Hybrid Technology Based Smart Hostel Management System Using Artificial Intelligence and Internet of Things

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Abstract—Notably in the last ten years, the number of learning organizations throughout the globe has grown at an unmatched pace. Teaching has now reached homesteads thanks to the growth. As a consequence, worldwide literacy levels have increased significantly in recent decades. As per reports, just 12% of the populace knew comprehend and write in 1820; nevertheless, data currently show a dramatic shift in or reversal of this trend: Figures prove that amongst 1820 and 2016, the high school graduation rate rose by 72%. If the pace of growth is considered, it is around 4% per five years, rising from 42percentage points in 1970 to 86% in 2015. Proper training has benefited in the development of intelligent people who can easily embrace and establish regulations for a civilized country, improving it and making an important contribution. However, the majority of recently built academic system, particularly dormitory amenities, still manage their possessions and property using outdated traditional methods. After the dotcom boom, digital services and products have advanced significantly. The cost of using the net is also decreasing, and its growth has been facilitated by faster internet. It is simple to assert that contemporary civilization now includes this digital age. The need for a growing percentage of world wide web gadgets has grown due to this change in social cognition from citizenry to bloggers. The popularity of smart homes or other Cellular solutions is rising. Nowadays, using the Internet as a resource to address problems is common. We've been staying in hostels nearly five years, we've discovered a number of major issues that impact every person with the help of the survey and our own findings. We've developed a solid and intelligent conceptual model as part of the technological study that promises to solve these problems by leveraging snipping innovations, notably AI (Artificial Intelligence) and IOT (Internet of Things), with sufficient evidence and verification. We specifically investigated the difficulties experienced in hostels and offered extensive and targeted technical and psychological solution to those issues. With access controls, a rather more subscriber user interface, visual browser layouts, a robust, fast, and access and then use, primarily for students, the developed includes shared that now the drawbacks of conventional hostel work routines are solved.

Keywords—Artificial Intelligence (AI), Hybrid Technology, Internet of Things (IoT), IoT & AI Applications, Smart Hostel Management System.

I. INTRODUCTION

As per important macroeconomic concepts, an institution's effectiveness is based on how well it is set up to optimise and harness each item of the assemble in order to fulfil its organisational objectives. We are claiming that understanding is the cognitive tool, capital ability occurs in the form of currency, material assets come in the form or ownership, labor/machinery, financial means, and businesses. No regardless of how much is put into a venture, if funds and activities are not effectively coordinated, the whole capital will indeed be lost, and the country's, women's, dreams, and objectives won't be achieved. Governance is thus of the most crucial elements in determining an institution's efficiency and formulating a plan to achieve its company goals. Additionally, studies have shown that what counts is the degree of a managerial endeavour. During the course of the process, we can come across frameworks, assumptions, and study findings. Numerous pupils from across the globe move of one place to the next each year to complete her study. As a consequence, their first priority is to choose an area that's also affordable and provides all the essentials for adequate housing, including potable water, nutritious meals, open rooms, transportation amenities, sanitary and washrooms, and some other important services, with the least amount of work [1]-[5]. As a consequence, dormitories have emerged as among the most successful businesses in existence at the time, especially in areas with a large content of academic system. The goal of this paper is to identify the issues that affect pupils, employees, dormitory governance, and landlords through a thorough analysis of real-time survey data. It also proposes a modern framework for the student housing ecosphere that will meet the needs of stockholders, employees, pupils, and gatekeepers and enable them to supervise the homestays' daily operations more speedily and spontaneously, saving them precious resources (time, money, and labour. All the facts that ought to be kept and utilised are now in sheets or financial records, since the great majority of hostels continue to use the antiquated manual architecture to maintain their information and data. This data or records are readily lost, and human involvement increases the likelihood of errors [3]. Additionally, it requires a lot of work to constantly update data, add new data, delete old data, and look for unambiguous information in the books. Improving the dormitories' administrative effectiveness results in increased experience. According to the article "Designing the correlation between perceived value, customers' satisfaction, and brand loyalty