



# IEEE LISAT 2014

10<sup>th</sup> Anniversary Long

Island Systems,  
Applications, and

Technology Conference

Friday, May 2, 2014

7:30 AM sign-in; 8 AM start

Farmingdale  
State College

State University of New York  
Rt. 110, Farmingdale, NY

## THREE ALL-DAY PARALLEL TECHNICAL TRACKS

Preliminary Program. See LISAT website for latest updates: [www.ieee.li/lisat](http://www.ieee.li/lisat)

### Systems

- Group Signature Entanglement in E-voting Systems
- An Emergency Information Sharing (EIS) Framework for Effective Shared Situational Awareness (SSA)
- Biometric Authentications for Older Adults and the Disabled
- Use of Adaptive Estimation to Evaluate Sensor Reading Anomalies in Wireless Sensor Networks
- AndroRC: An Autonomous Android Remote Controlled Car
- On the Security and Privacy for e-Health in the Internet of Things
- Enhanced Combined Eye Gaze Direction Classification and Head Flexion Detection System
- Efficient Sleep Stage Classification Based on EEG Signals
- 60GHz Patch Antenna Array on Low Cost Liquid-Crystal Polymer (LCP) Substrate
- Investigation of Energy Efficient Cluster Based Routing Protocol for Wireless Sensor Network Using Dynamic Nodes with the Comparison of Static Nodes
- Time and Frequency Synchronization for OFDM-Based Cooperative Systems
- Reducing Software Assurance Risks for Security- and Safety-Critical Systems
- A Reliable and Fast Real-Time Hardware Engine for Text Steganography
- A Systematic Review of Proactive Health Management and Empowerment for Senior Citizens
- Educational Effects of Telehealth Implementation on Older Adults with Socio-Economic Disparities
- Multitasking Home Security System

### Applications

- Field Trial Results for a Wi-Fi based Spectrum Sharing Technology in TVWS
- Use of Bloom Filter to Convey Surveillance Target IDs to Femtocells
- Reliability and Fault Tolerance Analysis of FPGA Platforms
- Teaching Electromagnetic Compatibility to Engineering Technology Students
- Investigating the Reliability of Positive User Identification Based on Multiple Slap Fingerprint Images
- Automated Skin Lesion Analysis Based on Color and Shape Geometry Feature Set for Melanoma Early Detection and Prevention
- A New CAZAC-Based Preamble for OFDM Systems
- Benefits of Music Therapy & Telehealth Technology
- Gerotechnology Companion
- Utilizing Telehealth Technology across different Socio-Economic Communities
- Wavelength Selective Surface Plasmons Enhanced Infrared Photodetectors
- A Highly Secure Video Steganography using Hamming Code (7, 4)
- Resource Allocation Schemes for D2D Communications
- Extracting and Modeling Privacy Requirements from HIPAA for Healthcare
- ALIVE INSIDE: Developing Mobile Apps for the Cognitively Impaired
- Low Power Embedded Controlled Sensor Network for Agricultural Applications

### Technology

- Secret Key Sharing Using Entanglement Swapping and Remote Preparation of Quantum State
- Fast Real Hardware Engine for Multipoint Text Steganography
- A New Hardware Quantum-based Encryption Algorithm
- A Novel Secure Quantum Key Distribution Algorithm
- Further Developing Torsion Fields Communication Technology. Physical Aspect
- First One-Probe Method and Instruments for Instant In-Circuit Measurement of Quality of Capacitors
- Physical Base of the Method- Infinitely Remote Point Conception
- Non-mechanical Beam Steering with a Dynamic Lithography of Tunable Metasurface
- Quantum Security Using Property of a Quantum Wave Function
- Anatomical Feature-Guided Volumetric Registration of Multimodal Prostate MRI
- Shape Guided 3D Active Contour Model for Automatic and Accurate MRI Prostate Segmentation
- New Algorithm to Enhance Radio Wave Propagation Strength in Dead Spots for Cellular Mobile WiFi Downloads Using Cloud Networks
- Carrier Grade Wi-Fi: Air Interface Requirements and Technologies
- Classifiers Comparison for a New Eye Gaze Direction Classification System
- Pace University Telehealth Research
- Battery Powered or Controlled Combustion Heated Suit

### INDEPENDENT SIX-HOUR CEU/PDH TRACK

*“Power/Energy/Industrials”*

0.2 CEU (2 PDH) credits available for each of 3 topics in this track. Pick and choose the topics of your interest. See the LISAT website for more details: [www.ieee.li/lisat](http://www.ieee.li/lisat)

### EXHIBITS HALL

See exhibits from local technology companies, universities, robotics-competition winners, and professional societies

### POSTER SESSION

Authors will be available for one-on-one discussions about their research topics.

### PRODUCT APPLICATIONS TRACK

Four lectures on practical applications of tools and equipment. Go to [www.ieee.li/lisat](http://www.ieee.li/lisat) for details

REGISTRATION AND OTHER INFO AT LISAT WEBSITE:

[www.ieee.li/lisat](http://www.ieee.li/lisat)