



UAS Video Tracking Workshop and Challenge
Texas A&M University
October 25-26, 2011

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Donald L. Houston Building, Room 110
200 Discovery Drive

Tuesday, 25 October

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| 0800 - 0845 | Registration and Breakfast |
| 0845 - 0900 | Welcome and Opening Remarks
John Valasek
Dennis O'Neal, Dean Dwight Look College of Engineering
Rodney Bowersox, Assoc. Head, Dept. of Aerospace Engineering |
| 0900 - 0930 | Randy Beard, Brigham Young University, " <i>Vision Based Guidance for Small Unmanned Air Vehicles</i> " |
| 0930 - 0940 | Discussion |
| 0940 - 1010 | Gary Viviani, Insitu Inc., " <i>How Insitu's Practical Operational Experience is Affecting Next Generation UAS Capabilities</i> " |
| 1010 - 1020 | Discussion |
| 1020 - 1035 | BREAK |
| 1035 - 1105 | John Valasek, Texas A&M University, " <i>Intelligent Motion Video Tracking Algorithm Using Reinforcement Learning</i> " |
| 1105 - 1115 | Discussion |
| 1115 - 1145 | Craig Askew, L-3 Unmanned Systems, " <i>Autonomous Ground Moving Target Tracking: An Integrated Approach</i> " |
| 1145 - 1155 | Discussion |
| 1200 - 1300 | LUNCH |
| 1300- 1330 | Timothy D. Smith, Raytheon Intelligence and Information Systems, " <i>Introduction to the Raytheon CGCS</i> " |
| 1330 - 1340 | Discussion |

- 1340 - 1410 Jeremy Davis, VectorNav Inc., *"Inertial Sensing for Vision-Based Applications"*
- 1410 – 1420 Discussion
- 1420 - 1450 Soon-Jo Chung, University of Illinois at Urbana-Champaign, *"Vision Based Navigation of UAVs in Riverine Environments"*
- 1450 – 1500 Discussion
- 1500 - 1515 BREAK
- 1515 – 1545 Dezhen Song, Texas A&M University, *"Collaborative Observation of Natural Environments"*
- 1545 – 1555 Discussion
- 1555 –1615 Travel to Land, Air, Space and Robotics Laboratory (LASR)

**Land, Air, Space and Robotics Laboratory (LASR)
1188 Nuclear Science Rd**

- 1615 – 1745 John L. Junkins, Texas A&M University, *"Advances in Real Time Computational Vision"*
- 1745 –1800 Travel to George H.W. Bush Presidential Library

**George Bush Presidential Library
1000 George Bush Drive, West**

- 1800 – 2000 Dinner in the Rotunda and museum tours



**Donald L. Houston Building, Room 110
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Wednesday, 26 October

- 0800 – 0830 Light breakfast
- 0830 - 0930 Derek Kingston, Air Force Research Laboratory, Wright Patterson Air Force Base, *"UAS Challenge Scenarios: Automated Tracking"*

**UAS Flight Test Facility
TAMU Riverside Campus**

- 0930 – 1000 Travel to UAS Flight Test Facility, TAMU Riverside Campus
- 1000 – 1100 Tour of UAS Flight Test Facility
- 1100 – 1130 Wrap-Up Discussion at UAS Flight Test Facility
- 1130 Adjourn