

# **Genetic Algorithms HW 2**

**Due: 2019/12/27 27:00**

Implement an ecGA model builder  
with any programming language of your choice!

[http://140.112.175.111:8888/ga\\_hw2.html](http://140.112.175.111:8888/ga_hw2.html)

# GA HW2

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submit

# GA HW2

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# GA HW2

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## Generation 0

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popu000.txt

11000111111110010100001001000011101010111111000011  
01001011100000001000111001000111111111101110011010  
11101001110000001110100101110011011101111011111010  
00110100110000000011111011001100100001111000010011  
01011001111101111000010001110001001111001101100000  
11010101001110101100011100110111101001110001010001  
10111010111100101001011000011111110010000101011001  
00111001000110100101110011111000101010001101101110  
11011011111100001000011110100100001000110101101111  
00010110000111110011011010011100010101011000010100  
01011011010011000111110101001101111111111111001010  
00100011110000111111010110011101011000101111001001  
00011000101010001110011001010100100101110011011010  
01000000000111011100101001101101100001011000001100  
11100001001011111110100011001010001001001010100111  
1111110111100100100000001000110001100000101101100  
01000000010010110111011001000100011100101000001001  
00110110011011001011100000100001111110110111100100  
00101101001011111100000100011111101110011010000011  
01001011111001110000111000101110111111110011001110  
01110100100111011001101101011000011111101010100010  
00110111000101011000011100111011101111101111100100  
11101000001100011111110110001000110000110111011000  
11010010000001110110111111101010110100111110100001  
01010000000001110110110110000000101110011101110001

Implement an ecGA model builder  
with any programming language of your choice!

[# BB]

[#genes] [idx] [idx] [idx]

[#genes] [idx] [idx] [idx]

→	15					
→	2	10	11			
→	3	2	14	37		
	1	45				
	4	1	16	23	30	
	5	0	46	47	48	49
	1	3				
	5	4	12	28	17	33
	5	5	7	31	39	15
	5	6	26	20	25	29
	4	8	32	36	21	
	4	9	13	34	18	
	2	19	22			
	1	24				
	4	40	41	42	43	44
	3	27	35	38		

15  
→ 2 10 11  
→ 3 2 14 37  
1 45  
4 1 16 23 30  
5 0 46 47 48 49  
1 3  
5 4 12 28 17 33  
5 5 7 31 39 15  
5 6 26 20 25 29  
4 8 32 36 21  
4 9 13 34 18  
2 19 22  
1 24  
4 40 41 42 43 44  
3 27 35 38

**The order does not matter!**



mpm000.txt



mpm000.txt

## Generation 0

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## Generation 0

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## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):74.642857/45.510625/14.464286 Chromsome Length:50

best chromosome:00010001001010010111010110000000111010100011000011

## Generation 1

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## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):74.642857/45.510625/14.464286 Chromsome Length:50  
best chromosome:00010001001010010111010110000000111010100011000011

## Generation 1

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Gen:1 Fitness:(Max/Mean/Min):75.714286/45.575357/18.214286 Chromsome Length:50  
best chromosome:1101100000100100111011000100001111110000011110110

## Generation 2

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Gen:2 Fitness:(Max/Mean/Min):76.964286/50.260804/24.464286 Chromsome Length:50  
best chromosome:00011100011100101010011011100111110111011001010001

## Generation 3

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Gen:3 Fitness:(Max/Mean/Min):77.857143/50.539286/26.250000 Chromsome Length:50  
best chromosome:11010001010110010101001000110110001010011001101101

## Generation 4

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## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):72.321429/45.291071/19.285714 Chromsome Length:50

best chromosome:1100111111011001011001111000111110000111110101100

## Generation 1

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Gen:1 Fitness:(Max/Mean/Min):76.964286/45.330000/13.928571 Chromsome Length:50

best chromosome:11011011110110111001000000010001011011000010101110

## Generation 2

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Gen:2 Fitness:(Max/Mean/Min):75.714286/50.352589/23.750000 Chromsome Length:50

best chromosome:11111001110110010011000100000111101101010011111100

## Generation 3

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Gen:3 Fitness:(Max/Mean/Min):75.178571/50.116786/20.892857 Chromsome Length:50

best chromosome:01111010001101010101000011110100101110001011111000

## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):72.321429/45.291071/19.285714 Chromsome Length:50

best chromosome:110011111011001011001111000111110000111110101100

## Generation 1

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Gen:1 Fitness:(Max/Mean/Min):76.964286/45.330000/13.928571 Chromsome Length:50

best chromosome:11011011110110111001000000010001011011000010101110

## Generation 2

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## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):72.321429/45.291071/19.285714 Chromsome Length:50  
best chromosome:110011111011001011001111000111110000111110101100

## Generation 1

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Gen:1 Fitness:(Max/Mean/Min):76.964286/45.330000/13.928571 Chromsome Length:50  
best chromosome:11011011110110111001000000010001011011000010101110

## Generation 2

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Gen:2 Fitness:(Max/Mean/Min):75.714286/50.352589/23.750000 Chromsome Length:50  
best chromosome:11111001110110010011000100000111101101010011111100

## Generation 3

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Gen:3 Fitness:(Max/Mean/Min):75.178571/50.116786/20.892857 Chromsome Length:50  
best chromosome:01111010001101010101000011110100101110001011111000

## Generation 0

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Gen:0 Fitness:(Max/Mean/Min):72.321429/45.291071/19.285714 Chromsome Length:50

best chromosome:1100111111011001011001111000111110000111110101100

## Generation 1

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## Generation 28

Download popu028.txt



Upload your file

Browse

upload

Gen:28 Fitness:(Max/Mean/Min):100.000000/94.378482/82.857143 Chromsome Length:50

best chromosome: 1111100001101001011100000001000111001000111111111



optimum.txt



mpm000.txt



mpm001.txt



mpm002.txt



mpm003.txt



mpm004.txt



mpm005.txt



mpm006.txt



mpm007.txt



mpm008.txt



mpm009.txt



mpm010.txt



mpm011.txt



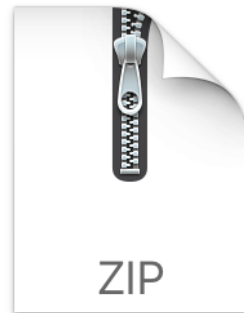
mpm012.txt



optimum.txt



R12345678\_HW2



R12345678\_HW2.zip

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Thank you!

# Q & A

[r05h41003@g.ntu.edu.tw](mailto:r05h41003@g.ntu.edu.tw)