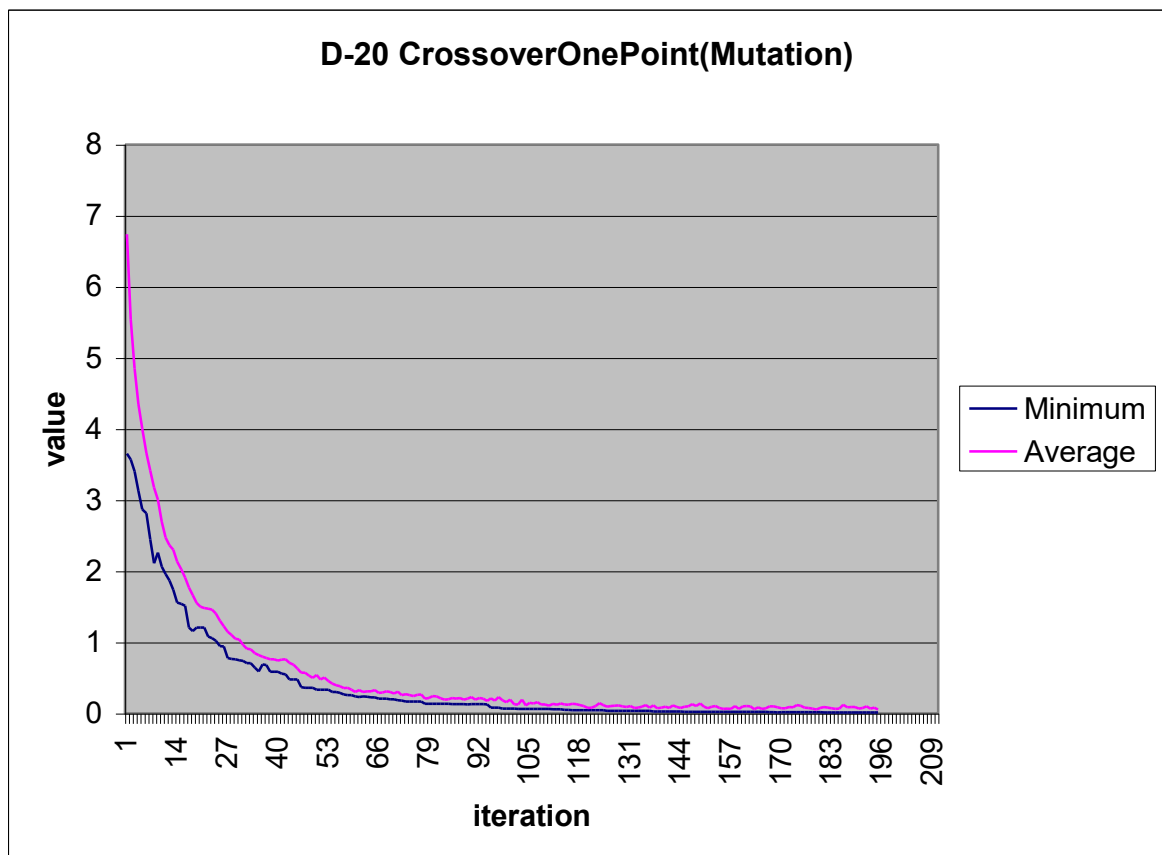


1. Minimization $y=(x_1)^2+(x_2)^2+\dots(x_{20})^2$

Scenario 1:

- Population – 100 individuals
- Chromosome – 20 genes
- Mutation – yes
 - i. Mutation percent – 0.05
- Crossover – one-Point
 - i. At 10 point
- From [-1;1]

