

Night Vision & Electronic Sensors Directorate (NVESD) Needs Statement

The Department of Defense, Rapid Reaction Technology Office (RRTO) Innovation Outreach Program, supporting the U.S. Army CERDEC Night Vision & Electronic Sensors Directorate (NVESD), will conduct a Solutions Meeting at Ft. Belvoir, VA in spring 2015. The Solutions Meeting provides selected innovative companies with an opportunity to make short technical presentations to government representatives about their technologies and products. There is a potential that companies may be selected for pilot projects or experimentation if their technology appears to match the needs described below.

The Army NVESD is looking for innovative technologies and capabilities in the following topic areas:

Sensors

- Sensor integration and fusion
- Imaging (radar, infrared, visible, LADAR/LIDAR and UV)
- Lightweight personal sensors
- Hostile fire detection and localization
- Remote wind sensing and characterization
- Advanced manufacturing and packaging

Sensor Processing and Correlation

- Object recognition and tracking
- Change detection
- Algorithms

Imaging & Image Processing on Mobile Devices

- Image and video enhancement
- Degraded visual environment
- Advanced GPU technology
- Low light
- Image stitching
- EO/IR components

Modeling and Simulation

- Test and evaluation
- New equipment training
- Sensor interoperability
- Live, virtual, constructive and gaming
- Virtual prototyping

Non-contact Biometrics

- Crowd monitoring and anomaly detection
- Algorithms
- Physiological (vitals, face, etc.)
- Behavioral (gait, speech, etc.)
- Spectral
- Medical (e.g. soldier wellness)

Displays

- Conformal
- Wearable
- High resolution and dynamic range
- Coatings

Lasers

- Compact
- Multiple wavelengths
- Designators
- Markers

Neurotechnology

- Non-invasive brain machine interface and activity monitoring
- Emotional responses
- Mental alertness, fatigue and concentration levels

Standoff Explosive Detection

- Trace detection
- Portable buried metal and wire detector
- Radar
- 3D below ground surface mapping

Companies interested in participating in the Solutions Meeting should submit an application to RRTO Innovation via e-mail to osd.pentagon.ousd-atl.mbx.rrto-innovation@mail.mil.

The following information is required in the application (Note: Only 1 application is permitted per company):

1. Email subject line “NVESD Solutions Meeting Application”
2. Company name
3. Website address
4. POC, email, phone number and an alternate POC if desired
5. A succinct description (less than 100 words in length) of the company’s technologies, products and capabilities including a mapping to the topic areas and needs addressed

All applications must be received on or before 5:00 PM EST, December 19, 2014.

Selected companies are responsible for their travel and all other expenses associated with participation in the NVESD Solutions Meeting.