**ABSTRACT**

Big data is the slightly abstract phase which describes the relationship between the data size and data processing speed in the system. The many new information technologies the big data deliver dramatic cost reduction, substantial improvements in the required time to perform the computing task or new product and service offerings. The several complicated specific and engineering problems can be transformed in to optimization problems. Swarm intelligence is a new subfield of computational intelligence (CI) which studies the collective intelligence in a group of simple intelligence. In the swarm intelligence, useful information can be obtained from the competition and cooperation of individuals. In this paper discussed about some of the optimization algorithms based on swarm intelligence such as Ant Colony optimization (ACO), Particle Swarm Algorithm (PSO), Social Spider Optimization (SSO) Algorithm and Parallel Social Spider Optimization (P-SSO) Algorithm. These optimization techniques are based on their merits, demerits and metrics accuracy, sum of intra cluster distance, Recovery Error Etc.