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| **International Journal of Scientific Research in** **Computer Science and Engineering**Vol.**13**, Issue.**2**, pp.**01-04**, April **2025** E-ISSN: 2320-7639Available online at: [www.isroset.org](http://www.isroset.org)  |  |

Research/Review/Survey/Short Communication/Technical Article

**An Enhanced Dynamic Scheme for Medical Image Encryption Using Elliptical Curve Cryptography [16 Bold Time New Roman]**

(Title must be unpublished, and must contain not less than 10 words and not more than 20 words)

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**1. Introduction (Size 12 Bold)**

Introduction (Size 10 Normal) should lead the reader to the importance of the study; tie-up published literature with the aims of the study and clearly states the rationale behind the investigation. It should state the purpose and summarize the rationale for the study and gives a concise background [1]. The literature review should logically lead to the statement of the aims of the proposed project and end with the aims and objectives of the study. The review should include the most recent publications in the field and the topic of the research is selected only after completing the literature review and finding some gaps in it. The last sentence should concisely state your purpose for carrying out the study or a summary of the results and it is concluded by explaining how the present study will benefit the community [2].

Use references to provide the most salient background rather than an exhaustive review. The last sentence should concisely state your purpose for carrying out the study or a summary of the results [2].

Use references to provide the most salient background rather than an exhaustive review. The last sentence should concisely state your purpose for carrying out the study or a summary of the results [3].

* 1. **Objective of the Study**

To clarify, *in this section*, the author should clearly highlight the objectives, purpose and specific goals of the research study in a scientific manner. It should also outline what the research aims to achieve and why it's being conducted. It should also specify how the research intends to address the problem statement. This information will help the editor and reviewer in the review process, ensure clarity in the article, and make the content more engaging for other authors. Please ensure that the sentences are not repeated.

* 1. **Organization**

In the following manner the author should provide the organization of the paper/article in the last paragraph of the introduction. Which should be organized as follows:

This article is organized into the following sections which are as follows; Section 1 contains the introduction of ………………. , Section 2 contain the related work of ……………, Section 3 contain the some measures of …………...., Section 4 contain the architecture and essential steps of ……………..., section 5 explain the ………….. methodology with flow chart, Section 6 describes results and discussion …...., Section 7 contain the recommendation of …………. and Section 8 concludes research work with future directions).

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There should be at least 2 subheadings but no more than 10 subheadings under one heading.

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Page type- A4 Page

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**2. Related Work**

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In this section should extend, not repeat the information discussed in Introduction [4]. In contrast, a Calculation Section represents a practical development from a theoretical basis [5].

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This section should provide a detailed description of the research methods used, including the design of the study, proposed algorithms, proposed flowchart, proposed models/techniques, data collection methods, and statistical analyses used. It should include enough detail to enable another researcher to replicate the study. If you are using a well-established methodology, you can refer to previous research for details. If you are using a new or modified methodology, you should provide a clear description of the process. works [6,7].

**5. Results and Discussion**

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This section should present the findings of your research in a clear and concise manner. You should use tables and graphs to present your data, and avoid duplicating information in the text. You should also describe any statistical analyses that you have carried out, including the significance levels and confidence intervals.

*Note*-Figures/Tables /Flowcharts/ Equations/ Formulas should draw the pictures himself, do not give scanned equation/ formula/ Table/Figures.

**Discussion**

This section should interpret the results in the context of the research problem and the existing literature. You should discuss the implications of the findings, the strengths and limitations of the study, and the implications for future research. You should also avoid over-generalizing the results and making claims that are not supported by the data.

**Figures and Tables**

All figures in the manuscript should be numbered sequentially using Arabic numerals (e.g., Figure 1, Figure 2), and each figure should have a descriptive title. The figure number and title should be typed with single-spaced, and centered across the bottom of the figure, in 8-point Times New Roman, as shown below. The figure captions should be editable and be written below the figures.

**Figure 1**. The caption of the figure (Size 8 Normal)

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| Column1 | Column2 | Column3 |
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| Row2 | Row2 | Row2 |
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| Row4 | Row4 | Row4 |
| Row5 | Row5 | Row5 |
| Row6 | Row6 | Row6 |
| Row7 | Row7 | Row7 |

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| --- | --- | --- |
| Column1 | Column2 | Column3 |
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| Row2 | Row2 | Row2 |
| Row3 | Row3 | Row3 |
| Row4 | Row4 | Row4 |
| Row5 | Row5 | Row5 |
| Row6 | Row6 | Row6 |
| Row7 | Row7 | Row7 |

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 (1)

 (2)

 (3)

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**Acknowledgements**-This section should describe recognition of personal assistance: people who contributed to the work, but do not fit the criteria for authors should be listed along with their contributions. You must ensure that anyone named in the acknowledgments agrees to being so named.

