# Routing in Accumulative Multi-Hop Networks

## ABSTRACT

Relay capabilities in a network has a strong effect on the information flow that extends to all communication levels, from the achievable rates to the routing strategy. A fundamental understanding of the role that relays play in wireless networks is of paramount importance for the design of efficient protocols in future communication systems.

## EXISTING SYSTEM

In Existing System, The problem of routing in *traditional multi-hop* (TM) communication networks, where each relay node only listens to the immediately previous node is quite well understood today. For the purpose of routing, these networks are well modeled by directed graphs. In a given routing metric criteria, the optimality conditions that guarantee that efficient path search algorithms, such as Dijkstra's algorithm, find the optimal path. The problem of routing in *accumulative multi-hop* (AM) communication networks, in which we are instead interested here, is however far from being understood today. In the simplest accumulative multi-hop network, a single source communicates to a single destination assisted by several relay nodes that can accumulate the received energy/information from previous relay transmissions.

## DIS ADVANTAGES

- The transmission delay.
- Multiple energy leakages while transmissions.

## PROPOSED SYSTEM

In Proposed System, we studied the routing problem in accumulative multi-hop networks. We showed that as opposed to traditional multi-hoping where the network is well modeled by a graph, for routing in accumulative networks, the network needs to be modeled by a hyper graph. We studied the properties that guarantee that Dijkstra's algorithm finds the optimal path in such networks, and presented sufficient conditions for the optimality. These conditions are particularized for the minimum energy routing problem with decode-and forward relays, parity-forwarding relays, and for the cut-set bound.

## ADVANTAGES

- Accumulative techniques increase communication reliability, reduce energy consumption, and decrease latency.
- Guarantee that efficient path search algorithms, such as Dijkstra's algorithm, find the optimal path.

## SYSTEM REQUIREMENTS

**H/W System Configuration:-**

| | | |
|---|---|---|
| Processor | - | Pentium –III |
| RAM | - | 256 MB (min) |
| Hard Disk | - | 20 GB |
| Key Board | - | Standard Windows Keyboard |
| Mouse | - | Two or Three Button Mouse |
| Monitor | - | SVGA |

**S/W System Configuration:-**

| | | |
|---|---|---|
| Operating System | : | Windows95/98/2000/XP |
| Application Server | : | Tomcat5.0/6.X |
| Front End | : | HTML, Jsp |
| Scripts | : | JavaScript. |
| Server side Script | : | Java Server Pages. |
| Database | : | MySQL 5.0 |
| Database Connectivity | : | JDBC |