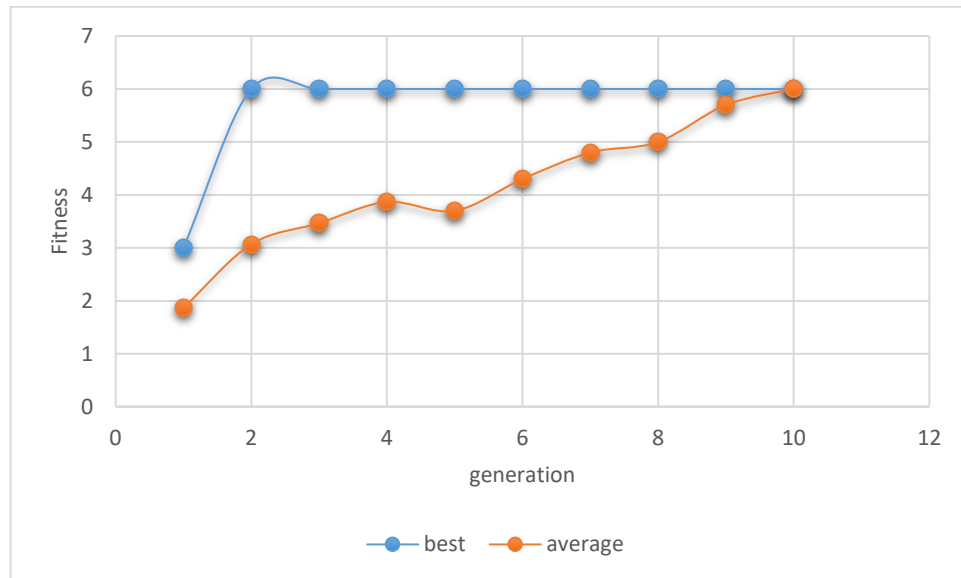


Contemporary Intelligent Information Technologe(CIIT)

Sorting network

The first scenario



The first chromosomes :cabd-3

Population:30

Size chromosomes:24

The population:

101000110111110001110111	001100010111010011011101	110110001100101101101111
011111000101011100011011	000111100101110011011000	010001001110110101010011
010111011001010000011000	110010010011001011101001	110010101010111101011100
100011110010110001110011	110000001010110011100100	111000100010101001100010
101100101111100011001001	010111010101111001101111	11010000111111001110011
c b a d		d b a c
b d a c		c b d a
b c d a		b d c a
c b a d		d b c a
c d a b		c d b a
d a c b		d c b a
c d a b		d c b a
c d a b		

the best: cbad::fitness-3::average-1.867

The intermideate generation(best)

The population:

111000101100101101101111	111000101100101101101111	111000101100101101101111
111000101100010011011101	001100010001010000011000	010111011111110001110111
010111010111110001110111	110010101011010011011101	011111001011010011011101
011111000101010011011101	010111011111110001110111	010111011100101101101111
111111000101010011011101	111111001011010011011101	101000110111110001110111
a b c d		b c a d
a b c d		b c a d
a b c d		b c a d
b a c d		b c a d
a d b c		b c a d
b c a d		b c a d
b c a d		c b a d
b c a d		

the best:abcd::fitness- 6::average fitness-4.4

The last generation(best)

The population:

111000101100101101101111	111000101100101101101111	111000101100101101101111
111000111100101101101111	111000101100101101101111	111000101100101101101111
111000111100101101101111	111000101100101101101111	111000101100101101101111
111000111111110001110111	111000101100101101101111	111000111100101101101111
111000101100101101101111	111000101100101101101111	111000101100101101101111
abcd		abcd
abc		abcd
abcd		abcd
abcd		abcd
abcd		abcd
abcd		abcd
abcd		abcd
abcd		abcd

