



Tansel Yucelen Recipient of the 2016 Dave Ward Memorial Lecture Award

Department of Mechanical Engineering Assistant Professor Tansel Yucelen received the 2016 Dave Ward Memorial Lecture Award from the Aerospace Control and Guidance Systems Committee (ACGSC) for his "*outstanding contributions to the field of adaptive control,*" where his contributions "*enable the synthesis of robust high-performance systems that can operate under adverse conditions with verifiably safe operating envelopes.*" The award will be presented at the 2016 Fall meeting of the ACGSC, which will be held October 19-21 in Minneapolis, MN.

Dr. Yucelen is with the Department of Mechanical Engineering at the University of South Florida, where he has been establishing the Laboratory for Autonomy, Control, Information, and Systems (LACIS, <http://www.LACIS.team/>). A part of his research has focused on synthesis, analysis, and testing of verifiable adaptive control architectures for preserving safe flight envelope under adverse aircraft conditions, where he received past external funding from NASA and AFRL to perform research on this topic. The innovative feature of the high-performance and robust adaptive control architectures proposed by Dr. Yucelen and his graduate students is that these architectures have the unique capability to preserve a given, user-defined safe flight envelope through rigorous analytical synthesis and they do not require excessive ad-hoc simulations and testing to validate their performance and robustness characteristics during the post-design stage, unlike classical adaptive control algorithms.

His research has a high potential to impact a broad range of aerospace and non-aerospace applications utilizing adaptive control algorithms that involve safe and effective vehicle control and crew decision-making in complex and abnormal situations. In addition to the prestigious 2016 ACGSC Dave Ward Memorial Lecture Award, Dr. Yucelen received the 2016 AIAA Technical Contribution Award (for the creation of novel flight control synthesis and analysis algorithms) and the 2015 Oak Ridge Associated Universities Junior Faculty Award (for public recognition of

the quality and promise of research). He has co-authored more than 150 archival journal and conference publications and his contributions were implemented on various platforms including AirSTAR of the NASA Langley Research Center.