

Review Form 1.7

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_114855
Title of the Manuscript:	Deciding Satisfiability in the Twinkling of an Eye
Type of the Article	

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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>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<ol style="list-style-type: none"> Yes, the manuscript is important for the scientific community as it addresses the well-known Boolean satisfiability problem (SAT), which has attracted significant attention in computer science for decades. The paper proposes a modification to the DPLL algorithm, a commonly used method for solving SAT, with the aim of achieving faster decision-making. The title "Deciding Satisfiability in the Twinkling of an Eye" is suitable as it accurately reflects the main focus of the manuscript, which is to improve the efficiency of the SAT problem-solving process. The abstract provides a concise overview of the problem addressed (Boolean satisfiability problem), the existing algorithm (DPLL), and the main contribution of the paper (modification of DPLL for faster decision-making). However, it could provide more details on the specific modifications made to the algorithm. The subsections and structure of the manuscript seem appropriate. The paper is divided into sections that cover notation and definitions, modification of the DPLL algorithm, transformation of CNF formulas, introduction of a new algorithm, and rules of satisfiability. This structure helps to organize the content effectively. Based on the information provided, the manuscript appears to be scientifically correct. It discusses well-established concepts such as the Boolean satisfiability problem, the DPLL algorithm, and the P versus NP problem. However, it is not easy to assess the technical details and validity of the proposed modifications to the DPLL algorithm. The references cited in the manuscript appear relevant to the topic and include seminal works in the field of SAT and computational complexity theory. However, assessing the adequacy of the references is challenging due to the limited time available to refer to all the documents cited in the manuscript. Additionally, since the paper addresses modifications to the DPLL algorithm, recent works on SAT-solving algorithms could provide valuable context and comparison. <p>However, in reference [2], the name of the journal and the page number of the cited article are not provided.</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>The article is written in clear and formal language, which is appropriate for academic discourse.</p>	
<p>Optional/General comments</p>		

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PART 2:

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

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