BANNARI AMMAN INSTITUTE OF TECHNOLOGY

An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade

Sathyamangalam - 638401 Eode District, Tamil Nadu, India

Student Name: MANISHA K

Seat No: 80

Project ID: 7

Project title: Task Dashboard

TECHNICAL COMPONENTS:

COMPONENT TECH STACK : **MEVN**

FRONT END	Vue.js
BACK END	Node.js with Express.js
DATABASE	MongoDB
API	REST Ful API

PHASE NOTES:

Stage 1 - Planning and Requirement gathering

Stage 2 - Design and UI/UX Prototyping

Stage 3 - Database design and Implementation

Stage 4 - Backend Development

Stage 5 - Integration and testing

Stage 6 - Deployment

PROBLEM STATEMENT:

Design a task management system featuring admin and user dashboards. The dashboards should display overdue, active, and completed tasks. Admins need capabilities to manage and assign tasks, while users should view and update their tasks' statuses. The goal is to create an intuitive interface to enhance productivity and task tracking for both roles.

PROJECT FLOW:

PURPOSE:

To develop a centralized task management system that efficiently handles the assignment and tracking of tasks, resolving existing issues of schedule conflicts and task visibility.

SCOPE:

This system includes task assignment by admins (HOD) to staff (Teachers), conflict checks, and real-time dashboards for viewing and managing tasks. It ensures non-overlapping schedules and clear task statuses.

BUSINESS CONTEXT:

The task management system aims to enhance task clarity and avoid overlapping in the schedule for teachers in BIT, boosting organizational efficiency by minimizing scheduling conflicts. Primary stakeholders include HODs who provide the tasks, staff (teachers) as users to find their allotted schedule.

SYSTEM OVERVIEW:
Users:
Staffs(Teachers):

Teachers log in as users to view tasks assigned by the admin. If a teacher does not complete a scheduled task, it will be marked as overdue. This helps ensure accountability and track task completion effectively.

Admin (HOD):

The HOD logs in as the admin to schedule tasks at specific times. If a time slot is already occupied by another HOD's task, it will be unavailable to prevent scheduling conflicts. This ensures efficient and conflict-free task scheduling.

FEATURES:
   ★ The Task Dashboard Project features secure user authentication via Google OAuth for both administrators (HODs) and users (teachers).
   ★ HODs have access to an admin dashboard where they can schedule and assign tasks, with real-time views of all tasks categorized as active, completed, and overdue.
   ★ The system includes conflict detection to prevent overlapping task schedules. Teachers, upon logging in, can view their assigned tasks and receive notifications for new tasks, upcoming deadlines, and overdue tasks.
   ★ Tasks are automatically marked as overdue if not completed on time, aiding in progress tracking. Dynamic dashboards provide real-time updates and interactive views for both admins and users.

SYSTEM REQUIREMENTS SPECIFICATION:

FUNCTIONAL REQUIREMENTS:

User Authentication:
- The system must support secure login using Google OAuth for both administrators (HODs) and users (teachers).

Admin Dashboard:
- HODs should be able to log in as admins.
- HODs must be able to schedule and assign tasks.
- The system must provide a real-time view of all tasks categorized as active, completed, and overdue.
- The system should prevent HODs from scheduling tasks at times that are already occupied by other tasks.

User Dashboard:
- Teachers must be able to log in and view their assigned tasks.
- Tasks must be categorized as active, completed, and overdue.

Task Scheduling:
- HODs must be able to assign tasks to teachers without conflicting with existing tasks.
- The system should automatically detect and prevent scheduling conflicts.

Task Tracking:
- The system must automatically mark tasks as overdue if not completed by the assigned time.
- Teachers should be able to track their task progress.

Dynamic Dashboards:
- The system should provide real-time updates and interactive views of tasks and schedules for both admins and users.

User Roles:
- The system should support different access levels and functionalities for HODs (admins) and teachers (users) to maintain system integrity and security.

Integration:
- The system should integrate seamlessly with existing email systems for notifications and updates.

NON - FUNCTIONAL REQUIREMENTS:

Security:
- Implement role-based access control to ensure data confidentiality and integrity.
- Ensure secure handling of all user data, with encryption and secure protocols in place.

Scalability:

- Design the system to accommodate future growth in terms of users and data volume.
- Implement scalable architecture to handle increased load without performance degradation.

