Group No:01 B.Tech Project Synopsis Date of presentation: **03-02-2023**

Proposed Title:

Design and Development of Activity Tracking System for Students on Campus

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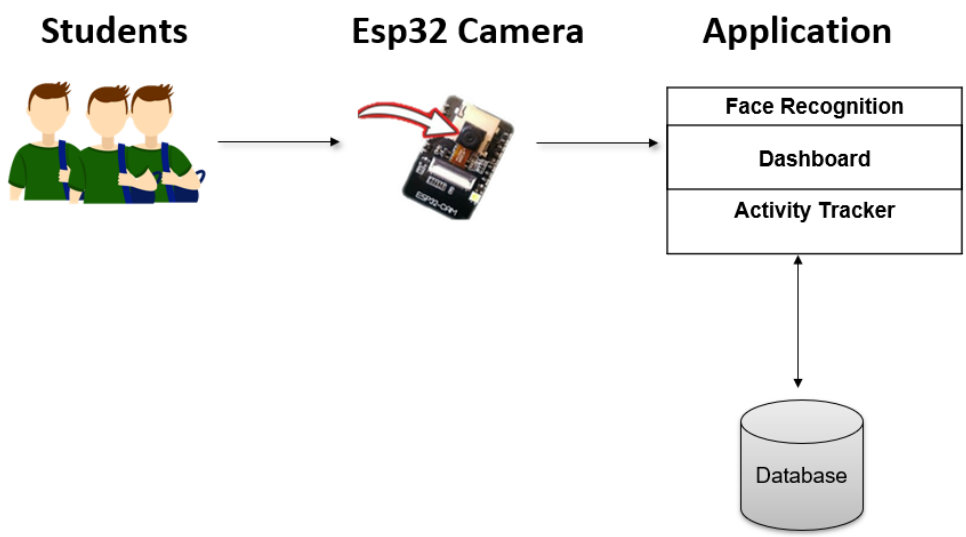
Introduction to the Topic: The Student Tracking and Visualization System (STVS) is a web-based application that can be used to monitor and visualize student activities in an e-campus and designed to help universities, colleges, and other educational institutions to monitor and assess the activities of their students. It is designed to be used by administrators, faculty, and students to monitor and analyse student activities. The system is designed to be intuitive and user-friendly, allowing users to quickly access the data they need. STVS is also designed to be secure and reliable, making it an ideal solution for educational institutions looking to track and analyse student activities.

Aim: To design and develop a web application that tracks student activities using camera-based method and provide data visualization in the form of a dashboard

High-level System Design:



Objectives:

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1.	To conduct a literature survey on tracking applications/systems and its method and methodologies.
2.	To derive the functional and non-functional requirements based on identified survey.
3.	To design high- and low-level design specification based on requirement analysis.
4.	To develop web-based application for visualization of student activities.
5.	To test the developed application using unit testing and integration testing.
6.	To document the report as per the template.

Methodology:

Objective	Method/ Methodology	Description
1	**Literature Survey:** To conduct a literature survey on tracking applications/systems, it is necessary to search for available resources like books, journals, articles, reviews, etc., that provide information on the domain area.	• The resources should be appropriate and contain the latest information about the topic. • The resources should be evaluated thoroughly and relevant information should be extracted from them. • The information should be organized into a suitable format that can be used for further analysis.
2	**Requirement Analysis:** The gathered information from literature survey should be analysed to identify the functional and non-functional requirements for the tracking application.	• The identified requirements should be documented properly in order to make sure that all the requirements are taken into consideration while designing and developing the application.
3	**Design Specification:** The requirements should be studied in detail to develop a high- and low-level design specification.	• The design specification should include the details of the user interface, the structure of the application, the databases used and other necessary details.
4	**Web Application Development:** Based on the design specifications, a web-based application should be developed.	• The application should be developed using appropriate technologies and tools. • The application should be tested properly to make sure that it is working as expected.

5	**Testing:** The application should be tested using **unit testing and integration testing** to make sure that it is functioning properly.	• The application should be tested thoroughly to ensure that all the features are working as expected.
6	**Documentation:** The developed application should be documented properly as per the template.	• The documentation should include the details of the application, its features, the testing results, and other relevant information.

Expected Output:

- Demonstration of Activity Tracking model
- Dashboard to display real-time statistics

Comments (For Official Use):