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## ***Unmanned/Unattended Sensors and Sensor Networks IV***

**Edward M. Carapezza**  
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# Contents

vii	<i>Conference Committee</i>
ix	<i>Introduction</i>

---

## SESSION 1 UNMANNED SYSTEM TECHNOLOGY

---

- 6736 03 **Sensor deployment on unmanned ground vehicles** [6736-02]  
G. R. Gerhart, U.S. Army Tank-Automotive Research, Development and Engineering Ctr. (USA); G. Witus, Turing Associates (USA)
- 6736 04 **Integrated multi-sensor package (IMSP) for unmanned vehicle operations** [6736-03]  
E. C. Crow, K. Reichard, C. Rogan, J. Callen, E. Seifert, Pennsylvania State Univ. (USA)
- 6736 05 **Simulation of convoy of unmanned vehicles using agent based modeling** [6736-04]  
S. Sharma, Bowie State Univ. (USA); H. Singh, Wayne State Univ. (USA); G. R. Gerhart, U.S. Army Tank-Automotive Research, Development and Engineering Ctr. (USA)
- 6736 06 **On the reliability of a convoy of unmanned intelligent vehicles and their collaboration and coordination** [6736-05]  
H. Singh, L. Hua, A. Mustapha, A. M. Dixit, Wayne State Univ. (USA); G. Gerhart, U.S. Army Tank Automotive Research, Development and Engineering Ctr. (USA); G. S. Hura, Univ. of Maryland Eastern Shore (USA)
- 6736 07 **Algorithms and evaluation framework for uninhabited vehicles** [6736-06]  
C. Angell, M. Bernhardt, Waterfall Solutions Ltd. (United Kingdom)
- 6736 08 **Bio-inspired motion planning algorithms for autonomous robots facilitating greater plasticity for security applications** [6736-07]  
Y. Guo, Stevens Institute of Technology (USA); M. Hohil, S. V. Desai, US Army RDECOM ARDEC (USA)
- 6736 0A **Integration of new communications and mast subsystems on an Omni-Directional Inspection Robot (ODIS)** [6736-09]  
S. Hunt, Turing Associates, Inc. (USA); Y.-S. Li, Wayne State Univ. (USA); G. Witus, Turing Associates, Inc. (USA); S. Walter, R. D. Ellis, G. Auner, A. Cao, A. Pandya, Wayne State Univ. (USA)

---

## SESSION 2 LASER/FIBRE OPTIC SENSOR SYSTEMS

---

- 6736 0B **Autonomous laser accelerometer for platforms and systems** [6736-10]  
B. V. Melkounian, MIEMP (Russia)
- 6736 0C **Preparation and characterization WDM technique for linear disturbance localization in fibre optical sensor** [6736-11]  
M. Życzkowski, W. Ciurapinski, M. Szustakowski, Military Univ. of Technology (Poland)

6736 0D **Classical theory of autonomous laser accelerometer** [6736-12]  
B. V. Melkounian, MIEMP (Russia)

---

**SESSION 3 SENSOR NETWORKS: FUTURE TECHNOLOGY CHALLENGES**

---

6736 0F **Intelligent maritime security system with sensor networks for coastal environmental and homeland security applications** [6736-14]  
E. M. Carapezza, A. Bucklin, Univ. of Connecticut-Avery Point (USA)

6736 0G **Failure prediction for satellite monitoring systems using Bayesian networks** [6736-15]  
S. Bottone, D. Lee, C. Stanek, DataPath, Inc. (USA); M. O'Sullivan, San Diego State Univ. (USA); M. Spivack, Univ. of Cambridge (United Kingdom)

6736 0H **Renewable energy for sustainable ocean sensors and platforms** [6736-16]  
E. M. Carapezza, T. M. Molter, Univ. of Connecticut-Avery Point (USA)

---

**SESSION 4 SNIPER & MORTAR DETECTION TECHNOLOGIES**

---

6736 0I **Seismic augmentation of acoustic monitoring of mortar fire** [6736-17]  
T. S. Anderson, USACE ERDC-CRREL (USA)

6736 0J **Mortar and artillery variants classification by exploiting characteristics of the acoustic signature** [6736-18]  
M. E. Hohil, D. Grasing, S. Desai, A. Morcos, U.S. Army RDECOM (USA)

6736 0K **Time difference of arrival to blast localization of potential chemical/biological event on the move** [6736-19]  
A. Morcos, S. Desai, B. Peltzer, M. E. Hohil, U.S. Army RDECOM (USA)

6736 0L **Multi-frame filtering techniques for the detection and recognition of moving objects (Invited Paper)** [6736-49]  
A. Mahalanobis, Lockheed Martin Missiles and Fire Control (USA); B. V. K. V. Kumar, Carnegie Mellon Univ. (USA)

