

Welcome Message from the Chairs

History speaks for itself, and with four consecutive sell-out years, this established workshop series on *Object Tracking and Classification Beyond the Visible Spectrum (OTCBVS)*, organized in conjunction with the prestigious IEEE Conference on Computer Vision and Pattern Recognition (CVPR), certainly has a history of which we are proud. This series is specialized in sub-areas of machine vision such as target detection, tracking, recognition, and classification *beyond the visible spectrum*. The first four meetings took place in Washington DC, San Diego, CA, New York, NY, and Minneapolis, MN, USA. This fifth meeting builds on the successes of the past four meetings and the quality of the journal papers on OTCBVS topics published in the special issues of Springer Int'l Journal of Computer Vision (IJCV) and Elsevier Computer Vision and Image Understanding (CVIU). These two journal special issues have been published in 2007, and a Springer book on "Augmented Vision Perception in Infrared" will appear in 2008.

On behalf of our sponsors, *IEEE, Delphi Corporation* and *Equinox Corporation*, it is our pleasure to welcome you to this exciting meeting. We believe that your attendance will be a meaningful experience for you and that you will glean some information from the workshop talks that will be of benefit to you in your work and in your career in general.

OTCBVS highlights the area of beyond the visible spectrum that involves deep theoretical research and presents a suitable framework for building solid application-oriented vision based systems. OTCBVS requires processing data from many different types of sensors, including infrared, far infrared, millimeter wave, microwave, radar, and synthetic aperture radar sensors. It involves the creation of new and innovative approaches to the fields of signal processing and artificial intelligence. It is a fertile area for growth in both analysis and experimentation and includes both civilian and military applications. The availability of ever improving computer resources and continuing improvement in sensor performance have given great impetus to this field of research. The dynamics of technology "push" and "pull" in this field of endeavor have resulted from increasing demand from potential users of this technology including both military and civilian entities as well as needs arising from the growing field of homeland security.

For this fifth meeting we have provided a publicly available benchmark for testing and evaluating computer vision algorithms with images recorded in and beyond the visible spectrum. The benchmark contains several datasets of thermal surveillance imagery of pedestrians, thermal and visible face images, pedestrians, and weapons discharging. There has been a wide response to the benchmark, with over 400 downloads to date. We invite further contributions to this benchmark collection.

The international Program Committee of this workshop has chosen an eclectic blend of papers from the international OTCBVS community. This year program consists of eleven contributed papers. Oral session topics include *Recognition in Multispectral & Synthetic Aperture Radar*, *Detection in infrared imagery*, *Pose estimation in Ultrasound & LWIR*, *Target Localization & Tracking*, and *Target Classification*. The best paper award winner will be announced before lunch time. At the conclusion of the workshop the organizers along with TPC member and participants, will discuss the organization of future workshops in this series. We urge all workshop participants to get involved and share their remarks.

We want to acknowledge the people who have contributed their indispensable help in organizing and supporting this event. Our thanks go first to the program committee members for their careful peer evaluations. The paper submissions and reviews were done on-line through a password-protected system using the free server and software supported by Microsoft Research. The reviewing process followed the standard guidelines of IEEE. We would like to thank also all organizers of IEEE CVPR'08 and in particular, *Sven Dickinson*, for his assistance. Our final thanks go to IEEE for supporting this event.

It has been our pleasure to organize this workshop, and we are grateful for your attendance and for the authors for making OTCBVS 2008 a high-quality program. We believe that this workshop will be a very exciting event of CVPR 2008, with some very unique contributions to the field of vision perception beyond the visible spectrum. On behalf of the organizing committee, welcome again to Alaska!

Riad I. Hammoud, Chair,
Delphi Electronics & Safety, USA

Lawrence Wolff, Chair,
Equinox Corporation, USA

Guoliang Fan, Co-Chair,
Oklahoma State University, USA