

**Review Form 1.7**

Journal Name:	<b>Journal of Advances in Mathematics and Computer Science</b>
Manuscript Number:	<b>Ms_JAMCS_110512</b>
Title of the Manuscript:	<b>A Fuzzy-Based Server Incremental Technique for N-Policy M/G/n Queue Network</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<ol style="list-style-type: none"> <li>1. <b>Yes.</b> The manuscript explores an interesting approach to a well-defined problem. The concept of taking a rules-based approach is not entirely novel, but the authors. The research builds on works done over the course of many years, some which have not been referred to in the paper. However, it is this reviewer's opinion that the manuscript at its current state is not fit for publication.</li> <li>2. <b>Unclear.</b> While the article's title states an incremental technique, this strategy is not explained in detail. Moreover, the article states that it is an "M/G/n queue" despite not stating the Markovian nature of the problem explicitly in the paper (this has been alluded to, but not clearly stated). I'd suggest either the manuscript expand on the technical aspects of its work or remove the "Incremental Technique" from its title.</li> <li>3. <b>No.</b> Although the abstract functions as a good description of the methodology taken, it does not state the outcome of the paper clearly. A short summary on the papers key findings and results is preferred. In addition, the abstract does not help distinguish this paper from other works in the field adequately, instead opting to explain the problem statement in more detail than necessary for an abstract.</li> <li>4. <b>No.</b> The manuscript follows an appropriate structure in principle but opts to summarize their literature review to an extreme degree. The literature review comes off as incomplete and does not mention other works which have used fuzzy networks for queue optimization. In addition, such an approach requires comparison with other works in the field for completeness. The manuscript's introduction is overly long, whereas the results and conclusions are only a paragraph each in length. Given that the audience of such a paper would already have some background knowledge on the topic, the authors, in this reviewer's opinion, should expand on their methodology, ablation study, and results.</li> <li>5. <b>Unclear.</b> The authors' logic is sound, and the idea has some merit to it. However, the authors have only performed a single simulation. The system does show good results, but the discussion of the findings leaves much to be desired. The manuscript does not provide a reasoning as to why certain decisions were taken by the authors, such as the one to use 5 linguistic variables for input and 4 for output. If these decisions were motivated by that of another paper in the field, they should be cited in the paper.</li> <li>6. <b>Yes.</b> The references are recent, but the paper could have also mentioned some other references such as: <ul style="list-style-type: none"> <li>- Wang, Tsung-Yin, Dong-Yuh Yang, and Meng-Ju Li. "Fuzzy analysis for the N-policy queues with infinite capacity." <i>International Journal of Information and Management Sciences</i> (2010): 41-56.</li> <li>- Gbadebo, Adegbuyi David, et al. "A Fuzzy-Based Servers' Management Technique for M/M/m Queue Network." (2023). – This is optional as it is a very recent paper but would serve for a good basis.</li> <li>- Jolai, F., Asadzadeh, S. M., Ghodsi, R., &amp; Bagheri-Marani, S. (2016). A multi-objective fuzzy queuing priority assignment model. <i>Applied Mathematical Modelling</i>, 40(21-22), 9500-9513.</li> </ul> </li> </ol> <p><b>In this reviewer's opinion, the manuscript should spend less time on trying to motivate the problem with examples of problems or explaining what queuing theory is to such depth, but instead to spend more time conveying to the reader how the simulation was done, why the researchers made some of the decisions they did, and what possible future work the team intends on pursuing with respect to this paper's approach.</b></p>	

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<p><b>Minor</b> REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p><b>No.</b> There are several issues with the article's quality:</p> <ul style="list-style-type: none"> <li>- Grammatical issues and spelling mistakes. The very first line "Queues are a part of <b>everyday's</b> life" has a grammatical error. There are formatting issues like the lack of Oxford commas in some cases, double spacing between words, and language issues that could have been fixed by a spellchecker.</li> <li>- Unclear figures. Figure 2 has issues in formatting, such as squiggly lines in the text of the image, text cut out due to poor formatting, and the image itself should be made larger for readability. Figure 6 does not have a y-axis label. The figures could do with more descriptive captions.</li> <li>- Equations. Not all the symbols used in equations have been clearly defined, such as the P<sub>n</sub> in the first set of equations and the D<sub>i</sub> in the FD equation. There are also formatting issues with the symbol for variance and distribution function in the 2<sup>nd</sup> page.</li> </ul>	
<p><b>Optional/General</b> comments</p>	<p>The paper in its entirety is not ready for publication. The approach taken by the authors is novel and worthy of further research, but the literature review, methodology, and results are lacking in sufficient quality. The paper can leverage what other researchers have done in this field and simulate similar scenarios to make a more compelling argument.</p>	

**PART 2:**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

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