Focus Areas with Sub-topics

Information Sharing and Security

- Complex data Production, Exploitation and Dissemination
- Securing network vulnerabilities
- Trusted AI for threat analysis, prediction and detection (e.g., countering mis/dis-information)
- Data centric security enablers (e.g., advanced encryptions)
- Secure, resilient communications
- Distributed/decentralized information sharing
- Realtime information sharing in multi-domain operations

Data – AI - Quantum

Energy Resilience

- Resilient, off grid power generation and storage
- Energy efficiency in digital transformation
- Alternate propulsion systems using multi-fuel powertrains
- Advanced safe batteries
- Alternate aviation fuels
- Energy distribution optimisation

Energy – AI – Materials

Sensing and Surveillance

- Multi domain sensors optimisation and fusion
- Autonomous systems (including uncrewed vehicles/robots)
- Counter-UAS
- Oceanographic survey / seabed monitoring
- UXO and EOD detection and disposal
- Machine Learning of disparate multi-modal data
- Novel sensing modalities (e.g., compressive, resource-aware)
- Novel materials for sensing

Data – AI - Autonomy

Human Enhancement and Augmentation

- Multidomain AI assisted decision making support
- Health monitoring and medical response optimisation
- Telemedicine
- CBRN detection and defence
- Mass casualty event management
- Novel human interface systems
- Cross reality systems for simulations and training
- Mindset assessment tools
- Human predictive performance and recovery
- Human Machine Teaming

Data – AI – Biotech

Data – AI - Autonomy

Illustrative convergence of EDTS

Focus Areas with Sub-topics

Space

- Alternate Positioning, Navigation and Timing (PNT)
- Denying others ability to disrupt GNSS
- High altitude surveillance or monitoring
- Detection and avoidance of space hazards and threats (e.g., debris)
- Miniaturization of space sensor systems and platforms

Space – Quantum

Space - Materials

Logistics and Supply Chain Security

- Predictive maintenance
- Smart distribution of materials
- Self driving vehicles
- Hazardous materiel handling
- Complex infrastructure inspection and maintenance
- Advanced decentralized data-driven logistics (e.g., DLT, blockchain)
- Internet of Things (IoT) for monitoring and tracking

Data – AI – Autonomy

AI - Materials

Resilience and Critical National Infrastructure (CNI)

- Technology and infrastructure hardening
- Rapid infrastructure assessment and repair
- Climate change effects monitoring and natural disaster prediction
- Protection of underwater CNI
- Early warning systems and communications
- Countering disinformation
- Real time transportation infrastructure monitoring

Data - AI

AI - Materials

Illustrative convergence of EDTS