

Since timetable scheduling is a discrete NP-Hard problem, it becomes a complicated case to be solved by a heuristic approach. Gravitational Search Algorithm (GSA) was developed with the main objective to solve a continuous problem as long as it could be defined in a mathematical equation, and yet it has the potential to solve a discrete problem. This research shows the adaptation of GSA for a discrete environment involving multiple populations in GSA in order to enlarge the searching space in exam timetable scheduling problems. Every best solution from each population will be injected to each population to give additional potential members. The adaptation strategy could be implemented in an exam timetable scheduling problem, resulting in an improved value of fitness. The multiple populations strategy helps the development of fitness factor by providing potential solutions from other populations, thus escaping the trap of local optimum solutions