

# ENHANCED BEE COLONY OPTIMIZATION MECHANISM IN CONTENT RECOMMENDATION SYSTEM

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**Abstract**— many internet users are not only information consumers but also information providers. There are lots of information in the Web and most people can find what they want by searching the Web. One problem of the large number of data in the Web is that we often spend most of our time to find a correct result from search results. A recommendation is often based on Bees Algorithm it is a population-based search algorithm. The Bees Algorithm is an optimisation algorithm inspired by the natural foraging (collecting the food) behaviour of honey bees to find the optimal solution (recommendation).

**Key Words:** Crawling, foraging, Bees, Recommenda

## Introduction

Now-a-days, there is no clear difference between user and webmasters in internet world. In Internet many user surfing net they are not only consuming the information but also providing the information. Nowadays there is a huge occurrence of accidents on roads. This is mainly due to the lack of knowledge to the driver regarding the other vehicles or surrounding environment. Thus this information is mainly provided the .there are many features in the that helps the driver to avoid collisions with the other vehicles. They give complete data of other vehicles like speed, direction etc. the integration of with the helps in providing the safety and comfort to the drivers.

Bee colony optimization is used as information is added dynamically from environment and adjusting accordingly. After collecting information individual insects does not perform specific specializations. Because of the dynamic behavior and irregular, it is subjected to varied attacks [7][8] like region, DOS, impersonation, black hole,

sinkhole, wormhole etc. In the previous methods attacks like black hole, impersonation, DOS etc were precluded but still the system is vulnerable to sinkhole attack. So in this thesis an enhanced version of AODV is developed to prevent the attacks and hence reduce the error rate .the detail information on how the work carried out for detecting sinkhole attack will be mentioned in further discussion

## Literature survey

Recommendation system aims to provide items or packages to active user depending upon on their preferences provided by active ser. recommendation system focuses on requirements of user and suggest top rank-k items. Each node broadcasts routing table containing distance, sequential number to the destination. Sequence number which is received at the destination is compared with the sequence number in the routing table. Thus by comparison each node updates its routing table. Some issues are recognized in recommendation so, to overcome these problems we proposed Bee colony optimization it based upon the behavior of real inspecting bees to find the nectar .Nectar location (food source) will shared with other selected bees in particular hive.

## Existing system and proposed system

Acquiring user information: the particular active user information is gathered by using two methods: explicitly and implicitly. the explicit information is collected from user input. Implicit data is collected from the user's history and active user behavior.

Information preprocessing: the collected information is preprocessing by using data mining tools like cleaning the collected information removing noisy data. Some of the important will be changed so we can eliminate by using proposed tool.

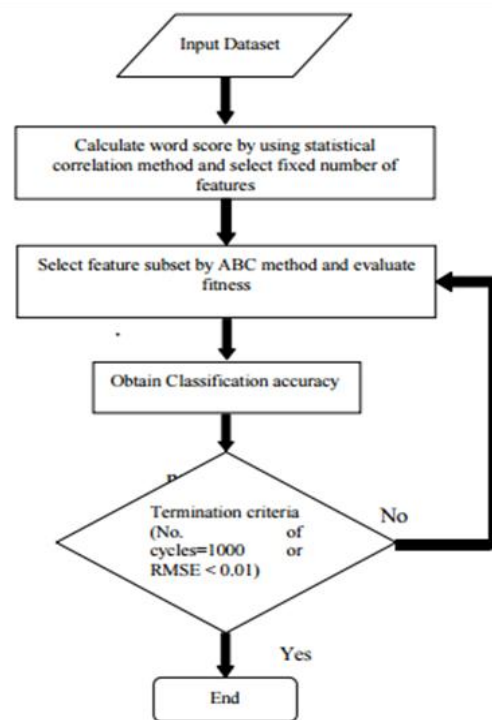
Form recommendation to Active user: After acquiring the user information the preprocessing tool will be modify the data as useful data then various recommendation algorithms will be used to provide a accurate result.

In proposed system we provide a optimum solution to active user as comparing to basic recommendation system. user search for an item then recommendation system provides the results to active user where the ambiguity will be raised as same item name may exists in different classification as there were each single name consists of different synonyms then active user may felt in confusion state so, Bee colony optimization will be classified for every single item as they store based upon their classification or features of the particular item.

Bee colony optimization provides three state searching processes as on looker, scout and employee bees. Where every group of bees will be work for the optimum solution.

Ad-hoc wireless networks [2][3][4][5] area unit outlined as a class of wireless networks [6] that make use multi hop radium relaying and capable of in operation with out any support of a physical infrastructure. In this thesis an enhanced version of routing protocol is introduced. the planned technique used the authentication technique ,that already existed in the previous methods to secure the routing packet in and with efficiency stop most often occurred attacks like region attacks, modifying routing data and impersonation attacks.

