Evolutionary Algorithm

EA stochastic search and optimization heuristics derived from the classic theory of evolution, which is used on computers in many cases.EA has become an important problem-solving tool among many researchers working in the field of computer intelligence.EA is widely accepted for solving many important programs in engineering, business, commerce, etc. become more complex with the complexity and volume of the data.

A natural evolutionary approach may be shown to computers to find effective solutions to complex problems. By taking multiple responses and evaluating them against the best solution, the strongest people in the world survive. After experimenting, assembling and transforming, members of the present generation produced a new population. This new generation is reviewed and the process is repeated, until a suitable solution is found.

Basic Idea
 • If only those individuals of a population reproduce, which meet a certain selection criteria, and the other individuals of the population die, the population will converge to those individuals that best meet the selection criteria.
• Population dynamics follow the basic rule of Darwin evolution theory, which can be described in short as the "survival of the fittest."

Some of Important Key features Key features of EA are:
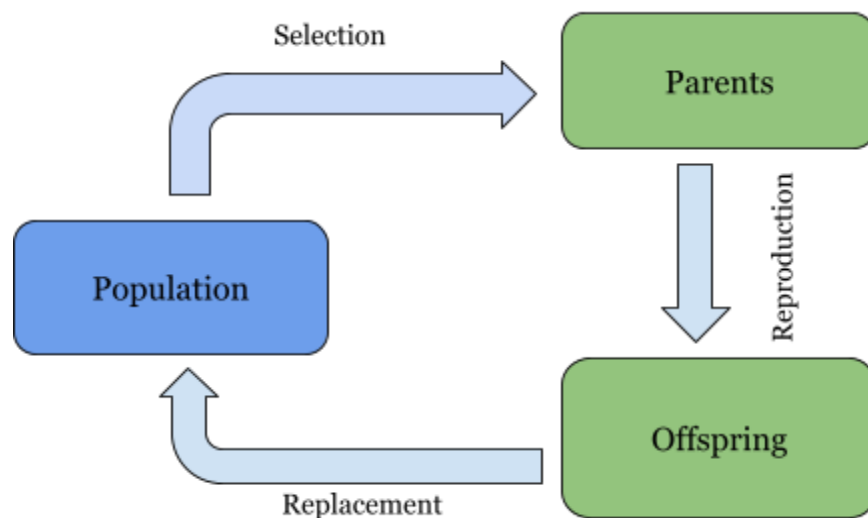• The population-based collective learning process
• Self-adaptation
• Robustness

Fig. Evolutionary Algorithm Process