

2016 Test Science for T&E Program Review

Dr. Michael Kendra | April 11-14, 2016 | Walton Beach, FL

The Doolittle Institute
73 Eglin Parkway NE, Suite 112 | JG Plaza
Fort Walton Beach, FL 32548

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Information and registration: <https://community.apan.org/wg/afosr/w/researchareas/16618.2016-test-science-for-t-e-program-review/>

Agenda Day 1- Monday, April 11, 2016

Time	Type	Speaker	Topic
7:45-8:00	Check-In		
8:00-8:10	Open		Welcome and Administrative
8:20-9:00	GOV only	Dr. Jay Kudva, Next Gen Aeronautics	Embedded Sensors for Flight Test (every aircraft a test aircraft)
9:10-9:50	GOV only	Dr. Mehrdad Pakmehr, Intelligent Fiber Optics System	Scaled Hypersonic Test Bed
10:00-10:40	GOV only	Dr. Hang Ruan, NanoSonic	Precision High-Frequency Pressure Measurements in Ground and Flight Test
10:50-11:30	GOV only	Dr. Daniel Hyarns, PeopleTec, Inc.	Scaled Hypersonic Test Bed
11:40-12:20	GOV only	Dr. Anagi Balachandra, Metna	Ultra-High-Performance Concrete
12:20-12:50	LUNCH		
12:50-1:30	GOV only		TBD
1:40-2:20	GOV only	Dr. Giovanni Nino, Quest Integrated	Embedded Sensors for Flight Test (every aircraft a test aircraft)
2:30-3:10	GOV only	Mr. Scott Bland, NextGen Aeronautics	Tool for Blade Stress Estimation during Multiple Simultaneous Vibratory Mode Responses
3:20-4:00	GOV only	Mr. Alan Arsian, Creative Aero Engineering Solutions	Characterization of the Aero-structure Environment of a Scaled fighter at Transonic Conditions
4:10-4:50	GOV only	Dr. Russell Kurtz, Luminit	Nondestructive Evaluation (NDE) Techniques for Composite Materials
(MEETING ADJOURNED FOR THE DAY)			

Agenda Day 2- Tuesday, April 12, 2015

Time	Type	Speaker	Topic
7:30-8:00	Check-In		
8:00-8:40	Open	Mr. Gordon Franken, Intelligent Automation	Multi-scale Interrogation, Location, and Characterization of Defects using Electro-Optic Techniques
8:40-9:20	Open	Mr. Caesar Garcia, Silicon Audio	Highly-Resolved Wall-Shear-Stress Measurement in High Speed Flows
9:20-10:00	Open	Dr. Stephen Horowitz, Interdisciplinary Consulting Corp	Highly-Resolved Wall-Shear-Stress Measurement in High Speed Flows
10:00-11:10	Open		Meet the Leaders sign up for individual 10-15 minute meetings
11:10-11:50	Open	Mr. Nathan McDonald, AFRL/RI	Reservoir Computing for Process Perception, Prediction, and Control
11:50-12:00	Open		Administrative
12:00-1:20	LUNCH		
1:20-1:40	Open		Tech Transition Forum
1:40-2:20	Open	Dr. David Oakes, Physical Sciences Inc.	Cryodeposit Mitigation and Removal Techniques for Radiometric Calibration Chambers
2:20-2:50	Open	Mr. Ron Barrett, OSD Test Resource Management Center (TRMC)	Invited Speaker Funding Opportunities through the OSD TRMC T&E/S&T Program
2:50-3:10	BREAK		
3:10-3:40	Open	Mr. Matt Schnoor, Air Force Test Pilot School	Invited Speaker Flight Test Opportunities at the Air Force Test Pilot School
3:40-4:10	Open	Mr. Tony Androsky AF SBIR/STTR Commercialization Readiness Program (CRP)	Invited Speaker The Phase 3 Tech Transition Process
4:10-4:20	GOV only		Administrative
4:20-5:00	GOV only	Prof. Foster Dai, Auburn University	High Resolution / Wide Bandwidth Arbitrary Waveform Generator for Telemetry Applications
(MEETING ADJOURNED FOR THE DAY)			

