Genetic Algorithm

User parameters

- K – Population size
- Gmax – Maximum Generations
- Pc – Probability crossover
- Pm – Probability mutation
- Pe – percentage of population used for elite migration

Pseudo-code:

    Initialize population:
        Create initial population with K random chromosomes.
        Evaluate fitness of population members.

    Generation := 0
    Loop Until (Solution Found) OR (Generation reaches Gmax)

        1. Pe% of population: Copy elite individuals to new population.
        2. Pc % of population: Use crossover...
            Select 2 parents based on their fitness.
            Apply crossover to generate offspring.
            Evaluate fitness of offspring.
            Add to new population.
        3. Pm% of population: Use mutation...
            Select individual based on fitness.
            Apply mutation.
            Evaluate fitness.
            Add to new population.
        Record population statistics, best solution found so far, etc.
        Generation := Generation + 1

    End Loop
    Report best individual found during the run.