



## MICROELECTRONICS INTEGRITY MEETING AGENDA

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Meeting Date & Time: 6 August 2019 @ 0800-1645

Meeting Location: JW Marriott – White River Ballroom Indianapolis, Indiana

FINAL

0700 Registration

0800 Introduction – **Dr. Brett A. Seidle (SES)**, Technical Director, Naval Surface Warfare Center, Crane Division (NSWC Crane)

0815 Keynote Speaker: **Mr. Ian Steff**, Deputy Assistant Secretary for Manufacturing at the U.S. Department of Commerce’s International Trade Administration

0830 Keynote Speaker: **Ms. Nicole Petta**, Assistant Director for Microelectronics Office of the Under Secretary of Defense for Research and Engineering

0845 Panel 1: **T&AM Enabling Assurance Throughout the Lifecycle** Panel Chair: Dr. Matthew Casto, Program Manager, Microelectronics, Office of the Secretary of Defense for Research and Engineering (OSD R&E)  
Maintaining technology dominance is critical to economic and national security. In order to achieve dominance and to maintain leadership in microelectronics it is critical that quantifiable assurance technology, policy, and guidance are developed and implemented throughout the full microelectronics lifecycle with verifiable provenance and traceability. The increased cost to develop and fabricate state-of-the-art microelectronics has forced a major global consolidation in the industry. At the same time, the development and sourcing of microelectronic intellectual property has become an increasing global marketplace. These economic trends result in at least some portions of the design and manufacturing process being performed by 3rd party vendors and/or overseas. At any point during the hardware development lifecycle (design, manufacture, packaging, assembly, test, insertion, and sustainment) there are dynamic supply chain threats that can result in system vulnerabilities. This panel will discuss the technology and economic factors affecting trust and assurance in the microelectronics supply chain throughout the lifecycle of the product.

**Speakers:**

- Dr. Matthew Casto, OSD R&E
- Mr. Brian Schott, Co-Founder and CTO, Nimbis Services, Inc.
- Mr. Niel Schumacher, IBM Global Business Services Partner, Cybersecurity & Biometrics Service Group
- Dr. Jeff Demmin, Senior Lead Scientist at Booz Allen Hamilton
- Dr. Katie Liszewski, Battelle
- Mr. Dan Christenson, USAF

1015 Break

1030 Panel 2: **DARPA Trust through technology for security and ITAR compliance** Panel Chair: Dr. Ken Plaks, DARPA/MTO  
To maintain battlefield dominance, US warfighters require access to the most advanced electronics available. However, there are currently no ITAR foundries at advanced node and few that enact even modified Trust procedures. DARPA has been working on a variety of technical, rather than procedural, methods to mitigate against the risk of IP leakage and malicious logic insertion at any foundry (trusted, ITAR, or otherwise). Working with the GPS Joint Program Office we have defined an enhanced ITAR program that provides better protection for controlled data and military equipment even at advanced nodes. We will describe the new ITAR implementation, emerging protection strategies from existing DARPA programs, and new areas of research in upcoming DARPA programs. We will conclude with a panel to discuss future trends in hardware security during fabrication and manufacture.

**Speakers:**

- Dr. Ken Plaks DARPA MTO
- Mr. Keith Rebello DARPA MTO
- Ms. Christine Rink, Aerospace Corp, GPS JPO



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- 1200 **Break for Lunch**
- 1330 Special Topic: **“Overview of the PRB Logics Counterfeit Trafficking Case”** Mr. Matt Peterson, Department of Homeland Security and Joe Diebert, Defense Criminal Investigative Services
- 1415 Panel 3: **Counterintelligence Support to Trusted Microelectronics** Panel Chair – Mr. Adam Hauch, NSWCRANE  
This panel will discuss feasible threat vectors, the challenges of counterintelligence collection and analysis in support of supply chain risk management, and the way forward.  
**Speakers:**
- Mr. Adam Hauch, NSWCRANE
  - Counterintelligence Agent, Air Force Office of Special Investigations
  - Senior Intelligence Officer, Air Force Office of Special Investigations
- 1545 Special Topic: **Activity Update** Strategic Radiation Hardened Electronics Council (SRHEC) Mr. Jeff Johann
- 1615 Special Topic: **Capture the Flag** Ms. Julie Griffith, Executive Vice President for Strategy, Partnerships, and Outreach IN3 and Mr. Sam Caccamo, Chief Technologist Booz Allen Hamilton
- 1645 Conclude Day 1/Social/Networking-- **Indiana Innovation Institute** <http://in3indiana.com/>



