Patterns

Session Chair: Betty H.C. Cheng
Things to consider…

Reasons to adapt:
- Environmental conditions change
- User needs and requirements change
- Faults/failures occur

Three common dimensions of adaptation:
- Where:
  - spectrum of possibilities (app, MW, OS, networking)
- How:
  - Adaptation mechanisms
  - Decision-making/policies for adaptation
  - Monitoring
  - etc.
- What:
  - Code
  - Granularity and aspect (e.g., function, class, task, feature, component, etc.)
Modeling of Adaptations/Systems

- What is the role of modeling for dynamic adaptations?
  - Reuse adaptation experience?
  - Create a profile for adaptive systems?
  - What UML models are relevant?
  - What are other (better) languages for modeling adaptive systems?

- What should you model?
  - Adaptive system
  - Adaptive actions
  - Assurance issues
Papers

Design of Self-managing dependable systems with UML and Fault Tolerance Patterns
- M. Tichy, D. Schilling, H. Giese, Univ. of Paderborn

Patterns of Self-Management
- D. Wile Teknowledge Corporation