AGENDA

Day 1, July 7, 2020, Tuesday

Welcome Remarks & Introduction

11:00–11:10 (ET)	Anna Erickson, Associate Professor *Georgia Tech*

Thrust Area 1: Computer & Engineering Sciences for Nonproliferation
Session Chair: Prof. Paul Wilson, University of Wisconsin-Madison

11:10–11:25 (ET)	Jordan Stomps, Ph.D. student *University of Wisconsin-Madison*	Identifying Data Streams Valuable to Collaborative Intelligence
11:25–11:40 (ET)	Mario Mendoza, Master's student *Texas A&M University*	Multi-modal Surveillance of Localized Processes Using Cube Satellite Platforms: Phenomena, Signatures and Feasible Architectures
11:40–11:55 (ET)	Jacob Tellez, Ph.D. student Nicole Hege, Ph.D. student *Colorado School of Mines* Will Smith, Ph.D. student *Washington State University*	Preliminary Work for Nonproliferation Monitoring for Molten Salt Reactors
11:55–12:10 (ET)	Jason Hite Ken Dayman *Oak Ridge National Laboratory*	Overview of the Multi-Informatics for Nuclear Operations Scenarios Testbed
12:10–12:30 (ET)	**Break**	

Thrust Area 2: Advanced Manufacturing for Nonproliferation
Session Chair: Prof. Steven Biegalski, Georgia Tech

12:30–12:45 (ET)	Miguel Pena, Ph.D. student *Texas A&M University*	Correlation of Irradiation Responses and Microstructures in AM 316 Stainless Steels
12:45–13:00 (ET)	Kentez Craig, Master's, Ph.D. student Emily Orton, Undergraduate student *Georgia Tech*	Maker Space Side Channel Data Collection, Monitoring, and Improved Visualization
13:00–13:15 (ET)	Ashwin Jayaraman Anil Mane Jeff Elam *Argonne National Laboratory*	Atomic Layer Deposition for Microchannel Plate Applications
13:15–13:35 (ET)	**Break**	

Thrust Area 3: Novel Instrumentation for Nuclear Fuel Cycle Monitoring
Session Chair: Prof. Raymond Cao, The Ohio State University

13:35–13:50 (ET)	Arith Rajapakse, Ph.D. student *Georgia Tech*	Carbon Nanotubes as an Ionizing Radiation Sensor
13:50–14:05 (ET)	Alexis Trahan *Los Alamos National Laboratory*	Safeguards and Spent Nuclear Fuel
14:05–14:20 (ET)	Kezia Namenyi, Undergraduate student John Viront, Undergraduate student Norman Guo, Undergraduate student Kristen Booth, Post-doc *The Ohio State University*	CMOS Simulations for Neutron Sensing Array
14:20–14:35 (ET)	Allison Lim, Ph.D. student *Colorado School of Mines* Jonathan Arrue, Master's student *Georgia Tech*	Polysiloxane Scintillators of Neutron and Gamma Ray Discrimination
14:35–14:50 (ET)	Kyle Weinfurther *Sandia National Laboratories*	Characterizing the Temperature Dependence of Silicon Photomultipliers and Scintillators

Roundtable Discussion

14:50–16:00 (ET)	Dr. Vince Lordi, Session Chair *Lawrence Livermore National Laboratory*	
16:00 (ET)	**Adjourn**	

Day 2, July 8, 2020, Wednesday

Thrust Area 1: Computer & Engineering Sciences for Nonproliferation
Session Chair: Prof. Paul Wilson, University of Wisconsin-Madison

11:00–11:15 (ET)	Sam Kemp, Ph.D. student *Georgia Tech* Jon How, Professor *Massachusetts Institute of Technology*	Optimal UAV Trajectory Planning for Radiological Search
11:15–11:30 (ET)	Romie Morales *Pacific Northwest National Laboratory*	Multidisciplinary Project and Outreach Experience as a Research Scientist at a National Laboratory
11:30–11:45 (ET)	Gregory Spell, Ph.D. student *Duke University*	Deep Learning for the Detection and Identification of Gaseous Plumes Using Hyperspectral Imagery
11:45–12:00 (ET)	Ryan Lester, Master's student Cole Thompson, Ph.D. student *University of Texas-Austin*	Introductory Bayesian Approach to Gamma Spectra Analysis for Isotopic Identification

12:00–12:15 (ET)	Tenzing Joshi Brian Quiter *Lawrence Berkeley National Laboratory*	Applying Advanced Analysis and Robotics Tools to Nuclear Security Challenges
12:15–12:35 (ET)	**Break**	

Thrust Area 2: Advanced Manufacturing for Nonproliferation
Session Chair: Prof. Steven Biegalski, Georgia Tech

12:35–12:50 (ET)	Kevin Le, Master's student *Georgia Tech*	Additive Manufacturing Signature Analysis
12:50–13:05 (ET)	Alec Sample Mangan, Ph.D. student Ankur Kumar Agrawal, Graduate Research Assistant *University of Wisconsin-Madison*	High-Throughput Process Mapping for Additively Manufactured 316L Stainless Steel and FeCoNiCrMn High Entropy Alloys
13:05–13:20 (ET)	Jason Brodsky *Lawrence Livermore National Laboratory*	3D Printed Scintillator Metamaterials
13:20–13:40 (ET)	**Break**	

Thrust Area 3: Novel Instrumentation for Nuclear Fuel Cycle Monitoring
Session Chair: Prof. Raymond Cao, The Ohio State University

13:40–13:55 (ET)	Oliver Moreno, Ph.D. student *Georgia Tech*	Progress in Organic Photodetectors: Beyond Silicon
13:55–14:10 (ET)	Luis Delgado-Aparicio *Princeton Plasma Physics Laboratory*	Simultaneous Imaging and ID of Radioactive Materials and Devices . . . From Plasma Physics and Fusion to National Security
14:10–14:25 (ET)	Adithya Balaji, Ph.D. student Wyatt Moore, Ph.D. student *The Ohio State University*	Recent Progress on Ga2O3 Sensors and GaN Electronics
14:25–14:40 (ET)	Joe McGlone, Ph.D. student *The Ohio State University*	Understanding Proton Radiation Effects on the Defect Spectrum in High-Mobility MOCVD-Grown (010) ß-Ga2O3

Roundtable Discussion

14:40–16:00 (ET)	Dr. Vince Lordi, Session Chair *Lawrence Livermore National Laboratory*	
16:00 (ET)	**Adjourn**	