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Boost your Business WITH OUR HOT TECHNOLOGIES

AVAILABLE FOR LICENSING

DATA SCIENCE

Automated Reasoning within and Searching of Documents

This search and discovery technology is an innovative approach to machine-driven processing and automation of document structural and referential indexing. By mapping documents into a reconfigurable Data and Knowledge Model (DKM), this technology identifies relevant features (titles, sections, section titles, authors, references, etc.) enabling improved user searching and enhanced automated document reconstruction based on the Rules Knowledge Base (RKB)'s logical content reasoning. A user interface is provided to discover concepts, documents, keywords, entities, and relationships, while also allowing users to view full documents textually, graphically, or by selecting specific document sections or tags.

POTENTIAL APPLICATIONS:

- Legal research and analysis
- E-Discovery
- Privacy audits
- Compliance programs

US Patent # 10,042,928

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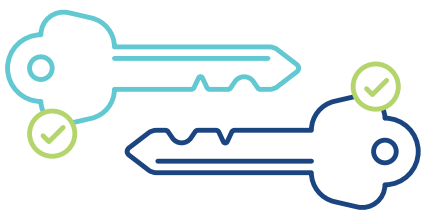
CYBER

Validating a Private-Public Key Pair

This technology is a cryptographic method providing a new level of security for key-pair validation, securing both traditional and quantum-resistant protocols for key establishment. Public key validation is a well-known security practice for modern key establishment protocols. While necessary in many proposed post-quantum systems, post-quantum cryptographic algorithms generally do not support direct public key validation. Migrations of modern Internet peer-to-peer communication protocols, such as Internet Key Exchange (IKE) and Transport Layer Security (TLS) to quantum-resistant technology will require a new key validation technique to be secure.

POTENTIAL APPLICATIONS:

- Secure communications (messaging, web browsing, Voice over IP (VoIP)
- Online commerce/shopping website



US Patent # 9,635,003

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CYBER MOBILITY

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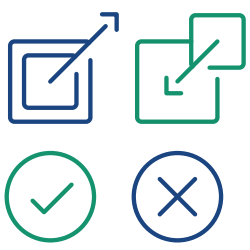
Tracking Activity of Removable Electronic Components

This technology detects the removal and reinsertion or enable and disable of a Subscriber Identity Module (SIM) card, memory card, flash drive, hard drive, computer peripheral, or any component attached to an electronic device. Using time recording capabilities, the system can correlate these actions with other device-associated events, activating unauthorized activity alerts. It takes detection to a new level by not just detecting an unauthorized device but detecting adversarial changes, activation, and interactions with legitimate devices.

POTENTIAL APPLICATIONS:

- Antitheft, anti-hacking, and antivirus monitoring
- Mobile Device Management (MDM) security
- Diagnostic equipment attach/detach alerts
- Cell phone usage tracking (e.g. parental controls or alerts)
- Home or office security systems



US Patent # 8,478,340

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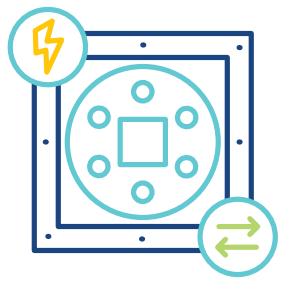
CYBER

Reversible Computation Gate in Superconducting Circuits

This technology replaces standard logic components for more energy-efficient digital logic. To execute digital logic operations, devices use gates—typically irreversible gates whose functions cannot be inverted. By using reversible gates, the logic operations of these gates can be inverted, allowing for more efficient physical processes. The method's novel gate design uses flux solitons to compute the gate results, providing a dramatic improvement in energy efficiency.

POTENTIAL APPLICATIONS:

- State-of-the-art energy efficient logic to replace high-performance computing processors
- Low temperature computer operations that require less heat generation
- Superconducting circuitry for microwave or millimeter technologies
- Computer chip manufacturing



US Patent # 9,812,836

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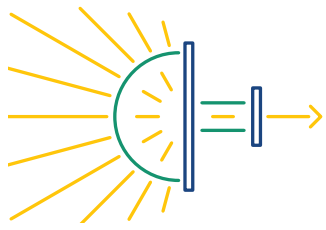
CYBER MOBILITY

Wide Field of View Concentrator

This technology, when coupled with a Fresnel lens, concentrates light from a large focal point onto a small spot (0.55mm in diameter) on a detector. A dual lens system allows light focusing despite steering imperfections, poor system placement, or system jostling during use. With long distance free-space optics (FSO), light disperses over a distance due to various factors, resulting in high data error rates detrimental to data transmission accuracy. This design significantly mitigates off-angle collection or steering signal loss and improves the signal focus on the detector.

POTENTIAL APPLICATIONS:

- Low power laser or LED-based communications
- Extends light-based communications systems range
- Increases field and distance for light fidelity (Li-Fi) applications
- Solar photovoltaic (PV) or heat concentration applications



US Patent # 9,383,080

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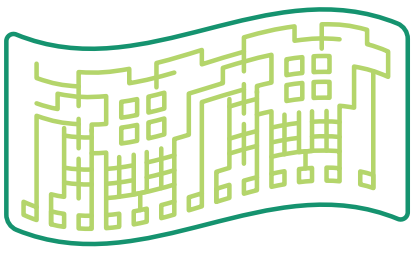
IOT

Method of Fabricating a Flexible Organic Integrated Circuit

This invention is a method of fabricating flexible organic integrated circuits (ICs) such as flexible substrates used for large area displays, identification tags, electronic paper, etc. This technology enables assembly of ICs requiring high temperature processes, which in turn enables higher system performance at lower power consumption rates.

POTENTIAL APPLICATIONS:

- Wearable and conformal electronics
- Flexible ICs with irregular shapes
- Large-area displays
- Identification tags



US Patent # 7,452,746

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