



**AUTONOMOUS
CONTROL &
INFO TECH**

TECHLAV

TOPIC	Machine Intelligence Mission Focused Autonomy (MIMFA)
ORGANIZERS	Student Leadership Council and Faculty of ACIT Institute and TECHLAV Center
AREA	UAV Wireless Communication
SPEAKER	Simon Khan
DATE	Friday May 13, 2016
TIME	3:00 – 4:00 p.m. (EST)
VENUE	Fort IRC 410, North Carolina A&T State University, UTSA and SIPI will be joining through video-conferencing
FEES	No Charge

SYNOPSIS

The Machine Intelligence Mission Focused Autonomy (MIMFA) group has been delving into the autonomous wireless solution for a peer to peer UAV communication. Long Term Evolution (LTE) is the forefront of wireless communication today. LTE is based on the 3GPP (3rd Generation Partnership Project) standard and provides high speed uplink and downlink connectivity. Its modulation technique is based on orthogonal frequency division multiplexing (OFDM) and provides high data rate. MIMFA team has been researching to find a robust LTE mesh routing solution, in order to provide seamless autonomous communication among UAVs. Under the MIMFA program, LTE technology will be leveraged to create a mesh routing scenario for experimentation, where UAVs will communicate autonomously and data will be collected for future research and actual deployment of the technology for the warfighters.

ABOUT THE SPEAKER



Simon Khan graduated from State University of New York (SUNY) Stony Brook in 2005 with a bachelor degree in Electrical Engineering. He was a patent examiner under the United States Patent and Trademark office (USPTO) where he approved multiple patents in the telecommunication sector. He also worked as an electrical engineer for the US Army Corps of Engineer and as an electronics engineer under Department of the Navy. He has received Bravo Zulu award from the Space and Warfare Center Pacific (SPAWAR) for outstanding achievement in implementing Automated Digital Network System (ADNS). He has also received numerous customer service awards and CMMI team work achievement award under Department of the Navy. He has completed Masters of Science in Management Information System from National University, San Diego California in 2015. Currently, he has been working under the Department of the

Air Force in the Air Force Research Lab (AFRL), for the Advanced Planning and Autonomous Systems branch. His work is related to extensive research in autonomous UAV wireless communication. He has been pursuing his PhD in computer engineering from Syracuse University, NY.