CSE 494/5-98 WSN 3/31/05

Pl. send Scott Coleman (scott@ceint.org) a thank-you note for the
Mitas Kit (Pl. cc the email msg
to sandeep.gupta@asu.edu).

Zebranet

HW 3 due on 7th April

Sign up for Demo for P.A. #3
on 5th April.
Problems with Software Update in Dynamic WSN:

1) Updating all the nodes simultaneously can be difficult (impossible)?
   - Not all are in the comm. range of the B.S. => update propagation (P2P communication required)
   - Extra memory required to perform update (i.e. one of the goals should be to minimize the memory needed for update)
by only trying to update
the part of S/w that is updated
- using modularity

updates should permit backward communication with non-updated nodes. (backward compatibility in terms of comm. capability)
3) Reliability & comm channel
S/W updater need 100% Reliability

Adaptivity?

Is it just Evolution?

Why we need adaptation?

adaptation & what?

- S/W - but what aspect?

dynamic adaptation

statically (not happening at runtime)
Why are they worrying about multiple apps running on each sensor node?

Why is it difficult to detect a faulty node in a distributed system?

- Malicious and non-malicious faults:
  - Malicious: diversion from normal/expected
  - Non-malicious

  E.g., virus fault: change in behaviour
difficult to distinguish between node failure & channel failure.

many different (failure) can lead to same outcome.

cause