



Rotorcraft Airworthiness & HUMS Technical Meeting

Sponsored by the AHS Redstone Chapter

Feb. 21-22, 2018

Dynetics Solutions Complex – Huntsville, Alabama USA



Wednesday, 21 FEB 18	
Time	
0730-1600	Attendee Registration
0730-1600	Presentation Material Drop-Off
830	Welcome by Redstone Chapter President
845	Meeting Objectives by General Chair
0830-1200	Session 1: Structures and Systems Engineering
	Session Chair Brian Tucker, Bell Helicopter (HUMS TC)
900	Analysis of UH-60 L/M Black Hawk Fleet Usage in Support of a Partial usage Spectrum Update
930	Estimation and Control of Structural Loads and Stresses in Fatigue Critical Components
1000	Regime Recognition Accuracy
1030-1100	Break
1100	Self-Sensing Self-Diagnostic Structures for Next Generation Intelligent Aerospace Systems
1130	Flexible Integrated Intelligent Network for Prognostic Health Management Systems
1200-1330	Lunch
1330-1600	Session 2: Systems Engineering and Sensors
	Session Chair - Mark Davis, Sikorsky Aircraft (LMCO) (HUMS TC)
1330	Standard Flexible Integrated Intelligent Network Architecture for Integrated Vehicle Health Management Systems
1400	21st Century Vibration Analysis Schooled by Legacy Checks
1430	Wireless Sensor Suite for Electrical System Diagnosis and Prognosis
1500-1530	Break
1530	In-Flight Tuning: Flight Test Results and 2nd Generation System
1600	Real-time Ballistic Damage Assessment for Rotorcraft
1700	Social
Thursday, 22 FEB 18	
Time	
0730-1200	Attendee Registration
0730-0900	Presentation Material Drop-Off
845	Welcome by Redstone Chapter President
0900-1600	Session 3: Data Science and Sensors
	Session Chair Doug Knapp, The Boeing Company (HUMS TC Chair)
900	Update on Army HUMS Data Science Activities
930	Event Recognition in HUMS Data using Dynamic Time Warping
1000	Large-scale Algorithm Suites for Rotorcraft Bearing Fault Detection
1030	Generation of a Tachometer Signal from a Smart Vibration Sensor
1100-1200	Lunch
1200	Panel Discussion: Data Sharing for Improvement of Mechanical Diagnostics
	Moderator: Nathaniel Bordick, US Army AMRDEC-ADD
1530	Closing Remarks by Chapter President
1600	Social

