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| Journal Name: | [**Asian Journal of Research in Computer Science**](https://journalajrcos.com/index.php/AJRCOS) |
| Manuscript Number: | **Ms\_AJRCOS\_133526** |
| Title of the Manuscript: | **Biometric Authentication in Android: Enhancing Security with Ready-to-Use AI Solutions** |
| Type of the Article | **Original Research Article** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **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.** | The manuscript presents a comprehensive review of biometric authentication methods on the Android platform, focusing on AI-driven enhancements. It is valuable to researchers and developers working on mobile security, as it explores the advantages and challenges of integrating AI in biometric systems. The paper provides an insightful analysis of AI tools like ML Kit and TensorFlow Lite, which are increasingly relevant in modern authentication frameworks. Furthermore, the discussion on security risks and AI-based mitigation strategies is significant for improving the reliability of biometric authentication. | I am grateful for the reviewer’s detailed and constructive feedback. The manuscript already contains an extensive discussion on AI tools such as ML Kit and TensorFlow Lite, highlighting their role in biometric authentication. Additionally, I have addressed security risks and mitigation strategies, including adversarial training and liveness detection. As these topics are already covered comprehensively in the manuscript, I believe no additional modifications are required. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **F**or clarity, the phrase *"Ready-to-Use AI Solutions"* could be modified to *"AI-Powered Security Enhancements"* to better emphasize the security aspect.  Therefore the suggested title is: “Biometric Authentication in Android: Enhancing Security with AI-Powered Solutions” | Thank you for your insightful suggestion. I agree that emphasizing the security aspect improves clarity. Based on your recommendation, I have updated the title to:"Biometric Authentication in Android: Enhancing Security with AI-Powered Solutions"This revised title better highlights the study’s focus on security while maintaining the core subject of AI-driven biometric authentication. |
| 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. | The abstract is well-structured, effectively summarizing the study. However, add a sentence about future research directions on optimizing AI models for mobile efficiency to strengthen the conclusion. | Thank you for your suggestion. The conclusion of the abstract already included a statement about future research directions, specifically focusing on optimizing AI models for mobile efficiency. Since this aspect was already addressed, no modifications were necessary. |
| Is the manuscript scientifically, correct? Please write here. | The manuscript is scientifically sound, providing a well-researched analysis of biometric authentication methods and AI applications. The methodology and evaluation metrics are clearly explained, and the findings are well-supported by references. However, the discussion on AI-based liveness detection techniques could be expanded, as this is a crucial aspect of biometric security. | Thank you for your valuable feedback and for recognizing the scientific contribution of our manuscript. I appreciate your suggestion to expand the discussion on AI-based liveness detection techniques, as this is indeed a critical aspect of biometric security. In response, I have added a dedicated subsection (4.2.6) titled *AI-based liveness detection techniques*. This section provides an in-depth analysis of various approaches, including active and passive liveness detection, 3D depth sensing, AI-enhanced presentation attack detection, and challenge-response mechanisms. By integrating these techniques, biometric systems can effectively mitigate the risk of spoofing attacks and deepfake-based impersonation. I believe this addition strengthens the manuscript and provides a more comprehensive perspective on AI-driven biometric authentication. |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Consider adding recent studies (2022-2025) on deepfake-resistant biometric authentication techniques. | Thank you for your valuable feedback and for recognizing the contributions of our manuscript. I acknowledge the importance of incorporating recent advancements in deepfake resistance and adversarial attacks on AI-based biometric systems. In response to your suggestion, I have updated the manuscript by including recent studies published between 2022 and 2025 that focus on deepfake-resistant biometric authentication techniques. These additions provide insights into emerging defense mechanisms, including AI-driven liveness detection, adversarial training strategies, and novel anti-spoofing approaches. The revised manuscript now reflects the latest developments in the field, enhancing the discussion on biometric security against sophisticated attacks. I appreciate your guidance in strengthening our work. |
| Is the language/English quality of the article suitable for scholarly communications? | The language is clear and professional, with minor grammatical errors. Some sentences are lengthy and could be restructured for better readability. Proofreading for minor language corrections is recommended. | Thank you for your feedback. |
| Optional/General comments | Including a comparison table summarizing AI-based biometric enhancements vs. traditional methods would improve clarity for readers.  The manuscript discusses AI's impact on biometric authentication but could further elaborate on ethical concerns, particularly related to privacy and data security. | Thank you for your valuable feedback and insightful suggestions. While I appreciate the idea of adding a table comparing standard biometric authentication with AI-enhanced methods, I believe that the discussion in the manuscript already highlights the key differences and advantages in sufficient detail. Including numerical values could potentially oversimplify some of the complex nuances involved. However, I will consider clarifying these aspects further to ensure readers can easily grasp the distinctions.  Additionally, I appreciate your suggestion to expand on ethical concerns, particularly privacy and data security. I will work to incorporate a more in-depth discussion on these critical issues to enhance the manuscript's completeness. |

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| **PART 2:** | | |
|  | **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)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |