ABSTRACT

In an event management, one of the problems that are often found is scheduling. Scheduling made manually in a committee, especially for students, often becomes not optimal and does not match the student's busy schedule with the event schedule. This can lead to a lack of communication between committees due to a lack of info on scheduling.

This study designed an automatic scheduling model for committee members based on yahoo Particle Swarm Optimization (PSO) to overcome this problem. This automatic scheduling model aims to produce optimal member scheduling in event management. Candidate particles represent the schedule of events, while dimensions represent member divisions, and particle positions represent members. Population particles are generated at the beginning of the iteration with random values . At each iteration, the particles improve their position towards the best position, namely the optimal position of member scheduling. This process is carried out for each scheduling member who will be invited to obtain the optimal schedule.

Based on the test, an experiment of inertial change, cognitive learning, and social change was conducted to be used in this PSO. In this study, the optimal value of inertia is 0.9, while the cognitive and social learning value is 1.4. In the experiment, the average iteration value at stopping was 118.6. The results obtained in each trial will be different because the random values used in each experiment are different. In this study, the PSO algorithm succeeded in producing the scheduling of committee members according to the schedule of committee members.

Keywords: *Event Management*, Scheduling, College Student, *Particle Swarm Optimization.*