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SOFTWARE ENGINEERING

CS 487

Prof. Dennis Hood

Computer Science

Homework #3

- Consider a control system which relies on sensors and systems to automatically manage an office building:
  - Prevents unauthorized access and allows authorized access
  - Notifies the fire department if it “thinks” there may be a fire
  - Notifies the police if it “thinks” there is an intruder
  - Keeps the temperature “comfortable”
- Deliverable requirements:
  1. Draw a context model capturing the system and its “partners”
  2. Create a table identifying
     a. each state the control system can be in and
     b. each possible outward transition – both catalyst and destination
  3. Describe a control panel which will support the user interactions noted above
  4. Develop a set of minimal binary commands to support all necessary signaling between the control system and its partners
  5. Use pseudo-code to describe how your system will detect and handle a failure of any of the partners
- Submit by June 11th