2018 Passive Wireless Sensor Technology Workshop - Speaker Agenda as of December 8, 2018

	Tuesday - Dec 11	Last	First	Organization	Topic
8:00-8:40	**WiSEE Keynote**	**Leopard**	**Larry**	**NASA/MSFC - Dep Dir Engineering**	**"Why are some aerospace professionals reluctant to introduce/accept wireless technology…"**
8:40-9:20	**WiSEE Keynote**	**Smith**	**Marshall**	**NASA/ESD - Dir Cross-Program Sys Int**	**"NASA's Human Exploration Systems – SLS, Orion, EGS and Gateway"**
9:45-11:45am	**S1-C Spacecraft**	**Needs/Applications**			
9:45am	S1-C1	Torres	Omar	NASA Engineering & Safety Center	"PWS Workshop Overview"
10:15am	S1-C2	Doyle	Derek	AFRL-Space Technologies	"Spacecraft Sensing Needs and Limitations from Cables"
10:45am	S1-C3	Toscano	Bill	NASA/AMES	"On-Astronaut Wireless Sensor System (OAWSS) for Crew Health Monitoring for Exploration"
11:15am	S1-C4	Studor	George	NASA Engineering & Safety Center	"Space Shuttle & Space Station Lessons Learned: Less Wires for Current & Future Spacecraft"
9:45-11:45am	**S1-D Nuclear Pwr**	**Needs/Applications**			
9:45am	S1-D1	Studor	George	NASA Engineering & Safety Center	"PWS Workshop Overview"
10:15am	S1-D2	Cetiner	Sacit	DOE/ORNL	"Nuclear Power Generation: Technology Needs for Passive Wireless Sensing"
10:45am	S1-D3	Gleason	Jim	GLSEQ	"The Need for Wireless Sensor Technology for Commercial Nuclear Applications"
11:15am	S1-D4	King	Mark	NASA/MSFC	"Sensor Needs for Nuclear Thermal Propulsion (NTP)"
12:30-1:10pm	**PWST-KN**	**Olsson**	**Troy**	**DARPA Near Zero Power Program**	**"Zero and Near-Zero Power Sensors and RF Receivers…."**
1:15-3:15pm	**S2-C WAIC**	**Technology**			
1:15pm	S2-C1	Waldersen	Matt	NASA/AFRC	"Software Defined Wireless Avionics for Flight Test"
1:40pm	S2-C2	Plessky	Victor	GVR Trade/Resonant	"Hyperbolic Frequency Modulation (HFM) and Passive Wireless Microphone"
2:05pm	S2-C3	Malocha	Don	Pegasense	"Achieving 4.2-4.4GHz Radios and other recent PWST R&D"
2:30pm	S2-C4	Aftab	Taimur	IMT-Univ of Frieburg	"Passive Wireless Sensing at Microwave Frequencies: Challenges and Approaches"
2:55pm	S2-C5	Friedt	Jean-Michel	FEMPTO - France	"Passive RADAR acoustic delay line sensor measurement: demonstration at 2.4 and 4.3 GHz"
1:15-3:15pm	**S2-D Off-the-Shelf**	**Technology**			
1:15pm	S2-D1	Christopher	Michael	Calspan Flight Test	"Airborne Testing of Passive Wireless Sensors & uses in Commercial and Experimental Aircraft"
1:40pm	S2-D2	Stevens	John	Visible Assets	"RuBee (IEEE 1902.1) Wireless Sensor Tag Applications in Aerospace and Defense: …."
2:05pm	S2-D3	Hough	Chris	TMI-Orion	"COTS Aerospace-qualified Wireless Data Loggers Active Technology in harsh environments integrated with PWS Interrogators"
	S2-D3 Co-Presenter	Favre	Jean-Luc	TMI-Orion	
2:30pm	S2-D4	Zhong	Bamboo	Inductosense-TechnoFink	"Embedded Passive Wireless Ultrasonic Sensor for Non-Destructive Testing"
	S2-D4 Co-Presenter	Fink	Thomas	TechnoFink	
2:55pm	S2-D5	Ghaffari	Roozbeh	Northwestern University	"Skin-Interfaced Systems with Microfluidics and Biosensors for Physiological Monitoring and Biochemical
3:40-5:40pm	**S3-C Launch Vehicles**	**Needs/Applications**			
3:40pm	S3-C1	Johnson	Mont	Northrup-Grumman-Orbital-ATK	"Wireless Instrumentation System Opportunities and Challenges for Large Solid Rocket Motor Flight
4:05pm	S3-C2	Sebald	Johannes	ArianeGroup	"Launcher Wireless Internal Infrastructure Perspectives"
4:30pm	S3-C3	Barber	Michelle	Boeing - Space Launch System	"Opportunities and Challenges for Launch Vehicle Wireless Sensors"
4:55pm	S3-C4	Soto	Reamonn	Sensatek	Extreme Environment Monitoring needs for Jet and Rocket Turbine Test and Operations
5:20pm	S3-C5	Rocha	Rodney	NASA/JSC-Structural Engineering Div	"Instrumentation & Sensor Technology Quantum-Leap Needs for Exploration Spacecraft Structures"
3:40-5:40pm	**S3-D Near-Zero Power**	**Technology**			
3:40pm	S3-D1	Bernstein	Jonathan	Draper	"Zero Power Wake-Up Sensors for Acoustic and Vibration Wireless Detection"
4:05pm	S3-D2	Rinaldi	Matteo	Northeastern University/SMART	"Near-Zero Power Integrated Microsystems for the IoT"
4:30pm	S3-D3	Hall	Drew	University of California San Diego	"A 6.1 nW wake-up radio achieving –80.1dBm sensitivity with a passive psuedo-balun envelope detector"
4:55pm	S3-D4	Bowers	Steven	University of Virginia	"Asleep Yet Aware: Near-Zero Power RF Wakeup Receivers with Automatic Offset Compensation"
5:20pm	S3-D5	Gong	Songbin	University of Illinois Urbana	"Extremely Low Loss Lithium Niobate Acoustic Delay Lines for Zero Power Wireless Sensing…."
