



SDI Review Form 1.6

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_37848
Title of the Manuscript:	A New Algorithm for Determining the Equivalence of Two Finite-State Automata
Type of the Article	

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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)
Compulsory REVISION comments	Of what significance are the results (area of application) of two algorithms being equivalent to computer science or any other discipline. State specifically. <i>Example: searching for a given word in a lexicon</i> A comparison of the results of this new algorithm with other existing algorithms. Using standard parameters (e.g. time complexity) is required	
Minor REVISION comments	Abstract 1. Page 1, line 10, NFA and DFA should be written in full before the use of abbreviations subsequently 2. Page 1 line 12, should read 'Examples of the use of the algorithm~~s~~ are ...' without letter ~~s~~ on algorithm 1. Page 1, line 21. 'It is computational model that have' should read 'They are computational models that have....' since you are referring to finite automata in previous sentence. 2. Page 1, line 26, 'It is often used for lexical analysis in when'... take out 'in' 3. Page 1, line 46, 'Often time, the automata that can equivalent could...' replace 'can' with 'are' 4. Page 2, line 51. Take out 's' from algorithm in 'Examples of the use of the algorithms are...' since only 1 algorithm has been developed. Describing Finite-State Automata 5. Page 2, line 58 should read 'It is a machine that...' 6. Page 2, line 60 should read 'Informally, a finite automaton is a...' 7. Page 2, line 68 should read: 'Two types of automata exist. They are deterministic and non-deterministic.' 8. Page2, line 78 is not clear. You may rephrase the sentence. Deterministic Finite Automata 9. Page 3, line 101, should read: 'where $n > 2$ as follows: Equivalent Automata 10. Page 3, line 116 should read: 'Two automata are equivalent if they both produce...' 11. Page 3, line 113 change brace to bracket in {21} 12. Page 3, line 121: incomplete sentence. It should read: Let $L(Q)$ denote....by Q and	



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	$L(Q^1)$ denote the language accepted by Q^1. Again, 'We say Q is equivalent...' 13. Page 3, line 128: take out 'the automata' from '...are equivalent ($A_1 \equiv A_2$) if the automata they both have...' 14. Page 3, line 130: should read: 'output as automata A_2 which started from state q_2.' 15. Page 3, line 134: take out 'it devices' from: 'In order to determine it devices if two automata are ...' 16. Page 3, line 138 should read: '...input/output device whose input values consists of ...' 17. Page 4, line 139 should read: 'Therefore, a finite...' 18. Page 4, line 169 should read: Fig.1: Algorithm for Determining Two Equivalent Automata Examples of Equivalent Automata 19. Page 4, line 172 should read, 'In this section, we solve.... and show by...' 20. Page 4, line 173 should read, '...We also support our claims...' 21. Page 5, line 188 should read: '...Prove that the two automata A and A^1 in figure 2...' 22. Page 5, line 206 should read: '...and the non-accepting states as a set.' 23. Page 5, line 210 should read: ...or 1-equivalence or both.' 24. Page 6, line 235 should read: '...for automata A and A^1 are shown in figure 3 as:' 25. Page 7, line 264: the first figure should be labelled B and the next B^1 appropriately. 26. Page 7, line 266, should read: 'We first consider automaton B'. 27. Page 7, line 267 should read: 'For automaton B...' 28. Page 7, line 271 should read: 'We then group... states as a set'. 29. Page 8, line 285 should read: 'Automaton B^1...: based on automaton B, we...' 30. Page 8, line 291 should read: 'The as in automaton B, which...' 31. Page 8, line 294 should read: 'Based on the..., ...that automata B and B^1 are' Conclusion 32. Page 9, line 309 should read: 'Often times, two automata that are...' 33. Page 9, lines 318-321 remove: 'Such automaton could.....the same regular expression.' It is a repetition. References 34. Reference [10] not cited in the paper 35. Ensure the references are properly cited with publisher and place of publication	
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	where necessary e.g. reference [9]	
<u>Optional/General</u> comments		

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