JESSE: Joint Energy Supply & Self-Healing Engine

Author: Darrell Stovall Jr
UAP Data House LLC

Abstract

The Joint Energy Supply & Self-Healing Engine (JESSE) represents a patent-pending technology designed to create intelligent, self-healing power systems. JESSE enables dynamic reallocation of electrical energy during failures to preserve system uptime. This academic journal provides a high-level overview of JESSE's logic, functions, and significance—without disclosing reverse-engineering data, circuit geometries, or proprietary computation methods.

Plain-English Summary

At its core, JESSE is a self-healing power router. When one energy path fails, JESSE immediately reroutes electricity through alternate paths while maintaining live telemetry of the event. It behaves like a digital immune system for hardware power networks—detecting, isolating, and repairing faults in real time.

1. Introduction

Traditional power routing systems depend on fixed lines that collapse when a single failure occurs. JESSE overcomes this limitation through an adaptive network logic layer that reads telemetry feedback and responds automatically to disruptions. The purpose of this journal is to formally introduce JESSE's conceptual framework for academic and industry review under non-disclosure of its physical blueprints.

2. Conceptual Architecture

The JESSE system operates across three primary conceptual layers:

- **Telemetry Layer:** Collects live current, voltage, and temperature data to detect abnormal behavior.
- **Decision Layer:** Uses adaptive routing logic to decide where power should flow next.
- **Execution Layer:** Redirects power paths using redundant energy lines and fault isolation mechanisms.

This tri-layer model ensures fault tolerance while maintaining scalability across micro and macro power systems. All mathematical constructs and physical interface configurations are intentionally withheld in this publication.

3. Demonstrated Validation

Laboratory demonstrations validated JESSE's self-healing logic using redundant circuit testbeds and telemetry monitoring. When an induced path failure occurred, JESSE rebalanced the power flow within milliseconds. The demonstration results confirmed operational feasibility across simulated industrial and aerospace environments, while ensuring no confidential data or reproducible schematics are disclosed in this report.

4. Applications

The JESSE framework extends across sectors that rely on energy reliability and autonomous recovery. Potential applications include:

- Defense and aerospace systems requiring uninterrupted power.
- Renewable energy installations subject to environmental stress.
- Electric vehicles needing self-healing onboard distribution networks.
- Mission-critical infrastructure and remote robotics.

Each use case benefits from JESSE's ability to detect instability, isolate faults, and self-correct in real time.

5. Research and Development Outlook

Future research aims to extend JESSE’s adaptability through AI-assisted telemetry interpretation. This will allow deeper learning of energy failure patterns and faster autonomous recovery cycles. All development remains proprietary and patent-protected. No computational models or software algorithms are disclosed in this or any related publication.

6. Intellectual Property Statement

This document outlines JESSE’s theoretical and conceptual structure only. No schematics, formulas, constants, or circuit geometries are included. JESSE’s algorithms and hardware logic remain trade-secret assets under UAP Data House LLC. Unauthorized use, reproduction, or technical replication is strictly prohibited under U.S. Patent Law.

7. Conclusion

JESSE marks a pivotal advancement in intelligent energy distribution. It bridges the gap between hardware reliability and adaptive autonomy, providing a path toward next-generation self-healing systems for global power and defense applications. The approach integrates innovation with protection, ensuring transparency for scientific acknowledgment while safeguarding proprietary data for patent integrity.

Patent Notice

End of JESSE Journal