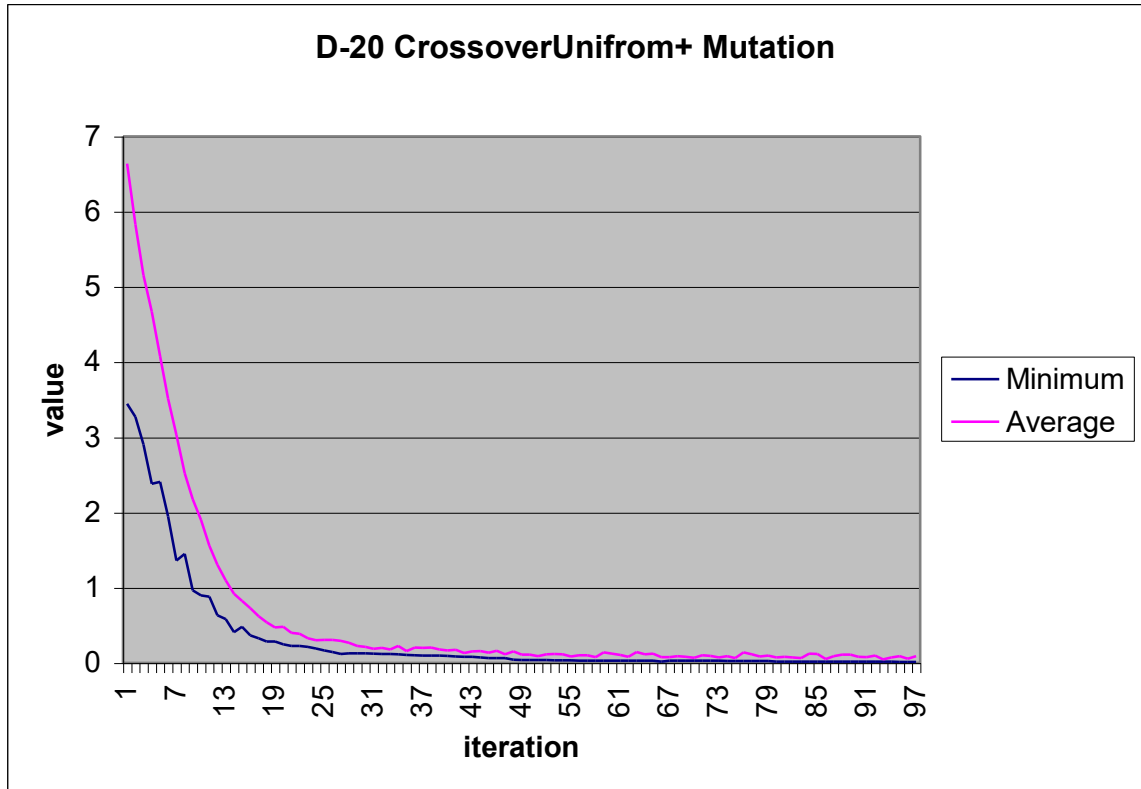
Graphic:



Scenario 2:

- Population – 100 individuals
- Chromosome – 20 genes
- Mutation – yes
 - i. Mutation percent – 0.05
- Crossover – Uniform
 - i. At 10 point
- From [-1;1]

Graphic:

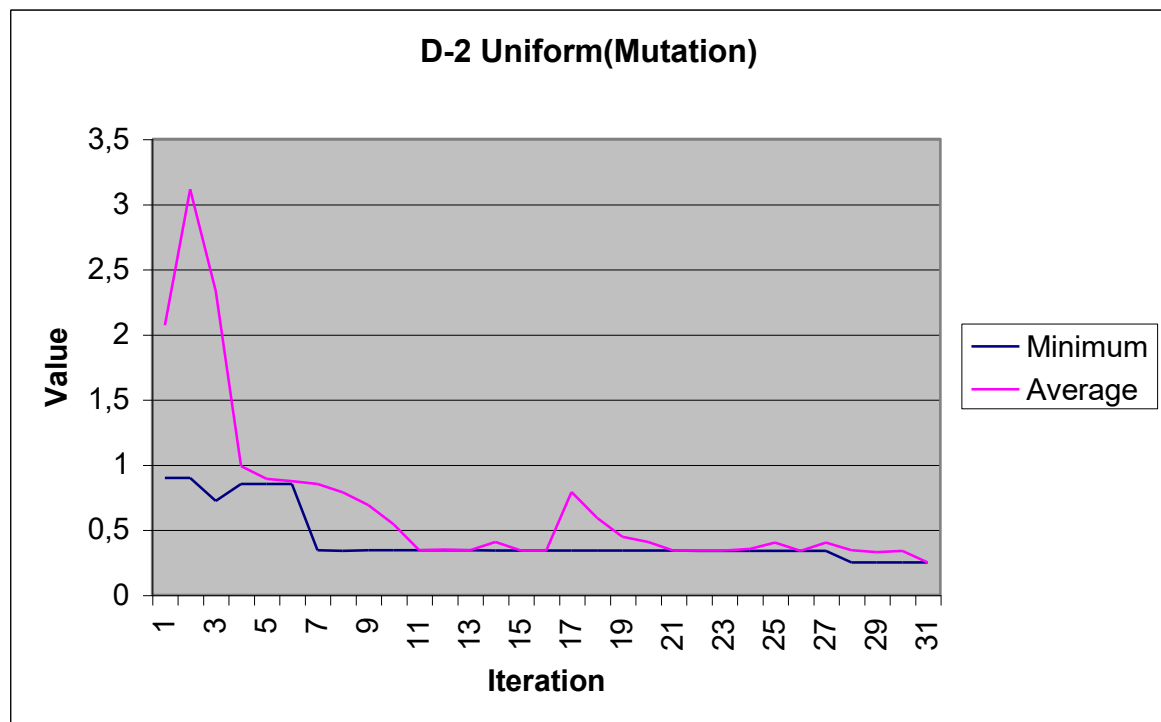


2. Minimization $y=3+x^2+3*\cos(2*\pi*x)$

Scenario 1:

- Population – 10 individuals
- Chromosome – 10 genes
- Mutation – yes
 - i. Mutation percent – 0.03
- Crossover – Uniform
 - i. At 5 point
- From [-1;1]

Graphic:



Scenario 2:

- Population – 10 individuals
- Chromosome – 10 genes
- Mutation – yes
 - i. Mutation percent – 0.03
- Crossover – one-Point
 - i. At 5 point
- From [-1;1]

Graphic:

