



## LITERATURE DOCUMENTS

**Team No: 16**

**Project Title: AUTOMATIC TIMETABLE GENERATION**

S.No	Author(s)	Method	Advantages	Disadvantages
1	Esraa A. Abdelhalim and Ghada A.El Khayat	Population Generation, Fitness Function, Selection, Crossover, Mutation, Elitism, Termination.	1.Maximizes resource utilization for efficient scheduling. 2.Effectively manages various timetabling constraints.	1.High computational requirements, especially for large datasets. 2.Effectiveness depends on tuning crossover and mutation rates
2	Meysam Shahvali Kohshori and Mohammad Saniee Abadeh	Problem Encoding, Initial Population, Fitness Function, Crossover, Mutation, HybridFeatures, Termination.	1.Hybrid features accelerate convergence and enhance solution quality. 2.Diverse crossover and mutation operators explore varied solution spaces	1.GAs can be computationally expensive, especially for complex constraints. 2.Effectiveness depends on tuning parameters, which can be time-consuming.

3	Mrunmayee V. Rane; Vikram M. Apte; Vishakha N. Nerkar; Mani Roja Edinburgh; K.Y. Rajput	Input Module, Operational Module, Display Module.	1.System ensures efficient resource allocation with more optimized and accurate timetables. 2. Saves administrators significant time, allowing focus on more productive tasks.	1.Algorithm complexity (cube root of n) may challenge computational resources for larger datasets or real-time adjustments. 2.User unfamiliarity with the system may lead to a learning curve, potentially causing initial resistance or errors during the transition.
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## References:

- [1] A Utilization-based Genetic Algorithm for Solving the University Timetabling Problem (UGA) by Esraa A. Abdelhalim, Ghada A. El Khayat, Information Systems and Computers Department, Faculty of Commerce, Alexandria University, Alexandria, Egypt, Received 6 September 2014, Revised 10 February 2016, Accepted 20 February 2016, Version of Record 25 June 2016.
- [2] Hybrid Genetic Algorithms for University Course Timetabling, March 2012, International Journal of Computer Science Issues 9(2) by Meysam Shahvali Kohshori and Mohammad Saniee Abadeh.
- [3] Automatic Timetabling System for University Course” by Mrunmayee V. Rane, Vikram M. Apte, Vishakha N. Nerkar, Mani Roja Edinburgh, K.Y. Rajput published in 2021 International Conference on Emerging Smart Computing and Informatics (ESCI) AISSMS Institute of Information Technology, Pune, India.

