

Mini-Assignment 2: Interference Cancellation

(Due : Thursday, Sept 19, 2013 @ 3pm)

True or False:

- ___1. Consider two nodes in a hidden terminal scenario. Each node transmits at the highest rate supported by its channel in the absence of the other node (i.e., as close to the capacity of the channel between itself and AP as possible). The two nodes run a protocol different from 802.11 which transmits each packet once and does not make retransmissions. In this case, no decoding scheme (neither ZigZag nor Interference cancellation nor any other scheme) at the access point is useful.
- ___2. ZigZag decoding requires that the two colliding nodes have the same frequency offset
- ___3. Successive interference cancellation in the paper by Halperin et al requires that one signal is received at significantly more power than the other.
- ___4. Successive interference cancellation in the paper by Halperin et al requires that at least one signal is received at significantly high power. The other signal may also be received at a similarly high power.