

# Indiscernible Data Set Is Used in Soft Computing for Diseases Diagnosis

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**Abstract:** In mathematical in this model theory used for diseases diagnosis. because indiscernible data set means cannot distinguish between the data set.so same property are applied. this set are Identical to another set are matched. but not separate indiscernible set. why? Example: {1,2,3,4,5,6,7,8,9}. This is natural number set in mathematics. any number distinguished from the set. the sequence is not given. This is the type of indiscernible set. the sequence is getting equal values from the set. So, we will take the symptom of diseases applied to the data base. which method old data set compare to diseases symptoms. then gives the result. which diseases? which medicine are applied.? they will tell. because the symptoms and diseases are not distinguishable. the old data set from the data base. The symptoms of patient diseases are matched or not matched. But the data base told and matched the diseases and symptoms can not distinguishable.so we will applied indiscernible data set in mathematics also used rough set. before while using the rough set in the symptoms are matched and indiscernible data set is using to the real-world.

**Key Words:** COVID-19, INDISCERNIBLE, ROUGH, FUZZY.

## INTRODUCTION

In this paper discussed about the indiscernible data set. because indiscernible data set means cannot distinguishable from the set. because it is identical. Example: {5,5,5,5}. any one from the ... which is cannot distinguishable .so it is all are identical. If want to take '5' from the set no property can differentiate '5' one from another. Imaging -segments point are identical. It is position and property. Each point would be indiscernible from the others. Specific property you are consider in mathematical structure. in context method. the idea perfectly indiscernible object might not always translate to the real-world. The situation when slightly variation can always be deducted

indiscernible means something is impossible to see, hear or understand clearly.

## Example

Increasing the temperature

Decreasing the humidity

While using fan – it will change the shape or reason as indiscernible

In any diseases all are have the some symptoms. that is identical. then only consider. Which diseases are affected to you? Because it is identical whether symptoms and diseases are not distinguishable. We will use data base then symptom of diseases are not distinguishable .so if it is matched or conformed you are affected which diseases. that is supported by symptoms take from the data base. Applied new one symptoms applied old one symptoms.

That logic is identified we will use indiscernible data set. we will come to one decision from the symptoms. which one is....?

## INDISCERNIBLE MEANS

Which means cannot distinguishable from the data set. Which is identical? If it is true the condition will be false. So it is not understand clearly. While data set is matched object looked like identical. Although there were indiscernible using small difference between them....

## IDENTICAL:

This means an undisguisable between the symptoms and diseases.

For example: COVID-19

CO-corona VI-viruses D-disease-2019...

SYMPTOMS in range patient from mild to severe.

**SYMPTOMS:**

- FEVER or CHILL
- COUGH
- SHORTNESS OF BREATH
- SORE THROAT
- CONGESTION or RUNNING NOSE
- LOSS OF TASTE or SMELL
- FATIGUE
- MUSCLES or BODY ACHE
- HEAD ACHE
- NEUSEA or VAMITTING

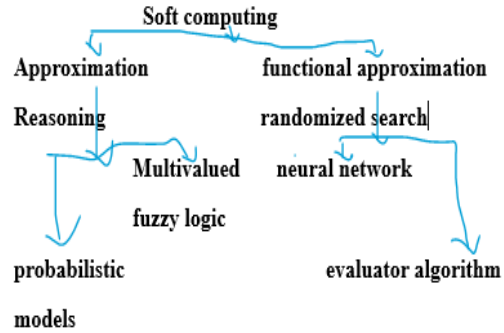
Fist up all while come to disease in the world. Indiscrible set of symptoms. Can not identical not understand clearly. After that we will discuss or research of discuss we conformed diseases symptoms. That symptom is loaded to the data base. if it have the same symptoms to identified the disease. Because it is covid-19.

These symptoms cannot distinguishable from the diseases. This is the benefits. That disease is identified by the symptoms only. When the database compares to the symptoms by patients. Which is suitable an indiscrible data set. identified to the diseases and matched the symptoms. Analyzed and confirmed by the data. That data are surely suitable to the diseases by the symptoms. The symptom and diseases are not distinguishable. So we will use the indiscrible data set. Because it is rough data set before conformation after this sets are indiscrible data Set. While comparing .so this logic is used to identified diseases not only identified and also conformation of diseases. this is useful logic to identification of data set and diseases cannot distinguishable we will use indiscrible data used in soft computing for analysis and diagnosis of diseases.