---

**SESSION 5 SECURITY AND PERIMETER DETECTION SYSTEMS**

---

6736 0M **Cargo identification algorithms facilitating unmanned/unattended inspection at high throughput portals** [6736-21]  
A. Chalmers, American Science and Engineering (USA)

6736 0N **Area protection network (APN): a concept for autonomous perimeter surveillance and protection with demonstrator** [6736-22]  
P. Lindquist, Saab Bofors Dynamics AB (Sweden)

6736 0O **Toward detection of marine vehicles on horizon from buoy camera** [6736-23]  
S. Fefilat'yev, D. B. Goldgof, Univ. of South Florida (USA); L. Langebrake, SRI St. Petersburg (USA)

- 6736 OP **A multi-sensor scenario for coastal surveillance** [6736-24]  
A. C. van den Broek, S. P. van den Broek, J. C. van den Heuvel, P. B. W. Schwering,  
A. W. P. van Heijningen, TNO Defense, Security and Safety (Netherlands)
- 6736 OQ **Trends in optoelectronic perimeter security sensors** [6736-25]  
M. Szustakowski, W. M. Ciurapinski, M. Zyczkowski, Norbert Palka Military Univ. of Technology  
(Poland)
- 6736 OR **Consistent detection and identification of individuals in a large camera network** [6736-26]  
A. Colombo, V. Leung, J. Orwell, S. A. Velastin, Kingston Univ. (United Kingdom)

---

**SESSION 6 UNATTENDED SENSOR TECHNOLOGIES**

---

- 6736 OT **A methodology for analyzing an acoustic scene in sensor arrays** [6736-28]  
H. Man, Stevens Institute of Technology (USA); M. E. Hohil, S. Desai, U.S. Army RDECOM  
(USA)
- 6736 OU **Miniature optical turbulence sensor for coastal environmental, homeland security, and military monitoring applications** [6736-29]  
E. M. Carapezza, Univ. of Connecticut, Avery Point (USA); G. Lombardi, J. Butman, Phase  
Coherence (USA); I. Babb, Univ. of Connecticut, Avery Point (USA)
- 6736 OX **Changing requirements and solutions for unattended ground sensors** [6736-32]  
G. Prado, SenTech, Inc. (USA); R. Johnson, Harris Corp. (USA)

---

**SESSION 7 ACTIVE & PASSIVE IMAGE SENSING & PROCESSING**

---

- 6736 10 **Local track repair for video tracking on small UAVs** [6736-34]  
S. DelMarco, M. Antone, A. Reiter, BAE Systems Inc. (USA); T. Jenkins, Air Force Research  
Lab. (USA)
- 6736 11 **Increasing the depth of field of imaging systems with numerically optimized phase masks**  
[6736-35]  
Y. Frauel, Univ. Nacional Autónoma de México (Mexico); A. Castro, Instituto Nacional de  
Astrofísica, Óptica y Electrónica (Mexico)
- 6736 12 **Imaging and phase measurements of 3D objects at 10.6 microns by digital holography  
(Invited Paper)** [6736-36]  
P. Ferraro, S. Grilli, L. Miccio, Istituto Nazionale di Ottica Applicata, CNR (Italy);  
P. Buahbassuah, Istituto Nazionale di Ottica Applicata, CNR (Italy) and Univ. of Cape  
Coast (Ghana); R. Meucci, Istituto Nazionale di Ottica Applicata, CNR (Italy); S. De Nicola,  
Istituto di Cibernetica E Caianiello, CNR (Italy); F. T. Arcchi, Istituto Nazionale di Ottica  
Applicata, CNR (Italy) and Univ. of Firenze (Italy)
- 6736 13 **Integral imaging with increased depth of field and depth of focus by using phase masks  
(Invited Paper)** [6736-37]  
A. Castro, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); Y. Frauel, Univ.  
Nacional Autónoma de México (Mexico); B. Javidi, Univ. of Connecticut (USA)

- 6736 14 **Super-resolution enhancement of flash LADAR range data** [6736-38]  
G. Rosenbush, SET Corp. (USA); T. Hong, National Institute of Standards and Technology (USA); R. D. Eastman, Loyola College (USA)

