

TOPIC	A Survey on Task Allocation Problem In Multi-agent Systems
ORGANIZERS	Student Leadership Council and Faculty of the TECHLAV
AREA	UAV controller design, Cooperative Control
SPEAKER	Amin Mirakhorli, PhD students
DATE	July 22
TIME	11-12 EST
VENUE	IRC 410, North Carolina A&T State University,
	UTSA and SIPI are joining through video-conferencing
FEES	No Charge

## **SYNOPSIS**

- Cooperative control is concerned with the methodology to combine the ability of multiple agents to perform a common task, in cases where a single agent is unable to perform the task. The complexity of such a system can cause issues in the process of control and stability analysis. To design a good method of controlling such a system, a hierarchical design methodology will be used. In such a case, every agent is modeled separately and in each agent the control algorithm can be hierarchical to reduce the complexity (Distribute the complexity and control tasks among the layers). In this webinar, the concepts of optimal control, hierarchical design, stability analysis and formation control of UAVs will be covered.

## **ABOUT THE SPEAKER**



Amin Mirakhorli received his Bachelor degree in Mechanical Engineering from University of Shahrood, Iran, in 2011, and his Master of Science in Mechanical Engineering from K. N. Toosi university in 2014. He is currently pursuing his PhD in Mechanical Engineering at UTSA since 2015. His research interest is in Controlling mechanical systems and robotics. He is also an entrepreneur and involved in commercialize some robotic related products.