View Reviews

Paper ID
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Paper Title
A cryptographic encryption scheme based on a pythagorean triplets manufacturing formula

Track Name
Cyber Security

Reviewer #1

Questions

1. Content of the paper correspond to the topic of the conference?
Yes

2. Originality / Novelty
Average

3. Significance of Content
Low

4. Quality of Presentation
Average

5. Scientific Soundness
Low

6. Does the introduction provide sufficient background and include all relevant references?
Can be improved

7. Are all the cited references relevant to the research?
Yes

8. Is the research design appropriate?
Can be improved

9. Are the methods adequately described?
Must be improved

10. Are the results clearly presented?
Must be improved

11. Are the conclusions supported by the results?
Must be improved

12. Did you detect inappropriate self-citations by authors?
No

13. Do you have any other ethical concerns about this study?

No

14. Quality of English Language

I am not qualified to assess the quality of English in this paper

15. Comments and Suggestions for Authors

Very interesting work, but you need to specify its purpose. The article should be expanded to four full pages. There is no comparison with other approaches. There is no study of the efficiency, time complexity and resistance to cryptanalysis of the proposed method. After correcting the deficiencies, the article can be accepted.

16. Overall Recommendation

-1: Weak reject (reconsider after major revision)

Reviewer #2

Questions

1. Content of the paper correspond to the topic of the conference?

Yes

2. Originality / Novelty

Average

3. Significance of Content

Low

4. Quality of Presentation

Low

5. Scientific Soundness

Low

6. Does the introduction provide sufficient background and include all relevant references?

Can be improved

7. Are all the cited references relevant to the research?

Can be improved

8. Is the research design appropriate?

Must be improved

9. Are the methods adequately described?

Must be improved

10. Are the results clearly presented?

Must be improved

11. Are the conclusions supported by the results?

Must be improved

12. Did you detect inappropriate self-citations by authors?

No

13. Do you have any other ethical concerns about this study?

No

14. Quality of English Language

Moderate English changes required

15. Comments and Suggestions for Authors

The paper proposes a novel encryption scheme based on Pythagorean triplets, which are sets of three positive integers (a, b, c) that satisfy the Pythagorean theorem.
The organization of the paper is generally good, and for the most part, the authors keep the material in relevant sections.
Below I leave my suggestions for improving the paper:
1) The private key "n" seems to be simply an integer used as a power. This creates a very limited key space, making it significantly easier to crack the code compared to modern encryption standards.
2) Encrypting each message character individually using Pythagorean triplets would be highly inefficient for large messages. The paper doesn't address how to handle this practical limitation.
3) There's no mention of analyzing the scheme's resistance against common attacks like ciphertext analysis or statistical attacks.
4) The format of the paper does not meet the IEEE requirements.
5) The self-citation level should not exceed 20% for authors.
6) According to IEEE requirements, the paper should have fully filled end page.

16. Overall Recommendation

0: Borderline paper