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A Survey Paper on College Community Web Portal

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Abstract: ***Students are an important stakeholder in an educational institute. Students' performance plays a vital role in producing excellent graduate students who will be the future viable leaders and skilled manpower for the industry and the society. The College Community Web portal is an AI-based book listing and student community-based web application. Basically, it assists in solving the problems that are faced by students in their educational journey. Fresher students face difficulties to get new books and notes whereas seniors may come across difficulties to sell books and notes. This app will also help faculty to analyze the attendance of each student and give them behavioural feedback, analyze the results of students and give feedback results also. The application also contains a doubt-solving session according to the area of interest where students post their doubts and people help to solve their problems and provide appropriate solutions. The feedback from the application is useful in improving the efficiency of the teaching learning process.***
Keywords: sharing, analysis, result, skill, college community

I. INTRODUCTION

In this technology-driven world, digitalization is one of the most important aspects to make things easily available at a faster pace. Nowadays almost everyone is connected to the internet; this has changed human life drastically. Technology has impacted the education field as well. Many colleges have web portals through which they manage the college in an efficient manner, but many times due to various software glitches workflows are affected. Facilities provided to students and monitoring the performance of the students is very important. Colleges are using technology widely for managing their activities. An application can be developed using an AI based feedback model which shows more accurate results and helps in providing feedback to teachers which will in turn help in improving students' performance. The implication of AI in the analysis model can better analyse students to better understand the characteristics of students that are affecting the performance. The feedback given by the AI based model is found to be more useful in analysing student's performance and understanding their needs.

II. LITERATURE SURVEY

Studies have shown that the decision to attend class is a choice variable; it depends on certain student-specific factors like motivation to students and ability of faculty members. Additionally, these unobservable third factors also affect student performance, and not accounting for them may bias the attendance effect.[3]

The study shows that Bayes classifier performance decreases as data increases in student academic performance analysis.

In [3] the authors proposed a classification method and said we have to increase the number of attributes taken because we cannot predict the performance of the students just by attendance or previous marks.

In [4] the author has done a survey based on two approaches, first how various universities of different countries have the effect of attendance on their performance and second, the author found out various other parameters in foreign universities which affect the performance. In [6] authors has proposed a method using classification and clustering algorithm for result analysis and said that no algorithm is the best algorithm that can be used for the prediction of the overall performance of students, because various parameters affect the performance including all of them is not possible

Prediction of a student's academic performance in bachelor's and master's degree for each subject was done independently using a decision tree algorithm and a fuzzy genetic algorithm. Results from the decision tree algorithm made more students at risk in class, which makes lecturers make a decision to take more care for those students. Results from fuzzy genetic algorithms give more passed students because of considering those who are in between risk and safe, to a safe state that gives students a mental satisfaction. [8]

III. PROPOSED SOLUTION

As many students face problems in searching for appropriate study material for course study and they spend hours reviewing the material that they found. Why can't we offer them notes or study material that seniors/faculty created and faculty already approved the same?

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We propose a web portal that solves the above problem efficiently by providing a module like Note Sharing, Attendance analysis and Result analysis and provide AI based feedback on performance regularly which will be useful in analysing and improving the performance of the students. The application offers a wide platform for us to gain and share information among peers and saves time that students may have to spend in research and review of material found collected.

1) *Note Sharing:* Online student note sharing offers a platform for students to gain and share resources among the students and reduces their efforts, use of this application by students reduces the time that would have been wasted in finding notes and books online and reviews of the material we found, as we know that it is already proofed and provided by the approved seniors and faculty members. Our notebook system has been the source of the study materials which can help students with a platform where they can easily access topics they would need to study during the course.
2) *Result Analysis:* The student's result analysis helps the students and faculty to analyze student performance and provide feedback to them and decide strategies to improve the student performance. The performance report is visualized in a graphical form updated on a regular basis. The Head of the department and appointed faculties can see the student's overall performance through the report system. As it is AI based we will know the characteristics of students which helps to give accurate feedback.
3) *Attendance Analysis:* Many times, the attendance of students affects their academic performance. You can analyse the attendance of students using this application. It takes into consideration various parameters and based on the analysis more accurate reasons can be found for less attendance so that remedial actions can be taken to improve the same and to handle such situations causing poor performance.