6:30pm	**Reception**	**Lindquist**	**Dr. Robert**	**University of Alabama Huntsville**	**Welcome by UAH Associate Vice President for Contracts and Grants and LSINC**
	Reception	**Gonzalez**	**Oscar**	**NASA Engineering & Safety Center**	**"Is Your Technology Ready for Prime Time?"**
	Wednesday - Dec 12	**Last**	**First**	**Organization**	**Topic**
8:00-8:40	**MISS Keynote**	**Rashvand**	**Dr. Habib**	**U of Warwick, UK**	**"Smart Sensor Networking for Extreme Environments from Underground to Space:…"**
8:40-9:20	**SSP Keynote**	**Takano**	**Tadashi**	**JAXA**	**"Technology Developments Relevant to Solar Power Satellite System Design"**
9:45-11:45am	**S4-C Comm Aircraft**	**Needs/Applications**			
9:45am	S4-C1	Rines	Steven	Zodiac Inflight Innovations	Wireless Avionics Intra-aircraft Communications Requirements for RTCA & ICAO Consideration
10:15am	S4-C2	Gibson	Chris	Ametek/VTI Instruments	"Leveraging IOT technologies to improve distributed data acquisition for large-scale integrated tests"
10:45am	S4-C3	Smith	Robert A.	Boeing Research & Technology	"The Opportunity Space for Wireless Sensor Systems in Aircraft Platforms and Production"
11:15am	S4-C4	Petermann	Christopher	Lutfthansa Technik	"Commercial Aircraft Needs for a Retrofitable Wireless Sensor Network"

9:45-11:45am	S4-D Oil &Gas	Needs/Applications			
9:45am	S4-D1	Nyholt	John	American Petroleum Institute	"Passive Wireless Sensor Needs in Oil & Gas Asset Integrity Management"
10:15am	S4-D2	Ohodnicki	Paul	DOE/NETL	"Functionalized SAW Sensors for Chemical Sensing in Fossil Energy Applications"
10:45am	S4-D3	Lafferty	Dave	Scientific Technical Services	"Realizing Value From Passive Wireless Sensing"
11:15am	S4-D4	Panfil	Michael	Aon Risk Solutions	Sensors for Fire and Explosion in the Waste Management Process
12:30-1:10pm	WiSEE Keynote	Tentzeris	Manos	Georgia Tech	"Inkjet-/3D-/4D- Printed Wireless Ultrabroadband mmW Modules:.."
1:15-3:15pm	S5-C Extreme Env	Technology			
1:15pm	S5-C1	Griffin	Ben	Sandia Nat Labs -> DARPA MTO	"Aluminum Nitride Enabled MEMS for Near-Zero Power Wakeup and High Temperature Capable Sensing"
1:40pm	S5-C2	Fraley	John	Wolfspeed/CREE	"Additive Manufacturing Approaches for Harsh Environment Telemetry"
2:05pm	S5-C3	Senesky	Debbie	Standford Univ	"Tiny-but-Tough" Gallium Nitride Nanoelectronics for Extreme Harsh Environments
2:30pm	S5-C4	Brogan	Jeffery	CVD Equipment/Mesoscribe	"MesoPlasma™ Printed Instrumentation for High Temperature Applications"
2:55pm	S5-C5	Mays	Owen	Lawrence Livermore Nat Lab	"Integrated Passive Antenna/Sensor Structures"
	S5-C5 Co-Presenter	Carranza	Susana	Makel Engineering	"Integrated Passive Antenna/Sensor Structures"
1:15-3:15pm	S5-D Elect Grid/Buildings	Needs/Applications			
1:15pm	S5-D1	Kuruganti	Teja	DOE/ORNL	"Building Monitoring Needs for PWS Technologies"
1:40pm	S5-D2	Lopez	Steven	Elect Power Research Institute	"Nuclear Power Plant Modernization and the Advanced Use of Wireless Sensors"
2:05pm	S5-D3	Morris	Ken	Knectiq	"Eavesdropping, Packet Inspection and other wireless sensor security matters"
2:30pm	S5-D4	Ianotti	Joe	GE Global Research	"Passive Wireless Sensing Technology (PWST) - From Research to Reality
2:55pm	S5-D5	Greene	Tom	Applied Engineering, Inc.	"Vapor Intrusion and Groundwater Sensor Needs"
3:40pm-5:45pm	S6-C Passive RFID	Technology			
3:40pm	S6-C1	Nagarajan	Ramaswamy	Univ Massachusetts, Lowell	"Printed Wireless Sensors for Structural Health Monitoring"
4:05pm	S6-C2	Wang	Yang	Georgia Tech	"Passive Wireless Strain Sensing through RFID"
4:30pm	S6-C3	Chiao	J.C.	Univ of Texas, Arlington	"Miniature Batteryless Wireless Sensors"
4:55pm	S6-C4	Grove	Geoff	Pilgrimscrew, Inc	"Opportunities for PWS in Aerospace Quality Bolted Assemblies"
5:20pm	S6-C5	Wagner	Ray	NASA/JSC	"Internal Radio-Frequency Instrumentation System(IRIS): RFID-Enabled Wireless Vehicle..."
