TOPIC	(Enter Topic here)
ORGANIZERS	Student Leadership Council and Faculty of ACIT Institute
AREA	electric vertical takeoff and landing (eVTOL) aircraft for UAM
SPEAKER	Dr. Brian German
DATE	Friday October 9, 2020
TIME	3:00 – 4:00 P.M. (EST)
VENUE	McNair LR4, North Carolina A&T State University, UTSA and SIPI will be joining through video-conferencing
FEES	No Charge

SYNOPSIS

The era of electric flight has dawned. Battery specific energy is now reaching levels at which electric aircraft propulsion is feasible for short ranged missions, and entirely new aviation markets are blossoming by taking advantage of the reduced operating costs of electric aircraft. Electric drones are ubiquitous, electric flight training aircraft are in production, and—ushering in the era of urban air mobility—electric urban air taxis are nearing certification.

This talk will present recent research focused on the conceptual design, analysis, and operations of electric vertical takeoff and landing (eVTOL) aircraft for urban air mobility (UAM). Specific topics include the development of a battery model appropriate for aircraft sizing and an investigation of the flight performance of canonical eVTOL aircraft configurations. Operations research topics for UAM including demand modeling, vertiport placement optimization, and flight scheduling will also be discussed. The talk will conclude by highlighting research and educational opportunities related to electric flight and urban air mobility.

ABOUT THE SPEAKER

Brian German is director of the Georgia Tech Center for Urban and Regional Air Mobility (CURAM) and the National Institute of Aerospace (NIA) Langley Associate Professor in the Georgia Tech School of Aerospace Engineering. He specializes in configuration design of electric aircraft, battery electric propulsion modeling, and operations research problems for innovative scheduled and on-demand air services. His work focuses primarily on new types of electric regional aircraft and eVTOL aircraft for urban air mobility. Prof. German is a founding member and former Chair (2014-2016) of the AIAA Transformational Flight Program Committee, which was chartered to explore the opportunities of emerging aircraft electric propulsion technologies, and he is a member of the AIAA Aircraft Electric Propulsion and Power Working Group. Prof. German received the NSF CAREER award in 2012, and he is an Associate Fellow of AIAA.