EchoPulse – Zenodo Cover Letter

To whom it may concern,

This cover letter accompanies the official public release of the EchoPulse cryptographic framework, a novel symbolic Key Encapsulation Mechanism (KEM) designed for post-quantum security in resource-constrained environments.

Project Summary

EchoPulse introduces a new class of KEMs built upon symbolic path traversal, mutation-capable state transitions, and deterministic hash-based key derivation. The system is implemented in Rust, rigorously tested, and optimized for devices with under 10 KB RAM, including microcontrollers and secure embedded platforms.

Included Materials

- Full Rust implementation with keygen, encaps, decaps, mutation logic
- Regression-tested golden vector suite
- Benchmark and RAM profile documentation
- Symbolic architecture and README file
- MIT License declaration

Purpose and Contribution

EchoPulse is intended as a research-grade cryptographic artifact to support the broader exploration of symbolic KEMs, alternative post-quantum architectures, and lightweight security primitives. It has been designed for reproducibility, modularity, and potential real-world application in the areas of AI-resistant encryption, secure IoT, and embedded defense systems.

License and Contact

The uploaded content is licensed under the MIT License.
For further inquiries, collaboration interests, or integration discussions, please contact:

Tom Wartenberg
Email: tomirn@mailbox.org

We thank the Zenodo team and the broader cryptographic research community for providing the infrastructure to share, cite, and evolve secure systems globally.

Sincerely,
Tom Wartenberg