



HUMAN INTERACTED GENETIC ALOGRITHM APPLICATION

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ABSTRACT

By using the human interacted Genetic Algorithm(GA), we expect to have a human preferred solution for urban design problem. Human can select different method for selection, crossover, and mutation operations. When we run the human interacted GA, people can change the fitness value for some of the chromosome based on their preference. By using the feedbacks from the user, we expect to change the direction of GA.

- 1.
- 2.

MATERIALS & METHODS

The following materials were required to complete the research:

- Curabitur pellentesque dignissim
- Eu facilisis est tempus quis
- Duis porta consequat lorem
- Eu facilisis est tempus quis

The following equations were used for statistical analysis:

$$\cos^3 \theta = \frac{1}{4} \cos \theta + \frac{3}{4} \cos 3\theta \quad (1)$$

$$E = mc^2 \quad (2)$$

Phasellus imperdiet, tortor vitae congue bibendum, felis enim sagittis lorem, et volutpat ante orci sagittis mi. Morbi rutrum laoreet semper. Morbi accumsan enim nec tortor consectetur non commodo nisi sollicitudin. Proin sollicitudin. Pellentesque eget orci eros. Fusce ultricies, tellus et pellentesque fringilla, ante massa luctus libero, quis tristique purus urna nec nibh.

REFERENCES

- [1] Laurent Magnier and Fariborz Haghighat. Multiobjective optimization of building design using trnsys simulations, genetic algorithm, and artificial neural network. *Building and Environment*, 45(3):739–746, 2010.

INTRODUCTION

RESULTS 2

Donec faucibus purus at tortor egestas eu fermentum dolor facilisis. Maecenas tempor dui eu neque fringilla rutrum. Mauris lobortis nisl accumsan.

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table 1: Table caption

Nulla ut porttitor enim. Suspendisse venenatis dui eget eros gravida tempor. Mauris feugiat elit et augue placerat ultrices. Morbi accumsan enim nec tortor consectetur non commodo.

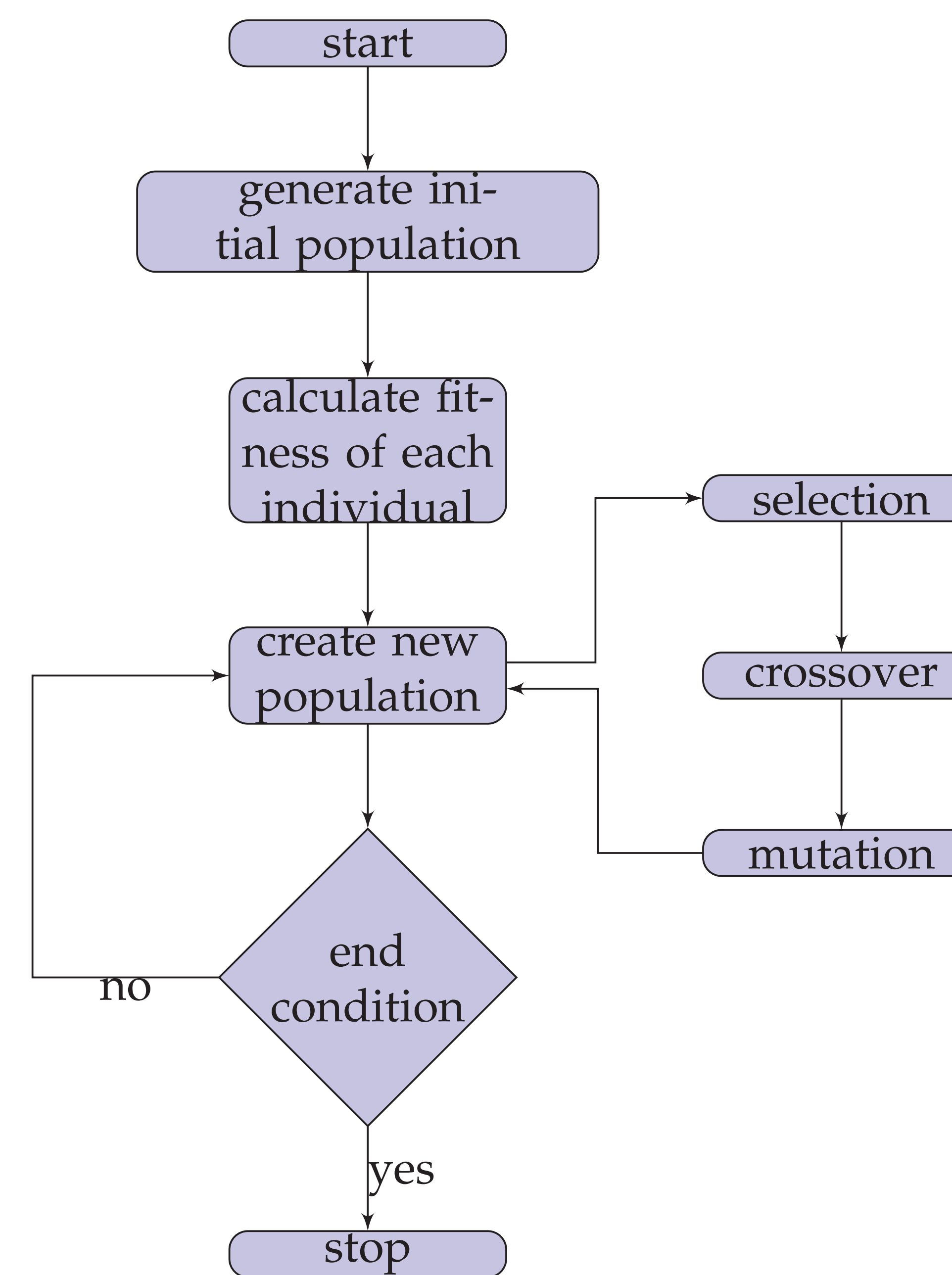
Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
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Table 2: Table caption

FUTURE RESEARCH

Integer sed lectus vel mauris euismod suscipit. Praesent a est a est ultricies pellentesque. Donec tincidunt, nunc in feugiat varius, lectus lectus auctor lorem, egestas molestie risus erat ut nibh.

GA EXPLANATION



- User specified parameters: number of variables, possible value of each variable, size of population, number of generations, fitness function, crossover probability, mutation probability, selection type, crossover type, and mutation type.
- Generate new population: generate the first generation of the solution
- Create new population: applying selection, crossover, and mutation to the previous generation, and get a new population, which should improve the solution.
- Encoding method: binary encoding, use binary string to represent each variable
- Selection: selection a pair of parents and do the crossover and mutation operation on them. Support methods are roulette-wheel,
- Crossover: exchange bits of binary string between two parents based on crossover probability and produce two children. Support methods are single-point,
- Mutation: mutate bits of children's binary strings based on mutation probability. Support methods are single-point,

CONCLUSION

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CONTACT INFORMATION

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Maecenas viverra ligula a risus blandit vel tincidunt est adipiscing. Suspendisse mollis iaculis sem, in imperdiet orci porta vitae. Quisque id dui sed ante sollicitudin sagittis.