APTIMA®
Human-Centered Engineering®

System Optimization Analytics
Operational AI for Today's Challenges

Today's knowledge workers operate at the complex interplay of teams, technology, and data. AI holds the promise to help solve many cognitive and organizational burdens—or it can add to them. Aptima's **System Optimization Analytics** (SOA) are field-proven AI capabilities engineered to augment and improve decision making and collaboration in dynamic, fast-changing, hybrid environments.

SOA is helping human operators in the military, medical, and civil sectors gain insights and reduce uncertainty from data overload, organize team behaviors, and facilitate human-machine performance.

These validated AI solutions are being used to:

- Predict human information needs for more insightful and efficient problem solving
- Enhance decision support and situational awareness
- Optimize the collaboration of human-machine teams
- Allocate tasks for optimal workflows and outcomes

Recommendation Assistants
SOA implements recommendation engines to serve as intelligent assistants, helping to predict the information needs of humans to enable quick, informed responses in a variety of contexts to include the civil affairs domain.

Agile Human-Machine Teams
Applying the principles of thermodynamics and free energy flows, SOA is building a scientific framework for high performance human-machine teaming, dynamically adapting the roles and structures of hybrid, human-machine teams for agile collaboration in changing environments.

Pattern Analytics
SOA's innovative approach to pattern analytics fuses and detects patterns and connections in multimodal datasets to correlate relationships between online environments and behaviors in the physical world and has been applied to the healthcare analytics domain.

For more information, please contact: Laura Cassani | Tel. 781-496-2475 | lcassani@aptima.com