---

**SESSION 8    ADVANCED FREE-SPACE OPTICAL COMMUNICATION TECHNIQUES AND APPLICATIONS**

---

- 6736 15 **Data harvesting using optical wireless communication for earthquake rescue effort** [6736-39]  
S. Arnon, D. Kedar, Ben-Gurion Univ. of the Negev (Israel)
- 6736 16 **Ground to survey aerostatic platform bidirectional free space optical link** [6736-40]  
F. J. López-Hernández, M. A. Geday, G. del-Campo, D. Martin-Fuertes, A. Carrasco-Casado, Univ. Politécnica de Madrid (Spain); P. Munuera, INSA (Spain)
- 6736 17 **High-speed information systems** [6736-41]  
A. R. Pirich, ACP Consulting (USA)
- 6736 18 **Spaceborne fiber coupled diode laser pump modules for intersatellite communications** [6736-42]  
M. Traub, H.-D. Plum, H.-D. Hoffmann, Fraunhofer Institute for Laser Technology (Germany); T. Schwander, Tesat-Spacecom GmbH & Co. KG (Germany)
- 6736 19 **A high-speed modulated retro-reflector communication link with a transmissive modulator in a cat's eye optics arrangement** [6736-43]  
J. Öhgren, F. Kullander, L. Sjöqvist, FOI - Swedish Defence Research Agency (Sweden); K. Wang, Q. Wang, S. Junique, S. Almqvist, B. Noharet, Acreo AB (Sweden)
- 6736 1A **Phase compensation considerations on coherent free-space laser communications system** [6736-44]  
A. Belmonte, A. Rodríguez, F. Dios, A. Comerón, Technical Univ. of Catalonia (Spain)

---

**POSTER SESSION**

---

- 6736 1C **Application of nondiffracting beams to wireless optical communications** [6736-46]  
V. Kollarova, T. Medrik, R. Celechovsky, Z. Bouchal, Palacky Univ. (Czech Republic); O. Wilfert, Z. Kolka, Brno Univ. of Technology (Czech Republic)

*Author Index*

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(United Kingdom)

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**Todd M. Hintz**, Space & Naval Warfare Systems Command  
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- 3 Sensor Networks: Future Technology Challenges  
**Edward M. Carapezza**, Defense Advanced Research Projects Agency (USA) and University of Connecticut, Avery Point (USA)  
**Todd M. Hintz**, Space & Naval Warfare Systems Command SPAWARSYSCEN (USA)
- 4 Sniper & Mortar Detection Technologies  
**Todd M. Hintz**, Space & Naval Warfare Systems Command SPAWARSYSCEN (USA)
- 5 Security and Perimeter Detection Systems  
**Todd M. Hintz**, Space & Naval Warfare Systems Command SPAWARSYSCEN (USA)  
**Edward M. Carapezza**, Defense Advanced Research Projects Agency (USA) and University of Connecticut, Avery Point (USA)
- 6 Unattended Sensor Technologies  
**Stephen P. DeMarco**, BAE Systems Advanced Information Technologies (USA)
- 7 Active & Passive Image Sensing & Processing  
**Bahram Javidi**, University of Connecticut (USA)  
**Todd M. Hintz**, Space & Naval Warfare Systems Command SPAWARSYSCEN (USA)
- 8 Advanced Free-Space Optical Communication Techniques and Applications  
**Vincent A. Handerek**, BAE Systems plc (United Kingdom)

## Introduction

Interest in unmanned and unattended sensors and sensor network technologies and systems has dramatically increased over the past years. Related systems are being developed in support of military, intelligence, law enforcement, commercial industrial, commercial physical security, and environmental monitoring applications around the world. Government agencies are making large investments to develop related military, homeland defense, and homeland security technologies. The task of defending U.S. assets and monitoring our borders with only manned assets is overwhelming. Government and commercial organizations are becoming much more aware of the limitations and costs of using only manned systems. Recent news articles have indicated that the United States may significantly increase the use of unattended ground and ocean sensors for homeland security applications, such as land and coastal border monitoring. The commitment and contributions of presenters and attendees to this conference will help to bring more effective unmanned and unattended systems into more common use over a range of challenging applications.

The conference contained 50 papers organized into sessions covering recent advances in unmanned systems technology, laser and fiber optic sensor systems, sensor networks, sniper and mortar detection technologies, security and perimeter detection systems, unmanned sensor technologies, active and passive image sensing and processing, and advanced free-space optical communication techniques and applications.

Thanks to those who prepared and presented the technical papers, and for their contribution to a very successful meeting. The success of this conference is attributed to the participation of the commercial, university, and government research-and-development community, as well as the organizing efforts of the diverse and talented program committee. Thanks to our presenters and colleagues who traveled great distances to contribute to the success of this conference. Special thanks to Dr. John Dolan, Carnegie Mellon University, and Dr. John Parmentola, Office of U.S. Secretary of Army, for stimulating keynote presentations. Special thanks also to our Conference Program Committee for helping to organize interesting sessions with excellent technical papers. Dr. Bahram Javidi, University of Connecticut, Dr. Grant Gerhart, and Mr. Todd Hintz were particularly helpful in conference planning, organizing, and executing this program. Finally, an extra special thanks to all of the conference attendees for their interest and enthusiasm.

The conference was well attended. We hope the interest in this technology continues to grow, and that this conference will expand with even greater technical content and significance in future years.

**Edward M. Carapezza**