**SOFT COMPUTING**

soft computing is umbrella term of computing. Which is used to produced approximation result to unsolvable high level-processing in computing. Soft computing technic means include evaluator computation. That is swam intelligence, data mining, and forecasting& more. This technic is used to solve the process and decision making these processes are taken by the guess. Because it is stochastics- stochastics means - GUESS THE RESULT-That is like as probabilities. That means just guess.so feasibility solution. Then get the optimal solution. Which is used to stochastics

approximation results then optimized result by the probabilities results.



soft computing is aim to explode tolerance for uncertainty implication and partial truth. Which is inspire the human reasoning. Branches of soft computing.

- 1- Fuzzy logic
- 2- Evaluator computation
- 3- Artificial neural networks

The soft computing solves the complicated real- world situation to bring the both solution artificial intelligence, machine learning, statistics and data base systems to discover the pattern in large data set

**Forecasting:**

1. Neural network
2. Fuzzy logic and
3. Genetic algorithms to predict future events.

**Genetic algorithms:**

1. Mutation
2. Cross over and
3. Selection to solve the optimization

And research problems soft computing is adapting network neuron system. It does not required always mathematical modeling.

**DATA MINING**

The data mining means extract the data from the suitable data base. So it is used to data base stored and then access via through the data mining many data are accessed several time which is suitable data are matched taken from the data base. This stochastic process (probabilities).

## HOW TO IMPLIMENTS

Soft computing and indiscernible data set:

Soft computing extracts the data from the data base by the data mining. Which is also stochastics (probabilities) process. Whether it is suitable or not. Because of feasibility solution and concluded with optimized solution guess the solution by the soft computing.

Using data mining technic in soft computing is not optimized. First up all we will give the information to the system. That information(data) are probability, random analyzed and then matched get the rule of indiscernible data set. Thus the information allowed suitable. They will get the result or solution to the patients or diseases.

In the context of the soft computing indiscernible data set refer to the data point with the data set are consider essentially and share on the available information, meaning they cannot be really distinguishable from each other using the given future.

Using technique:

Fuzzy logic degree of membership rather than static binary classification. Not clear distinct from one another, making them useful for dealing with indiscernible data set. Fuzzy logic means degree of truth /partial truth when dealing with ambiguities. (From 0 to 1).

Rough set theory:

Another method group of data points that are indistinguishable based on the attributes, allowing from the reduction of data complexity but treat these groups as a single entities.

Application:

Partially useful for dealing with indiscernible data set include medical diagnosis (Where symptoms might be overlap).

## CONCLUSION

The application of indiscernible data set is more used medical diagnosis with the help of soft computing. These soft computing process are more useful to fuzzy logic, Neural network, Genetic algorithms, because the diseases and symptoms are not distinguishable .so indiscernible data set is used medical field. These data set are not clearly matched. Then the database via

through soft computing. They will give the solution or result.

Before taken a rough set theory. Then only comes to the conclusion with the help of the indiscernible data set. While using the indiscernible data set. Before get the prediction by the rough data set. the rough data set use by fuzzy logic and then come to the conclusion indiscernible data set Which medical field not only and more.

## REFERENCE

- [1] L. A. Zadeh, "Fuzzy Sets", *Information and Control*, pp. 338-353, June 1965. CrossRef Google Scholar
- [2] L. A. Zadeh, "Outline of a New Approach to the Analysis of Complex Systems and Decision Processes", *IEEE Trans. Systems Man and Cybernetics*, pp. 28-44, 1973. View Article Google Scholar
- [3] L. A. Zadeh, "Possibility Theory and Soft Data Analysis" in *Mathematical Frontiers of the Social and Policy Sciences*, Colo., Boulder: Westview Press, pp. 69-129, 1981. View Article Google Scholar
- [4] L. A. Zadeh, "Fuzzy Logic Neural Networks and Soft Computing", *Comm. ACM*, pp. 77-84, Mar. 1994. CrossRef Google Scholar
- [5] C. Karr, "Genetic Algorithms for Fuzzy Controllers", *AI Expert*, pp. 26-33, Nov. 1991. View Article Google Scholar