Acknowledgements: The authors are grateful for the reviewer’s valuable comments that improved the manuscript.

**Funding Source-**Provide funding source, supporting grants with grant number. The name of funding agencies should be written in full. for example: “This work was supported by the ISROSET Research laboratory [grant numbers xxxx, yyyy]; the National Science laboratory [grant number zzzz”. If no funding source exists, write, none.

**Authors’ Contributions-**Authors are required to include a statement of responsibility in the manuscript that specifies the contribution of every author. The level of detail varies; some disciplines produce manuscripts that comprise discrete efforts readily articulated in detail, whereas other fields operate as group efforts at all stages.

*For Example*- Author-1 researched literature and conceived the study. Author-2 involved in protocol development, gaining ethical approval, patient recruitment, and data analysis. Author-3 wrote the first draft of the manuscript. All authors reviewed and edited the manuscript and approved the final version of the manuscript.

**Conflict of Interest-**All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations that could inappropriately influence, or be perceived to influence, their work.  Otherwise, Authors declare that they do not have any conflict of interest.

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**Format for Conference Paper**

Author/s Name, “<Paper title>“, <conference Title>, <Publisher Name>, <Publisher location >, pp.<page no>, <Year>.

**Example:** S.L. Mewada, “A Proposed New Approach for Cloud Environment using Cryptic Techniques,” *In the Proceedings of the 2016 International Conference on  Physical Sciences*, ISROSET, India, pp.**542-545**, **2016.**

**Format for Patents**

Author/s, “Title of patent,” U.S. Patent x xxx xxx, Abbrev. Month, day, year.

**Example**: G. Brandli and M. Dick, “Alternating current fed power supply,” *U.S. Patent* **4084 217**, Nov.**4**, **2022**.

**Format for: Thesis of M.S./Ph.D.**

Author/s, “Title of M.S./Ph.D. dissertation,” Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

**Example:** Hee Williams, “A Proposed New Approach for Cloud Environment using Cryptic Techniques,” Ph.D. Thesis, Dept. Science, Harvard Univ., Cambridge, USA, **2022.**

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**References** Min.10 references must require (Given below references are just example)

1. S. Willium, “Computer Sciences,” *International Journal of Scientific Research in Computer Science and Engineering*, Vol.**31**, Issue.**4**, pp.**123-141**, **2012**. <http://dx.doi.org/xx.xxx/yyyyy>
2. R. Solanki, “Principle of Data Mining,” McGraw-Hill Publication, India, pp.**386-398**, **1998**.
3. M. Mohammad, “Performance Impact of Addressing Modes on Encryption Algorithms,” *In the Proceedings of the 2001 IEEE International Conference on Computer Design (ICCD 2001)*, Indore, USA, pp.**542-545**, **2001**.
4. S.K. Sharma, “Performance Analysis of Reactive and Proactive Routing Protocols for Mobile Ad-hoc N/W,” *World Academics Journal of Engineering Sciences*, Vol.**1**, No.**5**, pp.**1-4**, **2013**.
5. S.L. Mewada, “Exploration of Efficient Symmetric AES Algorithm,” *Journal of Physics and Chemistry of Materials*, Vol.**4**, Issue.**11**, pp.**111-117,** **2015**.
6. A. Mardin, T. Anwar, B. Anwer, “Image Compression: Combination of Discrete Transformation and Matrix Reduction,” *International Journal of Scientific Research Biological Sciences*, Vol.**5**, No.**1**, pp.**1-6**, **2017**.
7. H.R. Singh, “Randomly Generated Algorithms and Dynamic Connections,” *International Journal of Scientific Research in Biological Sciences*, Vol.**2**, Issue.**1**, pp.**231-238**, **2014**.
8. M.M. Mohammad, “Performance Impact of Addressing Modes on Encryption Algorithms,” *In the Proceedings of the 2001 IEEE International Conference on Computer Design (ICCD 2001)*, Indore, India, pp.**342-345**, **2002**.
9. S.L. Mewada, “Exploration of Efficient ZnO Test,” *Journal of Physics and Chemistry of Materials*, Vol.**5**, Issue.**12**, pp.**135-156,** **2022**.
10. S. Todeka, S.L. Mewada, “Applied Science of Physics,” *International Journal of Scientific Research in Physics and Applied Sciences,* Vol.**6**, Issue.**3**, pp.**321-335**, **1992**.

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