

Methods for identifying influential variables: (4) Survey Data Collection

Building variables:

- A1) glass walls/mirrors
- A2) size (length/ width) of test area`
- A3) location/ characteristics of windows
- A4) number of doors
- A5) door sizes (single/double/other)
- A6) wall/floor/ceiling characteristics
- A7) height of ceiling
- A8) building envelope type
- A9) presence of large objects (e.g. metal)
- A10) electromagnetic interference
- A11) ventilation rates
- A12) Other

Environmental Variables:

- B1) Lighting level (lux)
- B2) Spectral distribution of light
- B3) presence of interior light sources
- B4) Indoor Humidity
- B5) indoor temperature
- B6) Mean radiant temperature
- B7) Presence of sunlight (direct)
- B8) Presence of sunlight (diffuse)
- B9) Other

Occupant Variables:

- C1) # of occupants
- C2) age of occupants
- C3) metabolic rate
- C4) spatial distribution of occupants
- C5) level of motion of occupants
- C6) noise level of occupants
- C7) clustering of occupants
- C8) speed of occupants (run/walk)
- C9) Speed of occupants relative to one another
- C10) # of occupants entering/exiting a space at the same time
- C11) speed of occupants entering/exiting
- C12) presence of occupants in adjacent spaces/outside
- C13) Clothing color/contrast/patterns of occupants
- C14) Occupant clothing level
- C15) Skin color of occupants
- C16) Body shape
- C17) Wearing heavy clothing in winter/coming in from cold outside

Other Variables:

- D1) Presence of pets
- D2) Size/type of pets
- D3) Motion characteristics of pets
- D4) use of robots (vs humans)
- D5) Presence of mylar balloons/party items
- D6) Ability to communicate with thermostat
- D7) Initial performance/over time (does it take a while to work well)
- D8) Range of devices (related to electromagnetic interference)
- D9) Vibrations in a space
- D10) Repeat-ability of performance
- D11) Presence of heat sources
- D12) Presence of wheelchairs, strollers, shopping carts, etc...