

2010 AFRL/DAGSI Awards

RB (Air Vehicles)

Topic RB10-6, R. Martin and H. Dong (WSU; M.S.), sponsor M. Ol: Vortex-Dominated Flows in Massively-Unsteady Low Reynolds Number Aerodynamics

Topic RB10-4, M. Thomas and R. Penmetsa (WSU; M.S.), sponsor E. Tuegel: Risk Informed Structural Life Forecasting: Probabilistic Cohesive Zone Model Based Structural Life Forecasting

Topic RB10-10, K. Gannon and R. Grandhi (WSU; Ph.D.), sponsors J. Camberos and N. Lindsley: Reliability Based Transonic Flutter Analysis of Supersonic Aircraft Designs

Topic RB10-7, C. McGlown and K. Ghia (UC; M.S.), sponsor J. Weber: Flow Control for Hypersonic Inlets and Isolators Using Magnetohydrodynamics

Topic RB10-5, B. Keller and A. Serrani (OSU; M.S.), sponsor M. Bolender: Robust Flight Control of Multi-body Flapping Wing MAVs

RH (Human Effectiveness)

Topic RH10-2, M. Twyman and P. He (WSU; M.S.), sponsor J. Christensen: High-Density Electroencephalographic Source Localization for Workload Assessment in Complex Cognitive Tasks

Topic RH10-1, J. Davis and J. Skipper (WSU; M.S.), sponsor J. Christensen: Operator Functional State Assessment through Multimodal Imaging

Topic RH10-3, B. Jackson and A. Goshtasby (WSU; Ph.D.), sponsor V. Schmidt: Automated Streaming Imagery Filter Selection

RX (Materials and Manufacturing)

Topic RX10-2, E. Nagelli and L. Dai (CWRU; Ph.D.), sponsor R. Naik: DNA-Directed Self-Assembling of Nanomaterials for Electronics

Topic RX10-11, J. Narvaez and R. Wilkens (UD; Ph.D.), sponsor C. Hunter: Performance of Drag Reducing Agents in Heat Transfer Applications

Topic RX10-7, P. O'Connell and S. Soni (AFIT; M.S.), sponsor J. Malas: Automated Approach for Systems Engineering Innovation in S&T Lab Environment

Topic RX10-1, K. Davis (UD; Ph.D.) and S. Mall (AFIT), sponsor M. Alexander: Improved Electromagnetic Hardening of Coax Cables and Composites Using Advanced Nanomaterials

RY (Sensors)

Topic RY10-6, S. Yoder and W. Khalil (OSU; Ph.D.), sponsor G. Creech: GHz Waveform Generation and Synthesis using Multi-Phase Digital-to-Analog Converters

Topic RY10-7, R. Ucci and L. Kerr (MU; M.S.), sponsor G. Creech: Investigation of Point Defects of AlGaIn/GaN HEMT during High Temperature Device Operation by Thermodynamic Modeling

Topic RY10-11, N. Baine and K. Rattan (WSU; Ph.D.), sponsor J. Campbell: Integrated GPS/IMU/Optical Navigation Systems with System Fault Detection

RZ (Propulsion)

Topic RZ10-15, S. Benton and J. Bons (OSU; M.S.), sponsor R. Sondergaard: The Application of Flow Control to Reduce Profile and Endwall Losses on a Highly Loaded Low Pressure Turbine Operating Off-Design

Topic RZ10-17, B. Pollock and H. Dong (WSU; M.S.), sponsor F. Schauer: Optimization of Direct Fuel Injection in the Rotax Engine with the Application of Low Octane Air Force Jet Fuels

Topic RZ10-7, A. Sheets and G. Kozlowski (WSU; M.S.), sponsor J. Horwath: Development of Magnetic Nanomaterials for Power Applications

Topic RZ10-18, J. Gaerke and J. Slater (WSU; M.S.), sponsor J. Brown: Application of the Campbell Diagram Concept to Identification of Fatigue Cracks in Bladed Disk Assemblies

Topic RZ10-15, C. Williams and K. Ghia (UC; M.S.), sponsor R. Sondergaard: Development of High-Work, High-Efficiency, Low-Pressure Turbine Technologies