**DECLARATION**

We hereby declare that the Capstone Project Phase - 2 entitled **“Smart Classroom Environment”** has been carried out by us under the guidance of Dr. Annapurna D., Professor, CSE and submitted in partial fulfilment of the course requirements for the award of degree of **Bachelor of Technology** in **Computer Science and Engineering** of **PES University, Bengaluru** during the academic semester June – Nov. 2021. The matter embodied in this report has not been submitted to any other university or institution for the award of any degree.

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| **PES2201800047**  **PES2201800089**  **PES2201800131**  **PES2201800137** | **Naik Bhavan Chandrashekhar**  **Akshaya Visvanathan**  **Atharva Moghe**  **Akhil S Kumar** |  |

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**ABSTRACT**

For years, universities have been using traditional methods as they bring about a sense of familiarity and comfort. However, the key to increase the productivity and enhance the learning experience lies in the modernization of our college campuses. Our work focuses on two of the most pressing issues - attendance and unsolicited energy consumption. Our goal was to overhaul the manual system, without compromising its integrity. A portable RFID fingerprint scanner that must be activated by the professor, thereby making our system failproof.

The data generated is stored in a cloud server and is used to draw behavioural patterns. We are accustomed to leaving our fans and lights unattended, which poses a serious environmental threat.

Our solution is to a build a smart eco-system to detect the presence of a person, and automatically switching on the necessary appliances. This in combination with machine learning algorithms can adjust the speed of fans and brightness of lights based on external factors.

**TABLE OF CONTENTS**

|  |  |  |
| --- | --- | --- |
| **Chapter No.** | **Title** | **Page No.** |
|  | **INTRODUCTION** | **01** |
|  | **PROBLEM STATEMENT** | **03** |
|  | **LITERATURE SURVEY** | **04** |
|  | 3.1 Smart university, a new concept in the Internet of Things. | **04** |
|  | 3.2 Smart attendance system based on frequency distribution algorithm with passive RFID tags. | **07** |
|  | 3.3 Automatic lighting and Control System for Classroom. | **10** |
|  | 3.4 Smart Attendance Monitoring System (SAMS) | **13** |
|  | **PROJECT REQUIREMENTS SPECIFICATION** | **15** |
|  | **SYSTEM DESIGN** | **21** |
|  | **PROPOSED METHODOLOGY** | **37** |
|  | **IMPLEMENTATION AND PSEUDOCODE** | **38** |
|  | **RESULTS AND DISCUSSION** | **43** |
|  | **CONCLUSION AND FUTURE WORK** | **45** |
| **REFERENCES/BIBLIOGRAPHY** | | **47** |
| **APPENDIX A DEFINITIONS, ACRONYMS AND ABBREVIATIONS** | | **50** |
| **APPENDIX B USER MANUAL** | | **51** |

**LIST OF FIGURES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Figure No.** | **Title** | **Page No.** | |
| 1  2  3  4  5 | Use Case Diagram for Smart University  System Workflow for Attendance System  Flowchart for Lighting and Control System  Block Diagram for Smart Attendance System  Block Diagram for Electricity Optimization | | 05  08  12  21  22 | |
| 6  7  8  9  10  11  12 | Master Class Diagram  State Diagram for Smart Attendance  State Diagram for Electricity Optimization  User Interface Diagram  Packaging Diagram  Deployment Diagram for Smart Attendance System  Deployment Diagram for Electricity Optimization | | 27  28  29  29  32  33  33 | |
| 13 | Attendance System Implementation | | 38 | |
| 14 | Arduino Uno Screenshot to show running of Scanner | | 39 | |
| 15 | Insertion of Data Screenshot | | 39 | |
| 16 | Final Database Screenshot | | 40 | |
| 17 | Electricity Optimization Implementation | | 40 | |
| 18 | Successful running of Electricity Module | | 41 | |
| 19 | Attendance Record for Data Visualization | | 41 | |
| 20 | Scatter Plot | | 42 | |
| 21 | Regression Line | | 42 | |

**LIST OF TABLES**

|  |  |  |
| --- | --- | --- |
| **Table No.** | **Title** | **Page No.** |
| 1 | Software Requirements Table | 19, 31 |