CRUSER Technical Report

2017-04

TECHCON 2017 - Schedule

Monterey, California. Naval Postgraduate School

TUESDAY 11 APRIL

0900	**Welcome**	**INGERSOLL 122**
0910	Prof of Practice Jeffrey Kline: NPS Operations Research	Quantifying the Military Value of AUSV
0930	Mr. Rob Parenti: Alta Devices	Fly Forever: Using High Efficiency and Lightweight GaAs Solar as an Auxillary UAV Power Source
0950	Capt Elle Ekman, USMC: NPS Operations Research	USMC Logistics Sustainment via Cargo Unmanned Vehicles
1010	Dr. Preetha Thulasiraman: NPS Electrical & Computer Eng.	Study of Security Primitives for the Robot Operating System (ROS) of UAV Swarms
1030	LT Todd Coursey, USN: NPS Physics	MEMS Acoustic Sensor for Drone Detection
1050	Mr. Bret Thomson: SSC PAC	R&D Concepts to Navy Capability through At-Sea Testing
1110	Dr. Don Brutzman: NPS MOVES	Robodata Archive for Visualizing CRUSER Unmanned System Field Experimentation
1130	Dr. Doug Horner: NPS Mechanical & Aerospace Eng.	Developing Autonomy within a Multi-Domain UxS Network Control System
1200		**NPS CRUSER Meeting**
1330	LT Ryan Beall, USN: NPS Systems Engineering	L1 Adaptive Control
1350	Dr. Josef Schaff: NAVAIR	Leveraging Complexity Science and Emergence for a Self-organizing Battlespace
1410	Professor Kristen Tsolis: NPS Defense Analysis	Ant Weight Battle Bots as Learning Tools
1430	CAPT Reza Ghaffari, USN (ret): PMA 266	Developing Commander's Decision Making Support Tool for UAS Mission Readiness Situational Awareness of Cyber Threats
1450	Dr. John Wilcher: GTRI	Autonomous Cross Domain Preparations of Environment (POE)
1510	LCDR Dan DeCicco, USN: NPS SEA 25	Developing a Training System for Web Fires
1530	Dr. Mollie McGuire: NPS Information Sciences	Cognitive Psychology and Autonomous Systems
	TRIDENT ROOM	**Opening Reception**

WEDNESDAY 12 APRIL

0900	**Welcome**	**INGERSOLL 122**
0910	CAPT George Galdorisi, USN (ret): SSC PAC	Designing UxS for Military Use: Harnessing AI to Provide Augmented Intelligence
0930	Maj Bruno Tavora, Brazilian Air Force: NPS MAE	Analysis & Experimentation of an Autonomous Aerial Manipulator Interaction with a Vertical Wall
0950	Mr. Jeff Cares: Alidade	Distributed Combat Power: Salvo Theory, Littoral Combat Ship, and Unmanned Systems
1010	LT Aaron Willmarth, USN: NPS Mechanical & Aerospace Eng.	Design and Controll of an Aerial Manipulator to assist Navy Helicopters in Vertical Replenishment
1030	Dr. Joe Schaff: NAVAIR	Meta-Study of Recommendations to Transition Autonomous Functionality
1050	Dr. Kwang Sub Song: NPS Oceanography	Tactical Consideration for MCM CONOPS Establishment for Unmanned Surface Vehicles
1110	Prof Susan Sanchez: NPS Operations Research	Innovative Experimentation Enables Effective Employment of Unmanned Systems
1130	Mr. Gerald Scott: NPS Information Sciences	Teaming with AI: Creating Prosthetic Enivronments for Mental Health Relisency
1200	**LAB TOUR**	*Leaving from Ingersoll Plaza*
1330	ENS Tyler McCarthy, USN: NPS Systems Engineering	Runway Detection and Tracking for Autonomous Landing of a UAV
1350	Prof David Jenn: NPS Electrical & Computer Engineering	UAV Electronmagnetic Sensors for Spectrum Sensing and Propagation Environment Assessment
1410	LT Marcus Torres, USN: NPS Systems Engineering	Fast Autonomous Recon System Prototyping
1430	Dr. Don Brutzman: NPS MOVES	Ethical Control of Autonomous Unmanned Systems
1450	Mr. Alex See: NPS Systems Engineering	Maritime Interdiction Operations Involving High-Speed USVs
1510	Dr. Sean Kragelund: NPS Mechanical & Aerospace Eng.	Generalized Optimal Control for Networked Autonomous Vehicles in Uncertain Domains