

Review Form 3

Journal Name:	<a href="#">Journal of Advances in Mathematics and Computer Science</a>
Manuscript Number:	Ms_JAMCS_130180
Title of the Manuscript:	An Almost Exact Algorithm for the General Solution of Second Order Linear and Nonlinear Fredholm Integro-Differential Equations
Type of the Article	

PART 1: Comments

	Reviewer’s comment	Author’s Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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Is the language/English quality of the article suitable for scholarly communications?		
<u>Optional/General</u> comments	<p>In this paper, the author presents the Fredholm integro-differential equations are solved using Lucas polynomials. The equation is first transformed into systems of nonlinear algebraic equations using the Lucas polynomials. The unknown parameters required for approximating the solution of Fredholm integro-differential equations are then determined using Gaussian elimination. And also author tried for solving mixed Fredholm-Volterra integro differential equation. Some test problems are solved and compared with the existing methods. The theoretical procedure is explained clearly.</p> <p>The present work of author is worthy for publication. So, I recommend this article for the publication in “<a href="#">Journal of Advances in Mathematics and Computer Science</a>” with minor modifications.</p> <ul style="list-style-type: none"><li>• The whole paper must be revisited to correct the grammatical errors and typos.</li><li>• Represent the matrix form for <math>N = 4</math> and <math>N = 8</math> in the manuscript</li><li>• Represent the numerical solutions and error analysis graphically for all examples in the manuscript.</li><li>• The authors need to cite the following references in the literature review of the manuscript as it deals with the same subject:</li></ul> <p>R. A. Mundewadi, H.S. Ramane, R. B. Jummannaver, “Numerical Solution of first order delay differential equations using Hosoya polynomial method”, Indian Journal of Discrete Mathematics, 4(1), 2018.</p> <p>Ravikiran A. Mundewadi, Raju B. Jummannaver, “Hosoya polynomial method for the numerical solution of Volterra integral equations”, Journal of Umm Al-Qura University for Applied Sciences, <a href="https://doi.org/10.1007/s43994-024-00191-5">https://doi.org/10.1007/s43994-024-00191-5</a>.</p> <p>Ravikiran A. Mundewadi, Raju B. Jummannaver, “A novel approach for the numerical solution of nonlinear Fredholm integral equations using Hosoya polynomial method”,International Journal of Mathematics and Computer in Engineering (Sciendo), 3(2), 2025.</p> <p>Raju Jummannavar, Ravikiran Mundewadi, Ashwini Yalnaik, Balachandra Hadimani, Venkatesh Bhandage, “Numerical Solution of Singular Lane-Emden Type Equations using Clique Polynomial ”, Engineering Letters</p> <p>Kumbinarasaiah S, H.S. Ramane, Ravikiran Ashok Mundewadi, Raju Basavaraj Jummannaver, “Solutions of differential equations using linearly independent Hosoya polynomials of trees”, International Journal of Mathematics and Computer in Engineering (Sciendo), 1(2), 2024.</p> <p>The present manuscript is believed to be of interest to the Applied Mathematics communities. <b>Thus, I strongly recommend this manuscript for publication in the <a href="#">Journal of Advances in Mathematics and Computer Science</a>.</b></p>	

**PART 2:**

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

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**Reviewer Details:**

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