



## 2014 IEEE International Conference on Imaging Systems and Techniques (IST' 2014)



October 14-17, 2014



**El Greco Resort, Island of Santorini, Greece**

**Sponsored by IEEE Instrumentation and Measurement Society  
and Technical Committee on Imaging Systems**

**In conjunction with the IEEE International School of Imaging (ISI)**

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IEEE is the world's largest professional association, with nearly 500,000, dedicated to advancing technological innovation and excellence for the benefits of humanity. IEEE promotes the advancement of knowledge and world-changing technologies from computing and aerospace, to medical devices, healthcare, telemedicine, communications, sustainable energy systems, nanotechnology, robotics, and more.

Following the success of events in Stresa, Italy 2004, Niagara Falls in Canada 2005, Minori in Italy 2006, Krakow in Poland 2007, Chania in Greece 2008, Shenzhen in China 2009, Thessaloniki in Greece 2010, Penang in Malaysia 2011, Manchester in the UK 2012, and the anticipated success in Beijing in China 2013, the 2014 IEEE International Conference on Imaging Systems and Techniques (IST 2014) and the IEEE International School of Imaging (ISI) will take place in the beautiful island of Santorini, Greece.

The IEEE International Conference on Imaging Systems and Techniques will take place jointly with the IEEE International School on Imaging (ISI) in the beautiful island of Santorini, Greece, in October 14, 2014. The objectives of the IEEE International School of Imaging (ISI) is to explore physical, molecular, biochemical and engineering imaging principles, aimed to the advancement and generation of new knowledge related to the design, development, and applications of imaging and spectroscopy technologies, medical diagnostics, analytical instrumentation and techniques.

Engineers, scientists and medical professionals from Industry, Government, Academia, and Healthcare who want to bridge technology and clinical disciplines in the multidisciplinary areas of imaging, spectroscopy and medical diagnostic device industry, are invited to attend the IST Conference and interact with major worldwide experts, aimed at advancing the science of imaging, the development of visualization technologies. The scope of the IST is to increase the understanding of pathophysiology and metabolism and measure therapeutic efficacy; exploring multifaceted design principles and new applications of imaging that would lead ultimately to novel devices and technologies, standards and metrology, and systems with unsurpassable image quality, scalability, reconfigurability, and miniaturization capabilities.

The IST 2014 Conference and the International School of Imaging are two distinct events, taking place consecutively, and both addressing the following four areas:

**Clinical Diagnostics, Theranostics, and Translational Imaging:**

- Medical diagnostics
- Translational theranostics
- Bioinformatics
- Neuroimaging
- Robotics, and surgical guidance imaging
- Molecular imaging and biology
- Imaging Device and System Engineering
- Nanooncology and nanoscale flow-mediated medicine tumors strategies
- Biomarkers, metabolites, omics and translational imaging and spectroscopy
- Drug toxicity imaging
- Pharmaco-imaging in drugs and medicine
- Image processing and pattern recognition
- Miniaturization of diagnostic and analytical devices
- Electroluminescence, bioluminescence, and amplification fluorescence
- Microfluidic imaging chips
- Nanoscale biomaterials, functionalized polymer nanostructures , nanophotonics

**Imaging Modalities and Techniques:**

- Cameras, microscopy and displays
- Polarimetry, multispectral imaging
- Immunohistochemical Digital Imaging
- MRI, PET, SPECT, CT, ECT Tomography
- Photoacoustic Molecular Imaging
- Translational Clinical Imaging Research

- Microwave imaging and inverse scattering
- Ultrasound and laser acoustics
- Multimodality Imaging
- Energy harvesting and imaging technologies
- Emerging imaging trends

**Space Defense and Commercialization of Space:**

- Defense and space surveillance imaging technologies
- Advanced space instruments and satellite imaging
- Remote sensing, ladars, and lidars
- Sensors and sensor systems for aerospace applications
- Multilayered imaging technologies
- Bioinspired Imaging, robotics, guidance and control
- Image processing and pattern recognition

**Visualization, Inspection and Manufacturing:**

- Semiconductor wafers, nanomaterials and composites
- Biomaterial Characterization
- Sensors and image acquisition
- Illumination architectures
- In-line inspection rapid, whole wafer defect detection
- Off-line inspection for defect review and failure analysis,
- Techniques for critical dimension (CD) and overlay metrology
- Automatic defect classification
- Pharmaceutical and food processing vision Inspection Systems
- Image processing and pattern recognition

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## Location:

The Greek island of Santorini located in the Aegean sea is one of the most beautiful islands and best travel destinations in the world. It has beaches with sapphire blue water and vibrant and splendid destinations such as the capital Fira and others like Oia, Kamari, Imerovigli etc. This picturesque island has all several exciting things to offer travelers and has been named one of the best travel destinations by *Travel & Living magazine* and *BBC*.



## Venue:

The El Greco resort is one of the most prestigious hotel-resorts in Santorini and has become one of the prime choices for luxury accommodation. It is situated right beside the capital town of Fira and is minutes away from magnificent beaches and villages of Monolithos, Kamari and Perissa. El Greco provides various kinds of facilities such as swimming pools, conference center, fitness center, a restaurant with a beautiful ambience, TV lounge, garden, Wi-fi etc. This resort offers one of the best locations in Santorini and various facilities, making it the optimum choice for travelers.

