ISA 1 Timetable', 'Inter-Department sports fest CAMPUS CHALLENGE for SQUASH', 'Inter-Department Sports Fest CAMPUS CHALLENGE', 'Feb 2023\_B.TECH\_S&H\_Semester I\_Final Time Table', 'B.Tech I sem Timetable for ISA5 (Batches 1 & 2) and ISA3 (Batch 3)', 'Notification #113 1st sem B.Tech (Regular) ESA registration', and 'Feb/March 2023\_Ph.D\_Draft \_Time Table'. A red circle highlights the user profile icon and name 'NITIN' in the top right corner. A speech bubble from the user says 'Hey Pesu! Show me my attendance'. Another speech bubble from the voice interface says 'Okay! Showing attendance'.

Hey Pesu!  
Show me my attendance

Okay! Showing attendance



- Home
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- My Attendance**
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- Video Archive
- Calendar

### My Attendance

Select Semester

Sem-6

Course Code	Course Name	Total Classes	Percentage(%)
UE20CS336	Digital Forensics	7/10	70
UE20CS346	Information Security		80
UE20CS351	Cloud Computing		75
UE20CS352	Object Oriented Analysis & Design with Java		64
UE20CS353	Compiler Design		

*Your attendance is !!*

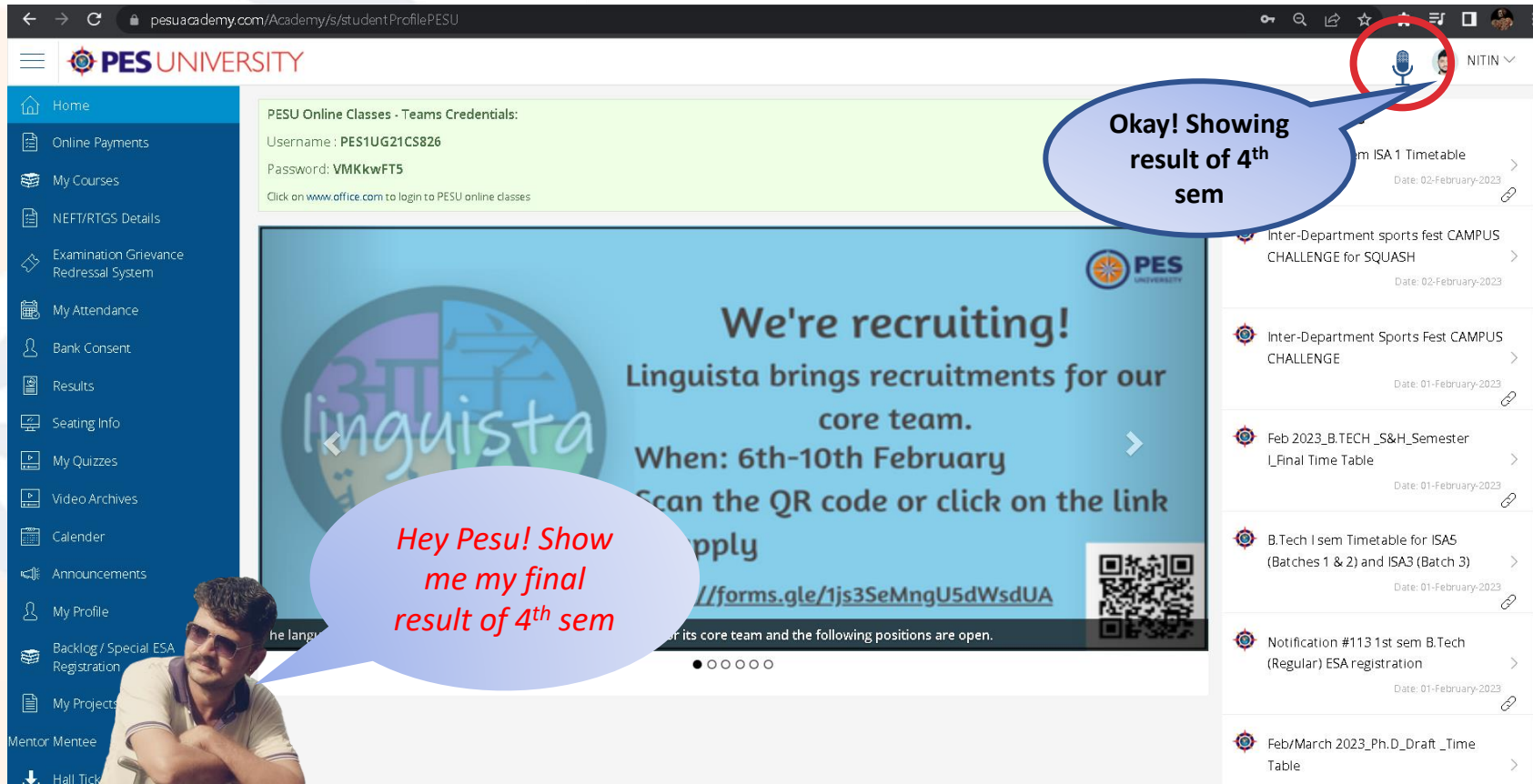


NITIN

**Ohh! Thanks to  
this assistant now  
I know how much  
attendance I have**



## Some examples how things will be after we implement this to pesu academy




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Okay! Showing result of 4<sup>th</sup> sem

Hey Pesu! Show me my final result of 4<sup>th</sup> sem





Home

Online Payments

My Courses

NEFT/RTGS Details

Examination Grievance Redressal System

My Attendance

Bank Consent

Results

Seating Info

My Quizzes

Video Archives

Calendar

Announcements

My Profile

Mentor

Help

Results

Final Results

Provisional Results

Earned Credits

68.0/68.0

CGPA

Semester

Sem-4

SEMESTER: 4

ESA DESCRIPTION: HYBRID ESA DEC - 2022

Earned Credits

22/22

SGPA

CGPA

UE21MA101D - Bridge Course for Mathematics-I

Credits: 0 /0

NA

FINAL

8 /20.0

9 /20.0

13 /20.0

28 /30.0

38

ESA

NA

UE20CS253 - Computer Networks

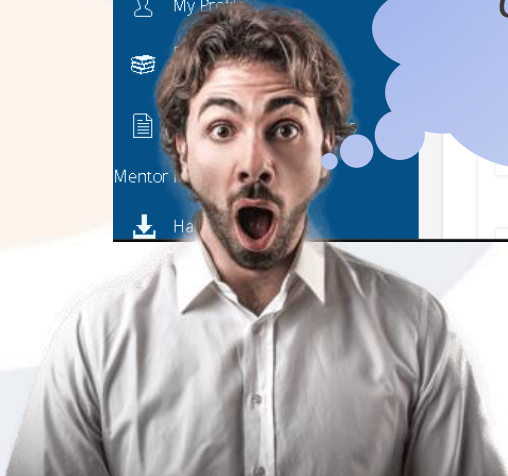
Credits: 0 /5



NITIN

Showing your 4<sup>th</sup> sem. result!!

Ohh no! I must study harder.



*These are few features ,once with start the implementation we will add few more features.*

- **Thank you !!**

- Nitin Gaurav
- Arya Girigoudar
- Vishnu Patgar
- Ankit Borker