

Abstract

Logarithm series is a sequence number which is formed of a certain formula that uses the logarithm operation. Logarithm is a mathematical operation which is an inverse of exponents.

Genetic Programming (GP) is one of the Evolutionary Computation algorithms that represent chromosomes in the form of tree. Genetic Programming will calculate the fitness value for each chromosome and will find the largest fitness value to be used as a solution. However, if a population of candidate solutions has not been found suitable then, it will be the process of recombination. Recombination process is the exchange of 2 pieces of tree branches from 2 different, so it will produce a new chromosome that has a chance to be a good candidate solution.

The final results obtained in this Final Project is a Genetic Programming able to find the formula of the series are entered, but logarithms in applications that are build, only able to guess the formula series the logarithm of the rank function 3. The fewer the number of rows of the input logarithmic, so it will longer for software to find the right logarithmic series. The biggest opportunity release software that find the wrong output is when the logarithm of the number of data series that entered less than 5. The larger of the minimum value of fitness to perform recombination, the software will faster to find the right logarithmic series formula.

Key Words : Logarithm Series, Genetic Programming, Logarithmic Series
Formula