

MILCOM'12

TRUSTED COMMUNICATIONS...AWARENESS TO ACTION



2012 Military Communications Conference | October 29 – November 1 | Orlando, Florida

MILCOM 2012

MILCOM 2012 is soliciting unclassified and classified (up to DoD Secret) technical papers as well as proposals for tutorials and panels on current topics of interest such as communications and information processing systems, social networking for military applications, weapons, and battlespace technologies. Professionals in industry, academic, and government organizations from the U.S. and countries worldwide are encouraged to contribute and participate in addressing the latest technology in trusted communications, situational awareness, and decisive action.

Tutorials and Panels

MILCOM 2012 solicits proposals for unclassified and classified half-day tutorials and panels. Topics sought include leading-edge technologies, communications networking, and system technologies.

Technical Papers

Unclassified Technical Program

The Unclassified Technical Program provides a venue for papers and presentations that do not include ITAR-sensitive, classified, or proprietary information. Travel grants are available for student authors and presenters.

Classified Technical Program

Technical papers containing classified (up to DoD Secret) or ITAR-sensitive information are appropriate for the Classified Technical Program only. To attend or participate in the Classified Technical Program, one must possess a current DoD Secret clearance and be a U.S. citizen. In addition, papers originated outside the U.S. will not be accepted for the Classified Technical Program.

Submission

Specific submission and proposal information can be found at www.milcom.org

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Important Dates

Technical Papers

Draft Papers and Abstracts Due:
30 April 2012 (firm deadline)

Paper Acceptance Notification:
02 July 2012

Final Papers Due:
06 August 2012

Tutorials

Proposals Due:
30 April 2012 (firm deadline)

Tutorial Acceptance Notification:
26 June 2012

Tutorial Materials Due:
29 July 2012

Panels

Proposals Due:
30 April 2012 (firm deadline)

Panel Acceptance Notification:
26 June 2012

Panel Materials Due:
29 July 2012

Topics

Topics may be addressed from both implementation and analytical perspectives. They include but are not limited to those listed below.

Track 1

Waveforms and Signal Processing

Chair: Reza Ghanadan (Boeing)
Co-Chair: Matthew Valenti (West Virginia Univ)

- Antenna and RF Technology
- Anti-jamming Techniques
- Compressive Sensing
- Cognitive Radios
- Cooperative Diversity and Physical Layer Network Coding
- Dynamic Spectrum Management
- Modified Commercial Wireless
- Modulation and Coding
- Radar System, Detection and Localization
- Satellite Signals
- Signal Processing Algorithms
- Underwater Communications

Track 2

Networking Protocols and Performance

Chair: Harlan Russell (Clemson Univ)
Co-Chair: Li Li (CRC, Canada)

- Ad Hoc, Mesh, Sensor Networks
- Capacity Analysis and Optimization

- Cross-Layer Design
- Disruption-Tolerant Networks
- Localization, Target Tracking, and Mobility Management
- MAC and Link-Layer Protocols
- Network and Transport Protocols
- Network Coding
- Next-Generation Wireless Networks
- Optical Networks
- Topology and Network Control

Track 3

Cyber Security and Trusted Computing

Chair: Sherry Wang (Johns Hopkins APL)
Co-Chair: Harold Zheng (Johns Hopkins APL)

- Cloud Computing Security
- Critical Infrastructure Security (e.g., Smart Grid Security)
- Cyber Operations
- Distributed Systems Security
- Information Assurance and Security in Tactical Environment
- Joint Tactical Network Security
- Mobile Network Security, Including MANET, 3G/4G, Bluetooth, 802.11
- Trusted Networking Security and Privacy
- Vulnerability, Exploitation Tools, and Virus Analysis

Track 4

System Perspectives

Chair: Thomas Royster (MIT Lincoln Lab)
Co-Chair: Frederick Block (MIT Lincoln Lab)

- Challenged Networks (e.g., vehicular, underground, satellite, and underwater)
- Communications-on-the-Move
- Efficient Spectrum Utilization
- Hybrid Satellite, Terrestrial, and Wireless Networks
- Interoperability
- Network-Centric Capabilities
- Network Management and Policy
- Satellite Communications
- Space Networks and Protocols
- System Architecture
- Test Beds, Experiments, Exercises, and Demonstrations

Track 5

Services and Applications

Chair: Jerry Sonnenberg (Harris)
Co-Chair: Michael Kurdziel (Harris)

- Cognitive Network Applications
- Collaborative and Distributed Networking
- Communications Software, Services, and Multimedia Applications

- Content-Based Network Service and Network Applications
- COTS Technology Transformative Military Applications
- Proxy and Middleware
- QoS and Traffic Engineering
- Service-Oriented Architectures
- System Modeling and Simulations

Track 6

Selected Topics in Communications

Chair: Ananthram Swami (Army Research Lab)
Co-Chair: Keith Gremban (DARPA)

- Cognitive Analysis
- Content-Based Networking
- Cross-Genre Networks
- Human Behavior in Cyber World
- Network and Information Sciences
- Machine-to-Machine Communications

Classified topics of particular interest include:

- Cyber Security/Warfare
- Electronic Warfare
- IED Detection/Geolocation
- Jamming/RF Denial
- Low-Power Devices
- Network Technology
- Special Operations