IV. CONCLUSION

We have studied papers related to this topic and proposed an AI based solution for the problems faced by fresher students regarding getting approved study material. Faculty can upload notes and books that are verified and found relevant to the course. Authorized seniors can also upload relevant course material after approval by faculty members.

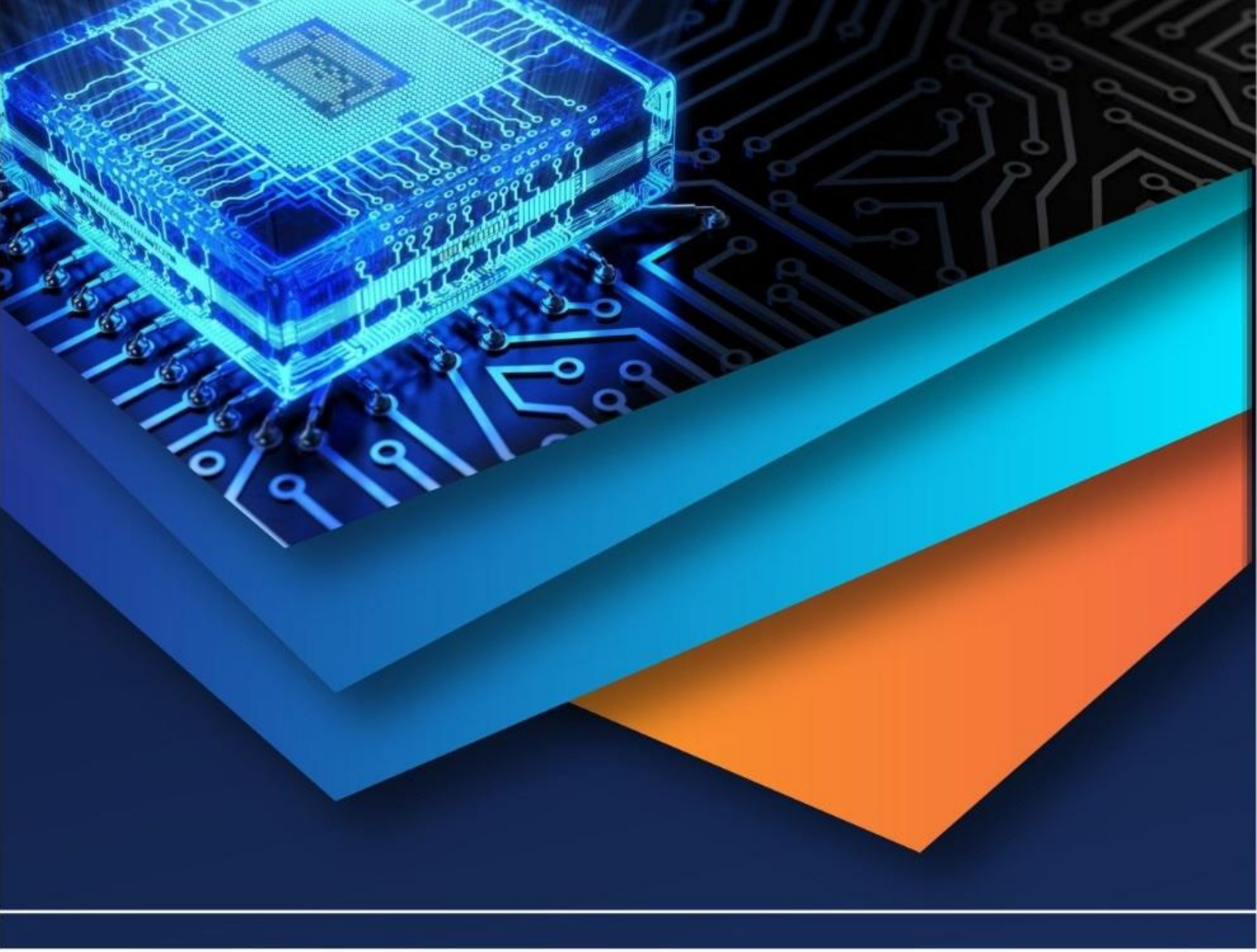
This system also helps faculty to analyze the attendance of student's performance through visualization and detailed reports. Through this analysis faculty understand the students well and assist in improving overall performance of the students.

Effective feedback can lead to immediate progress of students which will improve their performance.

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