Patent 4 — Structured Vacuum Energy (SVE) Base

Method & System for Generating or Manipulating Structured Vacuum Energy Fields

One-liner

A software-defined **vacuum modulation engine** that structures vacuum energy fields to improve energy/coherence behavior and information propagation—without exposing enabling internals.

Elevator summary (kiosk-ready)

The invention defines a **deterministic framework** for modulating vacuum energy. Practically, the engine: (1) identifies a target field/boundary; (2) derives a scalar field and related quantities; (3) computes a **modulation field**; and (4) applies it via a modulation device to produce a **structured vacuum energy output**. This replaces purely stochastic views with **programmable structure**, enabling cross-domain control of energy density, entropy, coherence, and symbolic/information dynamics—all in a hardware-agnostic, software-driven manner.

What it enables (benefits—outcomes only)

- **Programmable control** of energy density/entropy/coherence for improved system behavior and signal integrity.
- Coherent state generation and information propagation in non-classical channels; optional topological modulation.
- **Performance gains** at the compute layer (faster execution, lower power, more stability) relative to traditional control loops.

Where it runs / compatibility (non-enabling)

- Hardware-agnostic; adaptable across computing architectures.
- Deployable **at multiple layers**: execution layer, embedded/FPGA/ASIC, on-chip control, standalone controller, and cloud/off-board services.

Who it's for

Teams needing deterministic control of coherence/entropy/energy behavior across **quantum, classical, and symbolic/Al** compute workflows (R&D, HPC/infra, national labs, platform providers).

Differentiators (safe)

- **Deterministic, programmable** vacuum modulation (not stochastic)—works across symbolic/physical domains.
- Al-assisted adaptation and closed-loop feedback for real-time stability.
- **Drop-in integration** with existing stacks; runtime parameter tuning vs. hardware redesign.

Proof points you can safely state at the booth

- Claims cover the method sequence (identify field → derive scalar field → compute modulation field → apply → structured output).
- Output is evaluated via energy/coherence metrics with real-time feedback for tuning.

Approved FAQs (IP-safe answers)

Q: What does SVE actually do?

A: It **structures** a vacuum energy field so your system maintains better energy/coherence characteristics—benefiting stability, signal quality, and information handling.

Q: Is this hardware specific?

A: No. It's hardware-agnostic and deployable at several layers—from embedded to cloud.

Q: How is this different from traditional control loops?

A: Instead of reacting to noise after the fact, SVE **deterministically shapes** the field and tunes runtime parameters for **faster, more stable, lower-power** operation.

Q: Where does Al fit?

A: An AI module **optimizes** parameters and refines the modulation based on live feedback to preserve desired states.

Q: What metrics do you expose?

A: High-level **energy/coherence metrics** and feedback-loop diagnostics; full datasets are reserved for NDA briefings.

Q: Can it support topological or symbolic use cases?

A: Yes—examples include **topological modulation** and **symbolic/coherent state** workflows for data processing.