ETSAI002-A Classical Constraint Satisfaction Problem and its Solution using Artificial Intelligence

Abstract

Constraint satisfaction Problem is considered as an important area of the Mathematical Computation. Constraints are a set of conditions that has to be true for some problem like crypt arithmetic problems. Crypt arithmetic problems are where numbers are changed with alphabetic or symbolic order. Whenever a number needs to be assigned to an alphabet some constraint should be followed. Constraint says that each time assignment of variables replaced with only 0,1,2,3,4,5,6,7,8,9. No two numbers will be assigned to same alphabet or symbol, uniqueness should be there. With the help of (0…9) digits we satisfy each constraint so that we can get accurate result. This paper is an effort to find a solution of a Classical Crypt Arithmetic Problem (BASE+BALL=GAMES) with the help of a proposed method which is computationally cheaper and give results in minimum time as compared to parallel genetic algorithm.

Keywords: constraint satisfaction problem, crypt arithmetic problems, Genetic Algorithm and AI.