Dr. Patrick Benavidez

Assistant Professor of Research, Dept. of Electrical & Computer Engineering

RESEARCH AREAS

- Large-scale Systems
- Cyber-Physical Systems
- Mobile Robotics
- Cloud-based Robotics
- Assistive Robotics

RECENT PUBLICATIONS

Bird Flocking Inspired Formation Control for Unmanned Aerial Vehicles Using Stereo Camera *(IEEE Systems Journal 2018)*

Improved deep neural network object tracking system for applications in home robotics *(Computational Intelligence for Pattern Recognition, 2018)*

Multi-Agent Exploration for Faster and Reliable Deep Q-Learning Convergence in Reinforcement Learning (World Automation Congress (WAC) 2018)

Task allocation using parallelized clustering and auctioning algorithms for heterogeneous robotic swarms operating on a cloud network *(Autonomy and Artificial Intelligence: A Threat or Savior?*, 2017)

UNIQUE EXPERTISE / RESOURCES / AWARDS / QUALITIES / OTHER

- Member IEEE
- Member IEEE Robotics and Automation Society
- Autonomous Vehicles
- Assistive Robotics
- Complex Software System Design

RECENT FUNDED GRANTS

US Army RDECOM Inaugural HBCU/MI Student Design Competition: *SNAP Drone: Modular 3D Printed Packable Quadcopter Assembled in a Snap*
Role: PI
Sponsor: US Army RDECOM
Amount: $6,791
Project Period: 03/15/2019-09/14/2019

Loitering Alert System for Automated Teller Machine (ATM) Vestibules
Role: PI
Sponsor: Financial Institution
Amount: $131,824
Project Period: 07/17/2017-06/30/2018

Modeling, Analysis and Control of Large Scale Autonomous System of Vehicles
Role: Senior Investigator
Sponsor: North Carolina Agricultural & Tech State
Amount: $266,200 annual ($1.25 ML)
Project Period: 05/01/2015 – 05/01/2020

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Learn more about Patrick Benavidez here.