Performance:
- Optimize system performance to ensure smooth operation even during peak usage.
- Ensure fast response times for all user interactions and data processing.

Usability:
- Develop a user-friendly interface with intuitive navigation and clear instructions.
- Conduct usability testing to ensure the system is easy to use and meets user needs.
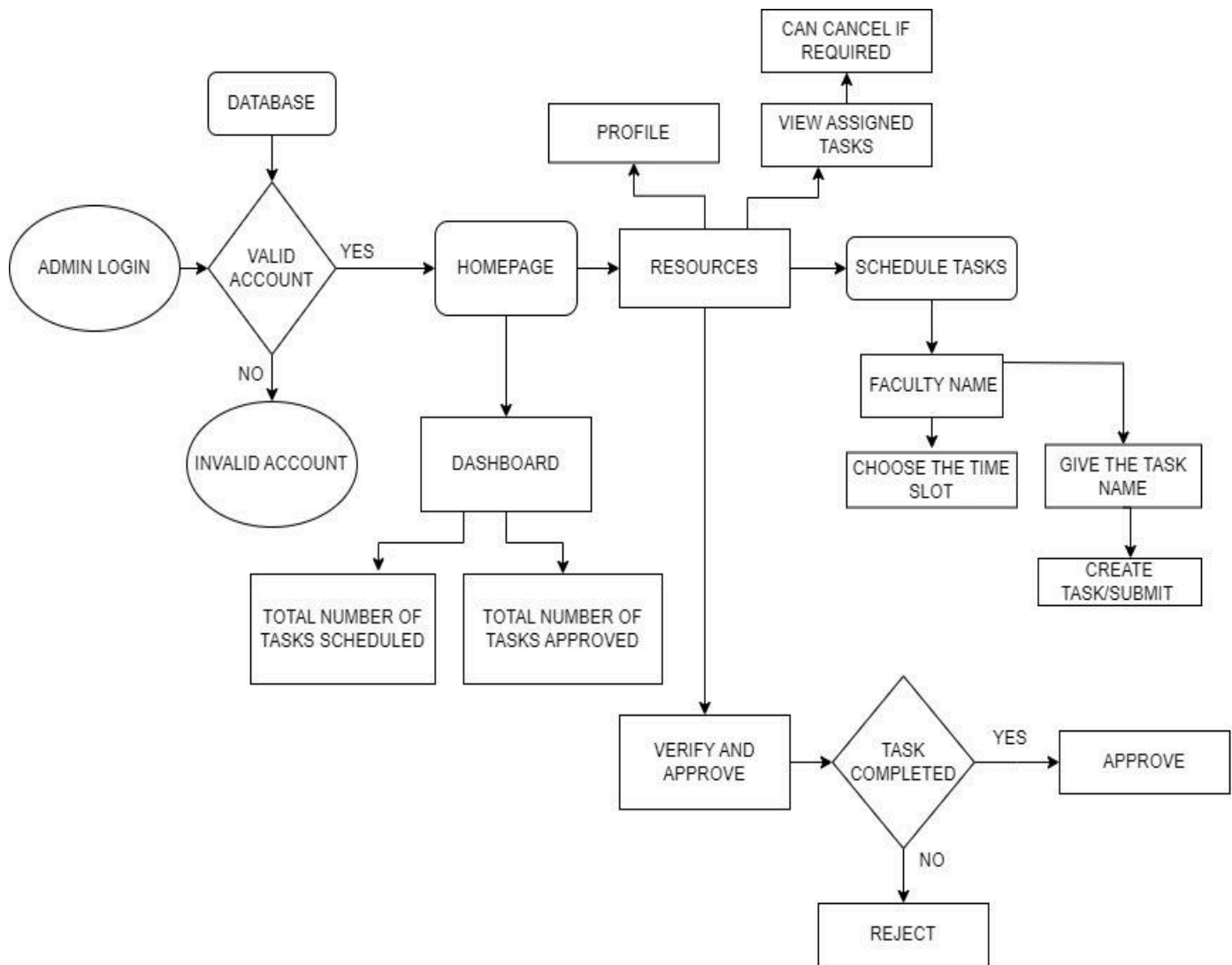
Reliability:
- Ensure high availability and reliability