

**Research Conference of Dr. Christine Q. Wu's Group**  
**May 5 (Tuesday) 8:30-4:30**  
**E2-361 EITC**

**Program:**

8:30 Set-up

9:00 Christine Q. Wu  
**Welcome, introduce group members and overview of the research program**

9:30 Derek Koop  
**Passive Dynamic Bipedal Walking with Knees: The Effect of Parameter Variation**

10:00 Matthew Nesbitt  
**Design of a Simplified Foot for Research on ZMP-Based Bipedal Walking Robots and Design of a Passive Quadruped**

10:30 Daniel Cheechoo (C. Q. Wu)  
**Design of a Passive Dynamic Hopper**

*11:00-11:15 HEALTH BREAK*

11:15 Daniel Giesbrecht  
**Design of a Legged Walking Mechanism "Wind Beast" using Theory of Mechanism Design**

11:45 Yuming Sun  
**H<sub>∞</sub> control for T-S fuzzy model based discrete systems with multiple time delays**

**12:15-1:00 LUNCH BREAK (A LIGHT LUNCH WILL BE SERVED.)**

1:00 Dr. Caixia Yang  
**On Lab-Based Accelerated Vibration Testing for Articles in the Baggage Bay Area of the Motor Coach in the Vertical Direction**

1:30 Sean O'Brien  
**Vehicle Dynamics Design, Analysis and Production of a Formula SAE Race Car**

2:00 Graham Leverick  
**Flat Plate Solar Collector Design Project**

**2:30-2:45 HEALTH BREAK**

2:30 Ehsan Jalayeri  
**Improve the Control of Linear Hydraulic Actuators**

3:00 Ke Xu  
**The Feasibility of Straw Bales as an Eco-Friendly and Renewable Alternative to the Current Insulation Methods Used in Manitoba Housing**

3:30 Stephen Cull  
**Flat Plate Solar Collector (MECH 3460 Design Project)**

4:00 Christine Q. Wu **Closing Remarks**