

ReviewForm 1.7

Journal Name:	AsianJournalofResearchinComputerScience
ManuscriptNumber:	Ms_AJRCOS_112734
Titleofthe Manuscript:	Computingtheminumpolynomial,the functionandtheDrazininverseofamatrixwithMatlab
TypeoftheArticle	MinireviewArticle

PART 1:ReviewComments

	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>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes</p> <p>Yes</p> <p>Comprehensive, but modifications are required.</p> <p>Moderate</p> <p>Yes, but major revision is required. No</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>There are several gaps in the explanations and numerous language errors, as well as typographical errors throughout. Need a major Correction.</p>	

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Optional/General comments

**Review Report of the article
Computing the minimum polynomial, the function and the
Drazin inverse of a matrix with Matlab**

The work in this article is interesting and relevant. However, there are several gaps in the explanations and numerous language errors, as well as typographical errors throughout. I will not address the language errors and typographical errors, as the author can correct them using a language correction tool. There are also ambiguities and omissions in the paper. In my observation, there are some novel concepts and constructions presented. I recommend this paper for publication in your journal after a major revision. Another review will be necessary after the resubmission, given the immaturity of the way in which the concepts are expressed. Below are some queries, comments, and suggestions:

1. Please verify the definition of $\Delta(x)$ to ensure that nothing is missing.
2. Check the validity of the statement "The degree of the polynomial $v(\cdot)$ equal to $q-1$ therefore has only $q-1$ roots. Why is it not "less than or equal to $q-1$ " instead of "equal to $q-1$ "?
3. Clarify the meaning of "homogeneous system 1" and address the ambiguity in Equation (1). Please rewrite the equation accordingly.
4. Please clarify the statement: "*However, from the homogeneous system 1, we deduce that the polynomial $v(\cdot)$ has q roots, which is only true if the polynomial $v(\cdot)$ is identically zero. Therefore, the above homogeneous system has only the trivial solution, meaning that system 1 has a unique solution.*"

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	<p>5. Rewrite Definitions 1, 2, and 3 formally.</p> <p>6. Check the validity of the statement "The coefficients of the polynomial are in the vector v, i.e., the minimum polynomial is $m(x) = v(1)x^r + v(2)x^{r-1} + \dots + v(r+1)$."</p> <p>7. The author is requested to verify the findings with the book "Linear Algebra" by Kenneth Hoffman.</p> <p>8. Initially, $v(A)$ is defined as A^n, for $n \in \mathbb{N}$, but in Definition 5, $V(A)$ is redefined. Are these different concepts?</p> <p>9. Provide justification for the statement 'the Taylor series expansion of $f(A)$ is convergent,' particularly regarding the application of the Cayley-Hamilton theorem in an infinite series.</p> <p>10. Definition 5 should begin with the declaration of the matrix A to prevent ambiguity, as there may be two or more matrices with the same characteristic polynomial. Please refer to the paper 'Real Powers of Bounded Linear Operators' by Sabu Sebastian and Kiran Kumar (Int. J. Appl. Comput. Math (2017) 3: 645–650) for further insights.</p> <p>11. In the proof of Proposition 2, explain how to obtain $f(0) \leq 1$.</p> <p>12. Rewrite the statement of Theorem 3 for clarity.</p> <p>13. Include some recent references to enhance the literature review.</p>	
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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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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