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Meeting Date & Time: 7 August 2019 @ 0800-1515

Meeting Location: JW Marriott – White River Ballroom Indianapolis, Indiana

FINAL

- 0800 Day 2 Kickoff and Introductions – **Mr. Brian Stuffle**, Division Manager, NSWC Crane and **Captain Mark H. Oesterreich, USN**, Commanding Officer, NSWC Crane
- 0810 Guest Speaker: **Mr. Patrick Daria**, USAF Commonality Program Manager, NSWC Crane
- 0820 Panel 1: **AF/Navy/MDA Radiation Hardened Microelectronics Collaboration** Chair – Ms. Alyssa Robertson, Electronics Engineer, MDA Task Manager in Flight Systems Division, NSWC Crane  
Are you aware that the Missile Defense Agency, United States Navy, and United States Air Force are in agreement to collaborate on strategic ballistic missile systems efforts? A Memorandum of Understanding has been signed with the intent to align requirements, technology development, production, sustainment efforts, and protection activities to enable affordability, advance technology, and reduce program risks to all participating Parties. A working group has been created to specifically address radiation hardened components. This panel will discuss the benefits, challenges, and initiatives currently being utilized to promote collaboration across organizations and military services. Panelists include strategic rad hard experts with years of experience implementing successful strategies.  
**Speakers:**
- Ms. Alyssa Robertson, NSWC Crane
  - Dr. Steven Van Dyk (SES), SSP
  - Dr. Jonathan Ahlbin, MDA
  - Colonel Christian A Bartholomew, USAF
- 0950 **Break**
- 1005 Special Topic: **Strategic & Spectrum Missions Advanced Resilient Trusted Systems (S<sup>2</sup>MARTS)** Ms. Brooke Pyne, NSTXL, S<sup>2</sup>MARTS Director
- 1035 Panel 2: **Printed Electronics and Embedded Devices** Chair – Mr. Roger Smith, Navy Technical Lead, DoD Executive Agent for Printed Circuit Board and Interconnect Technology, Naval Sea Systems Command (NAVSEA)  
This panel will present insights into DoD’s efforts integrating printed electronics and embedded devices into Defense systems with representation across the Services. Speakers will present some insights into areas of development along with benefits and challenges relating to this technology. Our panelists will share their experience in demonstrating the maturity of these technologies and will be available to discuss their suitability for application.  
**Speakers:**
- Mr. Roger Smith, NAVSEA
  - Dr. Emily Heckman, USAF
  - Mr. Eric Forsythe, USA
  - Mr. Steve Vetter, USN
- 1205 **Break for Lunch**
- 1335 Poster Winner Announced: **Indiana Innovation Institute (IN3)**
- 1345 Panel 3: **Strategic Opportunities for the Future in Trusted Microelectronics** Chair - Dr. Ron Goldblatt, Senior Scientist, IN3  
Panel will discuss the status of current and future research topics in Trusted Microelectronics.  
**Speakers:**



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- Dr. Ron Goldblatt, IN3
- Dr. Peter Bermel, Purdue University
- Dr. David Crandall, Indiana University
- Dr. Alejandro Strachan, Purdue University
- Dr. Suman Datta, Notre Dame University
- Dr. Andrew Lukefahr, Indiana University

1515 Adjourn

**To be displayed throughout the day**

- Poster Session –University Outreach in Microelectronics (Sponsored by IN3)
- Poster Session-Government Employees displaying work in Microelectronics
- Vendor Display