

# PAN, CHAOYE

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## EDUCATION

**Ph.D. candidate, University of Michigan-Ann Arbor (Advisor: Jun Ni)** Sept. 2006 - present  
Major: Mechanical Engineering (GPA: 3.7/4.0)

**M.S., University of Michigan-Ann Arbor** June 2009-present  
Major: Industrial & Operational Engineering (GPA: 3.7/4.0)

**M.S., University of Michigan-Ann Arbor** Dec 2009-Jan 2011  
Major: Statistics (GPA: 3.6/4.0)

**M.S., University of Michigan-Ann Arbor** Sept 2005-Jan 2007  
Major: Mechanical Engineering (GPA: 3.7/4.0)

## WORK EXPERIENCE

### *General Motors (Summer Intern, Warren MI)*

- Optimizing material handling control on Virtual Manufacturing Systems (May 07-Aug 07)
  - Building up and validate Virtual plant-floor systems and controls with emphasis on real-time sensing and control (with Arena and VBA)
  - Looking for and evaluating exercisable solutions for multilevel/multi objective optimization of complex Material Handling systems
  - Implementing Reliability Theory to simulate real-time failure situation
- Modeling and analysis of material handling workforce management (May 08-Aug 08)
  - Material handling workforce zoning algorithm design and optimization
  - Deterministic and stochastic workforce dispatching scheduling

### *General Electric (R&D center, Shanghai)*

(May 2004 –June 2005)

- Piezoelectric motor controller design based on VC++ MFC with RTX
  - Implementing rapid tool servo control to regulate the discharge gap every 0.1 ms with 1  $\mu\text{m}$  positioning accuracy (using Nanomotion piezo stage and Delta Tau PMAC controller)
  - Comparing efficient control methods based on virtual VC++ plant with RTX system

## PUBLICATIONS:

C. Pan, G. Xiao, Q. Chang, J. Ni, "Optimization of Workforce Zoning for Dolly Material Handling" Proceedings of the 2008 Industrial Engineering Research Conference

Q. Chang, C. Pan and G. Xiao, "Modified max-plus algebra modeling of automotive assembly systems", submitted to IEEE Transactions on Automation Science and Engineering