## ABSTRACT

Genetic algorithm (GA) mimics natural evolutionary principles to constitute search and optimization. GA is population based metaheuristic, which is different from numerical optimization techniques. GA has been widely used for solving non-linear optimization problems from a wide domain of engineering and sciences. In this talk basic GA will be introduced with its natural evolution and survival of the fittest principles. Two variants of GA, namely binary coded-GA and real-coded GA, will be focused. Some interesting applications will be discussed which otherwise are difficult to solve.