

International Conference and Business Expo on

# Wireless Communication & Network

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## Emerging antennas for wireless applications

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In this session, new and emerging antenna designs for various wireless applications will be covered. Any type of antennas from micro strip patches to Vivaldi antennas and from monopoles to conformal arrays that are used for emerging wireless technologies (WI-FI, WI-MAX, WI-LAN, LTE, cognitive radio networks, vehicular networks, security and privacy, car-to-car communication, mobile telecommunications, indoor/outdoor systems and experimental systems for future Internet research and many others) are welcome.

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## Tactical communications

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This Tactical Communications workshop will cover the general area of military tactical communications, including voice and data. The electromagnetic spectrum will be discussed, and the communications bands will be defined. Various propagation modes will be considered, including radio frequency line-of-sight, troposcatter, satcom, and ionospheric sky wave, as well as optical. We will also consider anti-jam techniques such as frequency hopping and direct sequence spread spectrum as well as adaptive nulling of the antenna. The software defined radio and cognitive radio approaches will be discussed. In addition, various modulations and multiplexing schemes will be described. The treatment will also include data links for ISR platforms. Specific systems employed by the US and NATO forces will be discussed such as Joint Tactical Information Distribution System (JTIDS), Link 11, Link 16, Link 22, Warfighter Information Network-Tactical (WIN-T), Common Data Link (CDL), Tactical Common Data Link (TCDL), Cooperative Engagement Capability (CEC), Advanced Extremely High Frequency (AEHF) system. The principles of network centric warfare will be considered.

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