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Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XX

**Miguel Velez-Reyes
Fred A. Kruse**
Editors

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Introduction

This year marks the twentieth edition of the SPIE conference on Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery. This is a very important milestone for our community. The field of multi/hyper/ultraspectral imaging has grown enormously over the past 25 years and this conference has been one of its most important forums since 1994. This year, celebration is a bittersweet one as Dr. Sylvia S. Shen, the conference chair from 1997 to 2013, passed away after a long battle with cancer. There is no doubt that Sylvia's leadership and commitment made this conference what it is today.

The conference was established in 1994 with Dr. E. Evan Iverson from SAIC as chair. He chaired the conference until 1997. From 1998 to 2001, the conference was co-chaired by Dr. Michael R. Descour from the University of Arizona, and from 2002 to 2013 by Dr. Paul E. Lewis from NGA. The 20 conference proceedings volumes include over 1,100 papers. Under Sylvia's and Paul's leadership, the conference experienced enormous growth. To both of them, our deepest thanks.

This year's conference included 51 papers organized in 10 oral sessions and one poster session over two and a half days. A special session was held on Tuesday morning to remember Sylvia and celebrate the conference's 20th edition. Dr. Paul E. Lewis gave a heartfelt presentation summarizing Sylvia's life, leadership, and contributions to the field.

As we move forward looking to the next 20 years, it is the responsibility of those who follow Sylvia's foot steps to continue her legacy and keep this forum a vibrant and relevant one.

Miguel Velez-Reyes
Fred A. Kruse

Dedication: Dr. Sylvia S. Shen



Dr. Sylvia S. Shen, Distinguished Scientist at The Aerospace Corporation and an SPIE Fellow, passed away 13 September 2013, after a six-year battle with cancer.

Shen was the long-time chair for both the Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery (SPIE Defense, Security, and Sensing) and Imaging Spectrometry (SPIE Optics and Photonics) conferences.

"Dr. Shen's presence and contributions provided important focus for the exchange and evolution of ideas and technology by the community of researchers in the field of spectral remote sensing," said colleague and co-chair Paul Lewis, "Through her committee service and study contributions to the NASA Landsat Program, as a technical consultant to the Department of Energy Multispectral Thermal Imager Satellite Program and as a journal reviewer for SPIE and IEEE."

"Sylvia was one of the smartest and most capable people I have ever known," Lewis said. "I am extremely fortunate to have had the privilege of working with her. Within her petite body dwelled a kind, determined, and noble spirit. Her friendship, teachings, courage of conviction, fortitude and intellect have enriched my life, as well as the lives of other friends and colleagues. The remote sensing community has lost a pioneer in the field of spectral remote sensing."

"Her contributions to the collaborative efforts of the National Geospatial-Intelligence Agency and the Environmental Protection Agency to evolve the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) Program have been essential to its decade of airborne emergency response successes," Lewis said. "As a member of the ASPECT Team, Shen deployed, analyzed, and developed state-of-the-art spectral infrared analytical and imagery situational awareness products. These products were deemed essential by first responders and Joint Operation Center personnel since 2003 for mitigation of disasters ranging from Hurricane Katrina to the Deepwater Horizon Oil Spill."

Sylvia will be sorely missed by her friends and colleagues and the scientific community. The two SPIE Conferences she fostered continue to flourish, and along with their long history of scientific contributions, stand as her legacy.

