

Welcome Message from the Chairs

Welcome to the second Annual meeting of IEEE Int'l Workshop series on Object Tracking and Classification Beyond the Visible Spectrum (OTCBVS). This second workshop on this topic builds on the successes of the previous meeting in this series and seeks to contribute to this diverse and dynamic field that is a subset of computer vision and pattern recognition. On behalf of our sponsors, Delphi Corporation, IEEE, and U.S. Army Space and Missile Defense Command, it is our pleasure to welcome you to this meeting. We believe that your attendance will be a meaningful experience for you and that you will glean some information from the workshop that will be of benefit to you in your work and in your career in general.

OTCVBS 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 second meeting we provided a publicly available benchmark for testing and evaluating computer vision algorithms with images recorded in and beyond the visible spectrum. Currently included is a dataset of thermal surveillance imagery of pedestrians and a dataset of thermal and visible face images under variable illuminations, expressions, and poses. There has been a wide response to the benchmark, with over 50 registrations/downloads to date. We invite further contributions to this benchmark collection.

The international Program Committee of this workshop has chosen an eclectic blend of oral and poster papers from the international OTCVBS community. The program consists of twenty two contributed papers, and the presentation of our keynote speaker, Prof Mohan M. Trivedi, on "*Observing Humans in Smart Spaces: A Multi Perspective and Multi Modal Approach*". The fact that numerous papers were submitted is evidence of the increasing interest in this field. Oral session topics include *Background Estimation and Modeling*, *Target Detection and Tracking Beyond the Visible Spectrum*, *Signal and Video-Based Surveillance*, *Vision Algorithms for Automotive Applications*, *Classification and Recognition*, and *Algorithm Performance Evaluation*. Because of the large number of paper submissions and the growing interest in OTCVBS, a poster session has been added for the first time this year. All attendees are urged to visit the poster session and take advantage of the unique one-on-one interaction that occurs when discussing posters with the authors. At the conclusion of the workshop the organizers will choose a best paper and discuss the organization of future workshops in this series. We urge all workshop participants to get involved in the organization by submitting papers of their own and by soliciting papers from colleagues working in this field.

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 for their careful and peer evaluations. The paper submission and the reviewing process are done on-line through a password-protected web access. This couldn't be done without the effort made by Prof. James W. Davis and Rick Wagner, from the Dept. of Comp. Science and Eng., Ohio State University. We greatly appreciated their assistance for setting up and maintaining the benchmark and paper submission web site. The reviewing process followed the standard guidelines of IEEE CVPR. Our thanks go also to *Gerald Witt*, *Huan Yen*, and *Jess Granone* for supporting this event and offering recognition for workshop best paper and keynote speaker.

It has been our pleasure to organize this workshop, and we are grateful for your attendance and for the authors for making OTCVBS 2005 a high-quality program. We believe that this workshop will be a very exciting and unique event of IEEE CVPR 2005, and it will meet your expectation. Welcome to San Diego, CA, and enjoy the presentations at the IEEE OTCVBS 2005!

Riad Hammoud, Chair,

Delphi Electronics and Safety

Robert McMillan, Co-Chair,

U.S. Army Space and Missile Defense Command