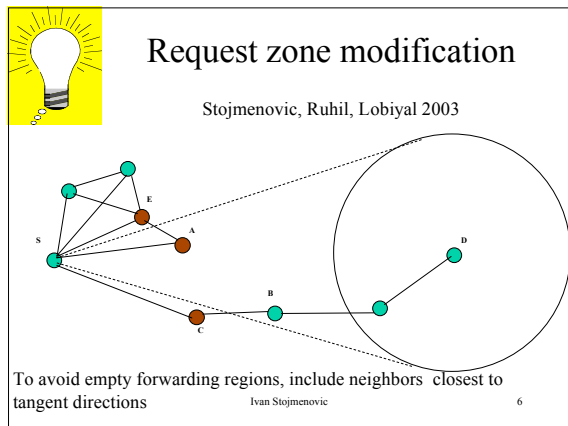
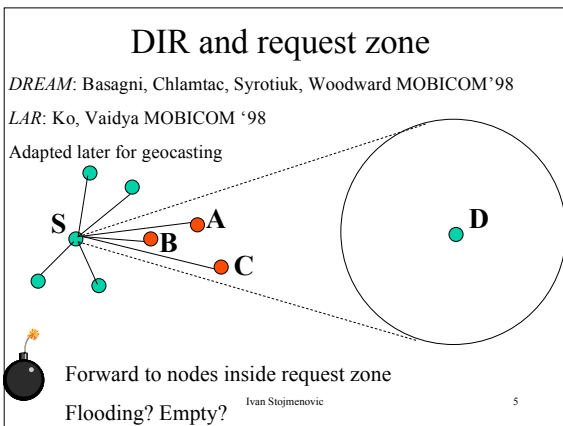
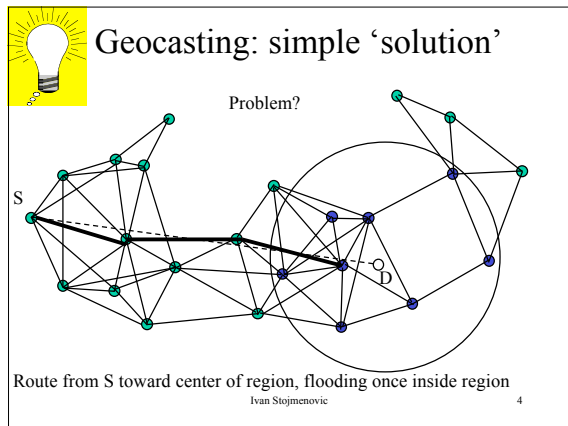


- ### Geocasting + application
- **Geocasting** = sending message from one node to all nodes inside a geographic region
 - Select sensors that are needed for **connected area coverage**, other sensors to sleep mode
 - Monitoring station decides **geocasting** area for monitoring an event and informs active sensors there
 - **Report** events using reverse geocasting tree or by direct routing
- Ivan Stojmenovic 3



Request zone, Voronoi region, convex hull based forwarding neighbors

Stojmenovic, Ruhil, Lobiyal 2003

Ivan Stojmenovic X, Y and Z not reached

Geocasting with guaranteed delivery ?

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Traversing faces that intersect border

Saeda, Helmy 2004 – does NOT guarantee delivery, as per own example
Reason: no traversal when message from outside enters inside region

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Traversing faces that intersect border

Stojmenovic 2005

Flooding inside region + traversing faces that intersect geocasting region
Each face traversed completely

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Entrance zones based geocasting

Multicast to entrance zones using GFG
Stojmenovic 2005

Flooding from multicast recipients

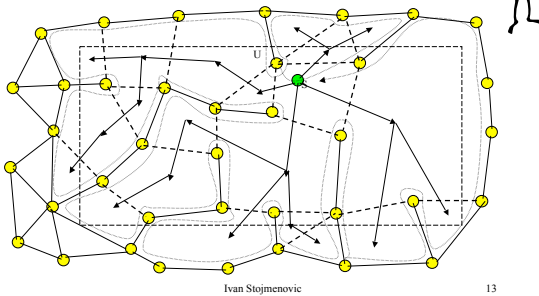
Ivan Stojmenovic 11

Entrance zones based geocasting

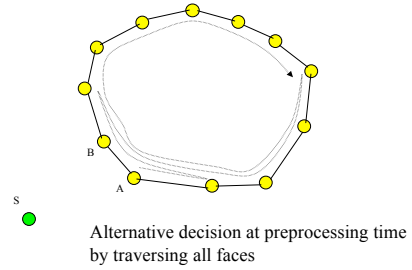
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Face tree traversal for Geocasting

Bose, Morin, Stojmenovic, Urrutia 1999
Application: time division for reporting



Deciding entry edges



Conclusions



- Add dominating sets or area coverage
- Optimize geocasting with given metric:
hop count, power, cost, delay,...
- **Geomulticasting** =
route to each node in one of
several geocasting regions

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