CIDSE Invited Talk with Kendra Befort

ASU-Mayo Center for Innovative Imaging Invited Lecture Series

Human Factors and Cognitive Decision Support for Aircraft Pilots

Tuesday, March 23, 2021

10:30a.m–12:00

Zoom https://asu.zoom.us/j/86828595986

Abstract

The first part of the talk will discuss Boeing Military Systems for decision aiding for aircraft flight systems from the early Pilot's Associate Program for tactical fighters and later more extensively with the Rotorcraft Pilot's Associate (RPA). These early concept definition programs demonstrated the effectiveness of CDAS implementations as an aid to the human in the cockpit evolving into more advanced Boeing projects including Airborne Manned/Unmanned System Technology Demonstration (AMUST-D), Joint Unmanned Combat Air Systems (J-UCAS), and Future Combat Systems (FCS). The presentation will focus on RPA to illustrate the importance of simulation and technology demonstration during early concept definition to assure potential customers of the concept's operational applicability and technical readiness; in addition to providing risk reduction for future integration.

The second part of the talk will discuss Artificial Swarm Intelligence Technology to Enable Subjective Rating Judgment in Pilots. Swarm AI technology was used in a high fidelity pilot simulation event and compared against a traditional methodology for collecting workload and usability survey data.

Bio

Kendra Befort is an Associate Technical Fellow in Human System Integration and is currently acting as a Technical Lead Engineer for Human Factors Engineering and IPT Lead for the Cognitive Decision Aiding Team on the AH64-E, and Human Factors Lead for a cross platform Common Look and Feel Initiative for Large Area Displays. She has a B.S. in Psychology, a Ph.D. in Human Factors. Her most current work has been providing a non-advocate review for the manned space mission (CTS-100 Starliner) for flight readiness on all crew systems. Key accomplishments at Boeing include the development of advanced digital communications and manned/unmanned route and attack planning for the Apache Longbow attack helicopter.

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