# Article information:

Improved marine predators algorithm for feature selection and SVM optimization  
<https://itiis.org/digital-library/25581>

# Article summary:

1. A new metaheuristic algorithm called co-evolutionary cultural mechanism-based marine predators algorithm (CECMPA) is proposed to improve the performance of the native algorithm.

2. CECMPA is used to perform feature subset selection and optimize hyperparameters in support vector machine (SVM) simultaneously.

3. The proposed method is tested on twelve datasets from the university of California Irvine (UCI) repository and a COVID-19 dataset, with experimental results demonstrating its superiority over other compared methods in terms of several evaluation metrics.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides an overview of the improved marine predators algorithm for feature selection and SVM optimization, which is a novel metaheuristic algorithm inspired by the foraging strategies of marine organisms. The article presents a detailed description of the proposed method, as well as its application to various datasets from UCI repository and a COVID-19 dataset. The experimental results demonstrate that CECMPA is superior to other compared methods in terms of several evaluation metrics.

The article appears to be reliable and trustworthy overall, as it provides sufficient evidence for its claims through experiments conducted on multiple datasets. Furthermore, it does not appear to be biased or one-sided in its reporting, as it presents both sides equally and does not promote any particular point of view or agenda. Additionally, all potential risks are noted throughout the article, such as possible local optima that can be encountered during search processes.

However, there are some points that could have been explored further in order to provide more comprehensive coverage of this topic. For example, while the article mentions that CECMPA has a higher probability of avoiding local optimums than other algorithms, it does not provide any evidence or data to back up this claim. Additionally, while the article mentions that CECMPA has promising prospects due to its competitive abilities, it does not explore any potential counterarguments or drawbacks associated with using this method instead of others.

In conclusion, while this article appears to be reliable overall due to its thorough coverage and lack of bias or one-sidedness in reporting, there are still some areas where further exploration could have been done in order to provide more comprehensive coverage on this topic.

# Topics for further research:

* Local optima avoidance algorithms
* Feature selection methods comparison
* SVM optimization techniques
* Marine predators algorithm applications
* CECMPA performance evaluation
* Potential drawbacks of CECMPA

# Report location:

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