the best:abcd::fitness 6::average fitness-6

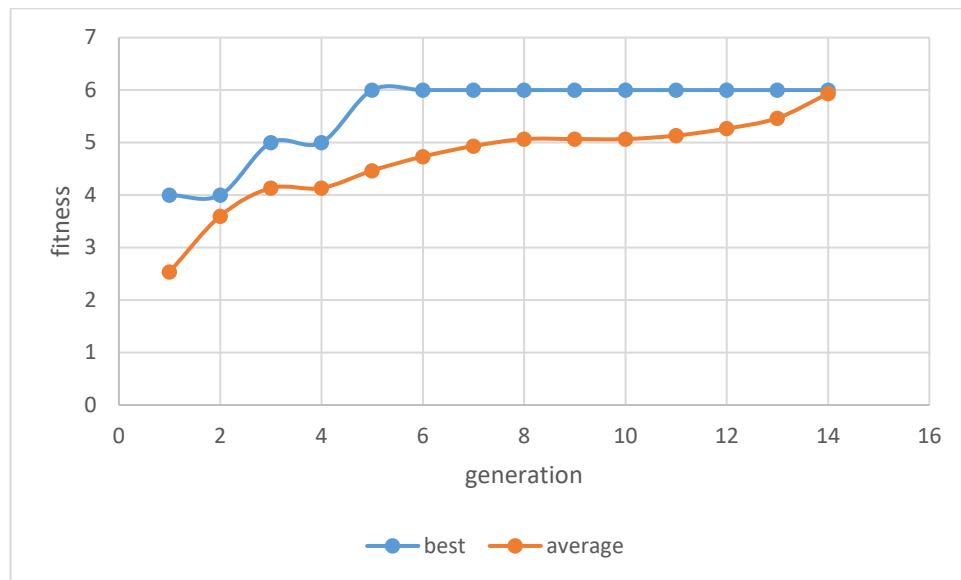
The last generation:

The papa:101000111011101001100011

The mama:110011010111110001110111

The child:101000110111110001110111

The second scenario



The first chromosomes :dbac-4

Population:30

Size chromosomes:24

The first generation(best)

The population:

000011010100::: 101011000000

110010100001:::010000100011 100101100101:::110111101000
 100000000101:::001100110100 010100010100:::001010001011
 111010011000:::110101110111 001011110100:::010111110011
 101010000001:::100001000000 001001111111:::110100011101
 011011110110:::010101010011 000111010001:::010001010100
 110100100001:::010110001000 001001100100:::011111100100
 000101011010:::101111011111 010100001100:::110111100100

b a d c	d b a c
b c a d	d b a c
a c d b	d c a b
b a d c	d c a b
a d b c	d b c a
b a d c	d c a b
b d a c	d c b a
b d a c	

the best: badc:::fitness 4:::average fitness-2.5333333333333333

The intermideate generation(best)

The population:

110010100001:::011010001011 011010011000:::110111101000
 100101100101:::100001000000 010111000101:::100001000000
 111010011000:::111010001011 011010011000:::110111101000

```

000011011100:::001010001011 010111000101:::100001000000
010111000100:::001010001011 011010011000:::110111101000
011010011000:::110111101000 100101011000:::110111101000
000111000101:::100001000000 000011011000:::001011010100
110010100001:::010000100011
a b c d          a c b d
a c b d          a c b d
a b d c          a c b d
b a c d          a c b d
a c b d          b a c d
a c b d          b a d c
a c b d          b c a d
b a c d
the best: abcd::fitness 6::average fitness-4.933333333333334

```

The last generation(best)

The population:

```

110010100001:::011010001011 000111000001:::011010001011
110010100001:::011010001011 000111000001:::011010001011
000111000001:::011010001011 011011000001:::011010001011
010111000001:::011010001011 000011000001:::011010001011
010111000001:::011010001011 000111000001:::011010001011
010111000001:::011010001011 110010100001:::011010001011
110010100001:::011010001011 000111000001:::011010001011
000111000001:::011010001011
a b c d          a b c d
a b c d          a b c d
a b c d          a b c d
a b c d          a b c d
a b c d          a b c d
a b c d          a b c d
a b c d          a b c d
a b c d
the best: abcd::fitness 6::average fitness-6

```

The last generation(best)

The papa: 000011011000:::001011010100

000011010100

The mama: 101010000001:::100001000000

101011000000

The child: 000011010100::: 101011000000