

EDMOND SCIENTIFIC

A technical drawing compass is positioned diagonally across the frame, resting on a blueprint. The background is a gradient of blue and purple light, creating a futuristic or high-tech atmosphere. The compass is a precision instrument used in engineering and architecture for drawing circles and arcs.

Science
Engineering
Information
Innovation

We Engineer Solutions.



Science

Conducting and Managing Research

Edmond Scientific performs studies and analyses, technology assessments, and basic and applied research across 15 scientific domains. We provide Science and Technology (S&T) services and research portfolio management across the entire range of Research, Development, Test & Evaluation (RDT&E) activities.

Research areas include:

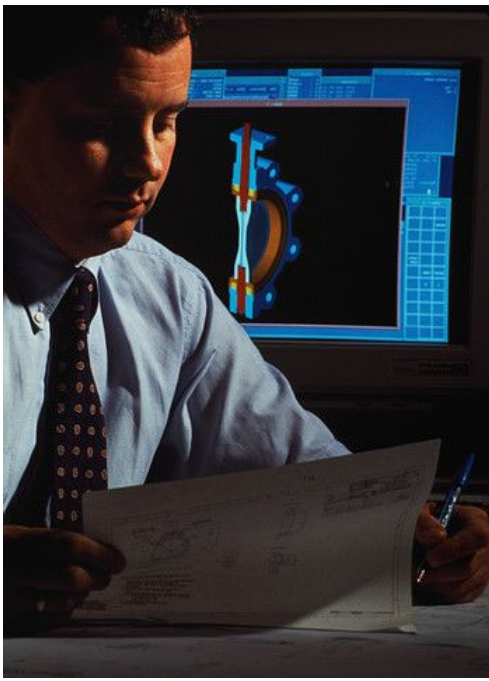
- Artificial Intelligence/Machine Learning/Computer Vision
- Converged RF/EW/Cyber
- VR/AR/XR applied to healthcare and RDT&E data visualization
- Cross-Domain (CDS)/Multi-Layer Security (MLS) architectures
- Coated/tunable nanomaterials
- Graphenes/Mxenes
- CBRND medical countermeasures and treatment protocols
- Environmental toxicity detection and monitoring

Flexible Staffing for your Research Needs

Edmond Scientific is able to support research efforts with variable or uncertain multi-year funding profiles by managing access to technical research staff. We provide highly specialized Subject Matter Expert (SME) services, independent consultant, and access to extramural researchers to support short-duration, highly focused research efforts, and we maintain active relationships with over two dozen universities and research institutions to bring to bear the best expertise in the shortest period of time.

Science & Technology Domains

- Chemical Sciences
- Life Sciences
- Material Sciences
- Physics
- Medical & Health Sciences
- Electronics
- Computer Sciences
- Data Sciences
- Environmental Sciences
- Engineering Sciences
- Mathematics
- Network Sciences
- Modeling & Simulation
- Social Sciences
- Operations Research



Engineering

Systems Engineering (SE)

Edmond Scientific employs SE processes to control workflow and to produce a quality end product that directly relates to customer requirements. For all but the most trivial programs, SE is a critical process that reduces program risk and improves customer satisfaction. Our SE approach is a top-down, iterative process of requirements analysis, functional analysis and allocation, design synthesis and verification, and system analysis and control that is integrated through tooling with such program activities as program management, risk management, configuration management and quality assurance throughout the entire project life cycle.

Practice Areas

- Systems Engineering and Technical Assistance (SETA)
- Obsolescence Management
- Configuration management
- Reliability Engineering
- Test and Evaluation (T&E)
- Additive Manufacturing (AM)/Advanced Manufacturing (AdM)
- Modeling and Simulation
- Lifecycle engineering, acquisition and logistics

Digital Engineering

Edmond Scientific is developing and supporting the implementation of Digital Design/Digital Manufacturing initiatives to promote cross collaboration across all engineering disciplines and echelons, with a focus on real-time collaboration between electronic computer-aided design (ECAD), mechanical computer-aided design (MCAD), and remote end users. Enhancements include the application of VR/AR/XR technologies for data visualization, collaboration, and quality control during manufacturing.



Practice Areas

- Software engineering
- Knowledge management
- Enterprise architectures and systems integration
- Health informatics
- Data interoperability & segmentation
- Data standards
- Security architectures and trust frameworks
- Multi-level security in cross domain information networks
- Software defined coalitions and policy-enabled dynamic Infrastructure and enforcement
- Distributed analytics, federated learning, and understanding
- Scaled Agile Framework (SAFe®) Tooling

Information

Software Engineering and Governance

Information technology projects and agile developments require agile leadership. A complex system lacking coherent architecture and oversight is like building a structure room-by-room without an architectural blueprint or governance. Our software engineering capabilities encompass:

- Enterprise architecture leadership, planning, development, integration, and management
- Requirements identification, analysis, prioritization, and documentation
- Cost-effective technology matching strategic IT requirements
- Software engineering including component integration and security governance
- Software and service program development and integration
- Comprehensive management, business, and technical services including integration and security engineering, testing, and documentation
- Architecture enterprise stakeholder management

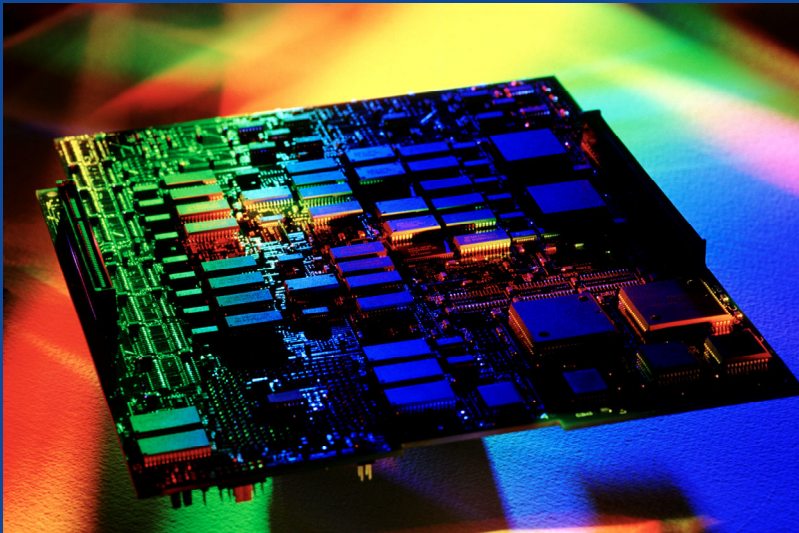
Data Science and Knowledge Management

Edmond Scientific's interdisciplinary skills combine mathematics, statistics, software engineering, and domain expertise to extract meaningful, actionable insights from data. We have researched, tested, evaluated, and implemented enterprise-wide knowledge management enhancements to commercial systems to promote understanding and intelligence for timely decisionmaking. Some techniques we have applied include deep learning, physics-informed neural networks (PINNs), machine learning, and model fitting to name a few. We are also familiar with many open source platforms and frameworks and have implemented enhance instances in these environments.

INNOVATION

Whatever the application, Edmond Scientific applies innovative thinking and solutioning through the practiced framework and disciplines of systems engineering and agile management.

We bring to our customers a strong innovation culture to explore new technology applications and business models, to improve, reinvent and reimagine systems and processes, and to help establish or maintain our customers as thought leaders.



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