### 3. CONCLUSIONS



The procedure is continued until the termination criterion is attained. Are mainly developed in the market to provide the safety features to the drivers in the vehicles such as avoiding collisions, controlling the speed or making better vision at night etc. But the development of Cooperative system [2] mainly helps in creating integrated network between vehicles and provides better communication to exchange data.\ are available as add on packages or built in vehicles. These are the fastest growing segments in automotive electronics.

Crossroads are the main situations for the occurrence of accidents on roads. These are the main reason for the huge occurrence of the accidents on the roads. They mainly occur due to the sidelong collision with the coming vehicle (from left) or left turn across path with the coming vehicle in the opposite direction. Thus estimating the risk of collision and provide information to the driver to avoid collision [3]. Sometime bad estimation of position, velocity and intention of other drivers are the main sources of accidents on roads at intersections.

## Implementation

### G. Algorithm for ABC optimization

ABC algorithm is used to optimize the feature

selection as follows:

1. Cycle=1 2.
2. Initialize ABC parameters
3. Evaluate the fitness of each individual feature
4. Repeat
  - a. Construct solutions by the employed bees
    - i. Assign feature subset configurations( binary bit string) to each employed bee
    - ii. Produce new feature subsets
    - iii. Pass the produced feature subset to the classifier
    - iv. Evaluate the fitness ( $fit_i$ ) of the feature subset
    - v. Calculate the probability of feature subset solution
  - b. Construct solutions by the onlookers
    - i. Select a feature based on the probability  $p_i$
    - ii. Compute  $v_i$  using  $x_i$  and  $x_k$
    - iii. Apply greedy selection between  $v_i$  and  $x_i$
  - c. Determine the scout bee and the abandoned solution
  - d. Calculate the best feature subset of the cycle

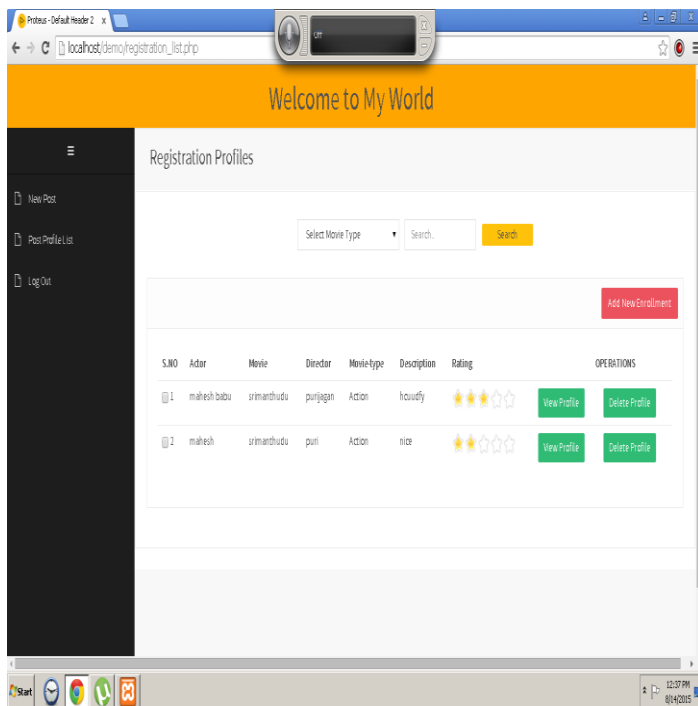
This communication helps the driver in the lane change decision. It directs the driver to the correct lane and also detects the lane change is risky or not at that moment [5]. Thus this communication in lane change situation gives the better idea for a particular situation. The cooperation is mainly based on the neighbor local map.

The limitation of this technique is that it uses public key cryptography which causes higher overhead. It is an uneven cryptography based mostly mechanism that primarily needs additional process power, massive memory and thus, additional battery power.



**Fig1:User description form**

The above screen short shows the user login ,by entering valid email id and photos can be chosen to display the admin allow the user.



**Fig2:search result by using search box**

The above screen shot shows the output by using search engine main task is to choose the movie type i.e. same movie name has has in different movie type(synonyms) will be divided by the type option.

**CONCLUSION THE FUTURE WORK**

Each and every vehicle itself acts as a key element, and calculates its own equation, which cannot be forged due to continuous changing chain relation with adjacent vehicles path signature. If any misbehaving activity occur from the receiving vehicle, the RSU in the VANET Should be registered with the central controller so that every vehicle and RSU in the Network will be authorized .so that the authorized person can clearly calculates the Particular node is malicious one caution making on the Detection of Sybil node to other nodes can make them alert to situations.

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