



OSU Mechanical & Aerospace Engineering

**MAE RESEARCH SEMINAR SERIES**



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## Obtaining Accurate Uncertainty Estimates for GPS-denied, Vision-aided Navigation Systems

Friday, 16 November 2018, ATRC 103  
3 PM – 4 PM (refreshments 2:45 PM)



Something of interest is here...

**Abstract:** When navigating with GPS, not only is the estimated location generally very accurate, but a good estimate of the uncertainty is provided to the user (e.g. plus or minus 5 meters). While vision-aided navigation has shown great promise in reducing our dependence on GPS, the uncertainty resulting from vision-aided algorithms is generally known to be inaccurate and over-confident. In this talk, we highlight some of the reasons for this inconsistency and some approaches that can be used to improve the consistency of vision-aided navigation algorithms. Open areas of research in this interest field of navigation are also discussed.

**Bio:** Dr. C.N. Taylor is currently an Assistant Professor in Computer Engineering at the Air Force Institute of Technology. He received his Ph.D. degree in electrical and computer engineering from the University of California, San Diego, in 2004. From 2004-2010, he was an assistant professor in electrical and computer engineering at Brigham Young University, and from 2010-2018, he was a research electronics engineer with the Air Force Research Laboratory (AFRL). He has published over 80 papers in the fields of video processing for unmanned aerial vehicles (UAVs), estimation theory, video communication, and digital systems design.

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