“HOSTEL MANAGEMENT SYSTEM”

*Project report submitted to the Amrita Vishwa Vidyapeetham in partial fulfillment of the requirement for the Degree of*

BACHELOR of TECHNOLOGY

**in**

**COMPUTER SCIENCE AND ENGINEERING**

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**MAY 2021**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING AMRITA VISHWA VIDYAPEETHAM**

**(Estd. U/S 3 of the UGC Act 1956)**

**Amritapuri Campus Kollam -690525**



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Reviewer

Chairperson

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Place: Amritapuri Date: 17 May 2021

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AMRITA VISHWA VIDYAPEETHAM**

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**DECLARATION**

We, **Akarsh S Nair, Alfy Alex, Nayan M K, Shyamdev Krishnan and Sabarinath B** hereby declare that this project entitled **Hostel Management System** is a record of the original work done by us under the guidance of <NAME> Dept. of Computer Science and Engineering, Amrita Vishwa Vidyapeetham, that this work has not formed the basis for any degree/diploma/associations/fellowship or similar awards to any candidate in any university to the best of our knowledge.

Place: Amritapuri Date: 17 May 2021

Signature of the student Signature of the Project Guide

Acknowledgments

We take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. We extend our sincere and heartfelt thanks to our esteemed guide, Ms Akshara P Byju for providing us with the right guidance and advice at the crucial junctures and for showing us the right way. We extend our sincere thanks to our respected head of the division, for allowing us to use the facilities available. We would like to thank the other faculty members also, at this occasion. Last but not the least; we would like to thank friends for the support and encouragement they have given us during the course of our work.

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Abstract

As the name specifies “HOSTEL MANAGEMENT SYSTEM” is a software developed for managing various activities in the hostel. For the past few years the number of educational institutions is increasing rapidly. Thereby the number of hostels is also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and software’s are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually.

Identifying the shortcomings of an existing system leads to the design of a computerized system that is compatible with the existing system, making the system more user-friendly .You can improve the efficiency of your system and overcome the shortcomings of your existing system.

* High security
* Data redundancy can be avoided to some extent
* Data consistency
* Easy to handle
* Easy data updating
* Less human error ·
* Strength and strain of manual labour can be reduced

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**1. Introduction**

Problem Definition

**4. Requirements**

The design of this project contains both hardware and software. The specifications are listed below.

* 1. Hardware

One can train a model either locally, or by using a cloud service. We were able to train ResNet50, GoogleNet locally, and EfficientNet on Google collab.

The models were trained on a laptop consisting of an I5 8400H as well as a GTX 1050 4GB VRAM.

* 1. Software

All of our models are being trained and tested in Python. For training the models locally, we needed to install the Nvidia CUDA Toolkit. We did use the scikit, numpy, Keras, and the pandas libraries extensively.

The Nvidia Cuda Toolkit helps us to run GPU- accelerated applications locally, provided we are using an Nvidia GPU(in this case, a GTX 1050). Google Colab was only used to train the EfficientNet model, due to not having the recommended computational power locally

**5. Proposed Methodology**

6. Result and Analysis

**7. Conclusion**

References

Appendix A

**Source code**