of the system to minimize downtime.
- Implement robust error handling and recovery mechanisms to maintain system stability.
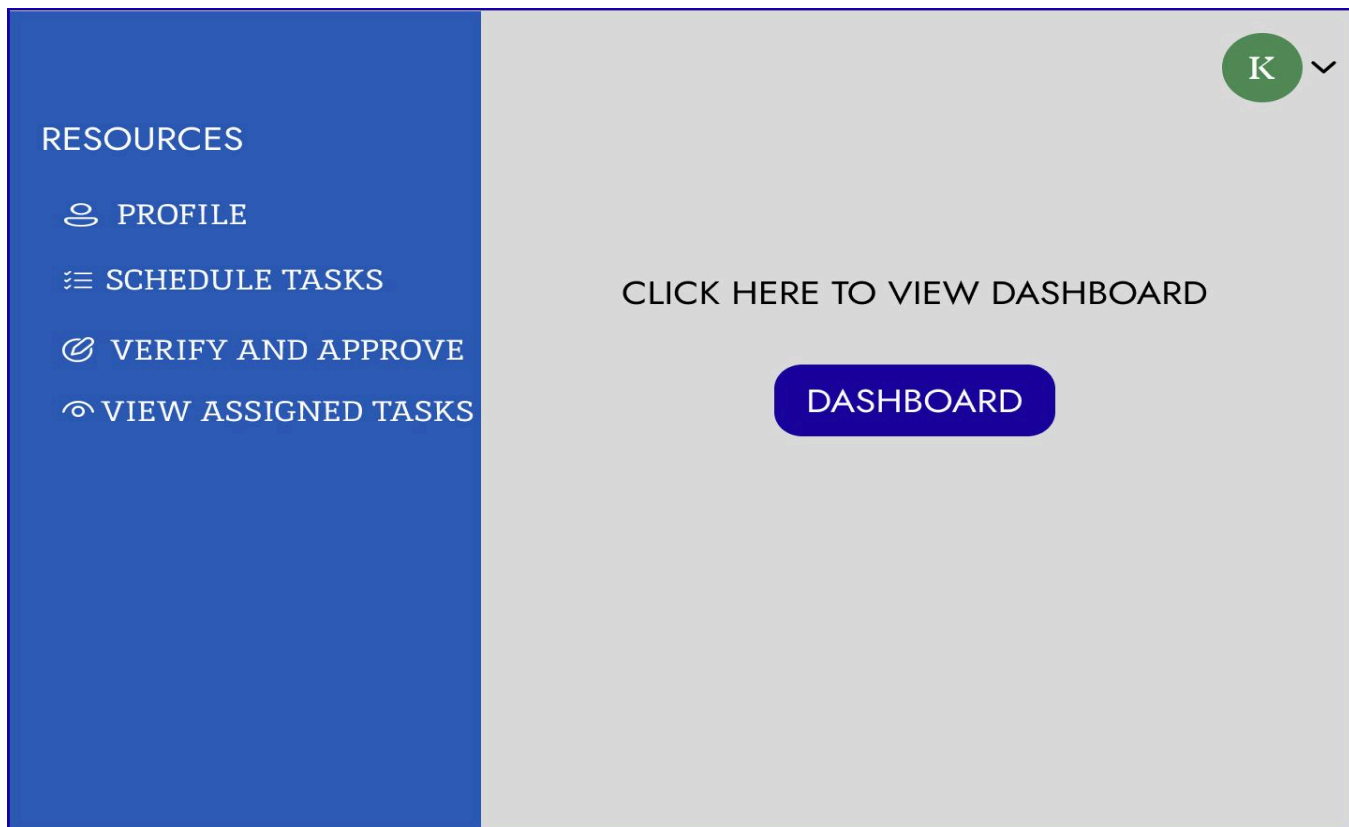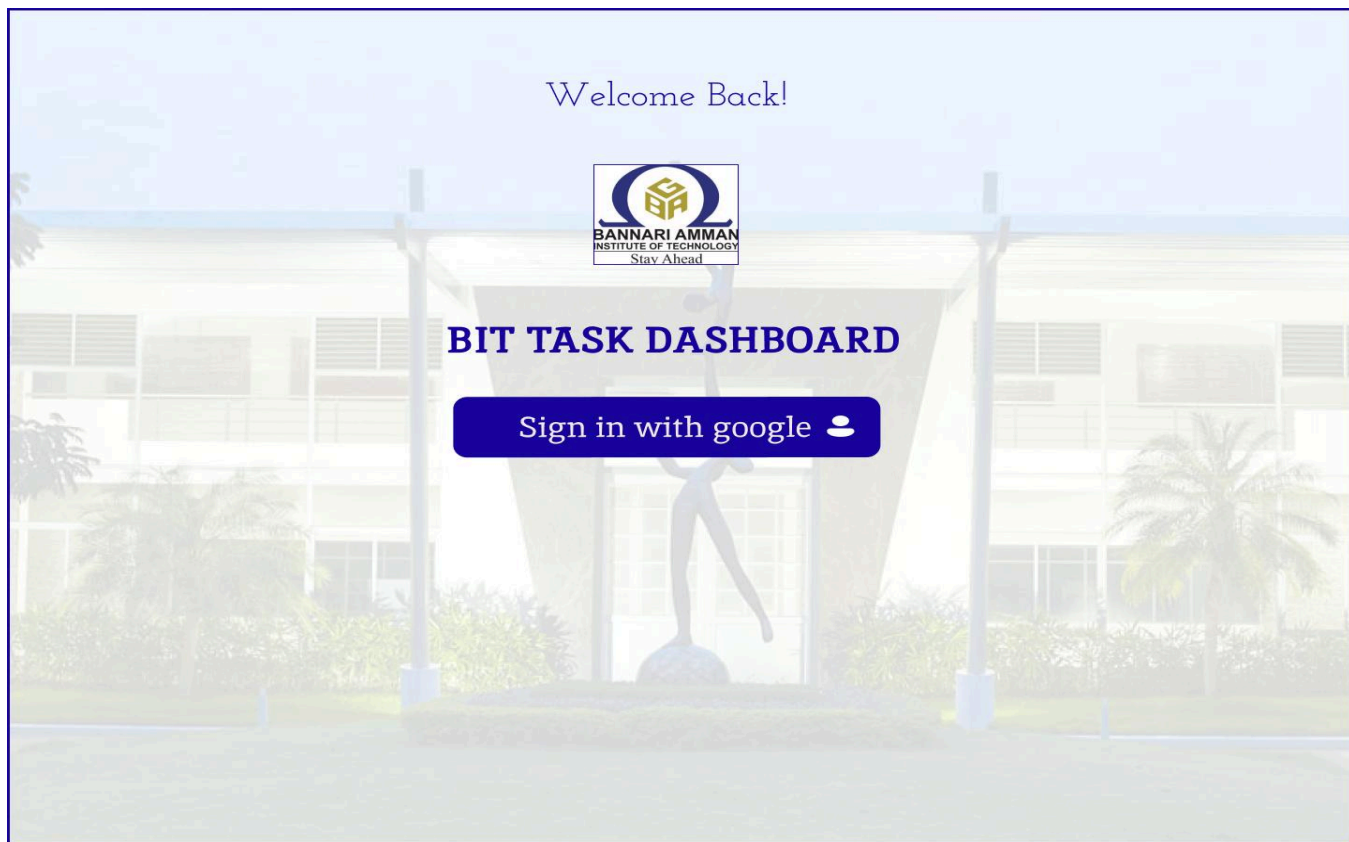
FLOWCHART:

