EE499 Industrial Process Control
HW 2

HW 2A:

1) Show how a DPDT switch can be wired as a 4-way residential switch.
2) Draw a connection diagram showing 3 switches controlling 2 lights.

HW 2B: P 2.2

2A.1) If DPDT terminal "b" is internally wired to terminal "f" and terminal "c" is internally wired to terminal "e", the DPDT switch will act like a residential 4-way switch.

2A.2)
In the "forward" position, switch terminals 1-3, 2-4, and 5-6 are connected. In the "reverse" position 1-2, 3-4, and 5-6 are connected.

a)

The Drum switch nodes are shown in parenthesis. Note the reversal of the current through the armature.

b)

Note the reversal of the armature current.

c)

Again, the armature current is reversed when the switch is thrown.