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Schedule of Tour Guide using Genetic Algorithm

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ABSTRACT

Tourism is an activity of travelling to a place for pleasure or for certain purposes which include business tourism, health tourism, sports, and others. Tourist agents play an important role in providing the best service. Now there are many organizations of the tourism industry that manage various activities and provide some tour guides to bring tourists in an effort to improve service quality. Better service quality requires the preparation of an orderly and well-planned schedule. However, the tour guide schedule is created manually, which cause more costs and time wasted. Therefore, the schedule for the tour guides is required for tourists can go to places that they want during their holiday, as well as increase the level of service from a travel agency. Therefore, this paper presents the study on the scheduling techniques and tourism events in Malaysia. The data collection was performed by using the method of interviewing experts or any official resource such as a Tourism Malaysia website. In this paper, genetic algorithm (GA) is the recommended techniques to achieve optimization for scheduling and to come out with a prototype of intelligence schedule for tour guides. Genetic algorithm is effective to plan the schedule of tour guides. The accuracy test shows that the percent of minimum clash or redundant between all the event and tour guide on duty has achieved which is 70%. Thereby, it can improve service of the travel agency and the schedule for the tour guide can be produced more easily. For future works, the schedule maybe can also include the place that tourist want to travel, because currently the schedule only limit to the state that tourist want to travel and also uniform crossover method and inversion mutation method can be apply to get more higher accuracy percentage.

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