

CLAIMS

Independent 1 Event-driven SOP + Triggered Forms + Deviation/CAPA (system)

1. **A computer-implemented platform** comprising: an event bus; a policy engine configured to evaluate event-condition-action (ECA) rules; an SOP engine; a form service; a user interface that overlays just-in-time procedures and bound forms; a deviation/CAPA service that auto-opens records on policy hits; and an audit ledger service that writes cryptographic digests of {event, SOP version, form submission, CAPA state}, wherein completion acknowledgments close the loop and are immutably recorded.
2. The platform of claim 1 wherein the event bus provides at-least-once delivery with idempotent consumers and the policy engine executes declarative rules.
3. The platform of claim 1 wherein the SOP engine resolves and renders a specific SOP revision and locks task progression until user acknowledgment is received.
4. The platform of claim 1 wherein the form service renders HTML/JSON-schema forms with client-side validation and binds submitted fields to named database columns.
5. The platform of claim 1 wherein the deviation/CAPA service drafts corrective and preventive tasks with owners and deadlines based on rule context.
6. The platform of claim 1 wherein the audit ledger anchors hashes to a permissioned blockchain and stores a link to the underlying records.
7. The platform of claim 1 further comprising a secure document vault that stores source SOPs and issues time-boxed presigned URLs under role-based access control.
8. The platform of claim 1 wherein an ERP bridge emits an inventory-mismatch event that triggers the policy engine to open a deviation with a pre-filled form.
9. The platform of claim 1 wherein SOP updates automatically generate retraining tasks and mark the new SOP revision as unacknowledged for affected roles.
10. The platform of claim 1 wherein scheduled actions are only enabled for personnel whose credentials cover the referenced SOPs.

Independent 2 — FaceID trainer/trainee credentialing that unlocks access (method)

11. **A method** comprising: authenticating a trainer or trainee via facial recognition; issuing a signed token containing current credential claims; delivering a training session bound to a specific SOP revision; upon successful completion, emitting a training-completed event enumerating SOP identifiers; and immediately unlocking user-interface controls and ECA actions tagged with those identifiers.
12. The method of claim 11 wherein liveness-verified embeddings are used and the token expires within a short fixed interval.
13. The method of claim 11 further comprising automatically re-locking controls for SOPs that lapse on credential audit.
14. The method of claim 11 further comprising a nightly credential-coverage audit against upcoming schedules and sending gap reminders when coverage is insufficient.

Independent 3 — Emotion-Aware SuperSoft™ Module (EASM) integrated with CAPA

15. **An emotion-aware module** integrated with the platform of claim 1, the module ingesting affect signals from donors and staff, computing a psychosocial-risk score, and, when a threshold is met, (i) triggering specified interventions, (ii) opening a deviation with a “psychosocial root-cause” CAPA template, and (iii) posting a hash of {signal features, intervention, CAPA state} to the audit ledger.
16. The module of claim 15 wherein low satisfaction or negative-trend signals after a donation trigger a call-back workflow and micro-training assignment.
17. The module of claim 15 wherein elevated staff burnout risk triggers PTO or micro-break recommendations and re-solves the shift using credential coverage.
18. The module of claim 15 wherein a one-tap recorder encrypts a short incident clip, restricts access to HR/compliance via the document vault, and logs viewer access to the audit ledger.
19. The module of claim 15 wherein positive/negative morale pulses issue token credits or shout-outs via the communications subsystem while repeated negatives open preventive CAPAs.
20. The module of claim 15 further comprising a facility-level mood dashboard that triggers automated environmental or queuing adjustments on anomaly detection.

).