

Human Capital Development

- Army SE Career Development Model
- Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE)
 - Capstone Research to Grow SE Workforce Capacity
 - Developing SE Technical Leadership
 - The Helix Project (Workforce Evolution)
 - Mission Engineering Competencies
 - Resilient Cyber-Physical Systems(*)
- SE and the Cloud: Impacts and Opportunities
- SE Assessment & Workforce Development Plan
 - SE Experience Accelerator
 - SE Expert Knowledge (SEEK)
 - SERC Doctoral Fellows Program
 - Strategic Planning S&T Portfolio
- SE Research Needs and Workforce Development Assessment(*)

Trusted Systems

- Security Engineering – Design Patterns and Operational Concepts
- Cybersecurity for System of Systems Architectures
- Systems Security Engineering Roadmap
 - Systemic Assurance
- Security Engineering - Decision Support Tool Trials(*)

Systems Engineering and Management Transformation

- Agile Systems Engineering Enablers and Quantification
 - Agile-Lean Software Engineering Evaluating Kanban
 - Communications Effects Server Model
 - Complexity-Based Quantitative Technical Risk
 - Contingency Basing
- Defining the Meaning of a Major Modeling and Simulation Change as Applied to Accreditation
- Development and Application of Framework for Assessing Cost and Technology (FACT) Portfolio
 - Early Warning Quantitative Technical Risk
- Electronic Product Data Management (ePDM) to Improve Design Producibility, Reliability, Availability, Maintainability, and Sustainability
- Engineered Resilient Systems Knowledge Capture and Transfer
 - Engineered Resilient Systems Tradespace Tools
 - Enterprise Architecture Tradespace Analysis
 - Evaluation of SE MPTs on DoD and IC Programs
 - Expedited System Engineering
- Flexible Vehicle System Engineering and Integration
 - Graphical Concept of Operations
- Formal Methods in Resilient Systems Design using a Flexible Contract Approach
 - Verification and Validation of System Behavior Specifications(*)
- Next Generation Adaptive Cyber-Physical Human Systems(*)
- Electronic Component Survivability in Harsh Environments(*)
- Interactive Model-Centric SE (IMCSE)
- Life Cycle SE Needs for Evolutionary Acquisition
 - Management Capability
- Modular, Re-configurable Architecture for Tailored, Rapid SE Artifact Generation and Dissemination
- Next-Generation Cost Estimation and Metrics for Software-Intensive Systems
 - SE M&S Integration Framework
 - SE Transformation Roadmap
 - Software Reliability Modeling
- System Readiness Level, System Maturity and Architecture Assessment
 - Systems 2020
 - Tradespace and Affordability
- Transforming Systems Engineering Through Model Based Systems Engineering (MBSE)
 - Valuing Flexibility for Complex Engineering Systems
- Verification, Validation, and Accreditation Shortfalls for Models and Simulations
- Virtual Collaborative Environment for Conducting Project Design and Tests
- Transforming Systems Engineering through Model-Centric Engineering
 - Missile Defense Agency (MDA) Research and Course Development(*)
 - PEO-MS, SE Methods(*)
- Reliability of Silver Wire Bonds in Harsh Environments(*)

Enterprise and Systems of Systems

- Assessing System of Systems Architecture and Acquisition Evolution
- Evolutionary Requirements for Net-Centric Enterprises
- Enterprise Systems Value-Based R&D Portfolio Analytics: Methods Processes and Tools
 - ESoS Model for Digital Thread Enabled Acquisition
- Flexible Intelligent Learning Architectures for Systems of Systems (FILA-SoS)
 - Multi-Level Socio-Technical Modeling
- Investigating Approaches to Achieve Modularity Benefits in the Acquisition Workforce (MOSA)
 - Army Lethality Study
- Approaches to Achieve Benefits of Modularity in Defense Acquisition(*)

(*) new project in 2017

**Incubator Project Task occurred in 2017, awarding 7 incubator proposals