Intelligent Automation, Inc.

Company Overview

- Founded in 1987
- Woman-owned small business
- Headquartered in Rockville, MD
- 160+ Professional staff
- $44M revenue (2017)
- CMMI Level II Certification

IAI is a technology innovation firm that matures concepts to functional prototypes, productizes its prototypes, and commercializes its innovative products through extensive government and industry partnerships.

Locations

Rome, NY
Rockville, MD
Orlando, FL
Houston, TX

www.i-a-i.com
IAI Business Model

Multi-disciplinary Collaborative R&D
- R&D driven by innovation and markets
- Rapidly mature technology to functional prototypes
- Small Business Innovation Research (SBIR) leader

Product Development
- Niche or emerging markets
- Leverage R&D programs to reduce risk
- Protect IP aggressively

Strategic Opportunities
- Broader markets
- Start up/spin-offs with external (angel, VC, etc) investment
- Corporate partnerships

Transition to Government Programs and Market Leaders
- Partner with Primes including Programs and Services
- Utilize contract vehicles to quickly meet customer needs
- License to market leaders
Core Research Areas

• Advanced Computing
• Aviation and Aerospace Analysis
• Big Data and Social Media Analytics
• Cyber Security
• Education and Training Technologies
• Health Technologies
• Networks and Communications
• Robotics and Electromechanical Systems
• Sensor Systems
• Signals, Analysis and Controls
• Diverse set of clients that include several government organization
• Prime-subcontractor relationships with several industry primes and system integrators
• Partnerships with more than 50 universities
• Multiple active contract vehicles to quickly meet customer needs

Sample IDIQ Vehicles

**ARMY** D3I, TAOSS, ARL CIERO

**FAA** SE2020, SE2025, e-FAST

**NASA** BPA, HHPC, GESS II

**NAVY** Seaport-E, NRL IT IDIQ, Medical Omnibus III
ARGUS: Perimeter Security System

Scalable network of RF-based sensors for perimeter security

- Indoor/outdoor operation with foliage and other obstructions
- Dynamically adapts to changes in the environment and weather
- Rapidly deployable/reconfigurable
- Long-term, unattended applications
- Interoperable with existing security networks and peripherals
- Reduces surveillance manning requirements
- Resistant to jamming and spoofing

Ideal for a Range of Applications

- Temporary/reconfigurable protection for construction site security
- Permanent fencing applications providing layered security
- Infrastructure and asset protection
Robotics and Electromagnetic Systems

- **Machine vision & optical systems** focused on optical design, electro-optic devices, embedded processing, image stabilization, target detection and tracking, and classification.

- **Autonomy & Human-Machine Interface** technology including algorithms for planning, perception, mobility and manipulation.

- **Robotic manipulation, inspection, maintenance & repair** with enhanced situational awareness, intuitive control, semi-autonomous behaviors, sliding autonomy, and platform independence.

- **Market-driven electromechanical** products and custom design services.
Sensor Systems

- RF Sensors including wideband multi-channel reconfigurable digital transceiver, aircraft transponder/IFF devices, and imaging radar (Synthetic Aperture Radar Imaging, Phased Array)
- Radar waveform (SAR, GMTI) and antenna design and simulation
- Location tracking solutions for GPS-denied environment such as urban canyons or indoor
- Algorithms and hardware for sub-nanosecond time synchronization
- NDE/SHM including ultrasonics, thermography and wireless
- Wire fault diagnostics
Signals, Analysis and Controls

- **Monitoring and control systems** expertise: automation, adaptive HMI design, optimization and system control.
- Predictive methods and tools to forecast performance and optimize maintenance.
- **Advanced machine learning** including clustering, outlier/anomaly detection, classification, recommendation, regression and deep learning.
- Leverage new technologies to improve transportation safety, operation, infrastructure and communication needs.