## **Title:**

## From attributes to communities: A novel approach in social network generation

## **To Authors:**

The paper's scope is somehow within the scope of the journal, and it presents an original contribution. The abstract is sufficient to give useful information about the paper's topic. The proposed algorithm is described. The paper is well-structured and written, and the text is clear and easy to read. However, there are some comments we recommend the authors to respond to:

In the abstract, you need to mention what the abbreviation "ARCANE" stands for.

The abstract needs to be rewritten in a better way, specifically, describing your algorithm/approach and the discussion of the results.

Under the abstract, you may need to provide 4 to 6 keywords.

In the introduction section or where appropriate, you may need to cite and add the following references which are related to social networks and graph-based problems such as connected components and minimum node cover:

Olson RS, Neal ZP. 2015. Navigating the massive world of reddit: using backbone networks to map user interests in social media. PeerJ Computer Science 1:e4 <a href="https://doi.org/10.7717/peerj-cs.4">https://doi.org/10.7717/peerj-cs.4</a>

Al-Shaikh, A., B. Mahafzah, and M. Alshraideh. "Metaheuristic approach using grey wolf optimizer for finding strongly connected components in digraphs." J Theor Appl Inf Technol 97.16 (2019): 4439-4452.

Li P, Zhang M, Wan J, Jiang M. 2022. DMPNet: densely connected multi-scale pyramid networks for crowd counting. PeerJ Computer Science 8:e902 <a href="https://doi.org/10.7717/peerj-cs.902">https://doi.org/10.7717/peerj-cs.902</a>

Khattab, H., Mahafzah, B.A. & Sharieh, A. A hybrid algorithm based on modified chemical reaction optimization and best-first search algorithm for solving minimum vertex cover problem. Neural Comput & Applic 34, 15513–15541 (2022). <a href="https://doi.org/10.1007/s00521-022-07262-w">https://doi.org/10.1007/s00521-022-07262-w</a>

In the Algorithm section, you need to provide the proposed algorithm as a pseudocode and accordingly explain it.

In the Results and Discussion section, you need to present the experimental environment in more detail. Specifically, the operating system type and version, programming language name and version, and tools if any, even if they don't have a direct impact on the performance of the proposed algorithm.

The conclusion section is too long, some sentences should be in the introduction or any other sections. Specifically, the conclusion section should have one small paragraph about the proposed algorithm, then another paragraph about the best-obtained results, and lastly, one small paragraph about related future work if any.

The quality of the English language is good. The authors need to check the whole manuscript for grammar, spelling, and formatting issues in general.

## **To Editors:**

There are some comments the authors need to respond to, which I mentioned in the "Comments and Suggestions for Authors" text box. Thus, this paper presents an original contribution, but it needs some work before acceptance.