



based on them give me research paper that are connected to my work for literature review and reference in tabular form

Based on your research work in **post-quantum zero-knowledge proofs, privacy-preserving biometric verification, homomorphic encryption, and ZKP-based e-voting systems**, I've compiled a comprehensive table of research papers that directly connect to your work areas. These papers will serve as valuable references for your literature review.

Research Papers for Literature Review

| Paper Title   | Authors                          | Year | Publication/Venue    | Key Research Areas                                     | Relevance to Your Work  |
|---|----------------------------------|------|----------------------|--|---|
| A Novel Biometric Identification Scheme Based on Zero-Knowledge Succinct Noninteractive Argument of Knowledge | Guo Chunjie, You Lin, Hu Gengran | 2022 | Wiley Online Library | ZK-SNARKs, Biometric Privacy, Fingerprint Templates    | Direct relevance to your ZKP biometric verification work <sup>[1]</sup> |
| Privacy-Preserving Biometric Matching Using Homomorphic Encryption  | Gaëtan Pradel, Chris Mitchell    | 2021 | arXiv:2111.12372     | Fully Homomorphic Encryption, Biometric Authentication | Highly relevant to your homomorphic encryption research <sup>[2]</sup>  |
| A Survey on the Applications of Zero-Knowledge Proofs   | Ryan Lavin et al.                | 2024 | arXiv (USC)          | ZK-SNARKs, Authentication, Voting, Blockchain          | Comprehensive overview for your ZKP applications <sup>[3]</sup>         |

| Paper Title   | Authors                       | Year | Publication/Venue               | Key Research Areas                                   | Relevance to Your Work  |
|---|-------------------------------|------|---------------------------------|--|---|
| Two-factor authentication for intellectual property protection using improved zero-knowledge proof and fingerprint biometrics | S Mo et al.                   | 2025 | Nature Scientific Reports       | Zero-Knowledge Proofs, Fingerprint Authentication    | Relevant to your biometric ZKP implementation <sup>[4]</sup>        |
| Implementation and Optimization of Zero-Knowledge Proof Circuit Based on Hash Function  | Y Yang et al.                 | 2022 | PMC (IEEE Access)               | ZKP Circuit Design, SM3 Hash, Mobile Implementation  | Applicable to your mobile zkApp development <sup>[5]</sup>          |
| Privacy-Preserving E-Voting on Decentralized Networks   | Authors (SmartphoneDemocracy) | 2025 | arXiv:2507.09453                | E-Voting, ZKP, Mobile Democracy, BBS Signatures      | Directly relevant to your ZKP e-voting research <sup>[6]</sup>      |
| Efficient face information encryption and verification using hybrid encryption  | Y Chen et al.                 | 2025 | Nature Scientific Reports       | Hybrid FHE, Face Recognition, SM2-SM4 Encryption     | Relevant to your multimodal biometric systems <sup>[7]</sup>        |
| A review of privacy-preserving biometric identification and authentication  | L Zeng et al.                 | 2025 | Computers & Security            | Privacy-Preserving Biometrics, Classification Models | Comprehensive review for your biometric privacy work <sup>[8]</sup> |
| Leveraging zero knowledge proofs for blockchain-based identity management   | L Zhou et al.                 | 2024 | Journal of Information Security | Blockchain Identity, ZKP Applications                | Relevant to your blockchain integration research <sup>[9]</sup>     |

| Paper Title   | Authors                    | Year | Publication/Venue    | Key Research Areas                                  | Relevance to Your Work   |
|---|----------------------------|------|----------------------|---|--|
| Privacy preserving security using multi-key homomorphic encryption for facial recognition | Authors                    | 2024 | Wiley Expert Systems | Multi-key HE, Facial Recognition                    | Applicable to your facial recognition anti-spoofing work <sup>[10]</sup> |
| A review of homomorphic encryption for privacy-preserving biometrics                      | W Yang et al.              | 2023 | Monash University    | Homomorphic Encryption, Biometric Privacy           | Fundamental reference for your HE research <sup>[11]</sup>               |
| Post-quantum healthcare: A roadmap for cybersecurity                                      | M SaberiKamarposhti et al. | 2024 | Heliyon (Elsevier)   | Post-Quantum Cryptography, Healthcare Security      | Relevant to your post-quantum considerations <sup>[12]</sup>             |
| Biometric Bound Credentials for Age Verification  | Authors                    | 2025 | arXiv:2509.07465     | Zero-Knowledge Biometrics, Credential Systems       | Applicable to your biometric credential work <sup>[13]</sup>             |
| A Technology Review of Zero Knowledge Proof Techniques                                    | SMR Motlagh et al.         | 2025 | SCITEPRESS           | ZKP Protocols, Resource-Constrained Environments    | Useful for your mobile implementation challenges <sup>[14]</sup>         |
| A Systematic Review on ZKP Algorithms for Blockchain                                      | Authors                    | 2025 | IJCA Online          | ZKP Algorithms, Authentication, Identity Management | Comprehensive review for your blockchain research <sup>[15]</sup>        |

Key Research Themes Aligned with Your Work

Core Areas Covered:

- **Post-Quantum Cryptography:** Papers addressing quantum-resistant approaches for biometric systems<sup>[12] [4]</sup>
- **Zero-Knowledge Proofs:** Implementation on mobile devices and circuit optimization<sup>[1] [3] [5]</sup>
- **Homomorphic Encryption:** Privacy-preserving biometric matching and verification<sup>[2] [7] [11]</sup>
- **E-Voting Systems:** ZKP-based voting with biometric authentication<sup>[6] [15]</sup>
- **Multimodal Biometrics:** Face and fingerprint verification with privacy preservation<sup>[4] [7] [8]</sup>

These papers provide a solid foundation for your literature review, covering both theoretical foundations and practical implementations in your research areas. The recent publication dates

(2022-2025) ensure you have access to the latest developments in post-quantum biometric verification and zero-knowledge proof applications.

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1. education.degree\_and\_institution
2. interests.cryptography.homomorphic\_encryption\_and\_zkp
3. interests.cryptography.zero\_knowledge\_proofs\_on\_mobile
4. interests.cryptography.zkp\_and\_verification
5. interests.cryptography.zkp\_e\_voting
6. interests.research.biometrics\_multimodal
7. <https://onlinelibrary.wiley.com/doi/10.1155/2022/2791058>
8. <https://arxiv.org/abs/2111.12372>
9. <https://arxiv.org/html/2408.00243v1>
10. <https://www.nature.com/articles/s41598-025-89597-7>
11. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9414062/>
12. <https://arxiv.org/pdf/2507.09453.pdf>
13. <https://www.nature.com/articles/s41598-025-95383-2>
14. <https://www.sciencedirect.com/science/article/abs/pii/S0167404824006151>
15. <https://www.sciencedirect.com/science/article/pii/S2214212623002624>
16. <https://onlinelibrary.wiley.com/doi/10.1111/exsy.13645>
17. <https://research.monash.edu/en/publications/a-review-of-homomorphic-encryption-for-privacy-preserving-biometr>
18. <https://www.sciencedirect.com/science/article/pii/S2405844024074371>
19. <https://arxiv.org/html/2509.07465v1>
20. <https://www.scitepress.org/Papers/2025/132696/132696.pdf>
21. <https://ijcaonline.org/archives/volume186/number71/a-systematic-review-on-zkp-algorithms-for-blockchain-methods-use-cases-and-challenges/>
22. <http://www.crdeepjournal.org/wp-content/uploads/2025/01/Vol-12-1-4-GJCR.pdf>