USER INTERFACE:
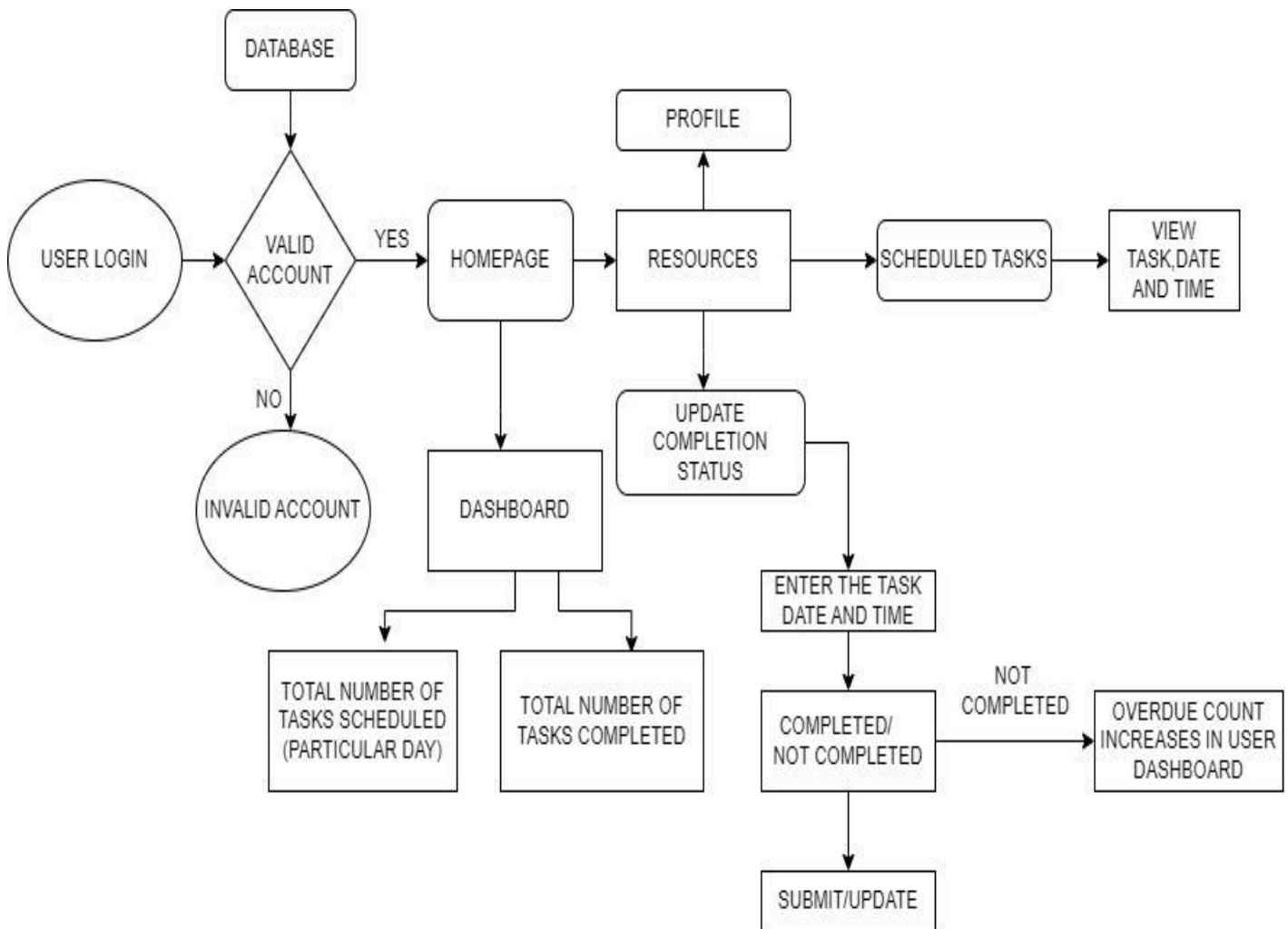
ADMIN INTERFACE:

