

### Review Form 3

Journal Name:	<a href="#">Journal of Advances in Mathematics and Computer Science</a>
Manuscript Number:	Ms_JAMCS_126625
Title of the Manuscript:	Computational Aspects Of Determinant And Inverse Of Tridiagonal Toeplitz Matrix
Type of the Article	Original Research Article

#### **General guidelines for the Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

<https://r1.reviewerhub.org/general-editorial-policy/>

#### **Important Policies Regarding Peer Review**

Peer review Comments Approval Policy: <https://r1.reviewerhub.org/peer-review-comments-approval-policy/>

Benefits for Reviewers: <https://r1.reviewerhub.org/benefits-for-reviewers>

#### **PART 1: Review Comments**

<b><u>Compulsory</u></b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b>		
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>		
<b>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</b>		
<b>Are subsections and structure of the manuscript appropriate?</b>		
<b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b>		
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>		
<b>-</b>		

**Review Form 3**

<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>		
<p><b>Optional/General</b> comments</p>	<p>The researcher provides the fundamental definitions and well-known theorems required to construct the article. It includes the evolution of intellectual ideas on the topics of the article as well as the chronological facts of the literature. The essay demonstrates thorough analysis of the job done.</p> <p>In our earlier research piece, the researcher goes over some fundamental information on the determinant and cofactor of the tridiagonal Toeplitz matrix. The researcher will go over determinants, inverses, and strategies for figuring out the tridiagonal Toeplitz matrix's determinant and inverse.</p> <p>The formula for determining the determinant of a tridiagonal Toeplitz matrix will be used by the researcher both explicitly in the form of theorems and recursively. To find the inverse of a tridiagonal Toeplitz matrix in the manner of lemma followed by theorems, an exploratory example will be given for examples <math>n=6</math> and <math>n=7</math>.</p> <p>To clarify the formula for determining the determinant based on Theorem 1 and the inverse based on Theorem 3, we offer a straight forward example. After that, we build an algorithm taking that example into account.</p> <p>For a given size, it is possible to find the determinant of the tridiagonal Toeplitz matrix both explicitly and recursively. Theorem 1 and Theorem 2 present both kinds of determinants. Lemma 1 as written by Aryani and Corazon is simplified in Theorem 2.</p> <p>Theorem 3 also presents the recursive determinant used to determine the inverse of the tridiagonal Toeplitz matrix. According to predetermined guidelines, the entries of the inverse matrix are chosen from this collection of determinants.</p> <p>Lastly, we create an algorithm that uses the recursive approach in determinant computing to obtain the inverse of the tridiagonal Toeplitz matrix.</p>	

**PART 2:**

	<p><b>Reviewer's comment</b></p>	<p><b>Author's comment</b> (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>
<p><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

<p>Name:</p>	<p><b>R. Muthamizh Selvi</b></p>
<p>Department, University &amp; Country</p>	<p><b>Saradha Gangadharan Arts &amp; Science College, India</b></p>