**Abstract**

Nature-Inspired Techniques has been becoming the focus of research because they achieved the remarkable successes in optimization problems. The power of almost all Nature-inspired techniques comes from the fact that they imitate the best characteristic in nature. Nature-inspired algorithms are characterized by algorithmic operators mimicking computationally useful aspects of various natural phenomena. Nature inspired techniques such as swarm intelligence (SI), Nature Evolution and so on. It has demonstrated strong efficiency technique for solving complex problems and it provides optimum solution. This paper discusses a number of selected nature-inspired algorithms and various types of combinatorial optimization problems and it mainly focused on the unique attitude behind each of the techniques, their applications.