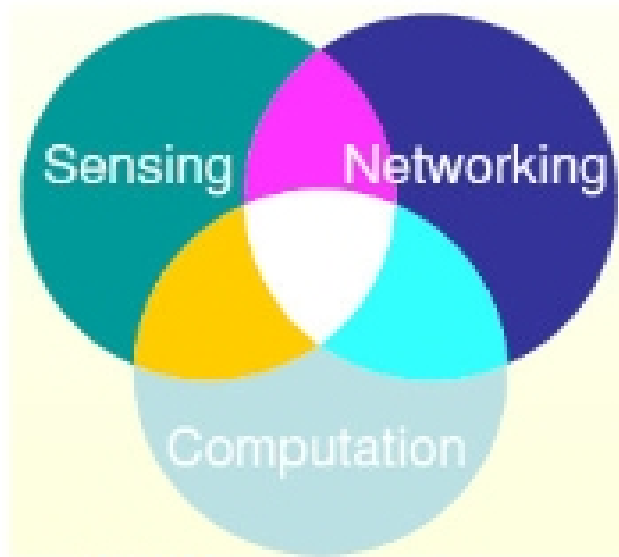


# Location-based Routing in Sensor Networks

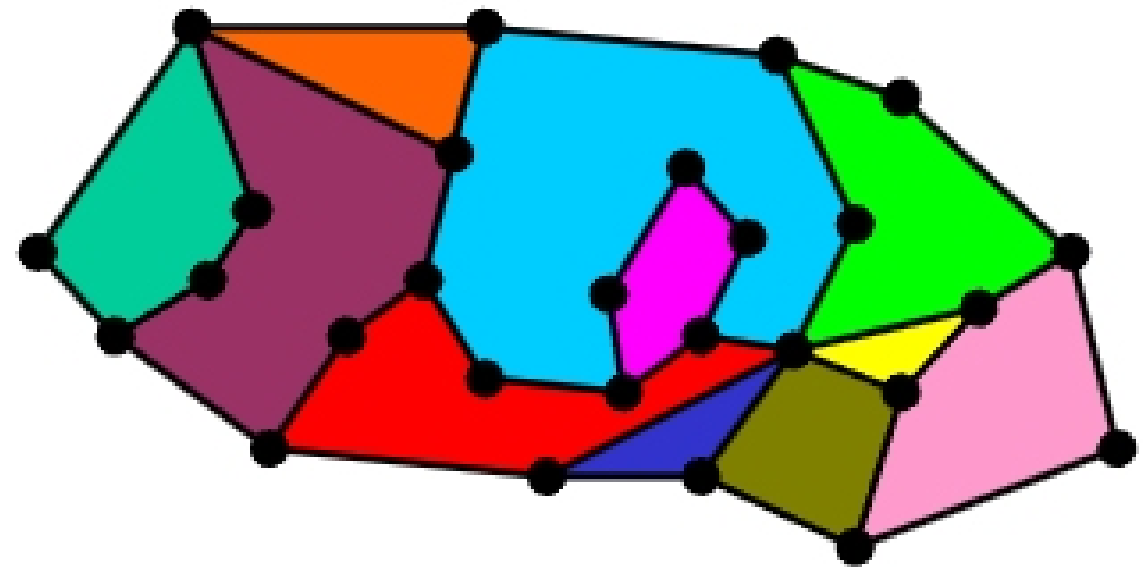
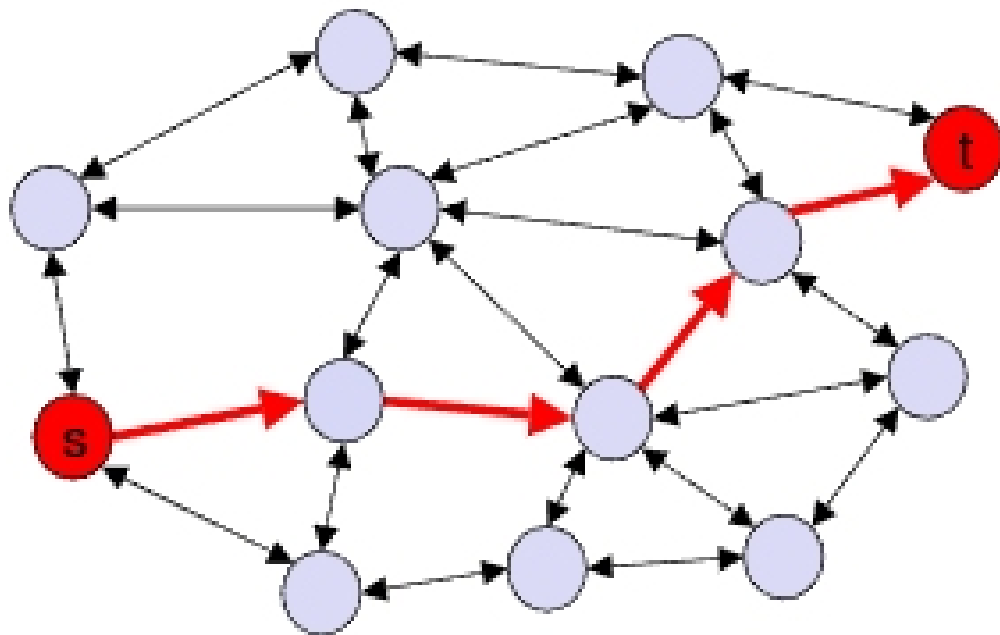
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# Location-based routing

- **Greedy forwarding:** send the packet to the neighbor closest to the destination.
- **Face routing** on a planar subgraph.



## Two problems remain

- A subgraph  $G'$  of  $G$  is a  $\alpha$ -spanner if the shortest path in  $G'$  is bounded by a constant  $\alpha$  times the shortest path length in  $G$ .
- Both RNG and GG are not spanners  $\rightarrow$  a short path may not exist!
- Even if the planar subgraph contains a short path, can greedy routing and face routing find a short one?