

Ms. Swati. R. Khokale¹ ·Akshay Jadhav², Parag Iwanate³ , Rupali Chavan⁴ , Sakshi Wani⁵

¹Assistant Professor,Department of Computer Engineering, Guru Gobind Singh College of Engineering and Research Centre, Nashik, Maharashtra, India

²³⁴⁵Student, Computer Science Engineering, Guru Gobind Singh College of Engineering and Research Center,Nashik,Maharashtra,india

¹*akshayj.contact@gmail.com*,² *iwanateparag@gmail.com*, ³ *rupalichavan0009@gmail.com*, ⁴*sakshiwani2404@gmail.com*

ABSTRACT

In educational institutions, managing timetables manually can be a complex and time-consuming task, often leading to conflicts in scheduling. The Automated Timetable Generator aims to efficiently generate conflict-free timetables for second-year, third-year, and final-year engineering students, considering their divisions, subject allocations, available faculty, classrooms, and practical labs. This system automates the scheduling process, ensuring that no two subjects, teachers, or classrooms overlap while optimizing resource utilization.

The system also generates separate timetables for faculty members and practical labs, ensuring that teachers do not have overlapping assignments and that lab sessions are scheduled efficiently. By automating the timetable creation process, this project reduces human errors, improves efficiency, and provides an organized schedule that meets institutional requirements. The Automated Timetable Generator is designed to be a user-friendly, reliable, and scalable solution for academic scheduling.

Keywords :

Automated Timetable Generator, Department-wise Timetable, Lab Allocation,

Classroom Allocation, 2nd, 3rd, 4th Year Students,

Staff Database, Subject Allocation, Staff Absence,

Dynamic Adaptability, Intelligent Algorithms

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