3:40-5:40pm	S6-D 3D Printed	Technology			
3:40pm	S6-D1	Aytug	Tolga	DOE/ORNL	"High Surface Area Nanostructured Films for Surface Acoustic Wave (SAW) Sensors"
4:05pm	S6-D2	Morales-Rodg	Marissa	DOE/ORNL	"Fabrication of Printed Passive Wireless Surface Acoustic Wave Sensors by Aerosol Jet System"
4:30pm	S6-D3	Church	Ken	nScrypt	"Direct Digital Manufacturing for Next Generation Electrically Functional RF Structures"
4:55pm	S6-D4	Zenou	Michael	I-O Tech	"Laser Assisted Deposition for Metals, Ceramics and Polymers"
	S6-D4 Co-Presenter	Javice	Herve	I-O Tech	"Laser Assisted Deposition for Metals, Ceramics and Polymers"
5:20pm	S6-D5	Friedt	Simon	Nano Dimension USA	"Additive Manufacturing of Multilayer and Non-planar Electronics."
6:30pm	Banquet	Lightfoot	Robert	Pres LSINC/former Acting NASA Adminr	"Becoming a Risk Leader"
	Thursday - Dec 13	**Last**	**First**	**Organization**	**Topic**
8:00-8:40am	SSP Keynote	Mishra	Dr. Amitbh	US Army CERDEC/Univ of Delaware	"Communication in Extreme Environments-Recent Advances"
8:40-9:20am	STINT Keynote	Israel	David	NASA/GSFC	"A Space Mobile Network"
9:35-10:45am	S7-C - AM Vision	Technology			
9:35am	S7-C1	Werkheiser	Niki	NASA/MSFC-In Space Mfg	"In-Space Manufacturing (ISM) Project with an emphasis on Printed Electronics"
10:00am	S7-C2	Germann	Bryan	Optomec	"Direct Write of Non-Planar & 3D Sensors & Antenna using Optomec's Aerosol Jet Technology"
10:25am	S7-C3	Datskos	Panos	DOE/NREL	"Advantages of 3D Printed Graphene for PWS Sensors/Antennas"
9:35-10:45am	S7-D SAW Sensor Vision	Technology			
9:35am	S7-D1	Willemsen	Balam	Resonant	"Fast, highly accurate, full-FEM SAW simulation"
10:00am	S7-D2	Sato	Yuki	Keio University	"Multiple Subcarrier Multiple Access: A Frequency Efficient Concurrent Wireless Access Method for Backscatter Se
10:25am	S7-D3	Reindl	Leo	IMT-Univ Freiberg	"Recent achievements in wireless sensing technology at the IMTEK - University of Freiburg"
10:50-12:00	S8-C & D One-on-Ones			One-on-One Sessions	User have Tables, Technology Developers sign up for 15 minute sessions at the conference
12:00-1:00pm	Lunch				
1:00-4:30pm	MSFC Tour				Buses leave at 1 pm (limited attendance - sign up early)
1:00-2:30pm	Room D: Panel and Discussion:			"Passive Wireless Sensor Applications for WAIC Consideration"	
	PWST Impact WAIC Req	Rines	Steven	Moderator: WAIC RTCA/Zodiac	
1:00-4:15pm	Room C: Panel & Discussion	3D Printing and Additive Manufacturing Improvements that can help move Passive Wireless Sensor Systems into key market applications			
1:00-2:30pm	Energy & Infrastructure	McIntyre	Tim	Moderator: DOE/ORNL	Panelists will include; Potential PWST Users, PWST Developers,
2:45-4:14pm	Aerospace & Remote	Hill	Curtis	Moderator: NASA/MSFC	3D Print/AM OEMs, Materials & RF Experts