Agenda Day 3- Wednesday, April 13, 2015

Time	Type	Speaker	Topic
7:30-8:00	Check-in		
8:00-8:40	Open	Prof. Yang Wang, Georgia Tech Research Corporation	Multi-Physics Coupled Wireless Antenna Sensor for Structural Health Monitoring
8:40-9:20	Open	Prof. Mark Rennie, University of Notre Dame	Mathematical Modeling and Control of Wind Tunnels for Investigation of Low Re Unsteady Aerodynamic Effects
9:20-10:30	Open		Meet the Leaders sign up for individual 10-15 minute meetings
10:30-11:10	Open	Prof. Ron Hanson, Stanford University	Fundamental Aspects of NO IR Spectroscopy in High T and P Air
11:10-11:50	Open	Prof. Stavros Georgakopoulos, Florida International University	Highly Efficient Wireless Powering for Autonomous Structural Health Monitoring and Test/Evaluation Systems
11:50-12:00	Open		Administrative
12:00-1:20	LUNCH		
1:20-1:30	Open	TBD AFTC	Welcome and Introduction
1:30-2:00	Open	Mr. Mallory Knight, Director of Engineering, Air Force Test Center	Keynote Speaker Engineering Challenges in Test Science
2:00-2:30	Open	Dr. Elisabetta Jerome, Technical Advisor, Air Force Test Center	Invited Speaker Armament and Weapons Test and Evaluation
2:30-2:50	BREAK		
2:50-3:30	Open	Prof. Hjalti Sigmarsson, University of Oklahoma	Reconfigurable, High-Frequency Circuit Components using Phase Change Materials
3:30-4:10	Open	Mr. PC Chen, ZONA Technology, Inc.	Fast and Efficient Nonlinear Flutter Prediction Capability
4:10-4:50	Open	Mr. Matt Davis, Luna Innovations Incorporated	Scaled Hypersonic Test Bed
4:50-5:00	Open		Administrative
(MEETING ADJOURNED FOR THE DAY)			

Agenda Day 4- Thursday, April 14, 2015

Time	Type	Speaker	Topic
7:30-8:00	Check-in		
8:00-8:10	Open	TBD AFTC	Welcome and Introduction
8:10-8:40	Open		Invited Speaker
8:40-8:50	BREAK		
8:50-10:10	Open		Meet the Leaders sign up for individual 10-15 minute meetings
10:10-10:40	Open	Dr. Crystal Pasilliao, AFRL/RW	Multi-Fidelity Multi-Physics Modeling of Fluid-Structural Interactions
10:40-11:20	Open	Prof. Ken Yu, University of Maryland	Hypersonic Center of Testing Excellence for Fostering Future Test & Evaluation Workforce
11:20-12:00	Open	Dr. Saba Mudaliar, AFRL/RV	Impact of Hypersonic Flow Fields on Optical Telemetry
12:00-1:20	LUNCH		
1:20-2:00	Open	Dr. Eric Heller, AFRL/RX	Tools for Test and Evaluation of Emerging Nanoelectronics
2:00-2:40	Open	Mr. Tony Quach, AFRL/RV	High Power / Waveform Agile Transmitter Technology for Multi-Function Apertures
2:40-3:20	Open	Dr. Sasha MacDonald, AFRL/RQ	Electric Propulsion Test and Evaluation Methodologies for Plasma in the Environments of Space and Testing (EP TEMPEST)
3:20-3:30	BREAK		
3:30-4:10	Open	Dr. Venke Sankaran, AFRL/RQ	Adaptive-Mesh and Adaptive-Physics Schemes for Turbulent Reacting Flow Simulations
4:10-4:50	Open	Dr. Paul Sotirelis, AFRL/RV	Frequency Dependent Target Reflectivity Feature Exploitation in Bistatic Radar Data
4:50-5:00	Open		Administrative
	(MEETING ADJOURNED)		

T&E Program Review

1. Non-citizens may be in attendance. Since the nature of AFOSR 6.1 funding for basic research requires that all work be publishable in the open literature, contractors and their university partners may be non-citizens. All such attendees are DoD contractors, so clearance was not required for work presented at this review. New AFOSR guidelines to AFRL PIs are to clear their annual review presentation material.
2. The PM plans to stick with a strict schedule so that government participants (AFTC, 96 TW, 412 TW, AFRL, OSD, and NASA) can attend topics of their choosing. If a speaker wishes to defer questions to the end, please state this as you begin and allow sufficient time for questions and comments at the end.
3. Oral presentation slides should be loaded onto the government laptop before the start of the morning session. Presentation material can be loaded from CD or USB. Please use this convention for file names: agendasurname_mmddyy_hhmm_nn where nn is your own tracking number in the case of multiple files. The summary slide that you prepared for me should be slide 2, immediately after the title slide. **E-mail submissions will not be accepted.**
4. Prior to the start of each closed session, the room will be cleared of all non-government personnel who are not directly supporting the STTR work presented.
5. For the closed sessions we have allowed 10 minutes for contractor transition. You should arrive 10 minutes before your scheduled time and remain in the waiting area until called. At the end of your allotted time your presentation material will be moved to a secure area and all non-government personnel will be asked to leave the room.
6. You are encouraged to submit questions for the "Technical Transition Forum" in advance at the registration desk. The PM will read all submitted questions at the beginning of each session.
7. Short biographies will be posted and distributed for the "Meet the (technical) Leaders" sessions to help you make good choices. You will need to sign up for open slots. The PM will accept sign-ups on a first come, first served basis when the names are announced.
8. Presentation material will not be distributed.
9. The facility closes at 5 PM. Visitors are asked to vacate the building at this time.