



## Department of Mechanical Engineering

### Engineering Seminar Series – Spring 2010

Date: Friday, February 12<sup>th</sup> 2010, Time: 11:45 am – 12:35 pm

Place: ENGR 3.249

## Cooperative Control of Multiple Mobile Robots

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**University of Texas - Pan American**

In recent years, cooperative control of multiple systems is an active research area and has attracted extensive attention from multi-disciplinary researchers in a wide range of fields, including control system theory, physics, biology, applied mathematics, computer science, and robotics. In this talk, several cooperative control problems of multiple wheeled mobile robots will be introduced. Control algorithms for these problems will be presented based on results from graph theory and Lyapunov techniques. Simulation results based on these algorithms will be shown.

Dr. Wenjie Dong is a faculty member in the Department of Electrical Engineering at UTPA. He received his Ph.D. degree in Electrical Engineering from University of California at Riverside in 2009, and received his M.S. and B.S. from Beijing University of Aeronautics and Astronautics, China. Dr. Dong conducts research in the areas of biological inspired robotic systems, networked systems, swarms and flocking of multiple agents, mobile sensor networks, embedded systems, data fusion, estimation, GPS aided navigation systems, and underactuated robot control.