UI/UX PROTOTYPE:

ADMIN INTERFACE:

Welcome Back!

BIT TASK DASHBOARD

Sign in with google 👤

K ⌄

RESOURCES

🔍 PROFILE

☰ SCHEDULE TASKS

🖉 VERIFY AND APPROVE

👁 VIEW ASSIGNED TASKS

CLICK HERE TO VIEW DASHBOARD

DASHBOARD

DASHBOARD

K ⌄

KKK

NAME   : KKK

FACULTY ID   : 202EC14

MAIL ID   : KKK@bitsathy.ac.in

DEPARTMENT   : ECE

PHONE NUMBER   : 87845899556
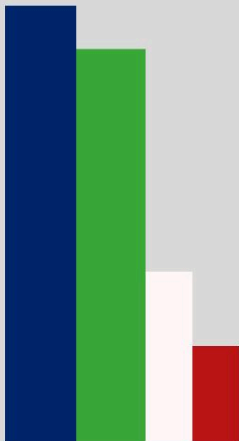
NO OF TASKS STILL NOT VERIFIED

25

GRAPH:

NO OF TASKS SCHEDULED   230

NO OF TASKS APPROVED   200

NO OF TASKS REJECTED   5

K ⌄

RESOURCES

- ○ PROFILE
- ☰ SCHEDULE TASKS
- ✐ VERIFY AND APPROVE
- ⊙ VIEW ASSIGNED TASKS

K

KKK

NAME   : KKK

FACULTY ID   : 202EC14

MAIL ID   : kkk@bitsathy.ac.in

DEPARTMENT   : ECE

PHONE NUMBER   : 87845899556

First Screen

K ⌄

RESOURCES

- 👤 PROFILE
- ☰ SCHEDULE TASKS
- ✐ VERIFY AND APPROVE
- 👁 VIEW ASSIGNED TASKS

CHOOSE THE FACULTY NAME AND ID: [⌄]

CHOOSE THE TASK DATE: [⌄]

CHOOSE THE TASK TIME: [⌄]

TASK NAME : [ ]

CREATE TASK

Second Screen

K ⌄

RESOURCES

- 👤 PROFILE
- ☰ SCHEDULED TASKS
- ✐ VERIFY AND APPROVE
- 👁 VIEW ASSIGNED TASKS

Faculty ID: XXX

Task date:dd/mm/yyyy

Task time:

Status: COMPLETED

APPROVE   REJECT

Faculty ID: XXX

Task date:dd/mm/yyyy

Task time:

Status: COMPLETED

APPROVE   REJECT

Faculty ID: XXX

Task date:dd/mm/yyyy

Task time:

Status: COMPLETED

APPROVE   REJECT

Faculty ID: XXX

Task date:dd/mm/yyyy

Task time:

Status: NOT COMPLETED

APPROVE   REJECT

NEXT

RESOURCES

- 👤 PROFILE
- ☰ SCHEDULE TASKS
- ✐ VERIFY AND APPROVE
- ⊙ VIEW ASSIGNED TASKS

Faculty name and
ID : XXX
Task date:dd/mm/yyyy
Task time:

CANCEL

Faculty name and
ID : XXX
Task date:dd/mm/yyyy
Task time:

CANCEL

Faculty name and
ID : XXX
Task date:dd/mm/yyyy
Task time:

CANCEL

Faculty name and
ID : XXX
Task date:dd/mm/yyyy
Task time:

CANCEL

NEXT

USER INTERFACE:

Welcome Back!

BANNARI AMMAN
INSTITUTE OF TECHNOLOGY
Stay Ahead

BIT TASK DASHBOARD

Sign in with google 👤

RESOURCES

- 👤 PROFILE
- ☰ SCHEDULED TASKS
- ✐ UPDATE COMPLETION STATUS
- ⚙ SETTINGS

M ⌄

CLICK HERE TO VIEW DASHBOARD

DASHBOARD

DASHBOARD

M ⌄

MMM

NAME	:	MMM
FACULTY ID	:	202EC14
MAIL ID	:	MMM@bitsathy.ac.in
DEPARTMENT	:	ECE
PHONE NUMBER	:	87845899556

GRAPH:

NO OF TASKS COMPLETED   45

NO OF TASKS NOT COMPLETED / OVERDUE   5

RESOURCES

☺ PROFILE

≡ SCHEDULED TASKS

✎ UPDATE COMPLETION STATUS

⚙ SETTINGS

M

MMM

NAME   :   MMM

FACULTY ID   :   202EC14

MAIL ID   :   MMM@bitsathy.ac.in

DEPARTMENT   :   ECE

PHONE NUMBER   :   87845899556

RESOURCES

☺ PROFILE

≡ SCHEDULED TASKS

✎ UPDATE COMPLETION STATUS

⚙ SETTINGS

M

DATE : 20/07/2024

TIME : 10:00 AM - 11:00 AM

TASK: EXAM INCHARGE FOR III YEARS (HALL-IB 202)

ASSIGNED BY : (ADMIN'S NAME)

DATE : 20/07/2024

TIME : :2:00 PM - 3:00 PM

TASK: ACADEMIC CLASS FOR II YEARS (AS - 214)

ASSIGNED BY : (ADMIN'S NAME)

NEXT

RESOURCES

  👤 PROFILE

  ☰ SCHEDULED TASKS

  ✐ UPDATE COMPLETION
     STATUS

  ⚙ SETTINGS

M ⌄

CHOOSE THE TASK DATE: ⌄

CHOOSE THE TASK TIME: ⌄

COMPLETION STATUS: ⌄

| COMPLETED |
| NOT COMPLETED |

SUBMIT