

AI Project Proposal

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1 Title

SEAT ARRANGEMENT SYSTEM

2 Objectives of the project

We want to make a system that will give us the seat arrangement of an examination while having variables like number of rooms, number of students in each department, number of departments in the university, number of students in a batch etc. As output, we will get the seat arrangement of students in an examination.

3 Rationale behind this initiative

Our main goal is to make the seat plan of an exam efficient and fast. It will help the administration of the university. It can be seen as an automation of the existing system. Most of the universities of our country does the seat plan of the examination manually. This system will not be specific to only our university. It can be used in every university. It will reduce many mistakes. As it is a system using AI, this model can be used in many other cases like HSC seat plan, SSC seat plan etc with a little modification.

4 Expected results

We are expecting an efficient way of making sitting arrangement as our output. If it could not find any result with the given constraints, it will notify the user. Our inputs will be number of rooms, seats in each room, number of departments, number student in each department, number of student in each year, number of times a room can be used. Our output will be a seat arrangement where no two students from the same batch or department sit beside one another.

5 Methodology to be adopted in the experiments

First we want to find a suitable way to arrange a room so that no two students from same batch or department sit beside one another. Then we can apply that for all the rooms and maintain the balance between students and rooms. In our university the number of students are almost double of the seats available in all the rooms. We have to find a way to arrange that. Then we have to model the problem and using AI technology to find the solution. Modeling the problem will be hard cause there are many constraints and we may have to sacrifice some of the constraints to have the solution. Optimizing the system result will a very big challenge.